From: Sarah[redacted]
To: Aidan[redacted]
Cc: Selina[redacted]
Subject: RE: eRoll issues over the weekend
Date: Thursday, 21 September 2023 9:53:57 am
Attachments: image003.png
image005.png
image006.jpg
image001.png

My list of lessons learned is growing by the hour! We should have told you - sorry

Kind regards

Sarah [redacted](she/her) | Senior Project Manager, Voting Services | Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
DDI [redacted]| http://www.elections.org.nz | **vote.nz** | **elections.nz**

From: Aidan[redacted] <Aidan.[redacted]@elections.govt.nz>
Sent: Thursday, September 21, 2023 8:59 AM
To: Sarah[redacted] <Sarah.[redacted]@elections.govt.nz>
Subject: FW: eRoll issues over the weekend
Importance: High

Hi
We had no idea you were training people at weekends. Affects uptime of environment…digging into it

Adian

From: Adele[redacted] <Adele.[redacted]@elections.govt.nz>
Sent: Wednesday, September 20, 2023 10:11 PM
To: Jeff[redacted] <Jeff.[redacted]@elections.govt.nz>; Aidan[redacted] <Aidan[redacted]@elections.govt.nz>
Cc: Waldemar [redacted] <Waldemar[redacted]@elections.govt.nz>; Rebecca [redacted] <Rebecca.[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend
Importance: High

Kia ora Tīma

Thank you for the explanation Jeff, that is much appreciated.

We actually have training happening pretty solidly between now and Election Day. The Voter Assistant (VA) training in particular is likely to happen at night and in the weekends. This is where we are trying to train on the eRoll and the new 'update' functionality in particular – but the field is finding that they are experiencing the below issue at most of their VA sessions, which means that its impacting a high number of VAs who are trying to fully understand how to use the tool.

Is it possible for any code updates to be scheduled so that they don't impact on the training? Recognising that it could be anytime, I'm wondering if we can ask Catalyst to query the [redacted] database so we can determine the timings of the majority of VA trainings and then schedule the updates around those?

I'd be grateful for any help with this – we're getting a lot of disconcerted trainers from the field reporting into us and would like to minimise the disruption/unexpected outcomes they are experiencing during the training.

Ngā mihi - very happy to discuss any possible solutions to this!

Adele

From: Jeff[redacted] <Jeff.[redacted]@elections.govt.nz>
Sent: Wednesday, September 20, 2023 3:43 PM
To: Rebecca[redacted] <Rebecca.[redacted]@elections.govt.nz>; Aidan [redacted] <Aidan[redacted]@elections.govt.nz>; Adele [redacted]
<Adele.[redacted]@elections.govt.nz>
Cc: Waldemar[redacted] <Waldemar.[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend

eRoll UAT shares resources with [redacted] UAT Dev environment. In particular this error looks to be the Dev image server which is where signature files are saved. Most of our UAT environments, Dev included, shelve each night and come back online in the morning. There are also times during the day where it might not be available for brief spells especially if we are doing a code migration to one of the [redacted] environments which happens several times a day

I haven't seen any documented requirements for when eRoll training was occurring so there wasn't any indication that after hours connectivity was required and on what days. If you can please provide timings of when the training sessions are happening we can look at what can be done to support it.

Jeff [redacted] Senior Systems Analyst | **Electoral Commission** | Te Kaitiaki Take Kowhiri | PO Box 3220 | Level 10, 34-42 Manners St, Wellington | Phone [redacted] | www.vote.nz

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From: Rebecca[redacted] <Rebecca.[redacted]@elections.govt.nz>
Sent: Wednesday, September 20, 2023 2:58 PM
To: Aidan [redacted] <Aidan[redacted]@elections.govt.nz>; Jeff[redacted] <Jeff.[redacted]@elections.govt.nz>; Adele [redacted]
<Adele.[redacted]@elections.govt.nz>
Cc: Waldemar [redacted] <Waldemar[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend

We are getting more and more people who are getting this error when completing training. I understand that UAT is a shared & lower spec'd environment, but we were not aware that there would be this many issues.
This is impacting the training of our Voter Assistants and is troubling our trainers.

Is there a solution for this so it does not happen as often or ideally at all?

Thanks,
Bex

From: Aidan[redacted] <Aidan[redacted]@elections.govt.nz>
Sent: Tuesday, September 19, 2023 9:25 AM
To: Jeff Bell <Jeff.[redacted]@elections.govt.nz>; Rebecca [redacted] <Rebecca.[redacted]@elections.govt.nz>
Cc: Waldemar[redacted] <Waldemar.[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend

I've approached Allison for further detail on when it occurred and any specifics of the elector etc.
As Jeff points out it is UAT, a shared and lower spec'd environment (in contract with Production) on occasion there will be errors
Aidan

From: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>
Sent: Monday, September 18, 2023 1:38 PM
To: Rebecca[redacted] <Rebecca.[redacted]@elections.govt.nz>; Aidan [redacted] <Aidan[redacted]elections.govt.nz>
Cc: Waldemar [redacted] <Waldemar[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend

It's a catchall for any unexpected behaviour when trying to submit the update. It could be down to a brief connection issue at the device end, a backend outage, a timeout in the response being sent back etc. Please keep in mind that the back-end here is a UAT environment that leverages shared UAT resources so in some cases the API won't be available or responding if another environment is receiving a code update.

Jeff [redacted] | Senior Systems Analyst | **Electoral Commission** | Te Kaitiaki Take Kowhiri | PO Box 3220 | Level 10, 34-42 Manners St, Wellington | Phone [redacted] | www.vote.nz

From: Rebecca [redacted] <Rebecca.[redacted]s@elections.govt.nz>
Sent: Monday, September 18, 2023 1:06 PM
To: Jeff [redacted] <Jeff[redacted]@elections.govt.nz>; Aidan Kirrane <Aidan[redacted]e@elections.govt.nz>
Cc: Waldemar [redacted] <Waldemar.[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend

Could you please clarify the circumstances when eRoll can't reach the backend of the MIKE environment?
We were not expecting this to be an issue.

Thanks
Bex

From: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>
Sent: Monday, September 18, 2023 1:01 PM
To: Rebecca [redacted] <Rebecca.[redacted]s@elections.govt.nz>; Aidan [redacted]e <Aidan[redacted]e@elections.govt.nz>
Cc: Waldemar [redacted] <Waldemar[redacted]@elections.govt.nz>
Subject: RE: eRoll issues over the weekend

That message occurs when eRoll can't reach the backend of the MIKE environment. If we can't reach the backend for whatever reason it will return the need an enrolment form so we can make sure we get the updated details and accurately qualify their vote later

Jeff [redacted]l | Senior Systems Analyst | **Electoral Commission** | Te Kaitiaki Take Kowhiri | PO Box 3220 | Level 10, 34-42 Manners St, Wellington | [redacted] | www.vote.nz

---

From: Rebecca [redacted] <Rebecca.[redacted]s@elections.govt.nz>
Sent: Monday, September 18, 2023 12:39 PM
To: Aidan [redacted] <Aidan[redacted]e@elections.govt.nz>; Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>
Cc: Waldemar [redacted] <Waldemar.[redacted]@elections.govt.nz>
Subject: eRoll issues over the weekend

Mōrena Aiden and Jeff,

During Voter Assistant training over the weekend, we had some people get the outcome attached when working through the two address update examples in the training presentation.
The expected outcome should have been an ordinary vote (like before) as both addresses were in the same electorate.
Could you please urgently investigate this for us?

Allison has raised this so if you have further questions about how this occurred it might be best to talk to her.

Ngā mihi,
Rebecca

Rebecca [redacted] Project Leader | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 32-42 Manners Street | Wellington
http://www.elections.org.nz

eRoll - Timeout issues

Oct 11 08:27 • Waldemar [redacted] waldemar[redacted]@elections.govt.nz • Via [redacted]

Conversations All 2 Public 2

Jordan [redacted] (assign)

To Waldemar [redacted] Vincent [redacted] Jeff [redacted] Show all

Good morning Waldo,

Thank you for the notification.

This is being treated as a P1 and will be resolved ASAP.

Comms are being sent out to the Organisation around the current system issues. Once a workaround or fix is in place, further comms will be sent to the org to advise.

Kind regards,

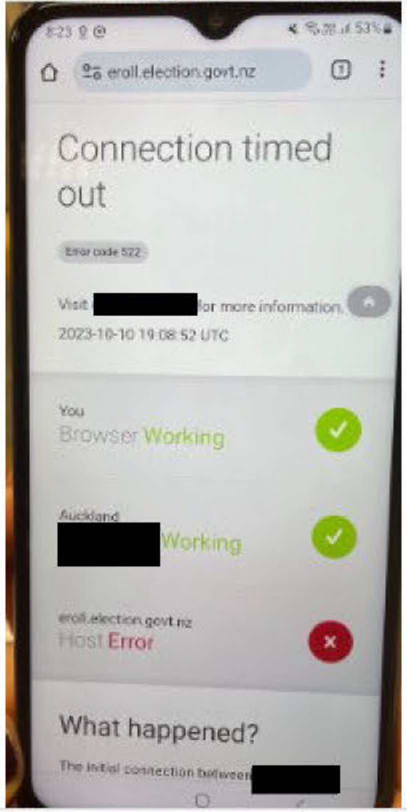
Jordan [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Waldemar [redacted]

To Service Desk, Vincent [redacted] Jeff [redacted] Show all

Kia ora,

Voting Place staff have raised with us that they are experiencing the follow error when trying to use eRoll.
Communications have been sent to the Voting place phones informing them to use the manual process until further notice.



8:23 · 53%

eroll.election.govt.nz

Connection timed out

Error code 522

Visit [redacted] for more information.

2023-10-10 19:08:52 UTC

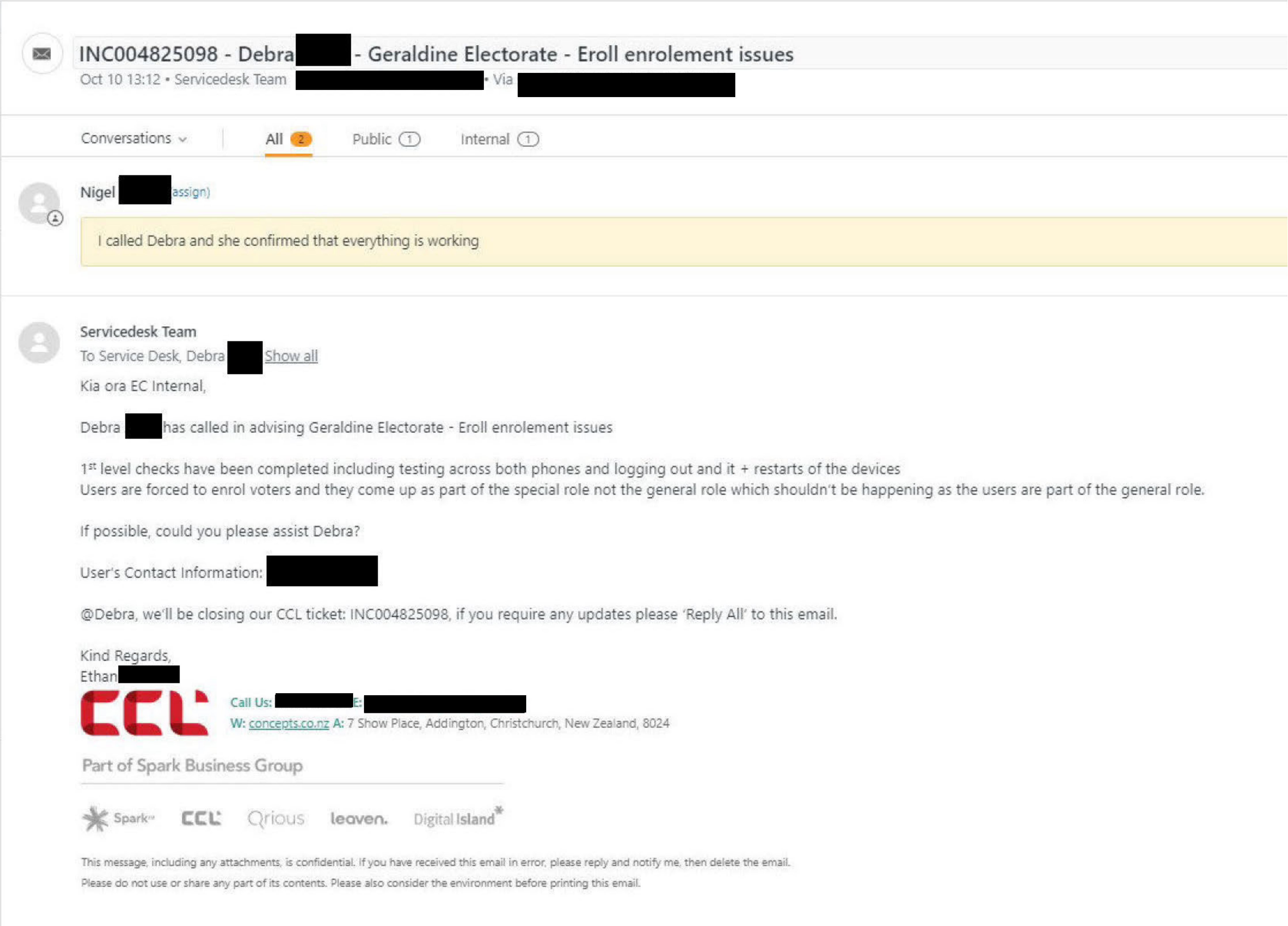
You
Browser Working ✓

Auckland
[redacted] Working ✓

eroll.election.govt.nz
Host Error ✕

What happened?

The initial connection between [redacted]



INC004825098 - Debra [redacted] - Geraldine Electorate - Eroll enrolement issues

Oct 10 13:12 • Servicedesk Team [redacted] • Via [redacted]

Nigel [redacted] assign)

I called Debra and she confirmed that everything is working

Servicedesk Team

To Service Desk, Debra [redacted] Show all

Kia ora EC Internal,

Debra [redacted] has called in advising Geraldine Electorate - Eroll enrolement issues

1st level checks have been completed including testing across both phones and logging out and it + restarts of the devices
Users are forced to enrol voters and they come up as part of the special role not the general role which shouldn't be happening as the users are part of the general role.

If possible, could you please assist Debra?

User's Contact Information: [redacted]

@Debra, we'll be closing our CCL ticket: INC004825098, if you require any updates please 'Reply All' to this email.

Kind Regards,
Ethan [redacted]

Call Us: [redacted] E: [redacted]
W: concepts.co.nz A: 7 Show Place, Addington, Christchurch, New Zealand, 8024

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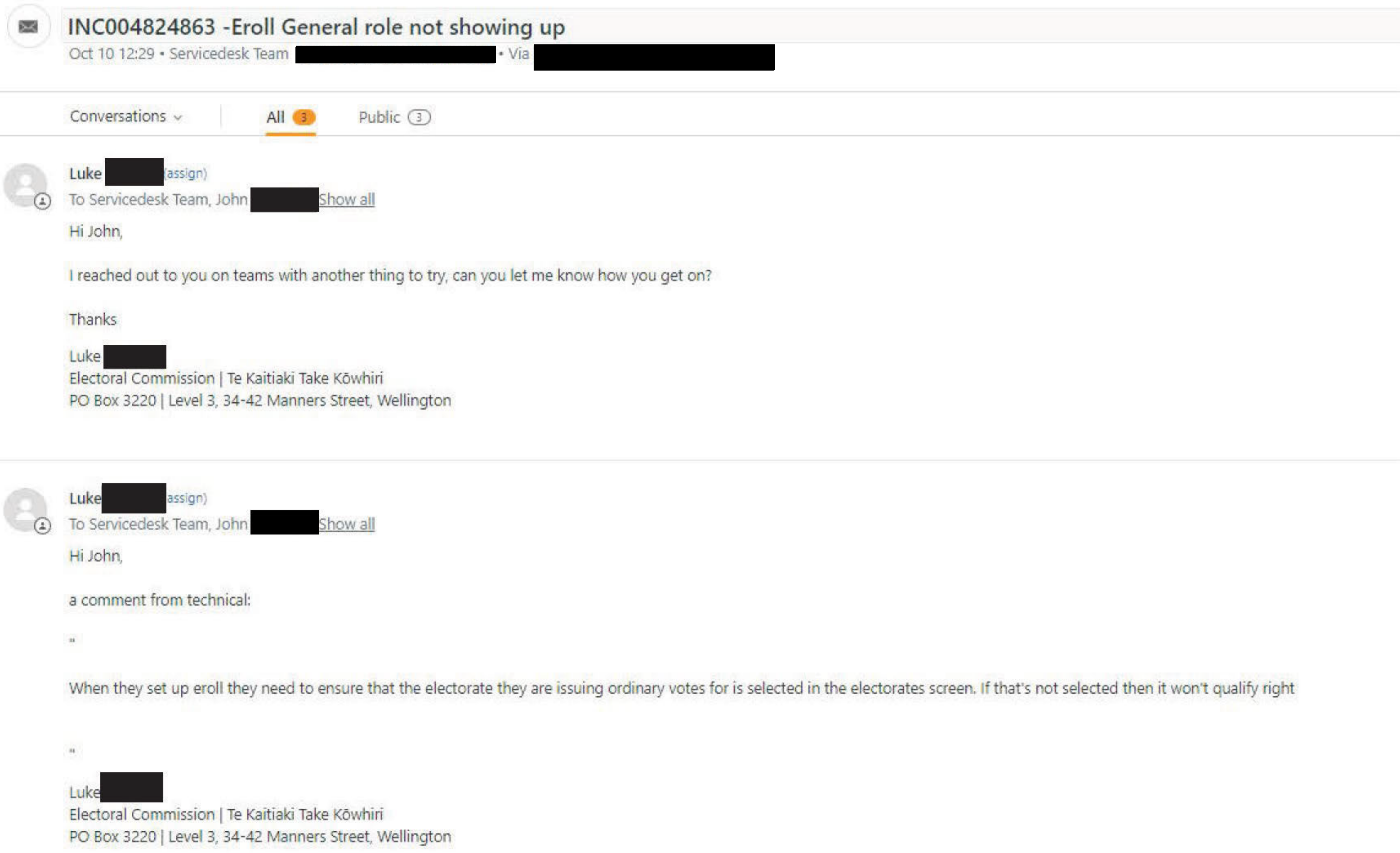


INC004824863 -Eroll General role not showing up

Oct 10 12:29 • Servicedesk Team [redacted] • Via [redacted]

Luke [redacted] (assign)

To Servicedesk Team, John [redacted] Show all

Hi John,

I reached out to you on teams with another thing to try, can you let me know how you get on?

Thanks

Luke [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Luke [redacted] (assign)

To Servicedesk Team, John [redacted] Show all

Hi John,

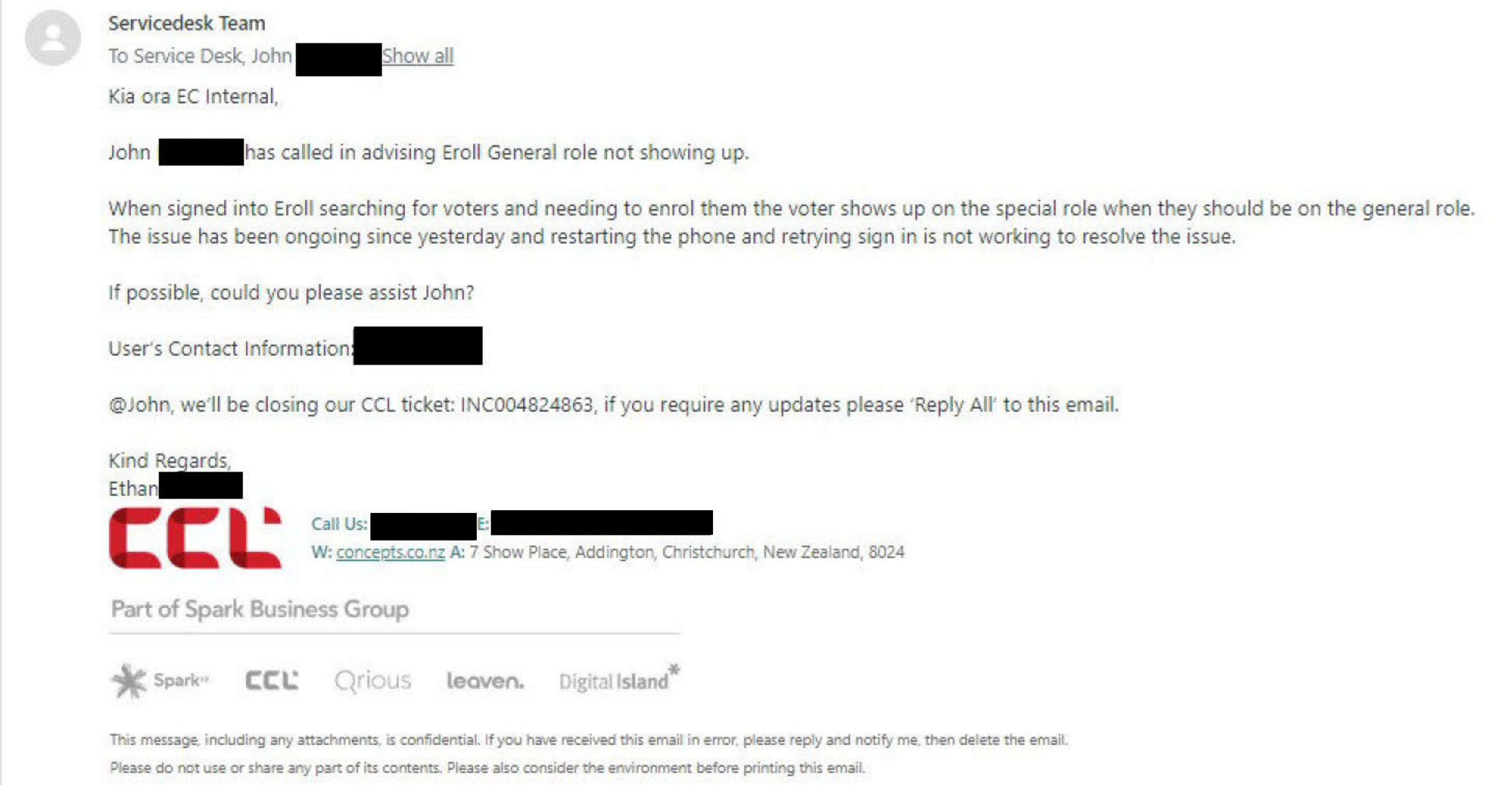
a comment from technical:

"

When they set up eroll they need to ensure that the electorate they are issuing ordinary votes for is selected in the electorates screen. If that's not selected then it won't qualify right

"

Luke [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington



Servicedesk Team

To Service Desk, John [redacted] Show all

Kia ora EC Internal,

John [redacted] has called in advising Eroll General role not showing up.

When signed into Eroll searching for voters and needing to enrol them the voter shows up on the special role when they should be on the general role.
The issue has been ongoing since yesterday and restarting the phone and retrying sign in is not working to resolve the issue.

If possible, could you please assist John?

User's Contact Information: [redacted]

@John, we'll be closing our CCL ticket: INC004824863, if you require any updates please 'Reply All' to this email.

Kind Regards,
Ethan [redacted]

Call Us: [redacted] E: [redacted]
W: concepts.co.nz A: 7 Show Place, Addington, Christchurch, New Zealand, 8024

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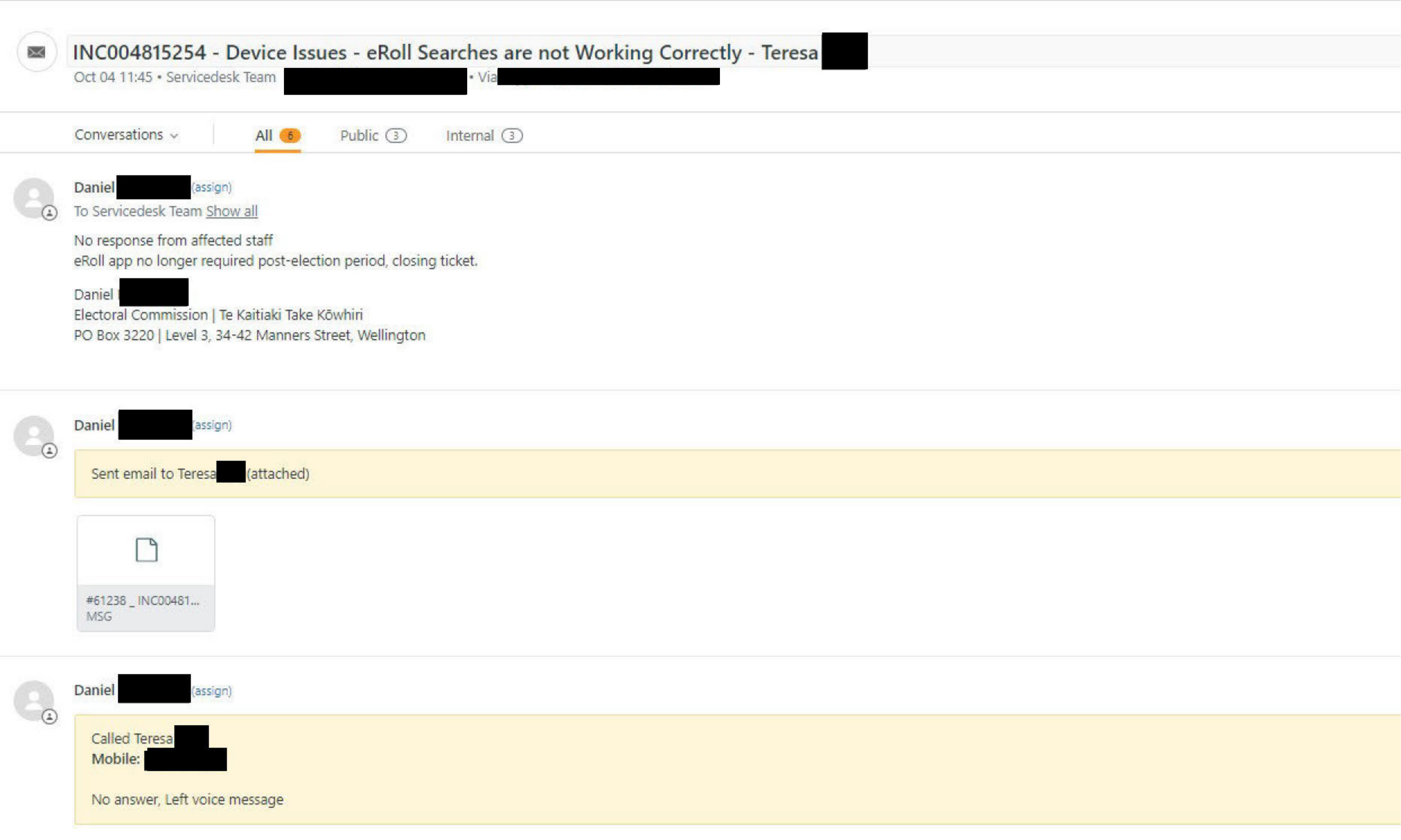


INC004815254 - Device Issues - eRoll Searches are not Working Correctly - Teresa [redacted]

Oct 04 11:45 • Servicedesk Team [redacted] • Via [redacted]

Daniel [redacted]

To Servicedesk Team Show all

No response from affected staff
eRoll app no longer required post-election period, closing ticket.

Daniel [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Daniel [redacted]

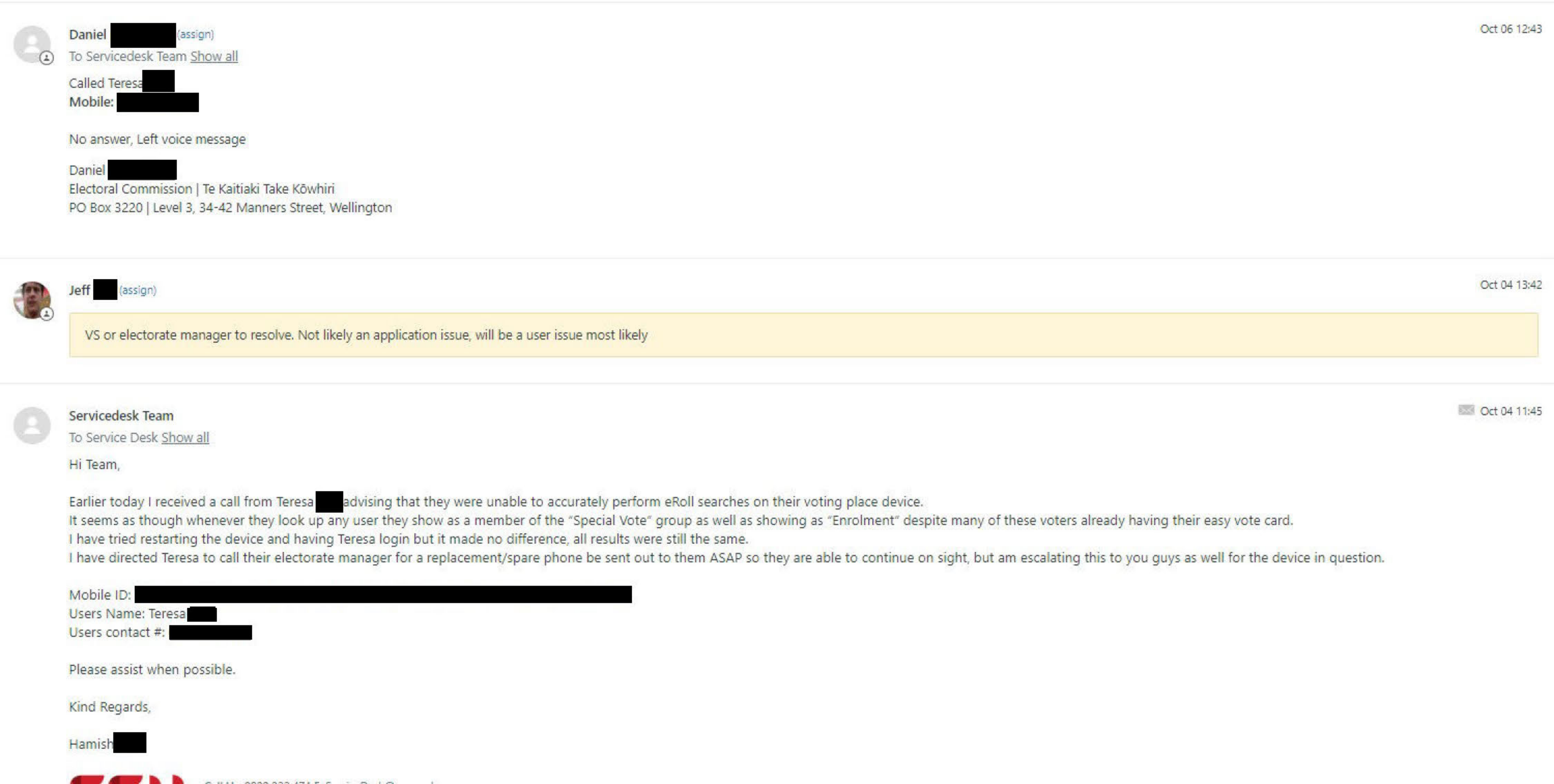
Sent email to Teresa [redacted] (attached)

#61238 _ INC00481...
MSG

Daniel [redacted]

Called Teresa [redacted]
Mobile: [redacted]

No answer, Left voice message



Daniel [redacted] (assign)

To Servicedesk Team Show all

Oct 06 12:43

Called Teresa [redacted]
Mobile: [redacted]

No answer, Left voice message

Daniel [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Jeff [redacted] (assign)

Oct 04 13:42

VS or electorate manager to resolve. Not likely an application issue, will be a user issue most likely

---

Servicedesk Team

To Service Desk Show all

Oct 04 11:45

Hi Team,

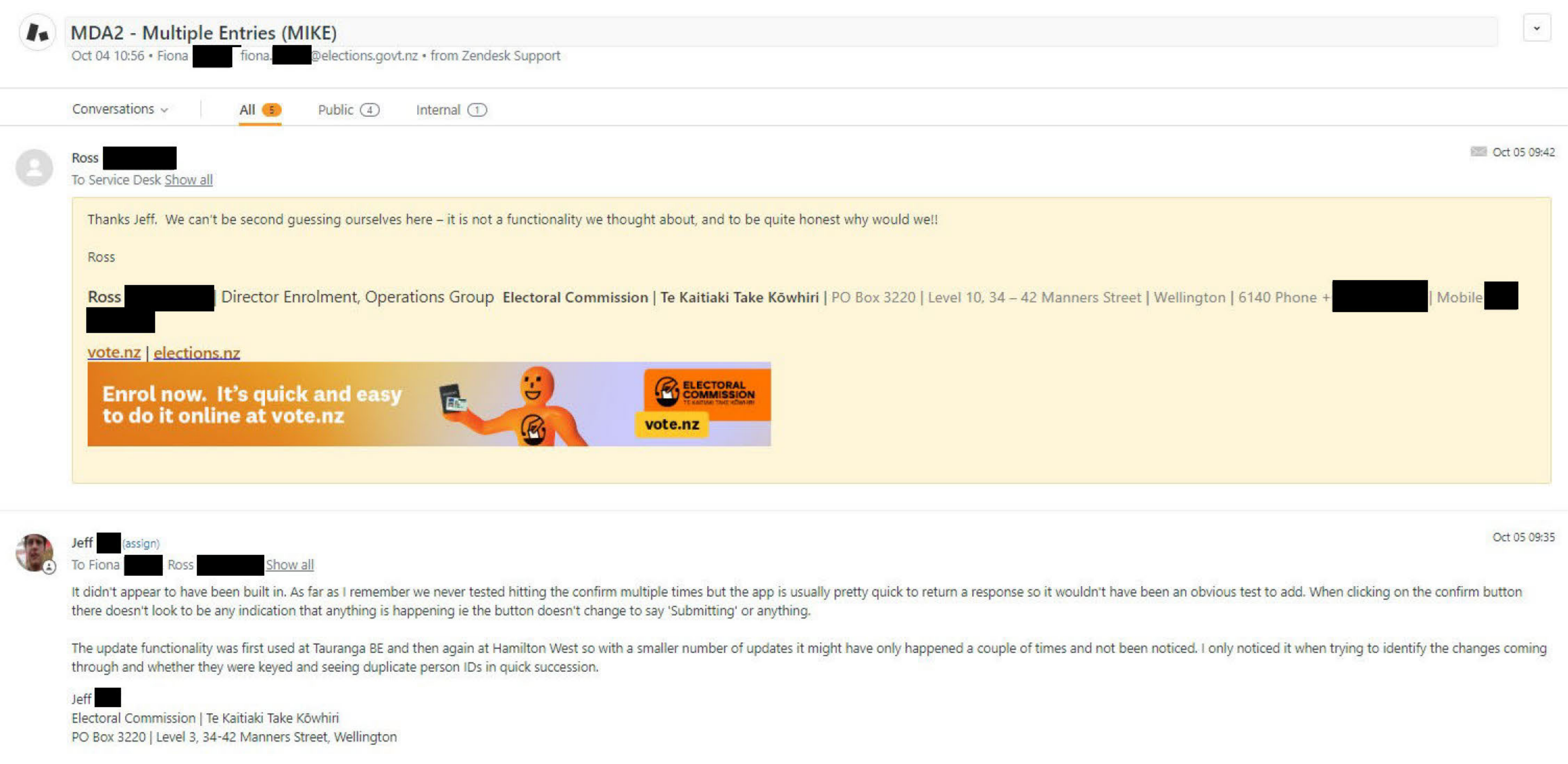
Earlier today I received a call from Teresa [redacted] advising that they were unable to accurately perform eRoll searches on their voting place device.
It seems as though whenever they look up any user they show as a member of the "Special Vote" group as well as showing as "Enrolment" despite many of these voters already having their easy vote card.
I have tried restarting the device and having Teresa login but it made no difference, all results were still the same.
I have directed Teresa to call their electorate manager for a replacement/spare phone be sent out to them ASAP so they are able to continue on sight, but am escalating this to you guys as well for the device in question.

Mobile ID: [redacted]
Users Name: Teresa [redacted]
Users contact #: [redacted]

Please assist when possible.

Kind Regards,

Hamish [redacted]



MDA2 - Multiple Entries (MIKE)

Oct 04 10:56 • Fiona [redacted] fiona.[redacted]@elections.govt.nz • from Zendesk Support

Ross [redacted]
To Service Desk Show all
Oct 05 09:42

Thanks Jeff. We can't be second guessing ourselves here – it is not a functionality we thought about, and to be quite honest why would we!!

Ross

Ross [redacted] | Director Enrolment, Operations Group **Electoral Commission | Te Kaitiaki Take Kōwhiri** | PO Box 3220 | Level 10, 34 – 42 Manners Street | Wellington | 6140 Phone +[redacted] | Mobile [redacted]

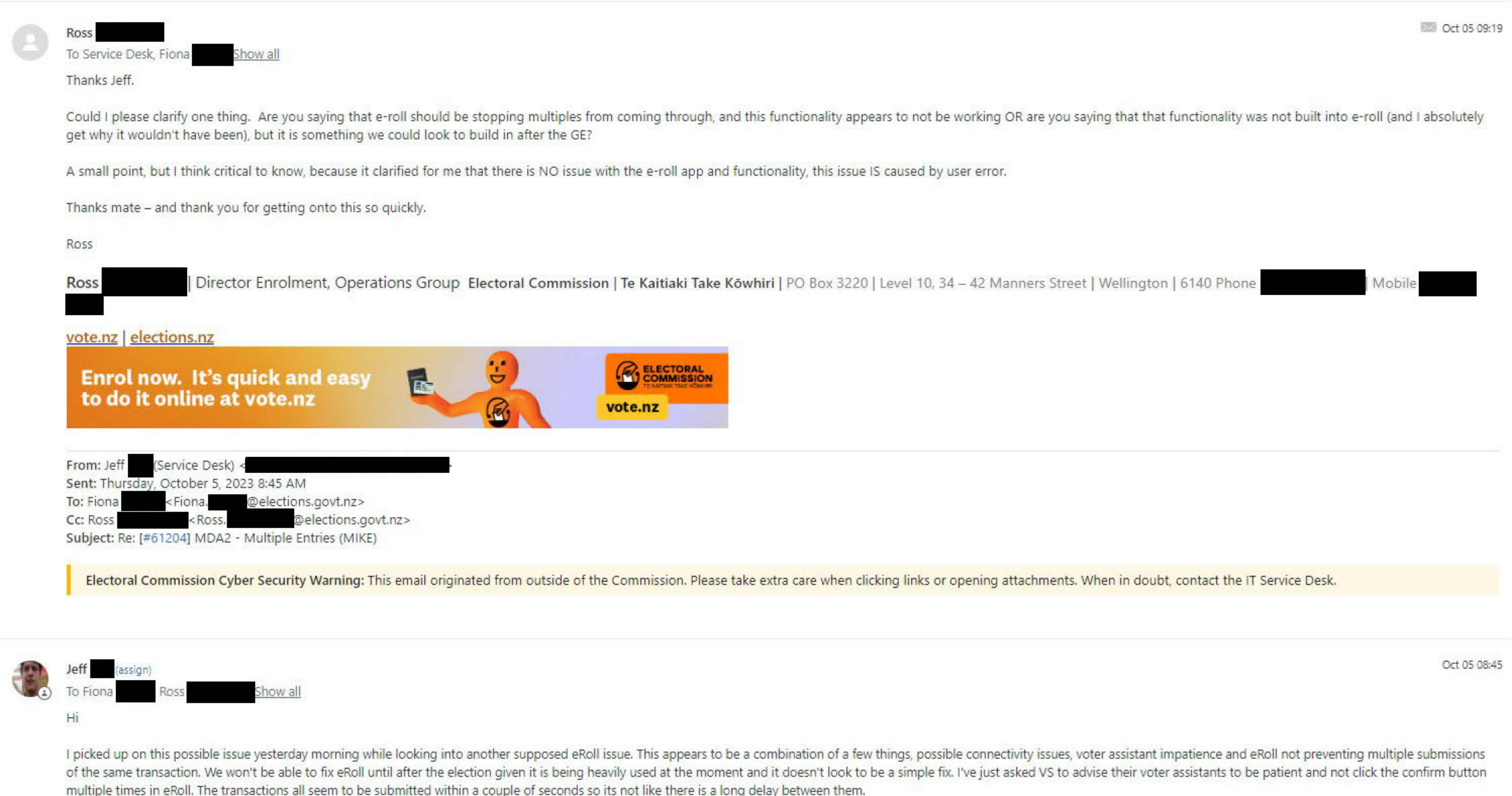
vote.nz | elections.nz

Jeff [redacted] (assign)
To Fiona [redacted] Ross [redacted] Show all
Oct 05 09:35

It didn't appear to have been built in. As far as I remember we never tested hitting the confirm multiple times but the app is usually pretty quick to return a response so it wouldn't have been an obvious test to add. When clicking on the confirm button there doesn't look to be any indication that anything is happening ie the button doesn't change to say 'Submitting' or anything.

The update functionality was first used at Tauranga BE and then again at Hamilton West so with a smaller number of updates it might have only happened a couple of times and not been noticed. I only noticed it when trying to identify the changes coming through and whether they were keyed and seeing duplicate person IDs in quick succession.

Jeff [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington



Ross [redacted]

To Service Desk, Fiona [redacted] Show all

Oct 05 09:19

Thanks Jeff.

Could I please clarify one thing. Are you saying that e-roll should be stopping multiples from coming through, and this functionality appears to not be working OR are you saying that that functionality was not built into e-roll (and I absolutely get why it wouldn't have been), but it is something we could look to build in after the GE?

A small point, but I think critical to know, because it clarified for me that there is NO issue with the e-roll app and functionality, this issue IS caused by user error.

Thanks mate – and thank you for getting onto this so quickly.

Ross

Ross [redacted] | Director Enrolment, Operations Group **Electoral Commission | Te Kaitiaki Take Kōwhiri** | PO Box 3220 | Level 10, 34 – 42 Manners Street | Wellington | 6140 Phone [redacted] | Mobile [redacted]

vote.nz | elections.nz

From: Jeff [redacted] (Service Desk) <[redacted]>
Sent: Thursday, October 5, 2023 8:45 AM
To: Fiona [redacted] <Fiona.[redacted]@elections.govt.nz>
Cc: Ross [redacted] <Ross.[redacted]@elections.govt.nz>
Subject: Re: [#61204] MDA2 - Multiple Entries (MIKE)

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

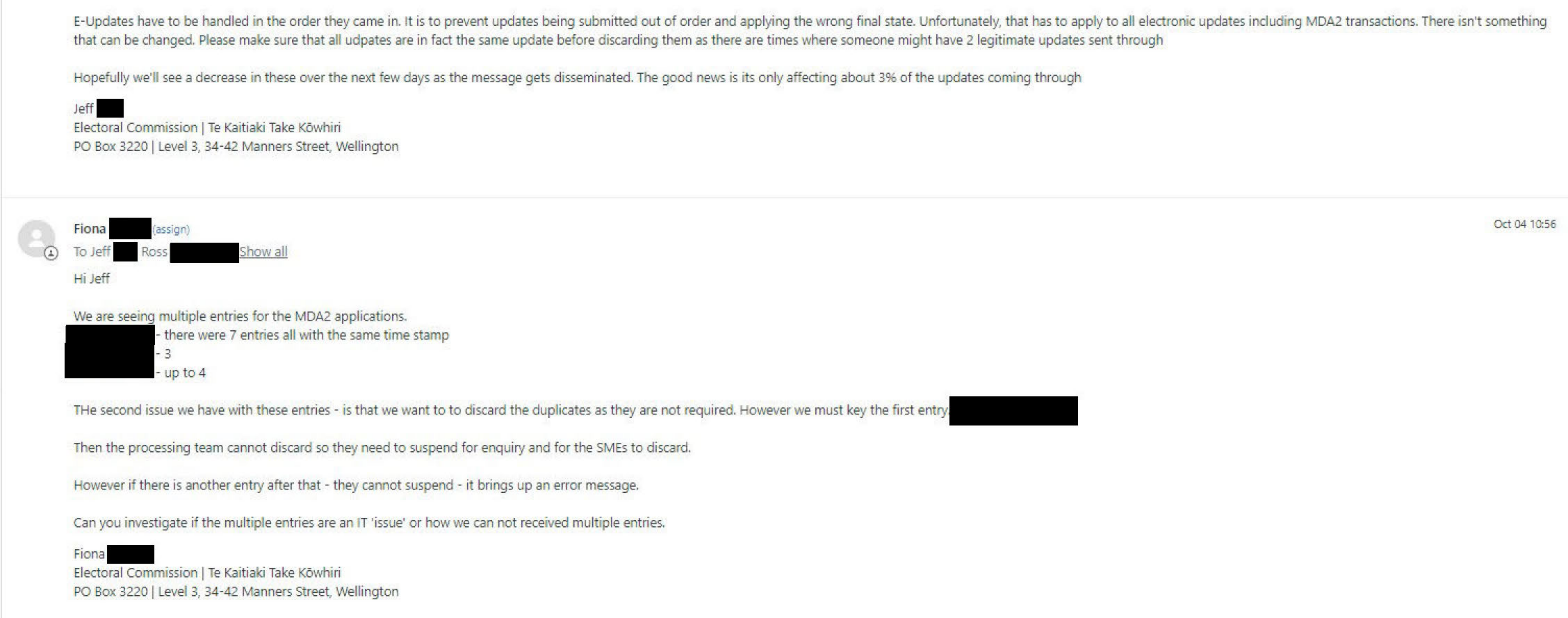
Jeff [redacted] (assign)

To Fiona [redacted] Ross [redacted] Show all

Oct 05 08:45

Hi

I picked up on this possible issue yesterday morning while looking into another supposed eRoll issue. This appears to be a combination of a few things, possible connectivity issues, voter assistant impatience and eRoll not preventing multiple submissions of the same transaction. We won't be able to fix eRoll until after the election given it is being heavily used at the moment and it doesn't look to be a simple fix. I've just asked VS to advise their voter assistants to be patient and not click the confirm button multiple times in eRoll. The transactions all seem to be submitted within a couple of seconds so its not like there is a long delay between them.


E-Updates have to be handled in the order they came in. It is to prevent updates being submitted out of order and applying the wrong final state. Unfortunately, that has to apply to all electronic updates including MDA2 transactions. There isn't something that can be changed. Please make sure that all udpates are in fact the same update before discarding them as there are times where someone might have 2 legitimate updates sent through

Hopefully we'll see a decrease in these over the next few days as the message gets disseminated. The good news is its only affecting about 3% of the updates coming through

Jeff [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Fiona [redacted] (assign)
To Jeff [redacted] Ross [redacted] Show all
Oct 04 10:56

Hi Jeff

We are seeing multiple entries for the MDA2 applications.
[redacted] - there were 7 entries all with the same time stamp
[redacted] - 3
- up to 4

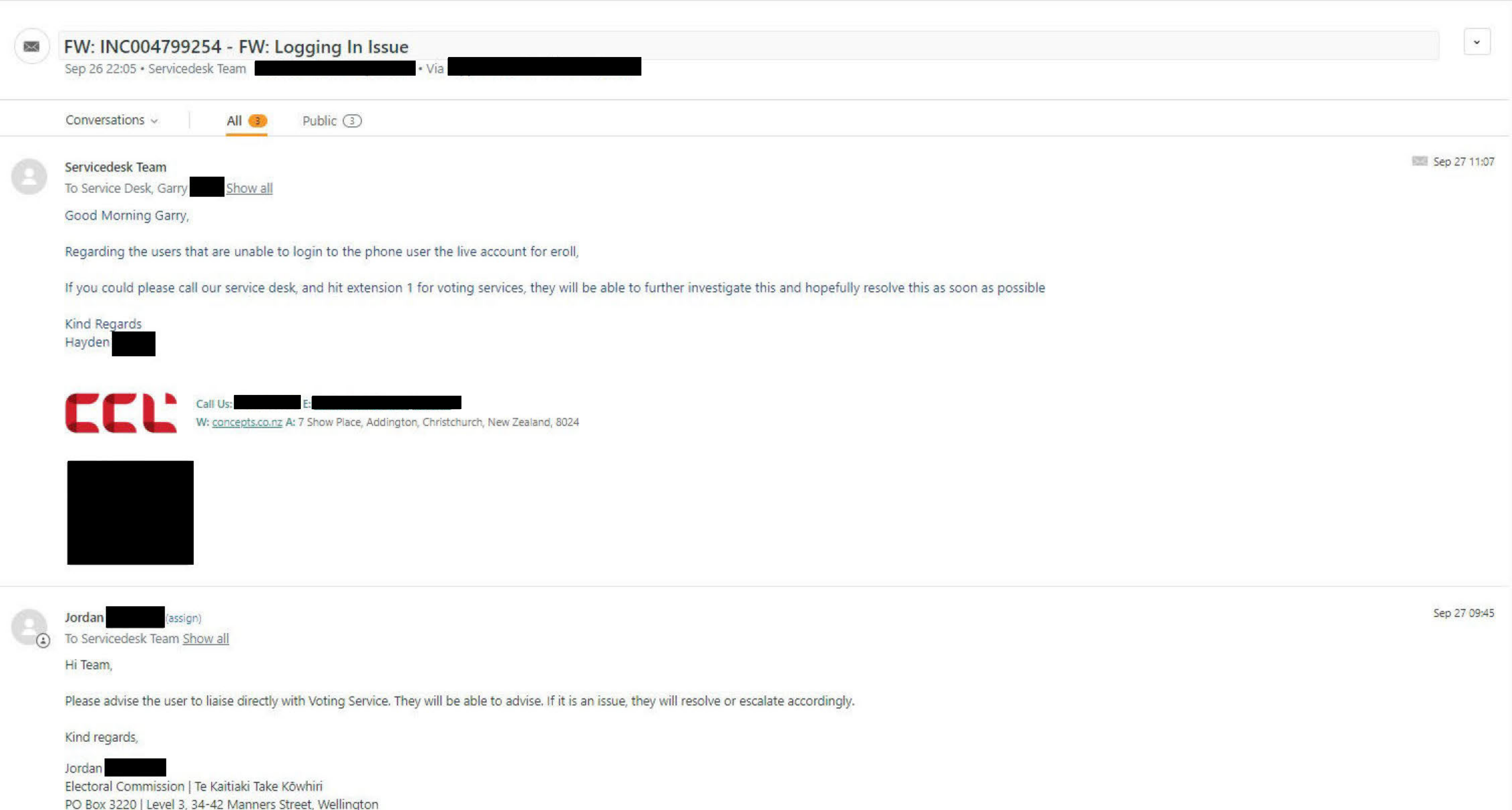
THe second issue we have with these entries - is that we want to to discard the duplicates as they are not required. However we must key the first entry [redacted]

Then the processing team cannot discard so they need to suspend for enquiry and for the SMEs to discard.

However if there is another entry after that - they cannot suspend - it brings up an error message.

Can you investigate if the multiple entries are an IT 'issue' or how we can not received multiple entries.

Fiona [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington



FW: INC004799254 - FW: Logging In Issue

Sep 26 22:05 • Servicedesk Team [redacted] • Via [redacted]

Servicedesk Team

To Service Desk, Garry [redacted] Show all

Sep 27 11:07

Good Morning Garry,

Regarding the users that are unable to login to the phone user the live account for eroll,

If you could please call our service desk, and hit extension 1 for voting services, they will be able to further investigate this and hopefully resolve this as soon as possible

Kind Regards
Hayden [redacted]

Call Us: [redacted] E: [redacted]
W: concepts.co.nz A: 7 Show Place, Addington, Christchurch, New Zealand, 8024

[redacted]

Jordan [redacted] (assign)

To Servicedesk Team Show all

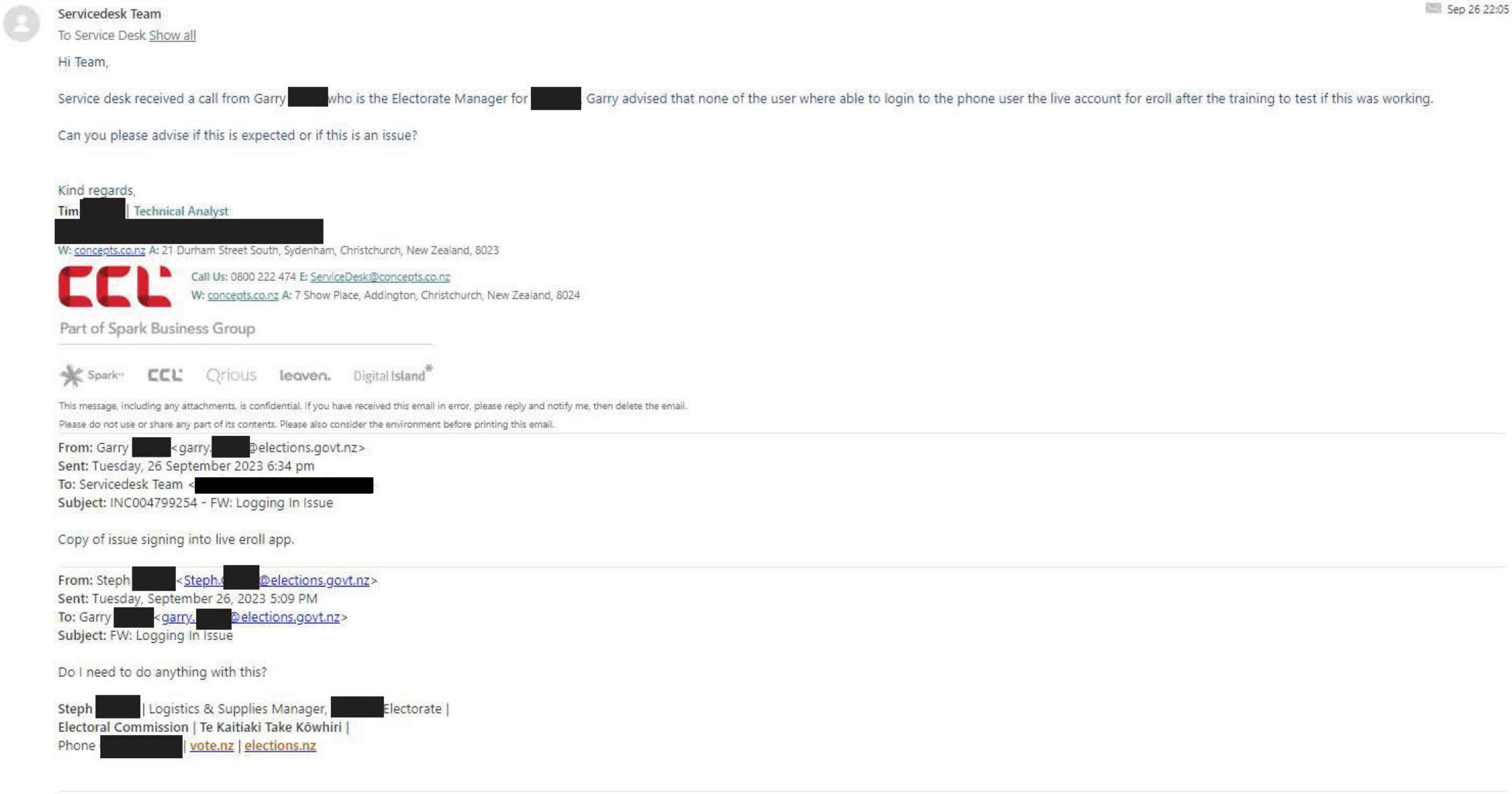
Sep 27 09:45

Hi Team,

Please advise the user to liaise directly with Voting Service. They will be able to advise. If it is an issue, they will resolve or escalate accordingly.

Kind regards,

Jordan [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington



Servicedesk Team
To Service Desk Show all

Sep 26 22:05

Hi Team,

Service desk received a call from Garry [redacted] who is the Electorate Manager for [redacted] Garry advised that none of the user where able to login to the phone user the live account for eroll after the training to test if this was working.

Can you please advise if this is expected or if this is an issue?

Kind regards,
Tim [redacted] | Technical Analyst
[redacted]
W: concepts.co.nz A: 21 Durham Street South, Sydenham, Christchurch, New Zealand, 8023

CCL
Call Us: 0800 222 474 E: ServiceDesk@concepts.co.nz
W: concepts.co.nz A: 7 Show Place, Addington, Christchurch, New Zealand, 8024

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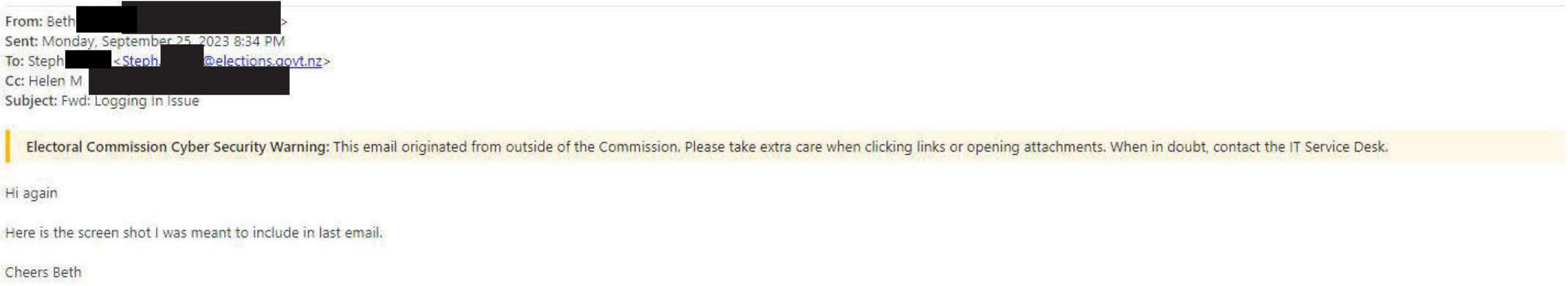
From: Garry [redacted] <garry.[redacted]@elections.govt.nz>
Sent: Tuesday, 26 September 2023 6:34 pm
To: Servicedesk Team <[redacted]
Subject: INC004799254 - FW: Logging In Issue

Copy of issue signing into live eroll app.

From: Steph [redacted] <Steph.[redacted]@elections.govt.nz>
Sent: Tuesday, September 26, 2023 5:09 PM
To: Garry [redacted] <garry.[redacted]@elections.govt.nz>
Subject: FW: Logging In Issue

Do I need to do anything with this?

Steph [redacted] | Logistics & Supplies Manager, [redacted] Electorate |
Electoral Commission | Te Kaitiaki Take Kōwhiri |
Phone [redacted] | vote.nz | elections.nz



From: Beth [redacted]>
Sent: Monday, September 25, 2023 8:34 PM
To: Steph [redacted] <Steph.[redacted]@elections.govt.nz>
Cc: Helen M [redacted]
Subject: Fwd: Logging In Issue

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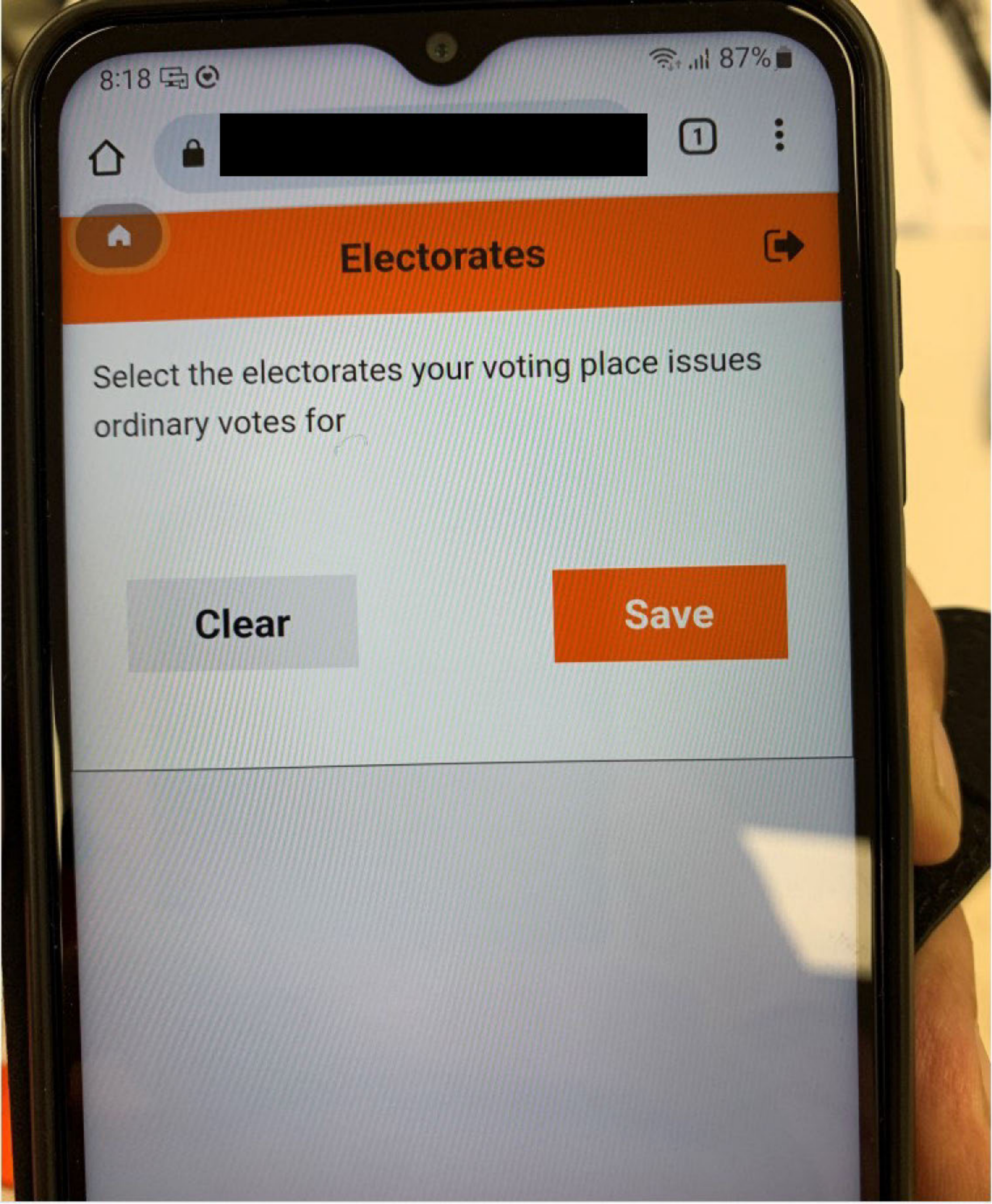
Hi again

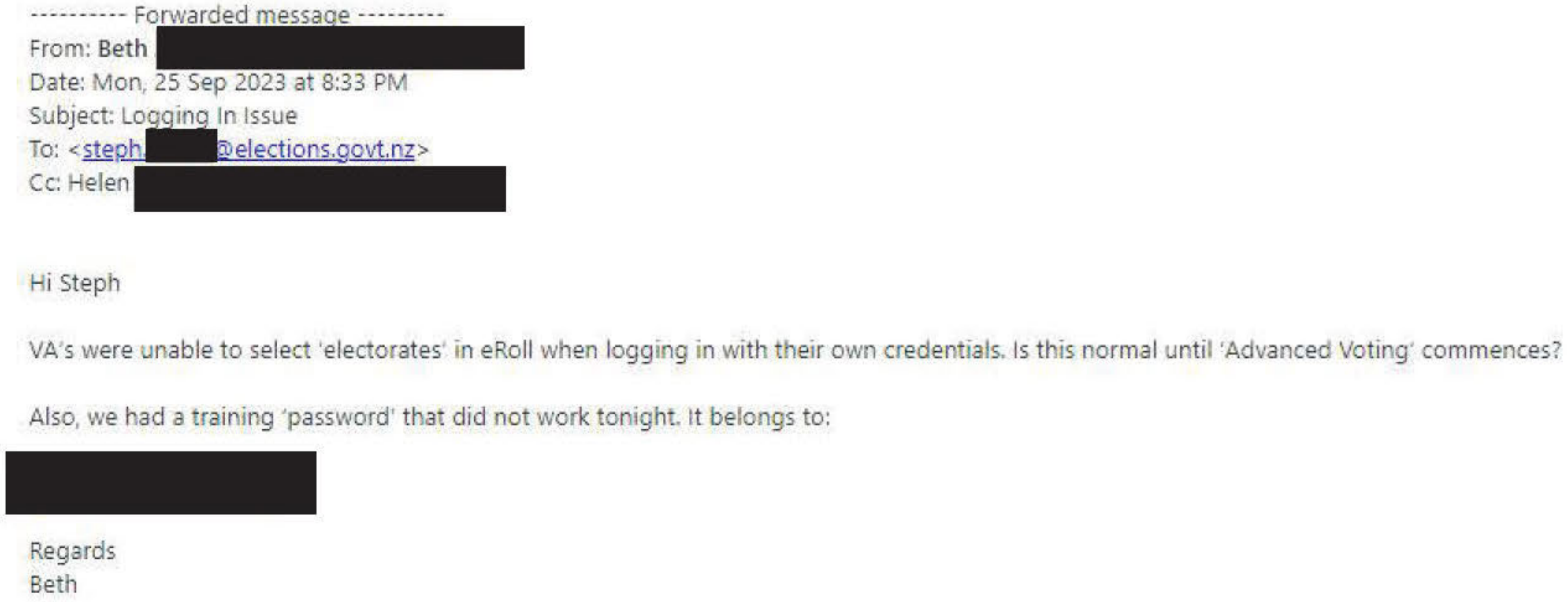
Here is the screen shot I was meant to include in last email.

Cheers Beth


8:18
87%
[redacted]
1
Clear
Save

Electorates

Select the electorates your voting place issues ordinary votes for



---------- Forwarded message ---------
From: **Beth** [redacted]
Date: Mon, 25 Sep 2023 at 8:33 PM
Subject: Logging In Issue
To: <steph.[redacted]@elections.govt.nz>
Cc: Helen [redacted]

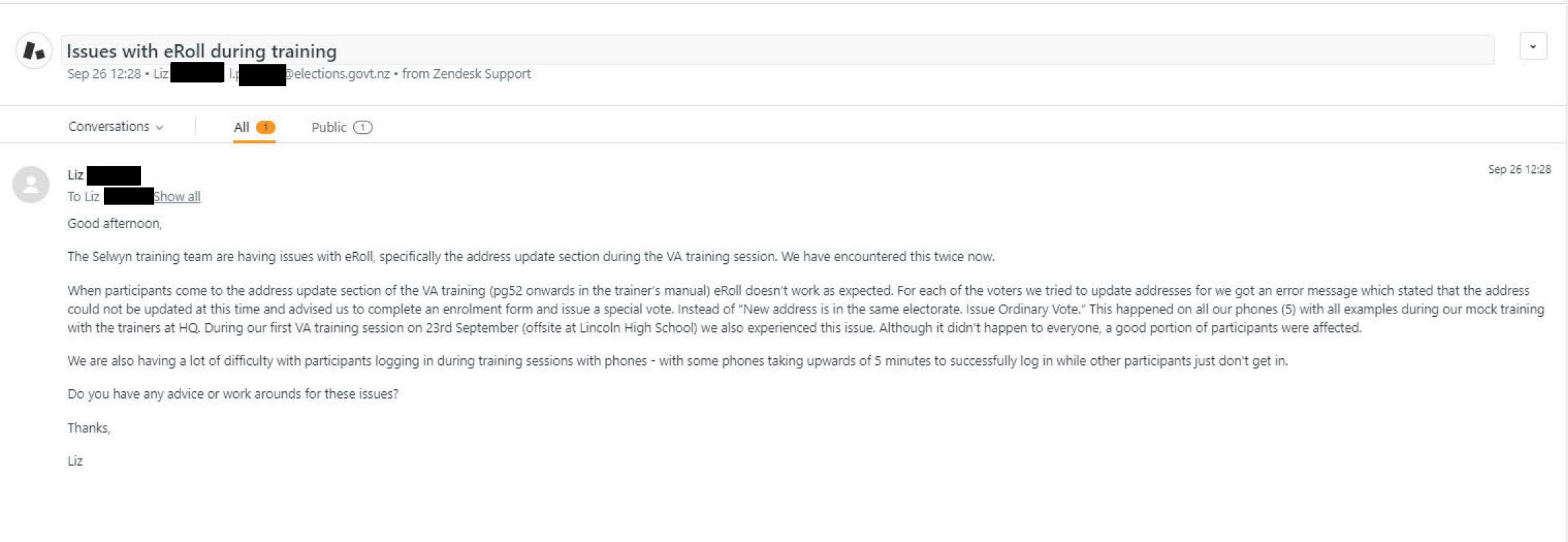
Hi Steph

VA's were unable to select 'electorates' in eRoll when logging in with their own credentials. Is this normal until 'Advanced Voting' commences?

Also, we had a training 'password' that did not work tonight. It belongs to:

[redacted]

Regards
Beth



Issues with eRoll during training

Sep 26 12:28 • Liz [redacted] l.[redacted]@elections.govt.nz • from Zendesk Support

Liz [redacted]

To Liz [redacted]

Sep 26 12:28

Good afternoon,

The Selwyn training team are having issues with eRoll, specifically the address update section during the VA training session. We have encountered this twice now.

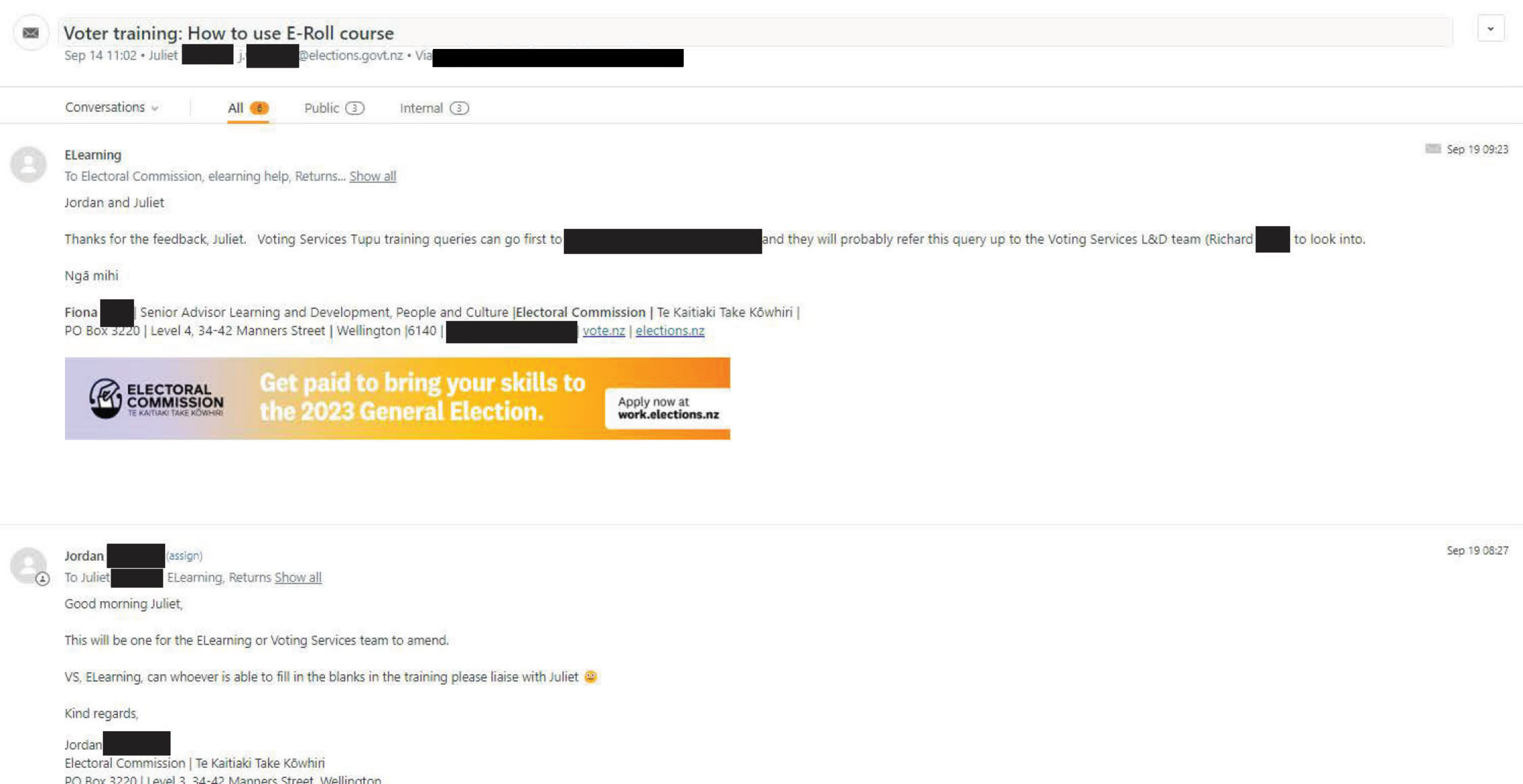
When participants come to the address update section of the VA training (pg52 onwards in the trainer's manual) eRoll doesn't work as expected. For each of the voters we tried to update addresses for we got an error message which stated that the address could not be updated at this time and advised us to complete an enrolment form and issue a special vote. Instead of "New address is in the same electorate. Issue Ordinary Vote." This happened on all our phones (5) with all examples during our mock training with the trainers at HQ. During our first VA training session on 23rd September (offsite at Lincoln High School) we also experienced this issue. Although it didn't happen to everyone, a good portion of participants were affected.

We are also having a lot of difficulty with participants logging in during training sessions with phones - with some phones taking upwards of 5 minutes to successfully log in while other participants just don't get in.

Do you have any advice or work arounds for these issues?

Thanks,

Liz



Voter training: How to use E-Roll course

Sep 14 11:02 • Juliet [redacted] j.[redacted]@elections.govt.nz • Via [redacted]

ELearning

To Electoral Commission, elearning help, Returns... Show all

Sep 19 09:23

Jordan and Juliet

Thanks for the feedback, Juliet. Voting Services Tupu training queries can go first to [redacted] and they will probably refer this query up to the Voting Services L&D team (Richard [redacted] to look into.

Ngā mihi

Fiona [redacted] | Senior Advisor Learning and Development, People and Culture |**Electoral Commission** | Te Kaitiaki Take Kōwhiri |
PO Box 3220 | Level 4, 34-42 Manners Street | Wellington |6140 | [redacted] | vote.nz | elections.nz

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Jordan [redacted] (assign)

To Juliet [redacted] ELearning, Returns Show all

Sep 19 08:27

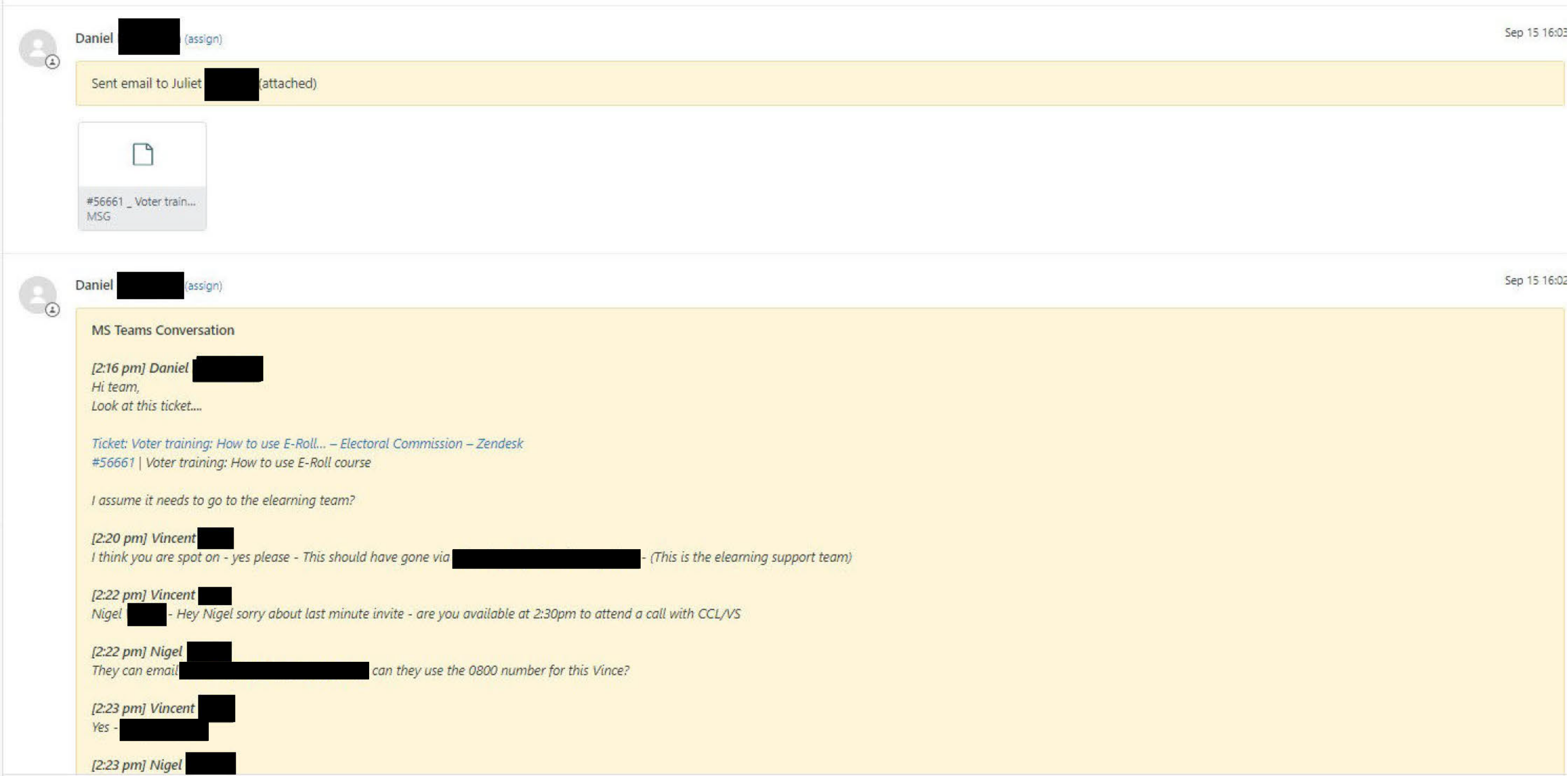
Good morning Juliet,

This will be one for the ELearning or Voting Services team to amend.

VS, ELearning, can whoever is able to fill in the blanks in the training please liaise with Juliet 🙂

Kind regards,

Jordan [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington



Daniel [redacted] (assign)

Sep 15 16:03

Sent email to Juliet [redacted] (attached)

#56661 _ Voter train...
MSG

Daniel [redacted] (assign)

Sep 15 16:02

MS Teams Conversation

[2:16 pm] Daniel [redacted]
Hi team,
Look at this ticket....

Ticket: Voter training: How to use E-Roll... – Electoral Commission – Zendesk
#56661 | Voter training: How to use E-Roll course

I assume it needs to go to the elearning team?

[2:20 pm] Vincent [redacted]
I think you are spot on - yes please - This should have gone via [redacted] *- (This is the elearning support team)*

[2:22 pm] Vincent [redacted]
Nigel [redacted] *- Hey Nigel sorry about last minute invite - are you available at 2:30pm to attend a call with CCL/VS*

[2:22 pm] Nigel [redacted]
They can email [redacted] *can they use the 0800 number for this Vince?*

[2:23 pm] Vincent [redacted]
Yes - [redacted]

[2:23 pm] Nigel [redacted]

[2:23 pm] Vincent [redacted]
Yes - [redacted]

[2:23 pm] Nigel [redacted]

> *Vincent [redacted]*
> *Nigel [redacted] - Hey Nigel sorry about last minute invite - are you available at 2:30pm to attend a call with CCL/VS*

Not quite last minute, Ive got a whole 7 minutes

Daniel [redacted] (assign) Sep 15 15:56

Request being looked into by Daniel [redacted]

Juliet [redacted] Sep 14 11:02

To Reports, EC Helpdesk Show all

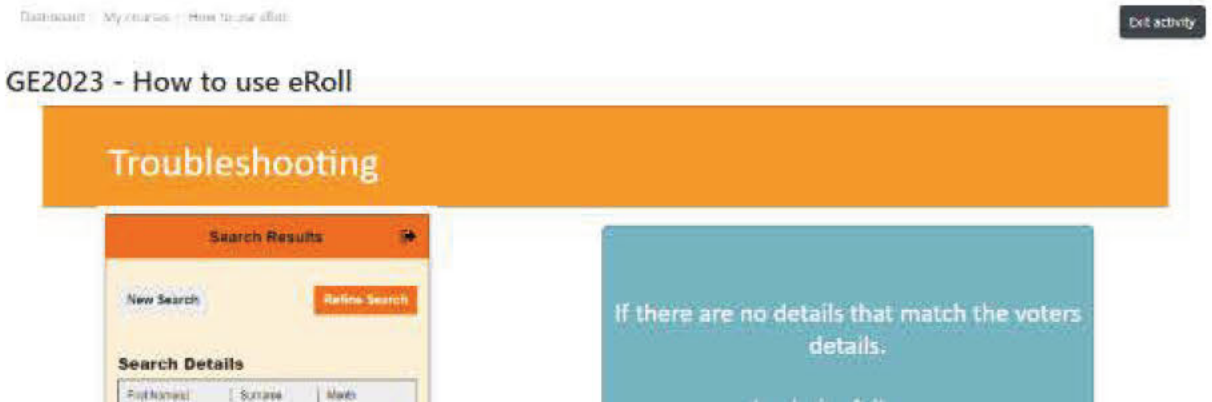
Kia ora team,

I've found an instruction missing in this course – in the section talking about searching for voters, there's troubleshooting for if you're unable to find them - however the instructions end "If you are unable to find the voter, tap" - and there's no more info.

(I am guessing it should be "tap refine search", but unable to tell from context as the module then moved on to a completely different topic.)

In case a link works, it was from this page of the module here - [redacted] screenshot below.

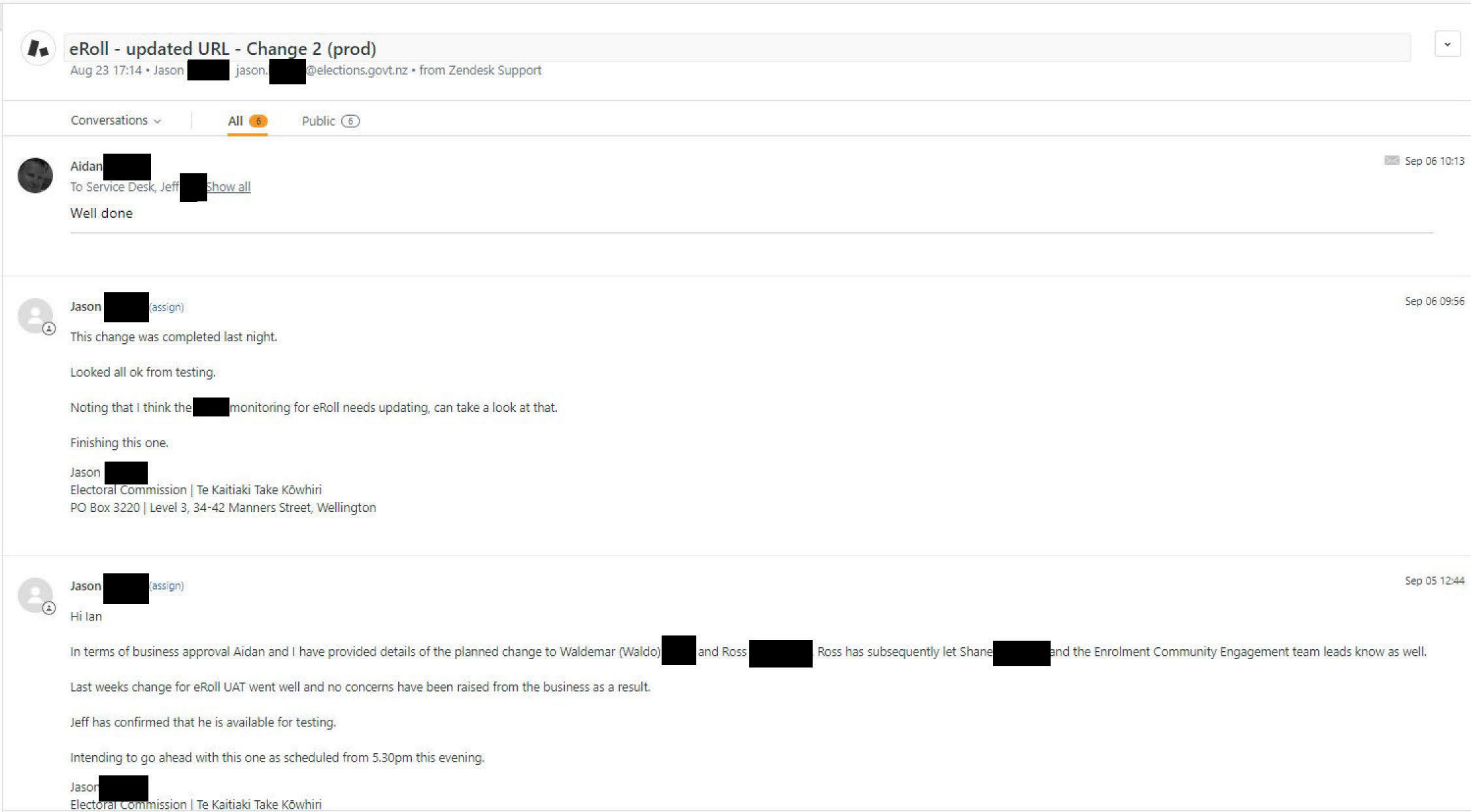
Ngā mihi,
Juliet



GE2023 - How to use eRoll

Troubleshooting

If there are no details that match the voters details.



eRoll - updated URL - Change 2 (prod)

Aug 23 17:14 • Jason [redacted] jason.[redacted]@elections.govt.nz • from Zendesk Support

Aidan [redacted]

To Service Desk, Jeff [redacted] Show all

Sep 06 10:13

Well done

Jason [redacted] (assign)

Sep 06 09:56

This change was completed last night.

Looked all ok from testing.

Noting that I think the [redacted] monitoring for eRoll needs updating, can take a look at that.

Finishing this one.

Jason [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Jason [redacted] (assign)

Sep 05 12:44

Hi Ian

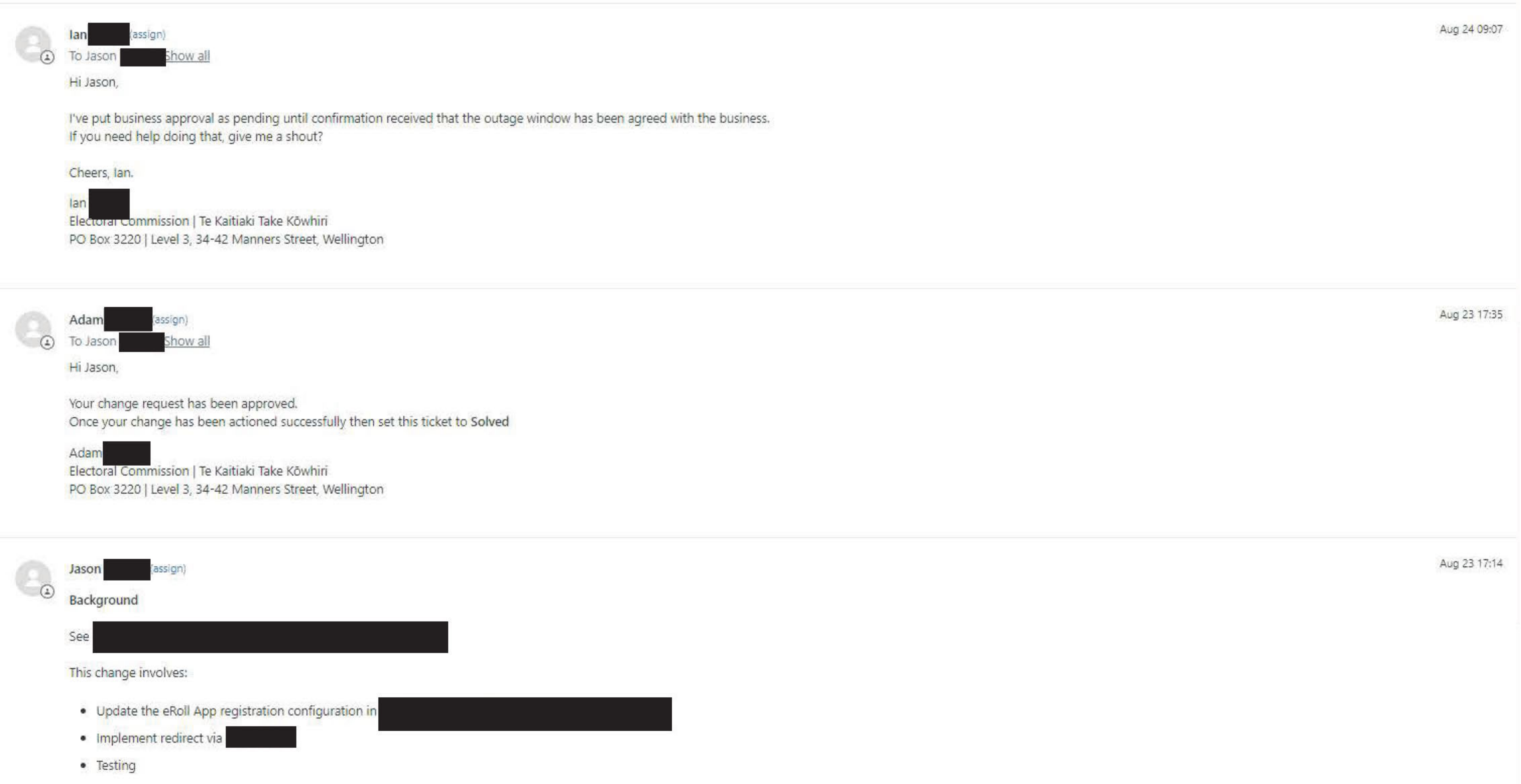
In terms of business approval Aidan and I have provided details of the planned change to Waldemar (Waldo) [redacted] and Ross [redacted]. Ross has subsequently let Shane [redacted] and the Enrolment Community Engagement team leads know as well.

Last weeks change for eRoll UAT went well and no concerns have been raised from the business as a result.

Jeff has confirmed that he is available for testing.

Intending to go ahead with this one as scheduled from 5.30pm this evening.

Jason [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri



Ian [redacted]

To Jason [redacted]

Aug 24 09:07

Hi Jason,

I've put business approval as pending until confirmation received that the outage window has been agreed with the business.
If you need help doing that, give me a shout?

Cheers, Ian.

Ian [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Adam [redacted]

To Jason [redacted]

Aug 23 17:35

Hi Jason,

Your change request has been approved.
Once your change has been actioned successfully then set this ticket to **Solved**

Adam [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

Jason [redacted]

Aug 23 17:14

Background

See [redacted]

This change involves:

- Update the eRoll App registration configuration in [redacted]
- Implement redirect via [redacted]
- Testing

Jason [redacted] (assign)

Aug 23 17:14

Background

See [redacted]

This change involves:

- Update the eRoll App registration configuration in [redacted]
- Implement redirect via [redacted]
- Testing

See attached for proposed change details.

Timing of Change and Testing

Intending to do this outside of business hours - suggested from 5.30pm .

I have spoken to Jeff [redacted] and he will be available to test as well.

The business will need to be informed - I have been told by Aidan that Waldemar (Waldo) [redacted] is the best contact on the Voting side. Enrolment Community engagement are using the production app in a limited fashion at the moment as well so should also be informed. Hoping that Aidan can confirm with the relevant people.

I have put this as having a 2 hour outage, not expecting the app to actually be unavailable but it is more around having a change window where we don't expect users to be on there and to allow plenty of time to make the changes and test.

Jason [redacted]
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 3, 34-42 Manners Street, Wellington

eRoll Changes (mov...
DOCX

WR #405521: GE2023 - eRoll Load Testing

Requested: 2023-04-20 11:55 **Parent request:** 404001

Status Finished
Organisation Electoral Commission
Person Aidan [redacted]
System EC Requests for Support
Type Maintenance
Urgency Before Specified Date
Priority Medium
Requested By 2023-07-31
Invoice To MSA

Details [x] eRoll load testing will be performed approximately between 27th - 31st July (Catalyst is shut on 28th and 29/30 is a weekend).

Ops required changes to support load testing - see WR412427

eRoll Load testing is done by testing the APIs using [redacted] library.

These are the main changes to the code-base that will require the existing load test scenarios to be extended:

1. Enrolled address updates - MDA2 correspondence,
2. Address search functionality,
3. Listing active electorates,
4. Searching with diacritic characters.

Allocated To

Andrew [redacted]

Subscribed Users

Aidan [redacted] Andrew [redacted], Catalyst Sysadmin NZ, James [redacted] Jeff [redacted] Joe [redacted] Paul [redacted], Rory [redacted] Shannon [redacted]

Notes (17)

Reverse display order

#17
2 months ago
by Jeff [redacted]
2023-10-02 11:48

Closing

#16
2 months ago
by Andrew [redacted]
2023-09-18 10:08

Please see combined report of [redacted] & eRoll) attached to the Master WR404001

#15
3 months ago
by Andrew [redacted]
2023-08-24 18:08

Yes, I'm aiming to get a report out late next week

#14
3 months ago
by Aidan [redacted]
2023-08-24 15:40

Hi
How is this looking, when can I say it will be competed, 31st Aug?
Aidan

#13
4 months ago
by Andrew [redacted]
2023-07-26 16:05

The eRoll UAT frontend host will be used to test the production backend

(The new eRoll Production frontend may be switched over to any time - see WR412605 - load testing of eRoll will not impact production)

#12
4 months ago
by Adriana [redacted]
2023-07-20 10:53

Kia ora Andrew,

Yep - I will arrange for someone to take a look at #9

For your access requests in #10 and #11, please can you create a New Related WR linked to your Catalyst User Administration WR following [redacted]

Cheers
Adri

#11
4 months ago
by Andrew [redacted]
2023-07-20 10:48

Hi,

Please can I have sudo group access added to my login on the following hosts:

[redacted]

Thanks
Andrew

#10
4 months ago
by Andrew [redacted]
2023-07-19 17:41

Hi Adri,

I would also like to have access to the eRoll [redacted], to be able to drive the load testing scripts.

ie.

[redacted]

Thanks
Andrew

#9
4 months ago
by Andrew [redacted]
2023-07-18 15:42

Hi Adri,

I will need some Ops time for a small configuration change.

I will need the eroll [redacted] to be allowed to connect to the [redacted] on [redacted]

This will allow me to Load Test eRoll via the Frontend. The eroll [redacted] frontends have the same spec so the results will be comparable.

This will also allow eRoll production to be available for use during the load testing period without any downtime.

#8
5 months ago
by Andrew

From the previous load testing instructions, I can do all of it, I will just need the following:
1. [redacted] access on all appropriate hosts

[redacted]
2023-07-05 17:31

2. Maybe some availability for advice on network load - I have access to [redacted]

#7
5 months ago
by Adriana[redacted]
2023-07-05 13:58

Hey Andrew,

Are there any updates on what is required from Ops on this ticket?

Cheers
Adri

#6
5 months ago
by Andrew
[redacted]
2023-07-04 11:31

Due to dependencies upon the [redacted] migration which is now due to be on 19th, the Load testing will be scheduled after then.

#5
6 months ago
by Andrew
[redacted]
2023-05-16 16:25

Hi Adri,

I am looking at doing the Dev work now and will update with any info required for Ops soon.

Noting that this cannot be actioned until the [redacted] has completed.

Andrew

#4
6 months ago
by Adriana[redacted]
2023-05-16 13:30

Kia ora,

Looking to get these to Ready state, however, we are not sure what is required of the NZ Ops Team. Are there any further requirements that can be added?

Changed from Anytime to Before Specified Date.

Cheers
Adri

#3
7 months ago
by Aidan[redacted]
2023-04-21 10:05

Noting there is a sprint for eRoll in progress. We would like load testing to be completed between 1st June to 30th June...setting date as mid-June thusly

#2
7 months ago
by Andrew
[redacted]
2023-04-20 12:12

Additional time will be required for Ops team to setup [redacted] in the [redacted] to be used for load-testing.

Note that the [redacted] eRoll [redacted] will not be involved in the load testing process, only the backend APIs.

#1
7 months ago
by Andrew
[redacted]
2023-04-20 11:55

Estimated development time for upgrading eRoll load-testing code is approximately 2 weeks.

It is anticipated that most of the time will be required for the enrolled address update scenario(s).

WR #404001: GE2023 - System Load Testing - Master

Requested: 2023-03-27 15:36 **Parent request:** 403094

Status	Testing/Signoff
Organisation	Electoral Commission
Person	Aidan [redacted]
System	EC Requests for Support
Type	Maintenance
Urgency	Before Specified Date
Priority	Medium
Requested By	2023-06-30
Invoice To	MSA

Details Master ticket to capture all activity related to load testing of EC systems.
Individual tickets will be raised for each environment.

Note: developer tasks will be captured and tracked in Redmine.

Systems will be load tested as follows:

[redacted]

[☑] 27/07 WR#405521 : eRoll Load Testing

[redacted]

Allocated To

Adriana [redacted] Andrew [redacted] James [redacted], Miroslav [redacted]

Subscribed Users

Adriana [redacted], Aidan [redacted], Andrew [redacted] Catalyst Sysadmin NZ, Godfrey [redacted] James [redacted], Jeff [redacted] Joe [redacted] Miroslav [redacted], Rory [redacted] Shannon [redacted]

Notes (15)

Reverse display order

#15
6 days ago
by Andrew [redacted]
2023-11-23 16:07

Marking as Testing/Signoff since all this Load Testing was done > 2 months ago

#14
2 months ago
by Andrew [redacted]
2023-09-18 10:05

Hi Aidan,

Please find attached the [redacted] Load Test results document and a combined load test results document of all [redacted] & eRoll applications.

Thanks
Andrew

#13
4 months ago
by Andrew
[redacted]
2023-07-26 15:55

Updated approximate start dates for [redacted] & eRoll load testing.

[redacted]

[redacted]

[redacted]

From: Jeff [redacted]. <Jeff.[redacted]@elections.govt.nz.>
Sent: Wednesday, 28 June 2023 1:40 pm
To: Aidan [redacted].
Subject: .

that eRoll issue I mentioned on Monday is a bug but one that shouldn't present itself in production due to the voting periods for [redacted] being before advanced voting

From: James [redacted] <james[redacted]@catalyst.net.nz>
Sent: Thursday, 27 July 2023 9:35 am
To: Aidan [redacted]
Subject: Re: 404001 Load Testing GE 2023.

> **Electoral Commission Cyber Security Warning:** This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Hi Aidan,

An end date is hard to pin down - simply because even though load testing may be "completed", the intention is to keep monitoring things against the established baseline.
Additionally, any further changes - for example the upcoming August EMS release - may have an impact on load so we need to be continually checking back on stats.

Cheers,
James

On 27/07/23 09:26,Aidan [redacted] wrote:

> That's great
> I'll check them later today and just put those status in.
> Ideal world an end date would be noted in the WR's?
>
> Aidan
>
> ---
>
> **From:**James [redacted] <james[redacted]@catalyst.net.nz>
> **Sent:** Thursday, July 27, 2023 9:13 AM
> **To:**Aidan [redacted] <Aidan.[redacted]@elections.govt.nz>
> **Cc:**Cindy [redacted] <Cindy.[redacted]@elections.govt.nz>
> **Subject:** Re: 404001 Load Testing GE 2023
>
> > **Electoral Commission Cyber Security Warning:** This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.
>
> Good Morning Aidan,
>
> I've asked the teams to ensure all Load Testing WRs are up to date, with testing dates, and any other information that might be relevant for the exercise.
> You should find all details on the Master WR #404001: GE2023 - System Load Testing - Master - and individual children tickets for each system.

If there is any information you need that is not provided on the ticket, just let me know - happy to help.

Cheers,
James

On 26/07/23 11:22,Aidan [redacted] wrote:

> Hi James
>
> This is potentially a tough one.
> I have to report on the status of load testing to management here.
>
> Can you review the following for accuracy, if you can give anymore concrete dates or known issues that would be greatly appreciated
> Aidan
>
> WRMS 404001 GE2023 - System Load Testing

	Status	**Outcome/Comment**
[redacted]	[redacted]	[redacted]
eRoll	Inprogress	Expect to complete end week 1 august
[redacted]	[redacted]	[redacted]

From: Jeff [redacted]. <Jeff.[redacted]@elections.govt.nz.>
Sent: Tuesday, 1 August 2023 5:23 pm
To: Aidan [redacted].
Subject: .

> **Jeff** [redacted]
>
> on a different topic, looks like there are some misunderstandings and communication issues around eRoll UAT

despite asking on Friday how long they needed eRoll UAT for I was told only for this week. We need it back for the completion of load testing next week. I can probably keep the environment frozen but the front-end won't be connected to [redacted] Other while load testing is done

From: Aidan [redacted]. <Aidan.[redacted]@elections.govt.nz.>
Sent: Monday, 14 August 2023 9:46 am
To: Jason [redacted].
Cc: Jeff [redacted]; Max [redacted]
Subject: Re: [redacted] files -> [redacted] + eRoll .

Hi
eRoll will start to be used from day one of advanced voting, note though that training is happening now. If we try a 302 we will need to be able to roll it back if there are issues and I suggest that Waldo approves the change.
It is also worth remembering that it is supposedly in use by community engagement BAU.

Jeff will be back tomorrow hopefully. That trial of [redacted] sound like the way forward.

Aidan

Aidan [redacted] (he/him) | Applications Manager, Information Technology | **Electoral Commission | Te Kaitiaki Take Kōwhiri**
PO Box 3220 | Level 4, 34-42 Manners Street | Wellington | [redacted]
[redacted] | vote.nz | elections.nz

From: Jason [redacted] <Jason.[redacted]@elections.govt.nz>
Sent: Monday, August 14, 2023 8:48:40 AM
To: Aidan [redacted] <Aidan.[redacted]@elections.govt.nz>
Cc: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>;Max [redacted] <Max.[redacted]@elections.govt.nz>
Subject: Re: [redacted] files -> [redacted] + eRoll

Morning Aidan

A couple of things to start your day if you read this email 🙄

eRoll

So, Max , then myself, then finally Tim spent significant time looking at Intune and trying to get the Launcher on the phones to push out an updated eRoll link. Long story short, it no worky.

I don't think it leaves us heaps of options re the app being on the new URL and we need to do something pretty urgently. Last comment I put on the associated work request was around setting up a redirect in [redacted] (I guess a 302 redirection would work ok for this). If we are going to do that would want to try UAT first and then arrange a time for prod - **do you know when the field starts using it in anger?** All the new functionality for eRoll that Catalyst have released is only on the new URL:

[redacted]

(the above link should at least work on our internal network now as the DNS is updated)

[redacted]

Let me know if you want to discuss any of the above.

Cheers

Jason

From: Aidan [redacted] <Aidan [redacted]@elections.govt.nz>
Sent: Tuesday, 4 July 2023 5:17 pm
To: Jason [redacted] <Jason.[redacted]@elections.govt.nz>
Cc: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>;Max [redacted] <Max.
[redacted]@elections.govt.nz>
Subject: RE: [redacted] files -> [redacted] + eRoll

Thanks
Can you chase it with your team mate next time he is in
Aidan

From: Jason [redacted] <Jason.[redacted]@elections.govt.nz>
Sent: Monday, July 3, 2023 11:32 AM
To: Aidan [redacted] <Aidan.[redacted]@elections.govt.nz>
Cc: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>;Max [redacted] <Max.
[redacted]@elections.govt.nz>
Subject: Re: [redacted] files -> [redacted] + eRoll

sorry, unintended quick key combo email send, this one:

[redacted]

I expect we want to go ahead with the alias for prod in the meantime anyways

Jason

From: Jason [redacted] <Jason.[redacted]@elections.govt.nz>
Sent: Monday, 3 July 2023 11:30 am

To: Aidan [redacted] <Aidan.[redacted]@elections.govt.nz>
Cc: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>;Max [redacted] <Max.
[redacted]@elections.govt.nz>
Subject: Re: [redacted] files -> [redacted] + eRoll

I think it is this one (no direct mention of eRoll but it is the [redacted]).

Based on a meeting we just had Adam is pretty smashed with stuff so don't think looking at this is top of his priority list.

From: Aidan [redacted] <Aidan.[redacted]@elections.govt.nz>
Sent: Monday, 3 July 2023 11:22 am
To: Jason [redacted] <Jason [redacted]@elections.govt.nz>
Cc: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>;Max [redacted] <Max.
[redacted]@elections.govt.nz>
Subject: RE: [redacted] files -> [redacted] + eRoll

Thanks for heads up re. eRoll do you have the [redacted] ticket , I found 44157 but no mention of device policy.

For [redacted] files I reckon running in parallel initially is worthwhile.

Aidan

From: Jason [redacted] <Jason.[redacted]@elections.govt.nz>
Sent: Monday, July 3, 2023 9:01 AM
To: Aidan [redacted] <Aidan.[redacted]@elections.govt.nz>
Cc: Jeff [redacted] <Jeff.[redacted]@elections.govt.nz>;Max [REDACTED] <Max.
[redacted]@elections.govt.nz>
Subject: [redacted] files -> [redacted] + eRoll

Hi Aidan

Couple of things

[redacted]

[redacted]

The other thing I want to highlight is the eRoll change of domain:

- I was working with Max and Jeff around testing the move from [redacted] -> [redacted]. Catalyst put in DNS update to point old to new, along with a new internal DNS entry so that the [redacted] version works from an office on the [redacted] That works ok.
- Max was then planning to push out a new link on the phone via [redacted] for the updated URL. But there is an issue with the policy on the phones (a 'conflict') so it no worky for pushing out new settings. A ticket was raised for Adam to take a look but I expect he may have other things on his plate.
- We haven't done anything for the prod version as yet.

Looking for some feedback on the approach for the [redacted] files... and to make sure you are aware of where things are at with the eRoll change, perhaps we should discuss next steps for that.

Regards

Jason

Jason [redacted] (he/him) | **Electoral Commission |** Te Kaitiaki Take Kōwhiri | PO Box 3220 |
Level 4, 34-42 Manners Street **|** Wellington | Phone [redacted] | vote.nz
| elections.nz

From: Jeff [redacted]. <Jeff.[redacted]@elections.govt.nz.>
Sent: Monday, 28 August 2023 11:07 am
To: Aidan [redacted].
Subject: .

Eroll uat is back already after load testing finished last week

From: Aidan [redacted].
Sent: Wednesday, 13 September 2023 11:25 am
To: Andrew [redacted]; james [redacted].
Subject: RE: Load Testing.

Thanks guys?

From: Andrew [redacted] <andrew [redacted] @catalyst.net.nz>
Sent: Wednesday, September 13, 2023 11:24 AM
To: james [redacted] <james [redacted] @catalyst.net.nz>;Aidan [redacted] <Aidan. [redacted] @elections.govt.nz>
Subject: Re: Load Testing

> **Electoral Commission Cyber Security Warning:** This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Hi,

Yes, that is correct. I'll be concentrating on finishing these reports today and tomorrow.
Providing nothing else urgent crops up!

Thanks
Andrew

On Wed, 2023-09-13 at 11:08 +1200,James [redacted] wrote:

> Hi Aidan,
>
> For all intents and purposes, this is completed; we do not have any major load-related system changes to do.
> Reports are being finalised this week, and will appear on the associated tickets as they become available.
> Andrew - please jump in if there is anything else EC should be aware of in this regard.
>
> Cheers,
> James
>
> On 13/09/23 10:14,Aidan [redacted] wrote:
>
> > Hi James
> > How is progress on the [redacted] related systems report, the below WRS
> > This isn't an immediate priority just checking in
> >
> > [redacted]
> > [] 27/07 WR#405521 : eRoll Load Testing
> > [redacted]
> >
> > Aidan
> >
> > **Aidan** [redacted] (he/him) | Applications Manager, Information Technology | **Electoral Commission | Te Kaitiaki Take Kôwhiri**
> > PO Box 3220 | Level 4, 34-42 Manners Street | Wellington | [redacted] | vote.nz | elections.nz
> >
> >
> >

Te Kōwhiringa Pōti Māori | Māori Electoral Option
> > It's time to choose between the Māori roll and the general roll.
> > HE MANA TŌ TE KŌWHIRI
> > YOUR CHOICE HAS MANA
> > ELECTORAL COMMISSION

From: Service Desk
To: DL EC All Staff
Cc: Service Desk
Subject: Major IT incident RESOLVED - connectivity with core business systems restored
Date: Wednesday, 11 October 2023 10:40:55 am
Attachments: image001.png

Kia ora koutou

Connectivity issues have been RESOLVED -
Our host provider has identified the problem and have applied a fix which has resolved the issue. Our testing shows our systems are working as expected.
We will continue to closely monitor the situation and action accordingly.

If you are still experiencing issues, please do let us know by logging a ticket with the IT Service Desk via the portal [redacted]
or alternatively call [redacted].

Ngā mihi nui

IT Service Desk | Tēpu Ratonga IT
Electoral Commission | Te Kaitiaki Take Kōwhiri
Phone [redacted]

From: Service Desk <[redacted]>
Sent: Wednesday, October 11, 2023 9:29 AM
To: DL EC All Staff <[redacted]>
Subject: Major IT incident - connectivity issues with core business apps
Importance: High

Kia ora tatou!

IT are currently investigating reported issues with connecting to some EC systems hosted in our Catalyst Cloud provider this morning that is impacting multiple external customers.

EC Systems and services affected –
[redacted]
e-Roll mobile app
[redacted]

This is a being managed as a high priority incident and hope to have service restored fully soon.
A further update will be provided in 30 minutes if not resolved before then.
Ngā mihi nui

IT Service Desk | Tēpu Ratonga IT
Electoral Commission | Te Kaitiaki Take Kōwhiri
Phone [redacted]

To: James [redacted]
Subject: Load Testing Ref: WR 404001.

Hi James
Below are proposed period for load testing applications
Can you review and see what workable dates will be subject to resource and state of the applications.
In a nutshell it is between 1 June and 31 July and you can moved dates around between that as you see fit.
We need to come to some agreement on scope, we require your technical guidance on this

Aidan

[redacted]

[redacted] Load testing proposing June ([redacted], eRoll)
[redacted] Proposing July

Aidan [redacted] [(he/him)]() | Applications Manager, Information Technology | **Electoral Commission | Te Kaitiaki Take Kôwhiri**
PO Box 3220 | Level 4, 34-42 Manners Street | Wellington | [redacted] | [vote.nz]() | [elections.nz]()

Te Kōwhiringa Pōti Māori | Māori Electoral Option
It's time to choose between the Māori roll and the general roll.
HE MANA TŌ TE KŌWHIRI
YOUR CHOICE HAS MANA
ELECTORAL COMMISSION

From: Jason [redacted]. <Jason [redacted]@elections.govt.nz.>
Sent: Tuesday, 2 May 2023 11:03 am
To: Aidan [redacted].
Subject: .

Hello

You have been carefully selected to be part of this chat - lucky!

Catalyst have been doing some recent changes to the eroll infrastructure, basically around getting this running on an updated operating system and moving the hosting to a supported region of Catalyst Cloud as the current location is getting decommissioned.

At the same time they have updated eRoll to do be on a different domain - so instead of [redacted] it will be [redacted] for production, same kind of thing for UAT with the new one as [redacted]

The new versions are up and running and access is setup as per existing via [redacted] AD. Just noting the moment there is no DNS entry for the new version internally (so if you are on the National Office or at a ROE office the new links won't work) - will need to get Catalyst to update this. But if you are somewhere outside those offices or try guest wifi at those the new links should work.

So what we are currently looking at doing is:

- Using eroll-uat as a start, getting Catalyst to redirect things so that the old version points to new if people access it. Double checking that this doesn't cause any issues
- Then pushing out the new UAT link to phones and confirming that process works ok
- Test

If all is well then doing the same for production eroll.

Max [redacted] - hoping that you can be the Intune guy to push out new links to phones - I can point you to where this is configured

Allison [redacted] I think you are busy today by the looks but happy to discuss the above if you have questions/concerns.

From: Aidan [redacted].
Sent: Tuesday, 2 May 2023 1:02 pm
To: Godfrey [redacted].; James [redacted].
Subject: RE: Catchup today.

Catchup notes from 02 May 2023

[redacted]

[redacted]

[redacted]

[redacted]

Load Testing
Tickets exist , Miroslav went through and updated
[redacted], eRoll, [redacted] May be areas to concentrate on such as [redacted] and [redacted]
We need Catalyst advice on what needs testing
Estimates from Miroslav suggest 2 weeks per system.
Unknown right now how long it will take the Ops Team
WR404001, Aidan update this.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

eRoll

Sound like going well...

June 7th [redacted] migration is proposed, James will confirm if this will contain eRoll changes

[redacted]

[redacted]

[redacted]

From: Aidan [REDACTED]
Sent: Tuesday, April 4, 2023 12:48 PM
To: Godfrey [REDACTED] <[redacted]
Subject: FW: Catchup today

Notes from our catchup today:

Godfrey & Aidan

Changes to databases

Being handled by stand-ups now. Matt attending for [redacted] he may attend for [redacted] or catch up with Jeff. A diff schema process was discussed

[redacted]

[redacted]

eRoll

Hoping Terry could pick up these in April. Terry has some leave

Godfrey will follow up with Andrew about when it could be done.

[redacted]

[redacted]

[redacted]

eRoll
Spoke about April and Terry

[redacted]

[redacted]

[redacted]

[redacted]

Load Test Report

Public Applications Load Test Report

Catalyst.Net Ltd

a Catalyst IT group company

Version 1.1

September 2023

Commercial in Confidence

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Level 6, Catalyst House, 150 Willis Street, Wellington 6011
PO Box 11053, Manners Street, Wellington 6142, New Zealand
[redacted] // www.catalyst.net.nz

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1 Document Control

1.1 Version

Version	Date	Change Reason	Author	Reviewed By
1.0	14/09/2023	Original Version	Andrew [redacted]	
1.1	18/09/2023	Typos and minor edits	Andrew [redacted]	James [redacted]

2 Overview

The main goal of the load testing exercise was to provide a baseline of performance of functionality enhancements for the Public applications. A secondary objective was to find any quick wins that would provide increased throughput or response times.

[redacted]

The eRoll application has been recently extended to allow for limited updates to be sent back to [redacted] for processing. An additional address search feature has also been added. These new scenarios were incorporated in the eRoll load tests.

[redacted]

3 Summary

For the baseline load test run, the overall time taken to process all the scenarios was 29 minutes. A number of simple parameter changes were made to the [redacted] webserver configurations. The same set of scenarios were then run again and the overall time taken to process them. It was found that a single parameter change each to [redacted] webserver reduced the overall time to 21 minutes. This provided an increase in throughput of over 25%.

4 Test Environment

4.1 Test hosts

The secondary cluster in [redacted] was temporarily reconfigured to act as an independent environment for performing load testing against. This ensured that the load test results would match actual the production environment since the [redacted] and [redacted] clusters are identically configured.

Three load test runner hosts were used to execute the test scenarios in parallel against the load test environment.

4.2 Test scripts

These are the same as used in previous Public Application Load Test exercises. Although the eRoll and [redacted] load test scripts were enhanced to incorporate new scenarios:

[redacted]

- eRoll scripts had a new Address search API call added
- eRoll scripts had a person update scenario added

All these load test scripts have the following features:

- The scenario creation script extracts random data from the test database and writes out a set of test scenarios using this data.
- The load test run script performs each test scenario in parallel using a configured number of workers on the load test runner host.
- The load test script uses the [redacted] library to drive the application interface.
- The output files containing data about each request of every scenario from every worker are analysed by both a statistics script to generate overall statistics and a script to generate statistical graphs.

4.3 Host Statistics

Each host has data collected from it to read various aspects of the state of the host. This data is visualised through a tool called [redacted] These graphs show the following states: CPU %, Network Requests, Load, Memory, Processes.

Note that this data collection is performed as standard on all Production and UAT hosts as part of standard monitoring by Catalyst.

5 Test Scenarios

5.1 [redacted]

[redacted]

[redacted]

[redacted]

5.3 eRoll application

The test scenarios for [redacted] comprise of a user performing a selection of the following application API calls:

- Get the current set of Electorates with an election
- Perform a Lookup Address operation
- Perform a Person Search (variations include using wildcards, no midname)
- Perform some Address Completion calls
- Submit an Update to generate an MDA2 correspondence
- Perform a user Logout

The percentage of each of the above API calls between July 2022 and August 2023 was obtained from the database.

API route	%
electorates	11
enrol	2
persons	40
residential_addresses	43
lookup_address	1
logout	3
Total	*100*

The Load test runs consist of 1,000 scenarios for each runner host, with the overall number of API calls for each route matching the above percentage.

5.4 Methodology

Load Test Scenarios

A load test run is in two parts. The first part prepares a mix of all [redacted] scenarios for executing against the pubweb server. The second part is the 1,000 eRoll scenarios prepared for executing against the eRoll web server. These are created for all three load test runner hosts. Overall there are 24,000 scenarios executed in each full test run.

Load Test Execution

On each runner host, the [redacted] scenarios were started running against the pubweb server. Then, after a few minutes, on each runner host, the 1,000 eRoll scenarios were started running against the eroll web server.

6 Results

The following sections presents details from two Load test runs. The first being the baseline run using existing production configuration settings. The second run evaluates a set of configuration changes made to the public web and application services.

A number of other configuration runs were performed. The data from those are not presented here, but they helped with the choice of configuration changes presented in the second load test run.

6.1 Baseline Run

The baseline run used the existing [redacted] configurations used in production.

The total overall time to execute all 24,000 scenarios, using the three load test runners was 29.5 minutes.

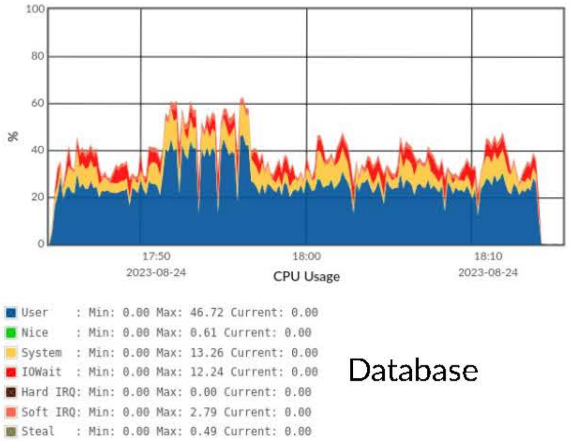
Request Statistics

All responses occur under 10 seconds and generally under [redacted] and under 3s for eRoll.

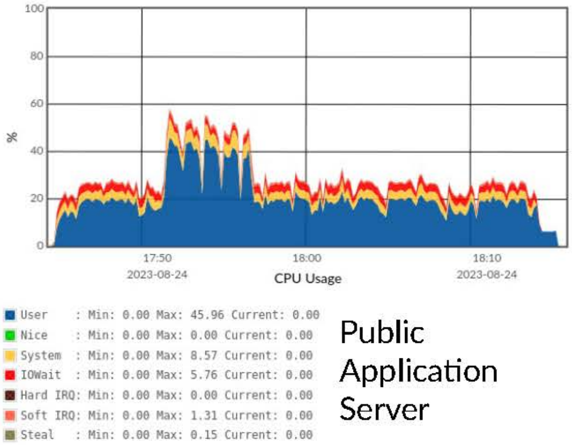
Step	requests	min	median	mean	95th	max	>10s	Error
[redacted]								
eRoll - Address completion	3,227	0.18	1.98	2.20	2.86	9.31	0	0
eRoll - Electorates	2,837	0.21	1.98	2.11	2.52	9.27	0	0
eRoll - Enrol Update MDA2	623	0.70	2.71	2.89	3.75	9.96	0	0
eRoll - Logout	947	0.21	1.97	2.08	2.50	9.22	0	0
eRoll - Lookup Address	279	0.21	1.96	2.17	2.76	9.25	0	0
eRoll - Search	7,561	0.23	2.02	2.19	2.61	9.43	0	0
eRoll - Search - Mononym	277	0.26	2.04	2.24	2.63	9.21	0	0
eRoll - Search - No Midnames	7,486	0.24	2.01	2.17	2.58	9.29	0	0
eRoll - Search - Wild	7,354	0.23	2.03	2.18	2.60	9.33	0	0
eRoll - Search - Wild - No Midnames	7,322	0.25	2.02	2.17	2.58	9.35	0	0
[redacted]								

CPU utilisation

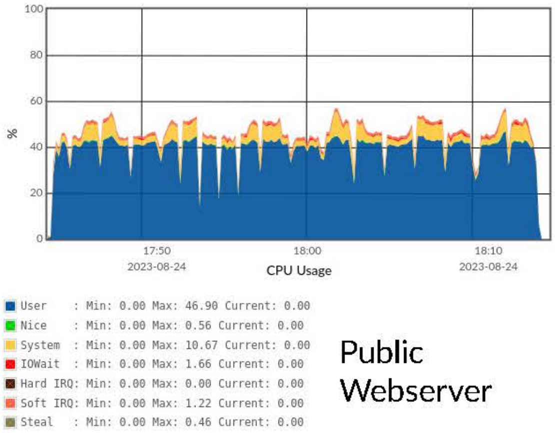
The following graphs show the CPU utilisation on the pubweb, pubapp and db servers. The extra processing load of eRoll can be easily seen in these server graphs.



Database



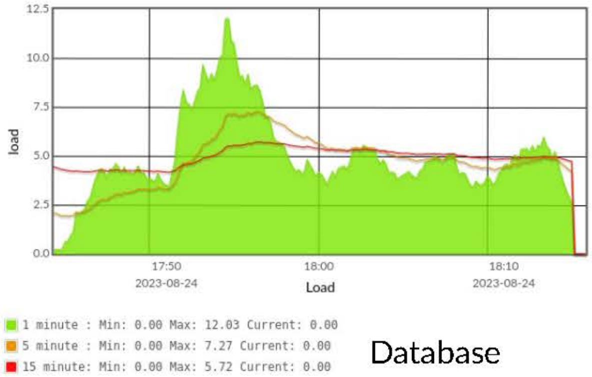
Public Application Server



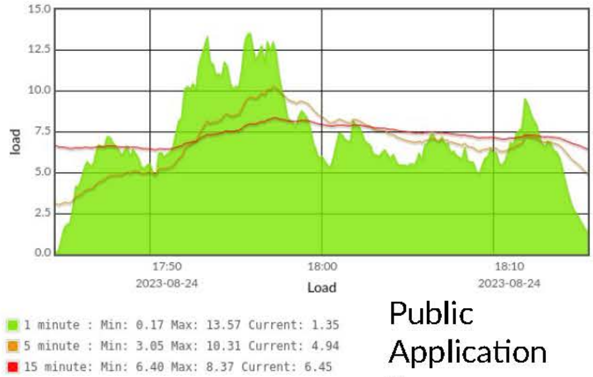
Public Webserver

Host Load

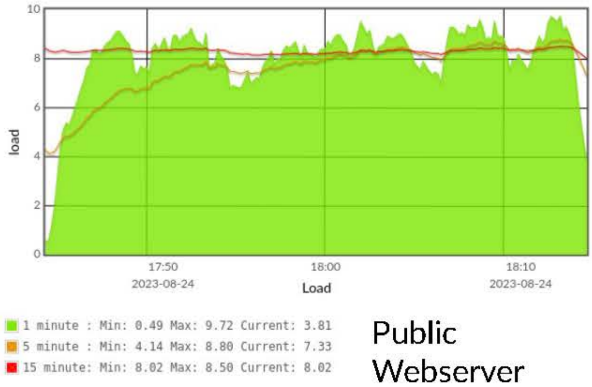
The following graphs show the load on the pubweb, pubapp and db servers. The load is well within the capacity of the hosts.



Database



Public Application Server



Public Webserver

6.2 Reconfiguration run

This run included the following configuration changes:

- doubled the number of [redacted] on the public web server
- Increased [redacted] on the public application server
- Increased [redacted] on the application server

The total overall time to execute all 24,000 scenarios, using the three load test runners was 21.5 minutes.

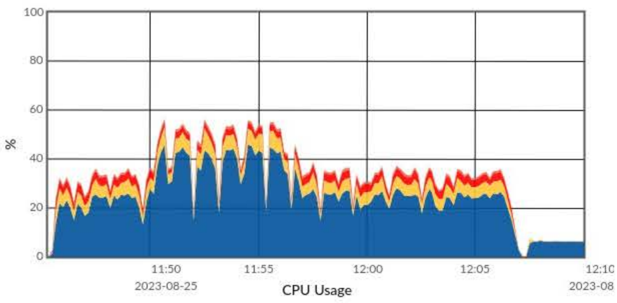
Request Statistics

Almost all responses occur under 10s [redacted] and generally under 4s for eRoll.

Step	requests	min	median	mean	95th	max	>10s	Error
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
eRoll - Address completion	3,276	0.20	2.52	2.85	8.30	9.35	0	0
eRoll - Electorates	2,967	0.25	2.50	2.74	3.62	9.33	0	30
eRoll - Enrol Update MDA2	631	0.80	3.35	3.84	9.53	10.23	3	0
eRoll - Logout	621	0.22	2.49	2.72	3.65	9.25	0	0
eRoll - Lookup Address	327	0.24	2.51	2.71	3.76	9.26	0	4
eRoll - Search	7,473	0.26	2.53	2.81	7.36	9.37	0	82
eRoll - Search - Mononym	249	0.32	2.56	2.84	6.64	9.44	0	3
eRoll - Search - No Midnames	7,648	0.27	2.52	2.76	3.55	9.40	0	65
eRoll - Search - Wild	7,313	0.28	2.55	2.80	3.67	9.45	0	62
eRoll - Search - Wild - No Midnames	7,283	0.27	2.55	2.77	3.41	9.48	0	76
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

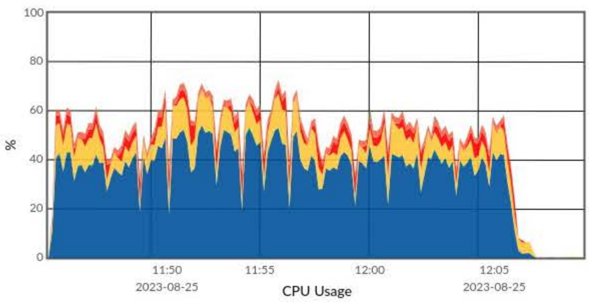
CPU utilisation

The following graphs show the CPU utilisation on the pubweb, pubapp and db servers. The extra processing load of eRoll can be easily seen in these server graphs.



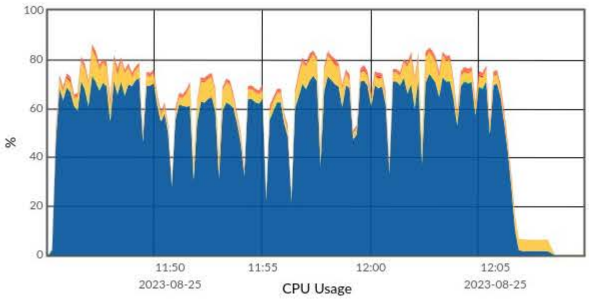
```
User    : Min: 0.04 Max: 45.81 Current: 6.25
Nice    : Min: 0.00 Max: 0.00 Current: 0.00
System  : Min: 0.07 Max: 9.00 Current: 0.13
IOWait  : Min: 0.01 Max: 3.88 Current: 0.01
Hard IRQ: Min: 0.00 Max: 0.00 Current: 0.00
Soft IRQ: Min: 0.00 Max: 1.17 Current: 0.00
Steal   : Min: 0.00 Max: 0.28 Current: 0.00
```

Database



```
User    : Min: 0.00 Max: 53.99 Current: 0.01
Nice    : Min: 0.00 Max: 0.69 Current: 0.18
System  : Min: 0.01 Max: 14.35 Current: 0.12
IOWait  : Min: 0.00 Max: 9.50 Current: 0.00
Hard IRQ: Min: 0.00 Max: 0.00 Current: 0.00
Soft IRQ: Min: 0.00 Max: 2.61 Current: 0.00
Steal   : Min: 0.00 Max: 3.04 Current: 0.00
```

Public Application Server

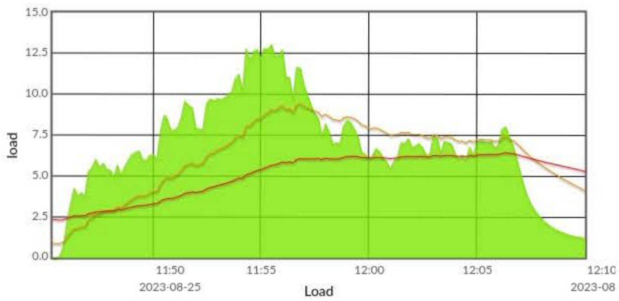


```
User    : Min: 0.01 Max: 74.24 Current: 0.03
Nice    : Min: 0.00 Max: 0.54 Current: 0.26
System  : Min: 0.02 Max: 11.23 Current: 0.29
IOWait  : Min: 0.00 Max: 1.04 Current: 0.02
Hard IRQ: Min: 0.00 Max: 0.00 Current: 0.00
Soft IRQ: Min: 0.00 Max: 1.55 Current: 0.00
Steal   : Min: 0.00 Max: 0.17 Current: 0.00
```

Public Webserver

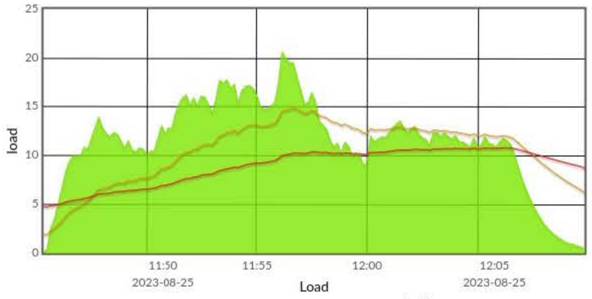
Host Load

The following graphs show the load on the pubweb, pubapp and db servers. The load is also well within the capacity of the hosts.



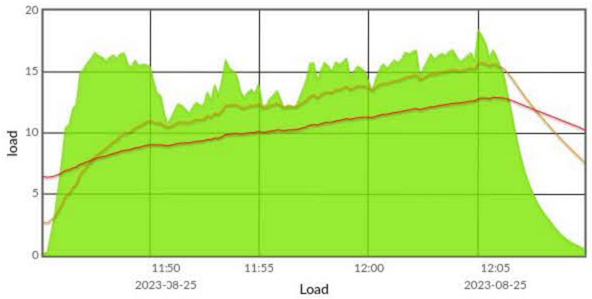
```
1 minute : Min: 0.00 Max: 13.03 Current: 1.18
5 minute : Min: 0.85 Max: 9.41 Current: 4.11
15 minute: Min: 2.30 Max: 6.42 Current: 5.30
```

Database



```
1 minute : Min: 0.21 Max: 20.60 Current: 0.52
5 minute : Min: 1.89 Max: 14.85 Current: 6.24
15 minute: Min: 4.70 Max: 10.74 Current: 8.72
```

Public Application Server



```
1 minute : Min: 0.21 Max: 18.40 Current: 0.59
5 minute : Min: 2.65 Max: 15.79 Current: 7.67
15 minute: Min: 6.39 Max: 12.90 Current: 10.31
```

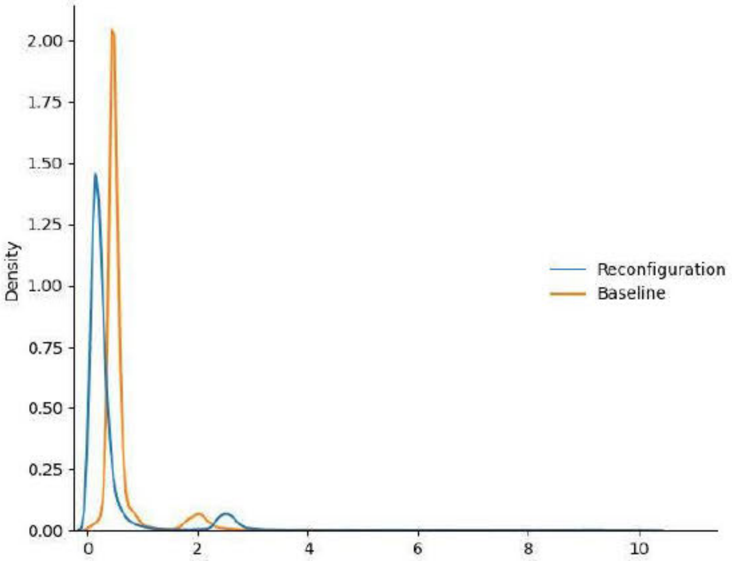
Public Webserver

6.3 Comparison

The kernel density estimate graph shows time distribution of all the [redacted] response times. The following graphs show the results from the two load test runs.

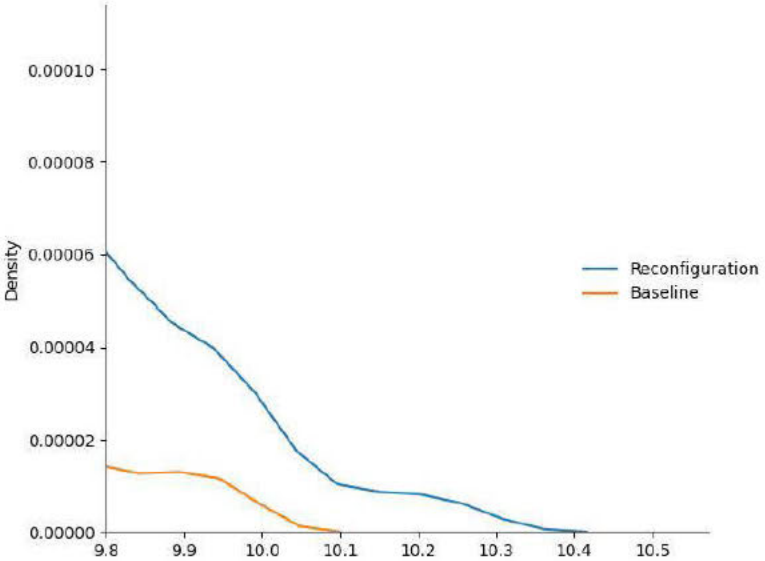
The large peak shows the majority of the [redacted] related requests and the small peak shows the majority of eRoll related requests.

The Reconfiguration run shows the reduction in response times for the [redacted] related requests with a marginal increase for the eRoll released requests. This shows why the reconfiguration reduces the overall time for all the requests from 29.5 minutes to 21.5 minutes. This is an over 25% improvement in overall response times.



The tail of the density graph (magnified) shows the times of the very small number of longer running requests.

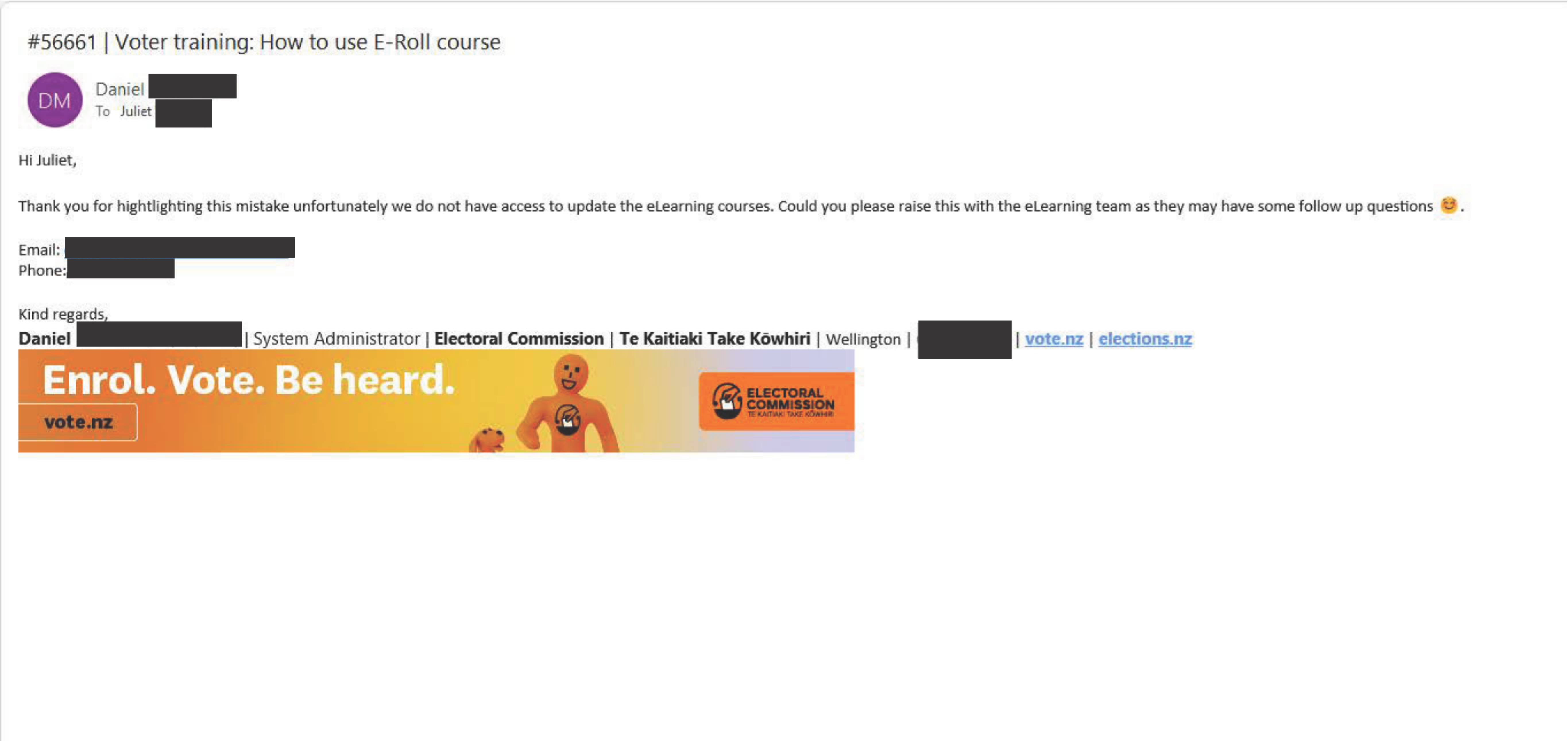
The Reconfiguration run shows just a marginal increase in maximum request time from 10.1 to 10.4 seconds.



7 Recommendations

An over 25% reduction in overall time has been shown to be achieved with a few simple configuration changes on the Public Web and Public Application servers. A [redacted] ticket was raised to implement these changes prior to the general election: [redacted]98483. These were applied to production in the code migration on 6th September 2023, [redacted]

A quick investigation into some errors in the eRoll [redacted] logs from the Reconfiguration were due to SSL handshaking between the eRoll webserver and the backend pubapp webserver. There are some [redacted] options that may help reduce the SSL processing overhead incurred and minimise these types of errors. A [redacted] story has been raised to investigate these options: [redacted]97755.



#56661 | Voter training: How to use E-Roll course

Daniel [redacted]
To Juliet [redacted]

Hi Juliet,

Thank you for hightlighting this mistake unfortunately we do not have access to update the eLearning courses. Could you please raise this with the eLearning team as they may have some follow up questions 😊.

Email: [redacted]
Phone: [redacted]

Kind regards,
Daniel [redacted] | System Administrator | **Electoral Commission** | **Te Kaitiaki Take Kōwhiri** | Wellington | [redacted] | vote.nz | elections.nz

Enrol. Vote. Be heard.
vote.nz
ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

From: Daniel [redacted]
To: Teresa [redacted]
Subject: #61238 | INC004815254 - Device Issues - eRoll Searches are not Working Correctly - Teresa [redacted]
Date: Monday, 9 October 2023 11:45:00 am
Attachments: image001.png

Hi Teresa,

Could you please advise if you are still having issues with the eRoll app not working as intended?
If you could please provide a phone number and preferred contact time and we will endeavour to call you back when it best suits you.

Daniel [redacted] | System Administrator | **Electoral Commission** | **Te Kaitiaki Take Kōwhiri** |
Wellington | [redacted] | vote.nz | elections.nz

[redacted] App Registration Change

Update the ‘Front-channel logout URL’ from [redacted] to [redacted]

[redacted] Redirect

Go to [redacted] zone

Select Rules > Redirect Rules
Under Single Redirects, select Create Redirect Rule
Enter description / name [redacted]'
Under When incoming requests match:

[redacted] [redacted]
[redacted] [redacted]
[redacted] [redacted]

Then for [redacted] settings':

- [redacted]

[redacted] [redacted]
[redacted] [redacted]
[redacted] [redacted]

Save as Draft

Update eroll [redacted]

Deploy [redacted] as above

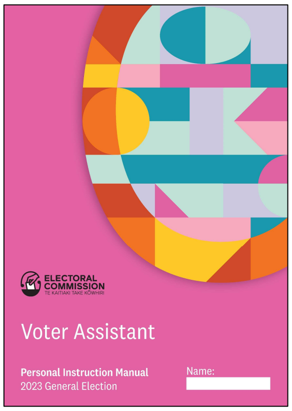
References below from [redacted] docs

[redacted]

[redacted]

[redacted]

YOUR RESOURCES

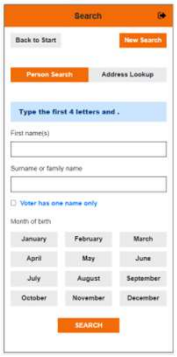


Voter Assistant

Personal Instruction Manual

2023 General Election

Name:


Search
Back to Start
New Search
Person Search
Address Lookup
SEARCH

Type the first 4 letters and .

First name(s)

Surname or family name

☐ Voter has one name only

Month of birth

January
February
March
April
May
June
July
August
September
October
November
December

How to vote guide

in the following languages:

Chinese (Mandarin) Simplified 1
Chinese (Mandarin) Traditional 2
Cook Island Māori 3
English 4
Filipino 5
Hindi 6
Korean 7
Māori 8
Samoan 9

M15-LGUIDE

While this may all seem a lot to remember, you have a number of resources to support you. Your PIM and eRoll will help you in most situations.

You will also be supplied with language guide sheets.

Please turn to page **18** in your PIM or the back of your E139-VA.
If for some reason the phone or eRoll stops working, you can still assist voters into the right queue and prepare them for voting.

In this situation, you can ask the Voting Place Manager for the reference rolls for the home general and home Māori electorates – it's like eRoll, but in paper form!

Managing queues without eRoll

Kia ora/Hello, do you have a voting card?

Yes

Direct to the appropriate queue

No

That's okay, do you know which electorate you are enrolled in?

"Yes" → **Ordinary vote**

Voter is not enrolled — Provide an enrolment form → **Special Vote**

If the voter is not found on a printed roll, the Issuing Officer should direct the voter to the special vote queue

Voter is unsure — If you have a reference roll for where they live: check their details

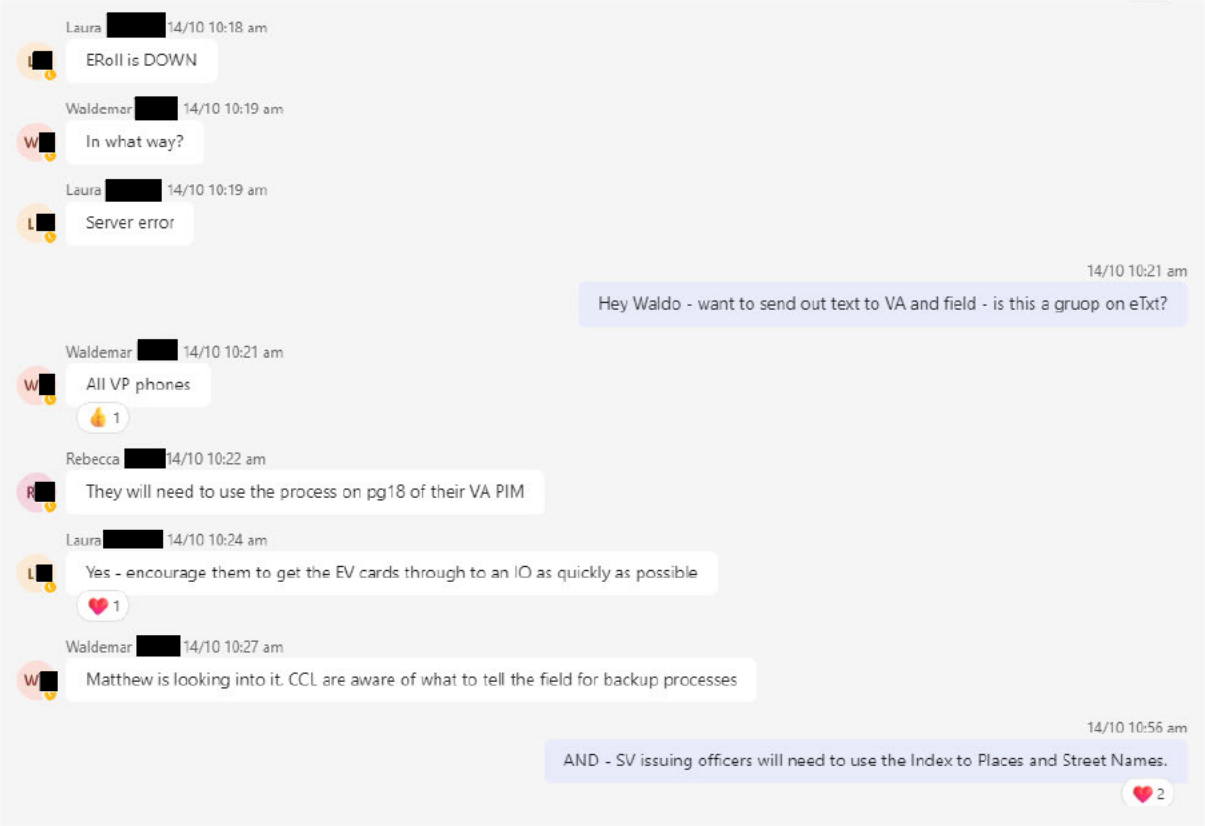
Voter found with correct details → **Ordinary vote**

Voter not found or incorrect details — Provide an enrolment form → **Special Vote**

If you do not have a reference roll — Provide an enrolment form → **Special Vote**

Voter says they are on the unpublished roll → **Special Vote**

National Support Team Communications about the issue – Saturday 14 October



Laura [redacted] 14/10 10:18 am

ERoll is DOWN

Waldemar [redacted] 14/10 10:19 am

In what way?

Laura [redacted] 14/10 10:19 am

Server error

14/10 10:21 am

Hey Waldo - want to send out text to VA and field - is this a gruop on eTxt?

Waldemar [redacted] 14/10 10:21 am

All VP phones

👍 1

Rebecca [redacted] 14/10 10:22 am

They will need to use the process on pg18 of their VA PIM

Laura [redacted] 14/10 10:24 am

Yes - encourage them to get the EV cards through to an IO as quickly as possible

❤️ 1

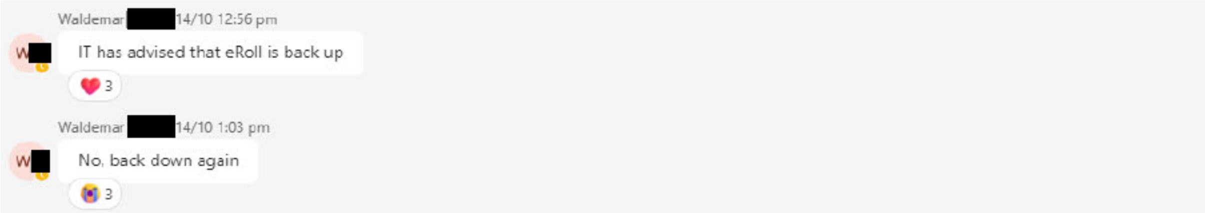
Waldemar [redacted] 14/10 10:27 am

Matthew is looking into it. CCL are aware of what to tell the field for backup processes

14/10 10:56 am

AND - SV issuing officers will need to use the Index to Places and Street Names.

❤️ 2



Waldemar [redacted] 14/10 12:56 pm

IT has advised that eRoll is back up

❤️ 3

Waldemar [redacted] 14/10 1:03 pm

No, back down again

😭 3

[redacted]

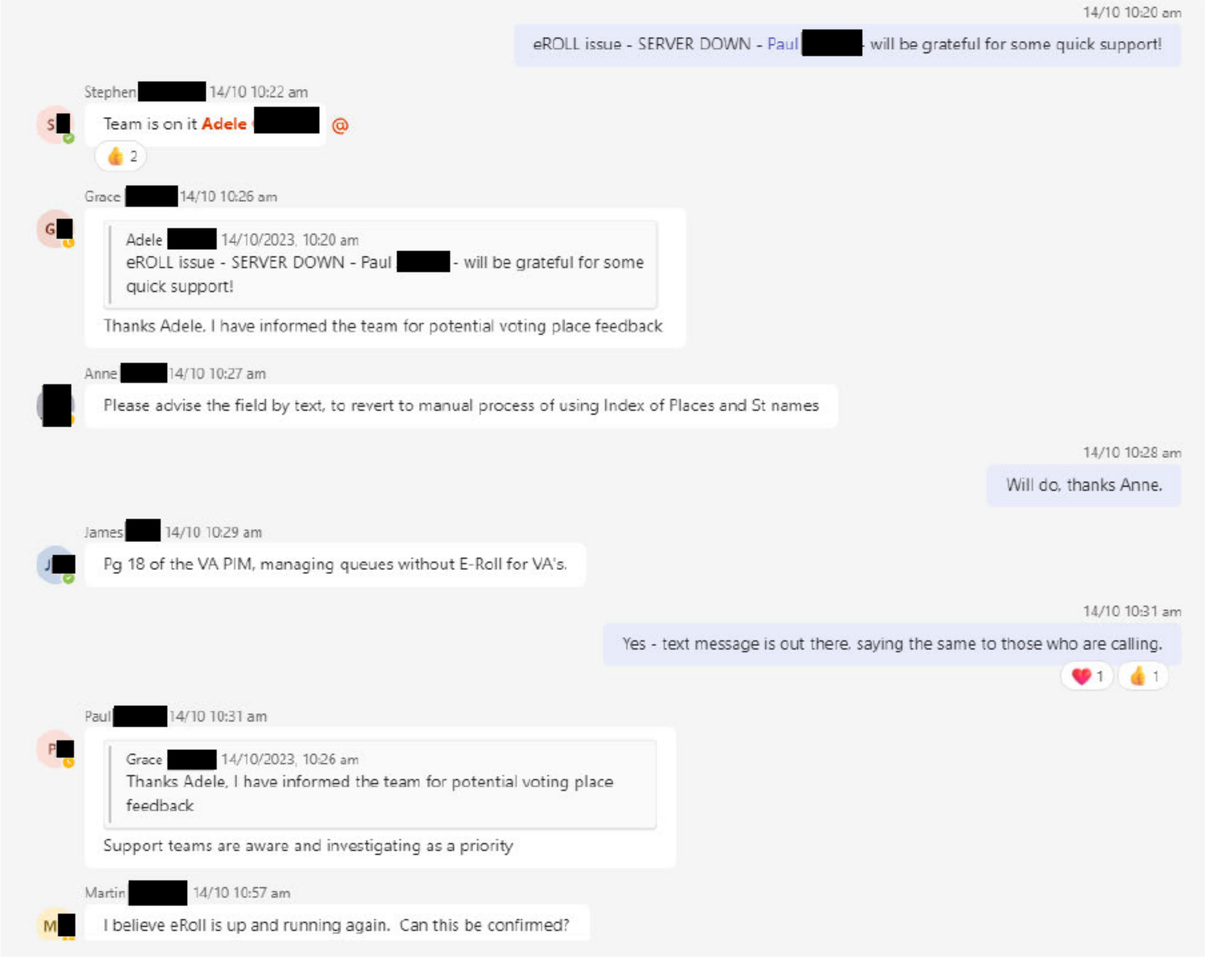
From: Adele [redacted]
Sent: Saturday, 14 October 2023 10:19 am
To: Paul [redacted]; Jonathan [redacted]; Vincent [redacted]
Subject: URGENT EROLL ISSUE - SERVER ISSUE

Importance: High

Adele [redacted] (she/her)| Principal Advisor Voting Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 10, 32-42 Manners Street | Wellington
Phone +[redacted] | Fax +[redacted] | http://www.elections.org.nz

Me Rēhita. Me Pōti. Kia rāngona.
vote.nz
ELECTORAL
COMMISSI
TE KAITIAKI TAKE KŌ

General Election Delivery Taskforce Teams discussion on Saturday 14 October



14/10 10:20 am

eROLL issue - SERVER DOWN - Paul [redacted] - will be grateful for some quick support!

Stephen [redacted] 14/10 10:22 am

Team is on it Adele [redacted] @

👍 2

Grace [redacted] 14/10 10:26 am

> Adele [redacted] 14/10/2023, 10:20 am
> eROLL issue - SERVER DOWN - Paul [redacted] - will be grateful for some quick support!

Thanks Adele, I have informed the team for potential voting place feedback

Anne [redacted] 14/10 10:27 am

Please advise the field by text, to revert to manual process of using Index of Places and St names

14/10 10:28 am

Will do, thanks Anne.

James [redacted] 14/10 10:29 am

Pg 18 of the VA PIM, managing queues without E-Roll for VA's.

14/10 10:31 am

Yes - text message is out there, saying the same to those who are calling.

❤️ 1 👍 1

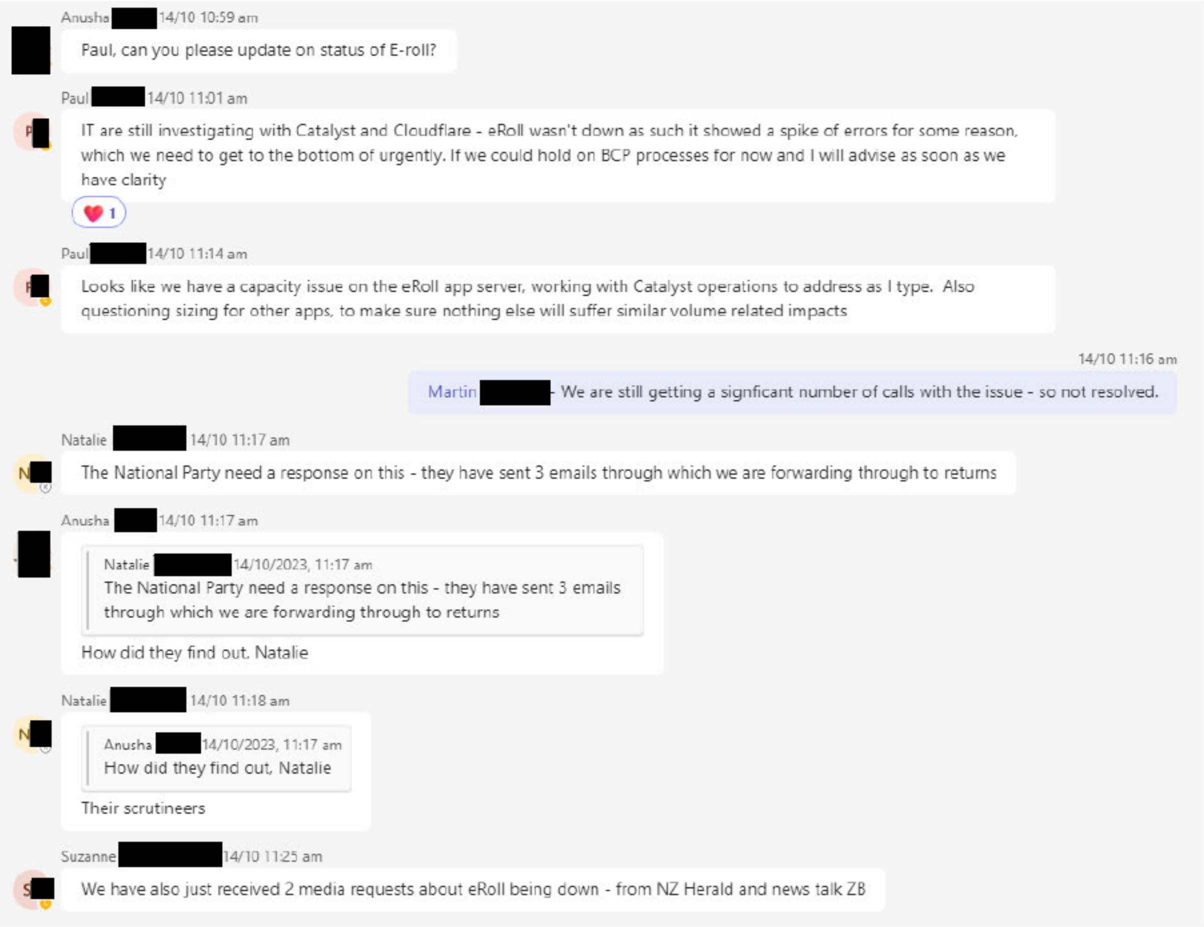
Paul [redacted] 14/10 10:31 am

> Grace [redacted] 14/10/2023, 10:26 am
> Thanks Adele, I have informed the team for potential voting place feedback

Support teams are aware and investigating as a priority

Martin [redacted] 14/10 10:57 am

I believe eRoll is up and running again. Can this be confirmed?



[redacted] Anusha [redacted] 14/10 10:59 am

Paul, can you please update on status of E-roll?

P[redacted] Paul [redacted] 14/10 11:01 am

IT are still investigating with Catalyst and Cloudflare - eRoll wasn't down as such it showed a spike of errors for some reason, which we need to get to the bottom of urgently. If we could hold on BCP processes for now and I will advise as soon as we have clarity

❤️ 1

P[redacted] Paul [redacted] 14/10 11:14 am

Looks like we have a capacity issue on the eRoll app server, working with Catalyst operations to address as I type. Also questioning sizing for other apps, to make sure nothing else will suffer similar volume related impacts

14/10 11:16 am

Martin [redacted] We are still getting a signficant number of calls with the issue - so not resolved.

N[redacted] Natalie [redacted] 14/10 11:17 am

The National Party need a response on this - they have sent 3 emails through which we are forwarding through to returns

[redacted] Anusha [redacted] 14/10 11:17 am

> Natalie [redacted] 14/10/2023, 11:17 am
> The National Party need a response on this - they have sent 3 emails through which we are forwarding through to returns

How did they find out, Natalie

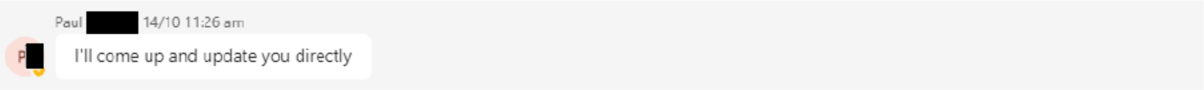
N[redacted] Natalie [redacted] 14/10 11:18 am

> Anusha [redacted] 14/10/2023, 11:17 am
> How did they find out, Natalie

Their scrutineers

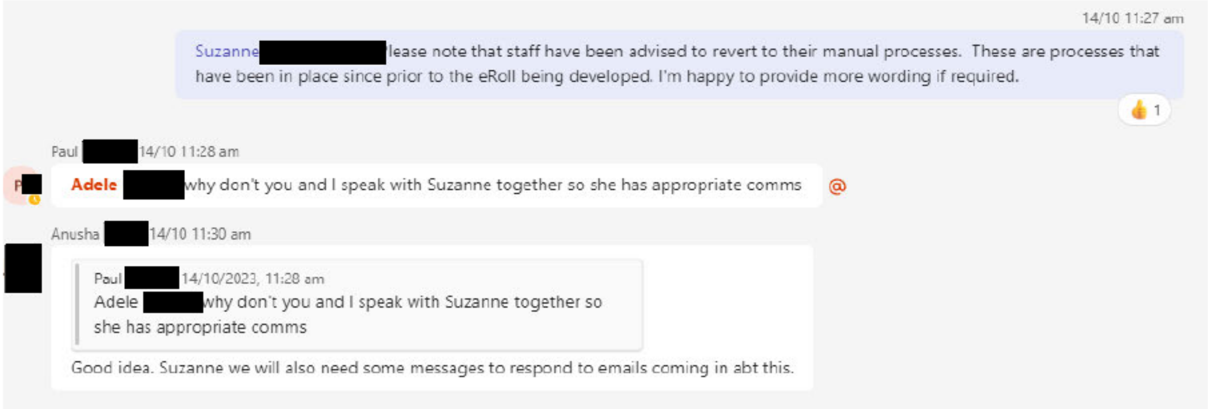
S[redacted] Suzanne [redacted] 14/10 11:25 am

We have also just received 2 media requests about eRoll being down - from NZ Herald and news talk ZB



P[redacted] Paul [redacted] 14/10 11:26 am

I'll come up and update you directly



14/10 11:27 am

Suzanne [redacted]lease note that staff have been advised to revert to their manual processes. These are processes that have been in place since prior to the eRoll being developed. I'm happy to provide more wording if required.

👍 1

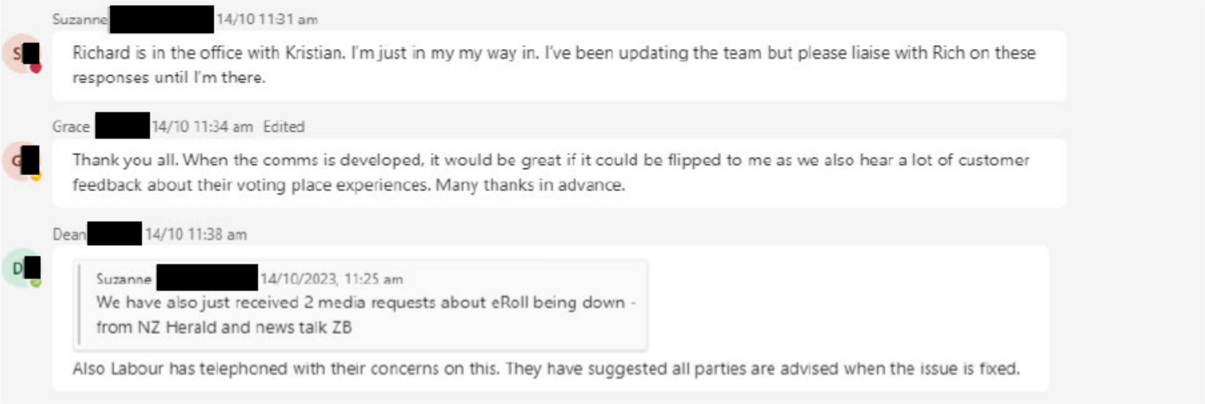
P[redacted] Paul [redacted] 14/10 11:28 am

Adele [redacted] why don't you and I speak with Suzanne together so she has appropriate comms @

[redacted] Anusha [redacted] 14/10 11:30 am

> Paul [redacted] 14/10/2023, 11:28 am
> Adele [redacted] why don't you and I speak with Suzanne together so she has appropriate comms

Good idea. Suzanne we will also need some messages to respond to emails coming in abt this.



Suzanne [redacted] 14/10 11:31 am

Richard is in the office with Kristian. I'm just in my my way in. I've been updating the team but please liaise with Rich on these responses until I'm there.

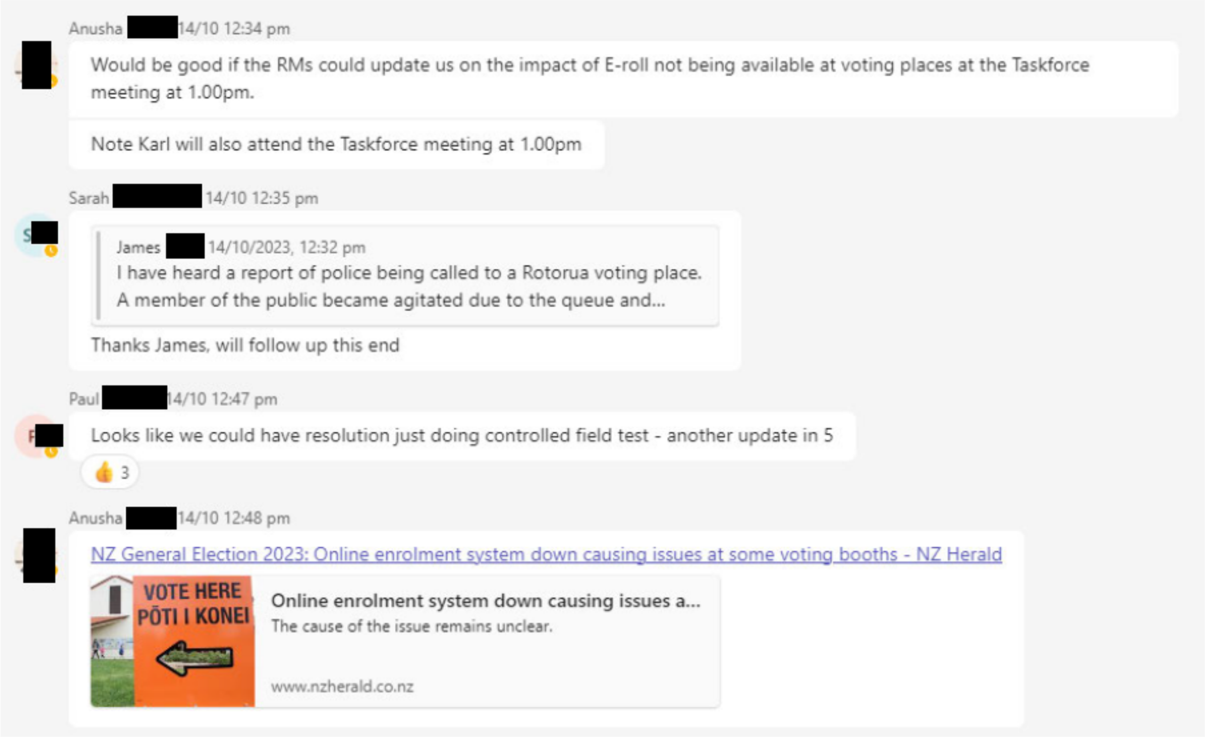
Grace [redacted] 14/10 11:34 am Edited

Thank you all. When the comms is developed, it would be great if it could be flipped to me as we also hear a lot of customer feedback about their voting place experiences. Many thanks in advance.

Dean [redacted] 14/10 11:38 am

> Suzanne [redacted] 14/10/2023, 11:25 am
> We have also just received 2 media requests about eRoll being down - from NZ Herald and news talk ZB

Also Labour has telephoned with their concerns on this. They have suggested all parties are advised when the issue is fixed.



Anusha [redacted] 14/10 12:34 pm

Would be good if the RMs could update us on the impact of E-roll not being available at voting places at the Taskforce meeting at 1.00pm.

Note Karl will also attend the Taskforce meeting at 1.00pm

Sarah [redacted] 14/10 12:35 pm

> James [redacted] 14/10/2023, 12:32 pm
> I have heard a report of police being called to a Rotorua voting place. A member of the public became agitated due to the queue and...

Thanks James, will follow up this end

Paul [redacted] 14/10 12:47 pm

Looks like we could have resolution just doing controlled field test - another update in 5

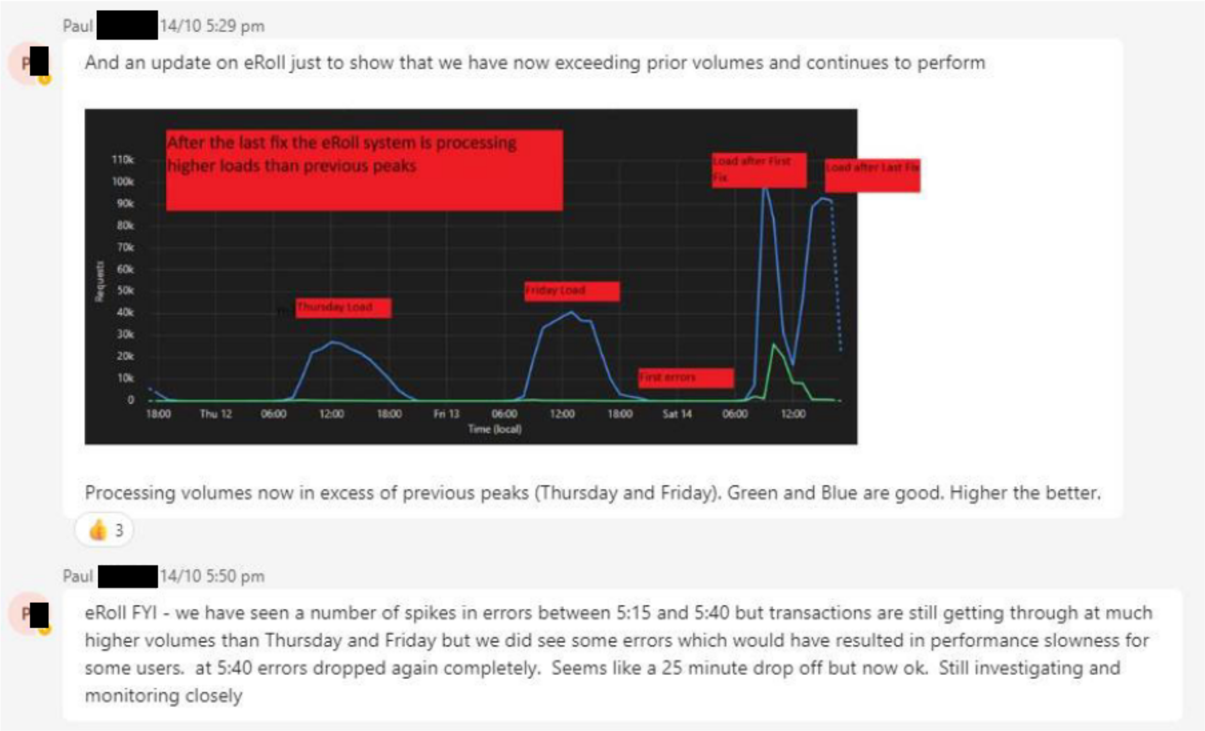
Anusha [redacted] 14/10 12:48 pm

NZ General Election 2023: Online enrolment system down causing issues at some voting booths - NZ Herald

Online enrolment system down causing issues a...

The cause of the issue remains unclear.

www.nzherald.co.nz



Paul [redacted] 14/10 5:29 pm

P[redacted]

And an update on eRoll just to show that we have now exceeding prior volumes and continues to perform

After the last fix the eRoll system is processing higher loads than previous peaks
Load after First Fix
Load after Last Fix
Requests
110k
100k
90k
80k
70k
60k
50k
40k
30k
20k
10k
0
Thursday Load
Friday Load
First errors
18:00
Thu 12
06:00
12:00
18:00
Fri 13
06:00
12:00
18:00
Sat 14
06:00
12:00
Time (local)

Processing volumes now in excess of previous peaks (Thursday and Friday). Green and Blue are good. Higher the better.

👍 3

Paul [redacted] 14/10 5:50 pm

P[redacted]

eRoll FYI - we have seen a number of spikes in errors between 5:15 and 5:40 but transactions are still getting through at much higher volumes than Thursday and Friday but we did see some errors which would have resulted in performance slowness for some users. at 5:40 errors dropped again completely. Seems like a 25 minute drop off but now ok. Still investigating and monitoring closely

[redacted]

From: Adele [redacted]
Sent: Saturday, 14 October 2023 12:09 pm
To: Kristian [redacted]; Richard [redacted]; Martin [redacted]; Jo [redacted]
Cc: Media Enquiries; Suzanne [redacted]
Subject: RE: ERoll

Just some thoughts re: edits...

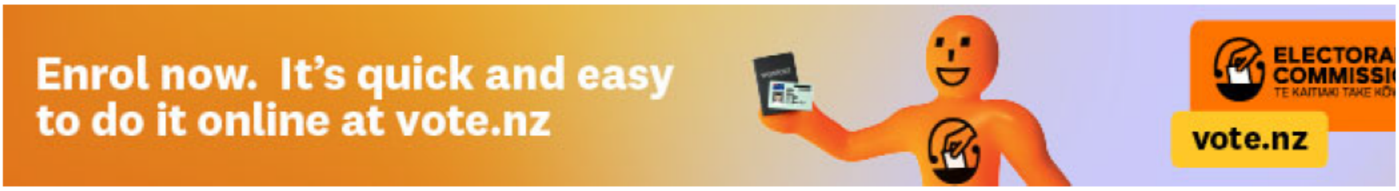
From: Kristian [redacted] <[redacted]>
Sent: Saturday, October 14, 2023 11:58 AM
To: Adele [redacted] <[redacted]>; Richard [redacted] <[redacted]>; Martin [redacted] <[redacted]>; Jo [redacted] <[redacted]>
Cc: Media Enquiries <[redacted]>; Suzanne [redacted] <[redacted]>
Subject: ERoll

Kia ora all,
Are you OK with the following response:

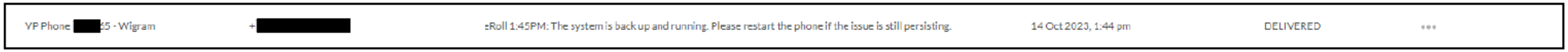
We are currently experiencing issues with our electronic version of the electoral roll. We are working to resolve it and are using manual processes that were used prior to 2020 before introducing the electronic roll into voting places.
People can still vote, and ~~for~~ this will have no impact on most people's voting experience, although it may cause slight delays at some of our busiest voting places.
[ENDS]

Once you're all happy with it,
I'll send to Karl and Anusha for approval.
Ngā mihi
k

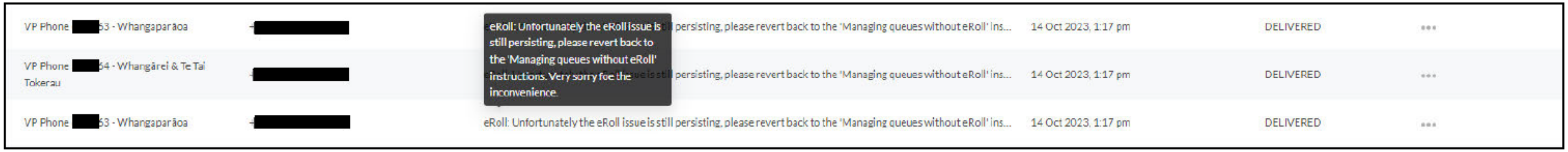
Kristian [redacted] | Senior Media and Communications Advisor | **Electoral Commission** | **Te Kaitiaki Take Kowhiri** | PO Box: 3220 | Level 4, 34-42 Manners Street | Wellington | 027 551 7845| vote.nz | elections.nz



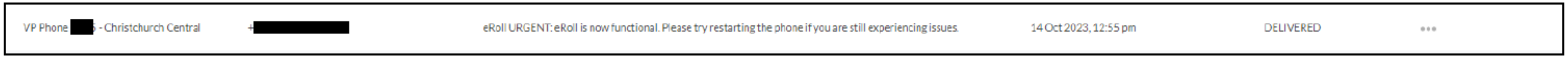
Text messages sent to 6,648 voting place phones from National Office



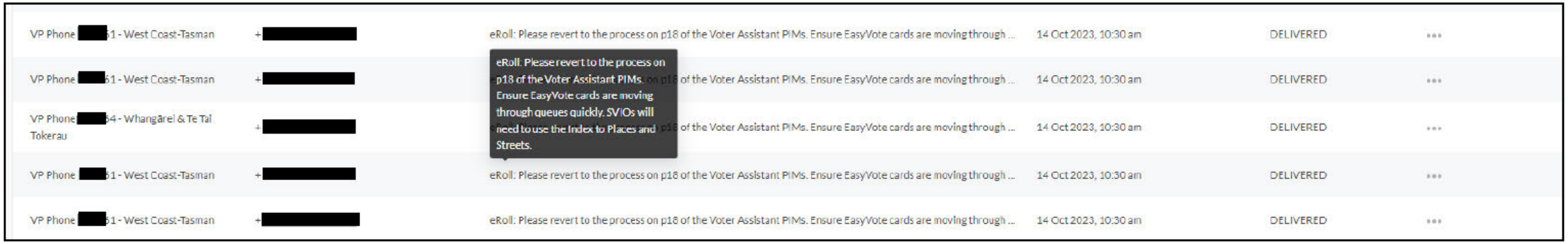
VP Phone [redacted]65 - Wigram	+[redacted]	eRoll 1:45PM: The system is back up and running. Please restart the phone if the issue is still persisting.	14 Oct 2023, 1:44 pm	DELIVERED	•••



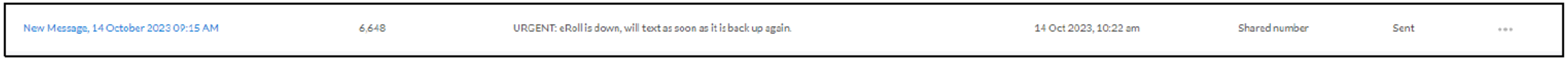
VP Phone [redacted]63 - Whangaparāoa	+[redacted]	eRoll: Unfortunately the eRoll issue is still persisting, please revert back to the 'Managing queues without eRoll' instructions. Very sorry foe the inconvenience. persisting, please revert back to the 'Managing queues without eRoll' ins...	14 Oct 2023, 1:17 pm	DELIVERED	•••
VP Phone [redacted]64 - Whangārei & Te Tai Tokerau	+[redacted]	persisting, please revert back to the 'Managing queues without eRoll' ins...	14 Oct 2023, 1:17 pm	DELIVERED	•••
VP Phone [redacted]63 - Whangaparāoa	+[redacted]	eRoll: Unfortunately the eRoll issue is still persisting, please revert back to the 'Managing queues without eRoll' ins...	14 Oct 2023, 1:17 pm	DELIVERED	•••



VP Phone [redacted]5 - Christchurch Central	+[redacted]	eRoll URGENT: eRoll is now functional. Please try restarting the phone if you are still experiencing issues.	14 Oct 2023, 12:55 pm	DELIVERED	•••



VP Phone [redacted]51 - West Coast-Tasman	+[redacted]	eRoll: Please revert to the process on p18 of the Voter Assistant PIMs. Ensure EasyVote cards are moving through ...	14 Oct 2023, 10:30 am	DELIVERED	•••
VP Phone [redacted]51 - West Coast-Tasman	+[redacted]	eRoll: Please revert to the process on p18 of the Voter Assistant PIMs. Ensure EasyVote cards are moving through queues quickly. SVIOs will need to use the Index to Places and Streets. of the Voter Assistant PIMs. Ensure EasyVote cards are moving through ...	14 Oct 2023, 10:30 am	DELIVERED	•••
VP Phone [redacted]54 - Whangārei & Te Tai Tokerau	+[redacted]	p18 of the Voter Assistant PIMs. Ensure EasyVote cards are moving through ...	14 Oct 2023, 10:30 am	DELIVERED	•••
VP Phone [redacted]51 - West Coast-Tasman	+[redacted]	eRoll: Please revert to the process on p18 of the Voter Assistant PIMs. Ensure EasyVote cards are moving through ...	14 Oct 2023, 10:30 am	DELIVERED	•••
VP Phone [redacted]51 - West Coast-Tasman	+[redacted]	eRoll: Please revert to the process on p18 of the Voter Assistant PIMs. Ensure EasyVote cards are moving through ...	14 Oct 2023, 10:30 am	DELIVERED	•••



New Message, 14 October 2023 09:15 AM	6,648	URGENT: eRoll is down, will text as soon as it is back up again.	14 Oct 2023, 10:22 am	Shared number	Sent	•••

ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

Voter Assistant

Personal Instruction Manual

2023 General Election

Name:

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Troubleshooting.......... 39
Glossary.......... 40

My voting place

Voting place name: ____________________

Address: ____________________

Voting Place Manager: ____________________

HQ Phone: ____________________

IT helpdesk: 0800 665 001   Enrolment helpdesk: 0800 36 76 56

The voting place is

○ Accessible ○ Accessible with assistance ○ Not accessible

Electorates

The voting place will issue ordinary voting ballot papers for:

	Electorate number and name
Home general electorate	
Home Māori electorates	
Other (shared) electorates	

Foreword

Nau mai, haere mai ki te Kaitiaki Take Kōwhiri– Welcome to Te Kaitiaki Take Kōwhiri Electoral Commission.

Karl Le Quesne

Āpiha Pōti Matua
Chief Electoral Officer

Ko te whakatinanatanga o te Pōtitanga-ā-motu ka taea ina ka ngātahi te mahi, tēnā e whakamiha ana kāutau kua tūhono mai ki te whakatutuki i tēnei pōtitanga.

E tūhonotia mai kāutau ki tētehi rōpū manawanui ki ngā taumata me tā mātau aronga matua. Koinā te huarahi whāia kia tika, kia pono, kia haumaru nō hoki te pōtiatanga o tēnei tau.

He hiahia nō mātau te whakahaere i tētehi pōtitanga kia mīharo a Aotearoa whānui otinō kia manawanui katika i tō urunga mai.

Mō mātau ake, ka arō tōtika ki te aronga matua, kia whakapono a Aotearoa whānui, kia tika, kia whai wāhi te katoa ki ngā pōtitanga ā-pāremata.

Ka whakamahia ngā taumata hei arataki i te tūtukitanga o te aronga matua, ā kei te pokapū o ā mātau mahi katoa ko ngā tāngata i Aotearoa nei.

E tāwharau ana ngā taumata i ā tātau mahi tiaki i te pūnaha pōtitanga, nā he motuhake nō tō whai wāhitanga mai hei whakakanohi i te manapori o tō hapori.

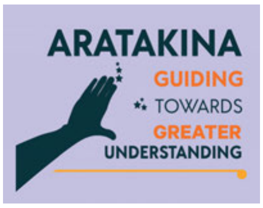
He hiahia nō mātau kia hora i ngā pārongo katoa hei whakatūtukitanga māu, kia hākoakoa nō tō urunga mai.

Nā ēnei tuhinga ka aratakina kāutau kia whai wāhi mai i tēnei tau.

Tēnā kāutau te hāpai tahi i te kaupapa nei

Ngā mihi

TŪHONOTANGA
BRINGING PEOPLE TOGETHER
TO INCREASE
PARTICIPATION
IN
DEMOCRACY


ARATAKINA
GUIDING
TOWARDS
GREATER
UNDERSTANDING

The 2023 General Election can only happen with all of us playing our part, so we appreciate you joining our team to help us deliver the election.

You're joining a dedicated and motivated team that lives by our values and purpose. It's the way we'll deliver a safe, reliable and trusted election this year.

We want to deliver an election that the people of Aotearoa New Zealand can be proud of, and that you're proud of being a part of!

For us, that means looking to our purpose that all New Zealanders trust, value and take part in parliamentary elections.

We use our values as a guide to make sure we can achieve our purpose and put the people of Aotearoa at the centre of everything we do.

Our values are underpinned by our role as kaitiaki (guardians) of the electoral system and your role is an important part of that, as the face of democracy to your community.

We want to make sure you have all the information you need to do that and enjoy playing your part.

This manual provides you with the guidance and information you need to help people have their say this year.

Thank you for joining us in this journey.

UAKAHA
BEING
DYNAMIC
AND
ENERGETIC
IN WHAT WE DO

MANAAKITANGA
DEMONSTRATING GENEROSITY
EMPOWERING
PEOPLE

TIKA
DOING THINGS
RIGHT
DOING THE RIGHT
THINGS

Introduction

Keep votes and other materials safe

- **All staff are responsible for the security of information and voting materials.** Do not leave voting materials unattended at any time, including when transporting them in vehicles
- Marked, uncounted ballot papers should always be transported by two staff members
- **All staff should be aware of where voting materials are in the voting place.** When going on a break, log out of the voting place phone and give it to the Voting Place Manager
- **All voting materials must be accounted for at all times.** Watch that voters do not leave the voting place with their ballot paper. Even if they do not wish to vote, they must place their ballot paper in the appropriate ballot box. If a voter has spoilt their ballot paper then they must return it to the Issuing Officer who issued the paper for a replacement
- If you think anyone has tampered with voting materials or has accessed information they are not permitted to have, contact your Electorate Manager immediately, either directly, or through your Voting Place Manager.

Be security conscious

- **Be aware of what is happening in and around the voting place**
- Be alert to the verbal and non-verbal cues of the person you are dealing with. If you are concerned about the behaviour of any person, advise your Voting Place Manager
- Pay attention to your surroundings. If you notice any suspicious or unattended bags or packages in or around the voting place advise your Voting Place Manager.

Keep yourself and voters healthy

- **Stay at home if you are unwell**. Call your electorate HQ to let them know as soon as possible if you cannot work because you are sick.
- Masks and hand sanitiser are available to staff and voters.

Incident Management Handbook

- There is an Incident Management Handbook located in the drop file next to the Voter Assistant's station to help with any incidents and emergencies in the voting place.

The rights of the voter

- **Every person has the right to cast their vote in a safe environment**
- Your voting place should be welcoming and supportive to all voters. Keep your focus on the voter in front of you, even when the voting place is busy and you feel under pressure. Offer help where needed and ensure voters feel respected – ask yourself how you would like to be treated
- Only the voter can decide if they want to vote, and only the voter can decide who to vote for. No-one can cast a vote for another person
- Voters can get help from anyone they choose such as a support person or a voting place staff member
- Be clear on the difference between helping the voter and influencing the voter's choice. You can help the voter but you cannot make the choice for them.

Privacy

- **All staff are responsible for keeping voters' information private**
- Do not answer questions from a member of the public about whether another person is enrolled, if they have voted, or their personal details
- Only use the information you have access to for your duties to issue votes
- Do not discard EasyVote cards and Special Vote slips. Stamp and keep them for return to electorate headquarters, or return them to the voter if asked.

Secrecy

- **All staff are responsible for maintaining the secrecy of the vote**
- Do not answer any questions from media. Only pre-arranged visits from journalists or film crews are allowed
- Do not take photos, blog or post on social media about what is happening in a voting place
- If voters attempt to film or take photos in a voting place, ask the Voting Place Manager to show them the poster asking them not to. If they do, you cannot stop them. You can ask them not to post or use what they have recorded to maintain the secrecy of the vote and to protect people's privacy.

The security of staff and voters are the first priority and always take precedence over the security of voting materials

Roles in the voting place

Voter Assistants are responsible for managing voters as they arrive, they:

- help voters to get into the right queue to vote, with the correct information
- assist voters to enrol or update their enrolment details

Issuing Officers are responsible for issuing votes accurately & efficiently, they:

- are welcoming and supportive to voters
- follow instructions in their Personal Instruction Manual (PIM) and from the Voting Place Manager.

Issuing Support Officers are present in busy or complex voting places, they:

- help manage vote issuing, including filling in for Issuing Officers and the Voting Place Manager during their breaks
- support the Voting Place Manager in end of day processes

The Voting Place Manager has overall responsibility for the voting place, they:

- manage staff and ensure votes are issued correctly
- are your first port of call after this manual for any questions or concerns.

Security Guards are responsible for safety in the voting place, they:

- help keep voting place staff and voters safe
- help keep the ballot boxes and other voting materials safe
- help with queue management.

Scrutineers

Scrutineers are not electoral staff, but are appointed by candidates to observe the issuing of votes. They are an important part of the electoral process and we welcome their presence in voting places.

✓ Scrutineers are permitted to:	✗ Scrutineers cannot:
Sit and observe in the designated area of the voting place.	Handle any voting materials such as ballot papers or EasyVote cards, or use an Issuing Officer's table
Photograph the lists of persons who have voted and give these details to their campaign team. A mobile phone, laptop or tablet can be used	Film or take other photos in voting places in order to maintain the secrecy of the vote and out of respect for people's privacy
Ask an Issuing Officer to question a voter suspected of voting more than once, or as somebody else	Communicate directly with voters
Wear a party lapel badge or rosette with the party's name, slogan or logo Wear clothing in party colours	Wear or display any items with the candidate's name Wear or display any item, other than a party lapel badge or rosette, with the party name, slogan or logo

At the voting place

Voters will either make an ordinary or a special vote. It is the responsibility of voting place staff to ensure that the voter has the opportunity to enrol or update their enrolment details and to be issued the correct type of vote and for the correct electorate. If a voter is not enrolled correctly or does not receive the correct ballot paper, their vote may not count.

The key question is: "Is the voter's name on a printed roll in the voting place?"

If "Yes" - then the voter will be issued with an ordinary vote

If "No" - then the voter will be issued with a special vote

Electorates

New Zealand has 65 general electorates and 7 Māori electorates. Each electorate is a geographical area that has been defined for voting purposes. Every part of the country is in both a general and a Māori electorate.

The election

Voters have two votes on their ballot paper — a party vote and an electorate vote.

The party vote is for the political party the voter wants to be in government.

The electorate vote is for the candidate the voter would like to be the member of Parliament for the area they live in.

No-one who wants to vote is turned away!

Enrolment

Get ready to vote
Enrol or update your details
vote.nz

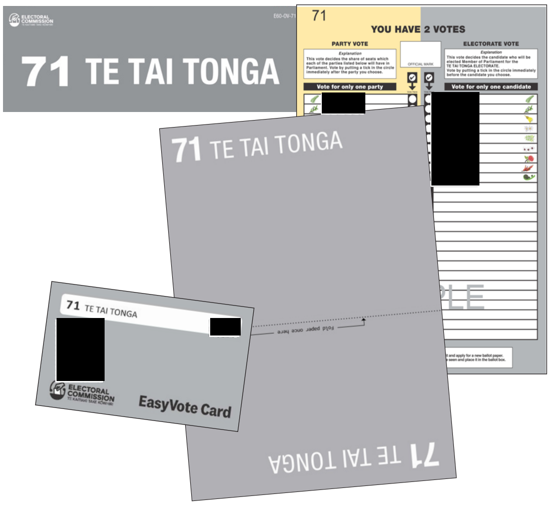
If voters are not enrolled or have changed their address details, they will be able to complete an enrolment form while they are in the voting place.

Any questions from voters about enrolment that are not covered in the PIM should be referred to the Voting Place Manager, or to the enrolment helpdesk (0800 36 76 56).

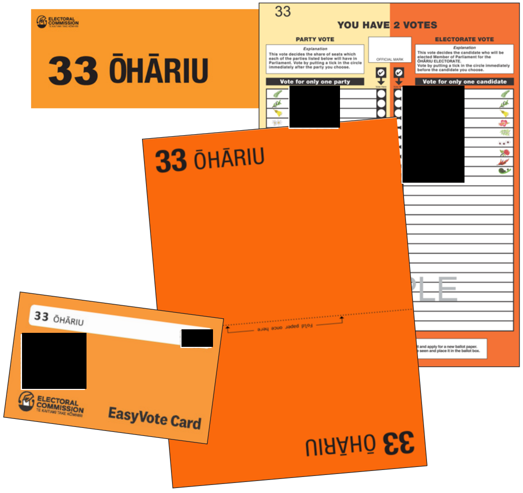
Māori and general rolls

Your voting place will be issuing ordinary votes for both your home general electorate and your home Māori electorate. Colour coding helps you to distinguish these: grey for Māori electorates and orange for general electorates. **Never assume which roll a voter is on.**

Grey materials:
Māori electorates


71 TE TAI TONGA
71
YOU HAVE 2 VOTES
PARTY VOTE
ELECTORATE VOTE
71 TE TAI TONGA
71 TE TAI TONGA
EasyVote Card
ELECTORAL COMMISSION

Orange materials:
general electorates


33 ŌHĀRIU
33
YOU HAVE 2 VOTES
PARTY VOTE
ELECTORATE VOTE
33 ŌHĀRIU
33 ŌHĀRIU
33 ŌHĀRIU
EasyVote Card
ELECTORAL COMMISSION

Voting information

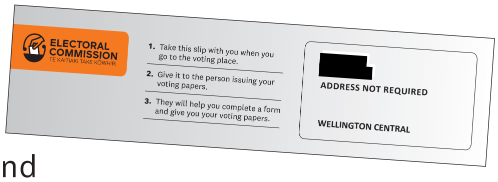
Most voters will receive voting information in the mail. Many voters will bring this to the voting place.

33 ŌHĀRIU
ELECTORAL COMMISSION
EasyVote Card
71 TE TAI TONGA
ELECTORAL COMMISSION
EasyVote Card

EasyVote card:

- Voter's name appears on a printed roll
- Gives the voter's name, address, electorate and the page and line number from the electoral roll.

Special Vote slip:



ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

1. Take this slip with you when you go to the voting place.
2. Give it to the person issuing your voting papers.
3. They will help you complete a form and give you your voting papers.

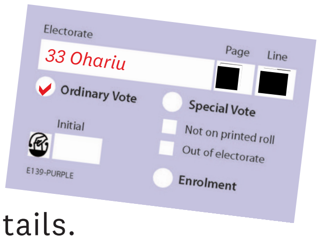
[redacted]
ADDRESS NOT REQUIRED

WELLINGTON CENTRAL

- A voter who enrolled after the rolls were printed or is on the unpublished roll may have been sent a Special Vote slip
- This gives the voter's name and electorate, and
  - if the voter enrolled after the rolls were printed shows their residential address
  - if the voter is on the unpublished roll then the slip states "ADDRESS NOT REQUIRED"

These voters are always issued a special vote.

Voting place card:



Electorate
33 Ohariu
Page [redacted] Line [redacted]
☑ Ordinary Vote
○ Special Vote
☐ Not on printed roll
☐ Out of electorate
Initial
○ Enrolment
E139-PURPLE

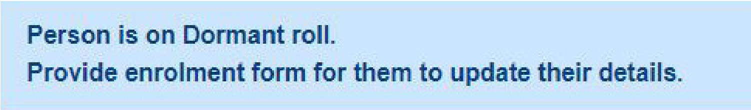
- If a voter does not bring their EasyVote card to vote, a purple voting card may be created at the voting place to help the Issuing Officer correctly issue the vote
- You will determine what to write on the card using an electronic roll (eRoll) that searches for the voter's details.

eRoll:

- One or more mobile phones may be provided to a voting place to look up the voter's details
- It does not contain voters who are on the unpublished roll, as the details of these people are not released publicly for privacy or safety reasons. Only the Registrars of Electors have access to this information
- It is a live look-up so will show everyone who is enrolled to vote, including those who have enrolled recently.

Dormant roll:

- If the Commission loses contact with a voter, for example if a letter to a voter cannot be delivered to them, the voter's enrolment may be moved onto the dormant roll.
- This will appear in eRoll as:

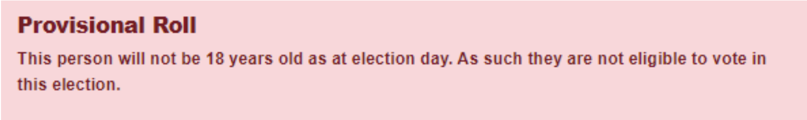


Person is on Dormant roll.
Provide enrolment form for them to update their details.

- The voter can update their details when they come to vote using an enrolment form. They will also need to cast a special vote.
- If voters of Māori descent are unsure which roll they were previously enrolled on, call the enrolment helpdesk (0800 36 76 56) for advice.

Provisional roll:

- People can provisionally enrol once they turn 17 years old. Their details are held on the provisional roll until they turn 18, at this date their details are transferred onto the main roll and from this time they are eligible to vote.
- This will appear in eRoll as:

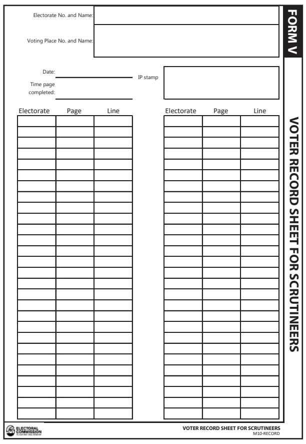


Provisional Roll
This person will not be 18 years old as at election day. As such they are not eligible to vote in this election.

Voter record sheets for scrutineers

Ordinary vote Issuing Officers will keep a running record of who has voted, by writing the electorate, page and line numbers marked off in the printed rolls. The details of special voters are not recorded.

The Voting Place Manager will collect the sheets and they can be photographed by scrutineers visiting the voting place. Scrutineers will likely make themselves known to you when they arrive. Advise the Voting Place Manager.



FORM V
VOTER RECORD SHEET FOR SCRUTINEERS

Electorate No. and Name:
Voting Place No. and Name:
Date:
Time page completed:
IP stamp

Electorate	Page	Line	Electorate	Page	Line

ELECTORAL COMMISSION
VOTER RECORD SHEET FOR SCRUTINEERS
M10-RECORD

Tasks during voting

No matter how big or small the voting place, the Voter Assistant (VA) is the first staff member that a voter meets and will set the tone for the voter's experience. Be warm and welcoming, even at the end of a tiring day.

A Voter Assistant has 4 main tasks:

1. Manage the VA station	2. Manage queues	3. Use eRoll	4. Help voters

The number of Voter Assistants in the voting place will determine how these tasks are allocated.

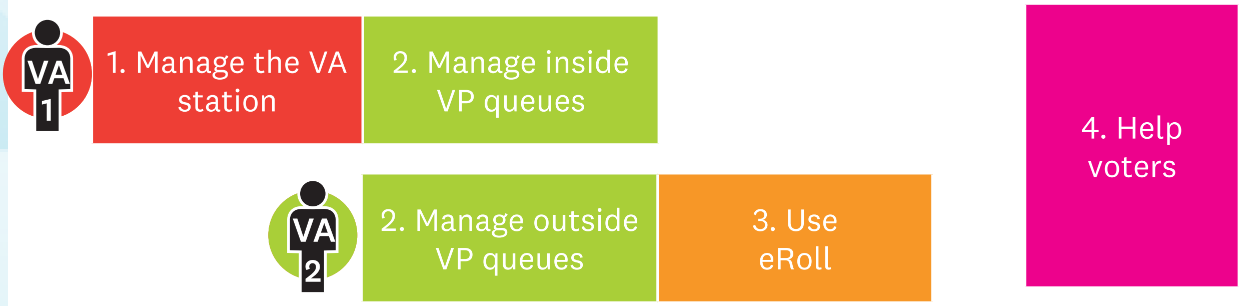
One Voter Assistant

In voting places with fewer expected voters, one Voter Assistant should be able to manage all tasks, assisted by the Voting Place Manager when required.

Busier voting places should have more than one Voter Assistant; it is important to work together to ensure that voters have a smooth experience.

Two Voter Assistants

If there are two Voter Assistants, the tasks are recommended to be split by:



VA 1: 1. Manage the VA station | 2. Manage inside VP queues

VA 2: 2. Manage outside VP queues | 3. Use eRoll

4. Help voters

Tasks:

VA 1

- Direct voters to the correct queue in front of Issuing Officers
- Provide enrolment forms as required and assist voters who need help to complete them

VA 2

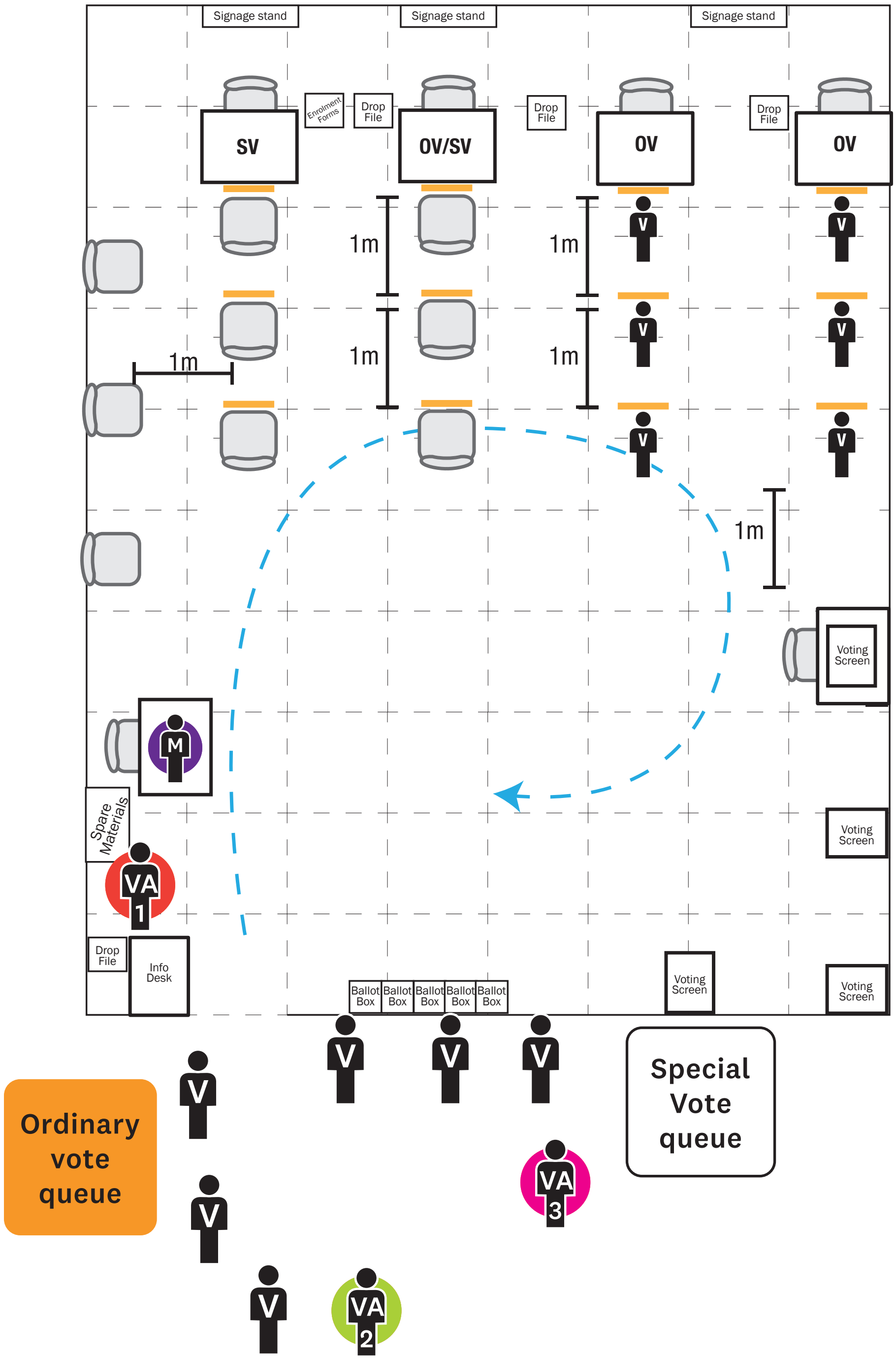
- Manage voters into queues as they arrive at the voting place. Depending on space, queues may be indoors or outdoors
- Use eRoll to prepare voting cards for voters who need one
- Identify voters who need extra help and assist them.

If there is a third Voter Assistant:

VA 3

- VA3 will either work alongside VA2 in directing people into the correct queue voting place, or
- assist voters with their enrolment forms, depending where the need is greatest, as agreed with the Voting Place Manager.

Here is an example layout of a voting place and location of the Voter Assistants.


Signage stand
Signage stand
Signage stand
SV
Enrolment Forms
Drop File
OV/SV
Drop File
OV
Drop File
OV
1m
1m
1m
1m
1m
1m
V
M
Spare Materials
VA 1
Drop File
Info Desk
Ballot Box
Ballot Box
Ballot Box
Ballot Box
Ballot Box
Voting Screen
Voting Screen
Voting Screen
Voting Screen
Ordinary vote queue
Special Vote queue
VA 2
VA 3

Where there are multiple Voter Assistants, they may rotate through the inside and outside tasks during the day.

Send to the correct queue

Kia ora/Hello, do you have a voting card?

Send the voter to the correct queue

Voters should have an EasyVote card, Special Vote slip, or a purple voting card created by a Voter Assistant. This will make it easier to direct them to the correct queue in the voting place and will speed up the issuing process.

Use the tape marks on the floor to help manage flows in the voting place.

Provide an enrolment form

If a voter requires an enrolment form, they will receive it from the Voter Assistant with a clipboard. Explain to the voter why, e.g. “As we don’t seem to have your current details, we need you to complete an enrolment form to get you enrolled. Then an Issuing Officer will give you a declaration form to get your voting papers”.

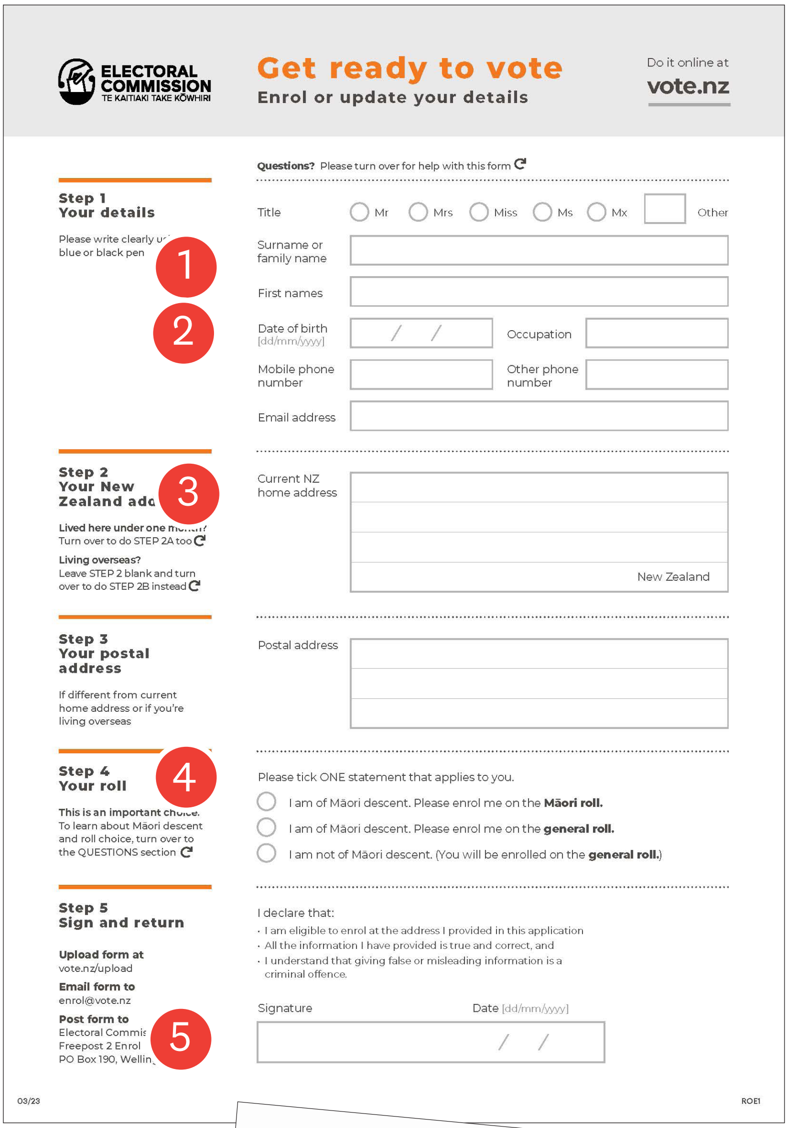
Indicate the fields on the enrolment form as you say to the voter:

Please fill in as much of this form as you can, at least:

1. your full name
2. your date of birth
3. current home address, and that you’ve lived at your address for at least one month. If you haven’t, also fill in your previous address and move date on the back of the form **[show Box 2A]**
4. tick the statement that applies to you
5. sign the declaration box and write the date.

Give the enrolment form and voting card to the Issuing Officer when it’s your turn.
Let me know if you need any help with the form.

Enrolment form (ROE1)



ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

Get ready to vote

Enrol or update your details

Do it online at
vote.nz

Questions? Please turn over for help with this form

Step 1
Your details

Please write clearly u
blue or black pen

Title ○ Mr ○ Mrs ○ Miss ○ Ms ○ Mx ☐ Other

Surname or family name

First names

Date of birth [dd/mm/yyyy] / /

Occupation

Mobile phone number

Other phone number

Email address

Step 2
Your New Zealand add

Lived here under one m
Turn over to do STEP 2A too

Living overseas?
Leave STEP 2 blank and turn over to do STEP 2B instead

Current NZ home address

New Zealand

Step 3
Your postal address

If different from current home address or if you're living overseas

Postal address

Step 4
Your roll

This is an important cho
To learn about Māori descent and roll choice, turn over to the QUESTIONS section

Please tick ONE statement that applies to you.

○ I am of Māori descent. Please enrol me on the **Māori roll.**

○ I am of Māori descent. Please enrol me on the **general roll.**

○ I am not of Māori descent. (You will be enrolled on the **general roll.**)

Step 5
Sign and return

Upload form at
vote.nz/upload

Email form to
enrol@vote.nz

Post form to
Electoral Commis
Freepost 2 Enrol
PO Box 190, Wellin

I declare that:

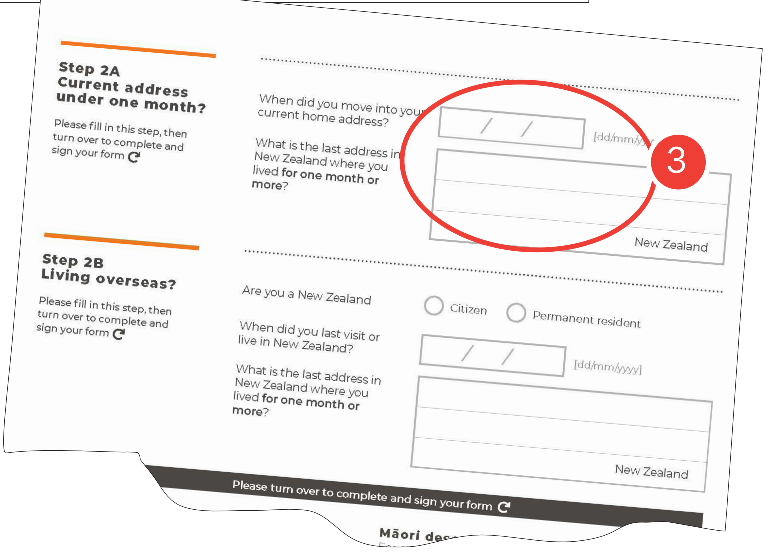
- I am eligible to enrol at the address I provided in this application
- All the information I have provided is true and correct, and
- I understand that giving false or misleading information is a criminal offence.

Signature

Date [dd/mm/yyyy] / /

03/23

ROE1



Step 2A
Current address under one month?

Please fill in this step, then turn over to complete and sign your form

When did you move into you current home address? / / [dd/mm/y

What is the last address in New Zealand where you lived **for one month or more**?

New Zealand

Step 2B
Living overseas?

Please fill in this step, then turn over to complete and sign your form

Are you a New Zealand ○ Citizen ○ Permanent resident

When did you last visit or live in New Zealand? / / [dd/mm/yyyy]

What is the last address in New Zealand where you lived **for one month or more**?

New Zealand

Please turn over to complete and sign your form

Māori des

Be available in case the voter has any questions or needs help with completing the form(s)

After welcoming the voter

1. Your first priority is to identify who can receive an ordinary vote. These should be the majority of voters and most bring their EasyVote card with them to vote. Know which ordinary vote electorates your voting place is issuing for

   Ordinary vote queue

2. Your next priority is to identify voters who have:
   - an EasyVote card for an electorate that your voting place is not issuing ordinary votes for, or
   - a Special Vote slip for any electorate

   Explain to these voters that they need to complete a special vote and this takes just a bit longer

   Special Vote queue

3. eRoll can be used to update voter's details who have moved within their electorate so they can receive an ordinary vote.

   Ordinary vote queue

4. The final group of voters are those who are unsure about their electorate or are not enrolled. Use eRoll to determine the voter's enrolment status. If they are not enrolled or need to update their details, they can fill in an enrolment form and receive a special vote.

   Special Vote queue

✓ Do	✗ Don't
Give voters an estimate of how long they will be waiting in the queue	Keep asking voters the same questions eg: "What electorate are you in?" "Have you got your EasyVote card?"
Thank voters for their patience if there is a queue	Apologise for queues
Check with voters if they need any help with their forms if you have time to do this	Lose awareness of who else is arriving at the voting place; getting voters into the right queue is your first priority.
Give clear instructions about what the voter needs to do or where to stand	

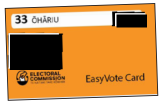
Priority voters

Some voters may be physically unable to wait in a queue. Bring these voters into the voting place to the front of the queue with an Issuing Officer. The Voting Place Manager can help if needed.

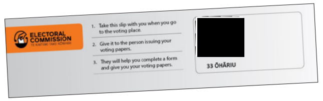
Managing queues with eRoll

VA: Kia ora/Hello, do you have a voting card?

V: Yes



[redacted]



[redacted]

→ Direct to the appropriate queue

V: No

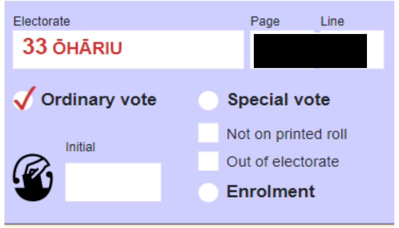
VA: That's okay, let's look up your details.

What is your:

- first name
- last name
- month of birth

[search on eRoll to find possible match to the voter]

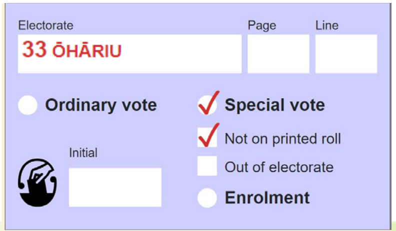
Could you please confirm your address **[check for match]**



Electorate: 33 ŌHĀRIU
Page
Line: [redacted]

☑ Ordinary vote
○ Special vote
Initial
☐ Not on printed roll
☐ Out of electorate
○ Enrolment

→ Direct to OV



Electorate: 33 ŌHĀRIU
Page
Line

○ Ordinary vote
☑ Special vote
Initial
☑ Not on printed roll
☐ Out of electorate
○ Enrolment

→ Direct to SV

If the voter gives you another address that is different to the one in eRoll

I'm sorry, but I can't see that address. Have you lived at another address in **[give the suburb/town of the address in eRoll]**

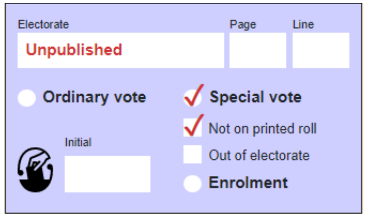
If the voter gives you a previous address that matches the one in eRoll, tap on the record

Okay, as you have a new address, let's see if we can update it electronically

Turn over page

Voter has said they are on the unpublished roll

→



Electorate: **Unpublished**

Page

Line

○ **Ordinary vote**

Initial

✓ **Special vote**

✓ Not on printed roll

☐ Out of electorate

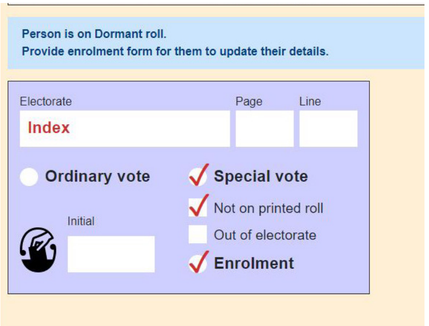
○ **Enrolment**

→

Direct to SV

Always follow the guidance given in eRoll - other examples:

Dormant roll



Person is on Dormant roll.
Provide enrolment form for them to update their details.

Electorate: **Index**

Page

Line

○ **Ordinary vote**

Initial

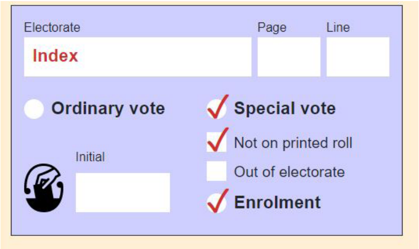
✓ **Special vote**

✓ Not on printed roll

☐ Out of electorate

✓ **Enrolment**

New enrolment (voter not found in eRoll)



Electorate: **Index**

Page

Line

○ **Ordinary vote**

Initial

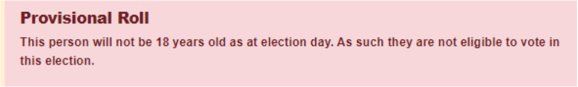
✓ **Special vote**

✓ Not on printed roll

☐ Out of electorate

✓ **Enrolment**

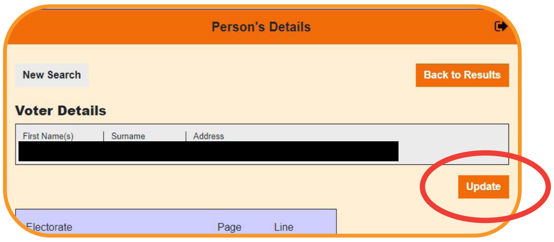
Provisional roll



Provisional Roll

This person will not be 18 years old as at election day. As such they are not eligible to vote in this election.

Updating a voter's address with eRoll


Person's Details

New Search | Back to Results

Voter Details

First Name(s)	Surname	Address
[redacted]		

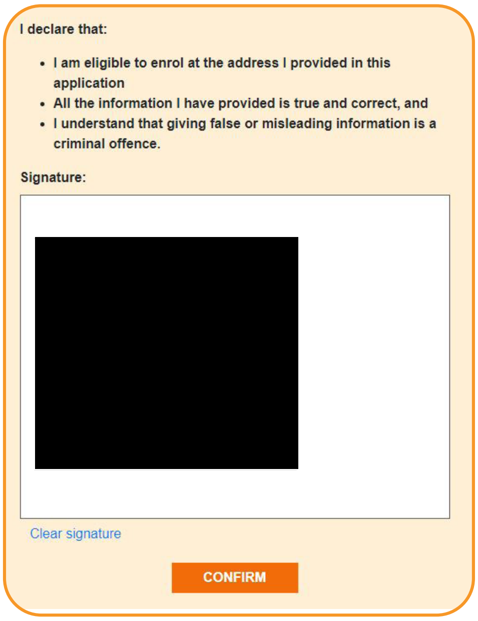
Update

Electorate | Page | Line

Tap **Update**

Ask the voter the questions as prompted on the eRoll screen

Address change within their current electorate: ask the voter to check their details and sign on screen. Provide the voting card and direct to OV


I declare that:

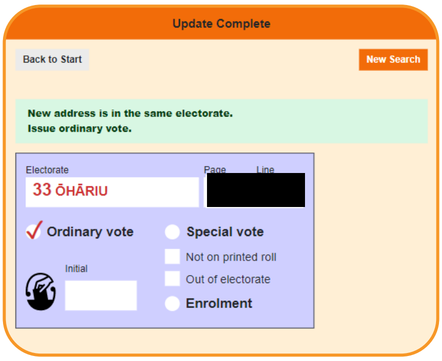
- I am eligible to enrol at the address I provided in this application
- All the information I have provided is true and correct, and
- I understand that giving false or misleading information is a criminal offence.

Signature:

[redacted]

Clear signature

CONFIRM


Update Complete

Back to Start | New Search

New address is in the same electorate.
Issue ordinary vote.

Electorate	Page	Line
33 ŌHĀRIU	[redacted]	

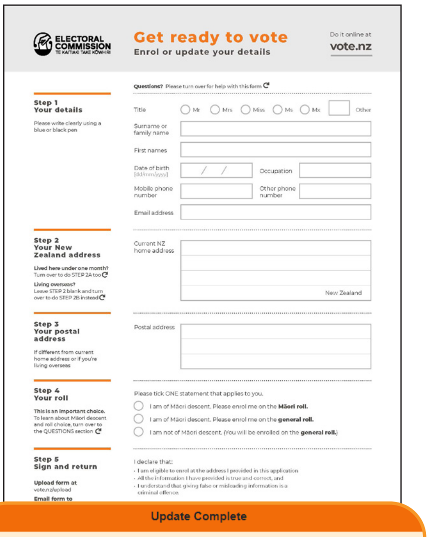
✓ Ordinary vote
○ Special vote
☐ Not on printed roll
☐ Out of electorate
○ Enrolment

Initial

Address change outside of their current electorate

Since your new address is outside of your current electorate you will need to complete an enrolment form to update your details and complete a special vote

Provide an enrolment form, clipboard, pen and the voting card. Direct to the special vote queue


ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

Get ready to vote
Enrol or update your details

Do it online at vote.nz

Questions? Please turn over for help with this form

Step 1 Your details
Please write clearly using a blue or black pen

Title ○ Mr ○ Mrs ○ Miss ○ Ms ○ Mx ☐ Other
Surname or family name
First names
Date of birth [dd/mm/yyyy] / /
Occupation
Mobile phone number
Other phone number
Email address

Step 2 Your New Zealand address
Lived here under one month? Turn over to do STEP 2A too
Living overseas? Leave STEP 2 blank and turn over to do STEP 2B instead

Current NZ home address
New Zealand

Step 3 Your postal address
If different from current home address or if you're living overseas

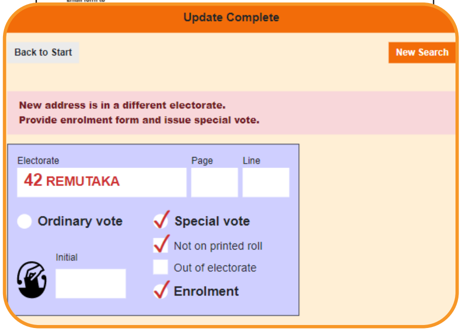
Postal address

Step 4 Your roll
This is an important choice. To learn about Māori descent and roll choice, turn over to the QUESTIONS section

Please tick ONE statement that applies to you.
○ I am of Māori descent. Please enrol me on the **Māori roll.**
○ I am of Māori descent. Please enrol me on the **general roll.**
○ I am not of Māori descent. (You will be enrolled on the **general roll.**)

Step 5 Sign and return
Upload form at vote.nz/upload
Email form to

I declare that:
- I am eligible to enrol at the address I provided in this application
- All the information I have provided is true and correct, and
- I understand that giving false or misleading information is a criminal offence.


Update Complete

Back to Start | New Search

New address is in a different electorate.
Provide enrolment form and issue special vote.

Electorate	Page	Line
42 REMUTAKA		

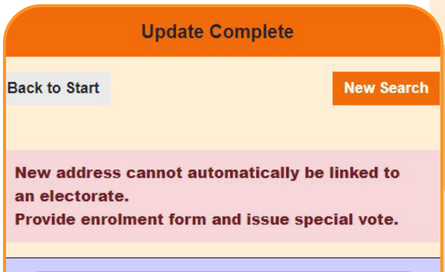
○ Ordinary vote
✓ Special vote
✓ Not on printed roll
☐ Out of electorate
✓ Enrolment

Initial

Multiple addresses / different date of birth / not an address in eRoll

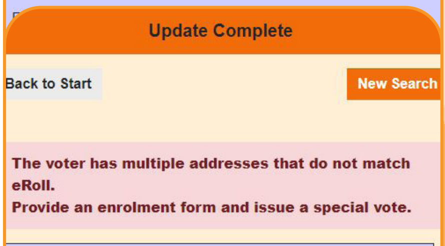
We can't update your details on our device today, but you can complete an enrolment form and complete a special vote

Provide an enrolment form, clipboard and pen, Also provide the voting card and direct to the special vote queue


Update Complete

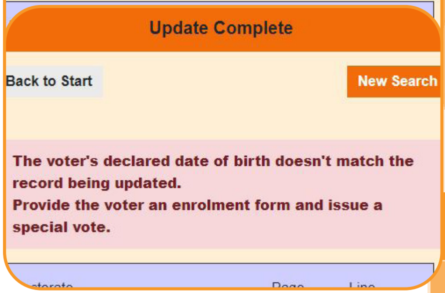
Back to Start | New Search

New address cannot automatically be linked to an electorate.
Provide enrolment form and issue special vote.


Update Complete

Back to Start | New Search

The voter has multiple addresses that do not match eRoll.
Provide an enrolment form and issue a special vote.


Update Complete

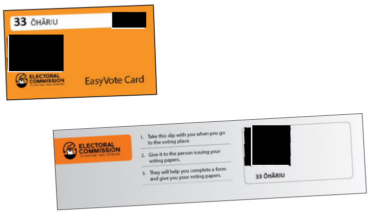
Back to Start | New Search

The voter's declared date of birth doesn't match the record being updated.
Provide the voter an enrolment form and issue a special vote.

Managing queues without eRoll

Kia ora/Hello, do you have a voting card?

V Yes


33 ŌHĀRIU
[redacted]
[redacted]
ELECTORAL COMMISSION
EasyVote Card
ELECTORAL COMMISSION
[redacted]
33 ŌHĀRIU

→ Direct to the appropriate queue

V No

That's okay, do you know which electorate you are enrolled in?

"Yes" → **Ordinary vote**

Voter is not enrolled — Provide an enrolment form → **Special Vote**

If the voter is not found on a printed roll, the Issuing Officer should direct the voter to the special vote queue

Voter is unsure

If you have a reference roll for where they live: check their details

Voter found with correct details → **Ordinary vote**

Voter not found or incorrect details — Provide an enrolment form → **Special Vote**

If you do not have a reference roll — Provide an enrolment form → **Special Vote**

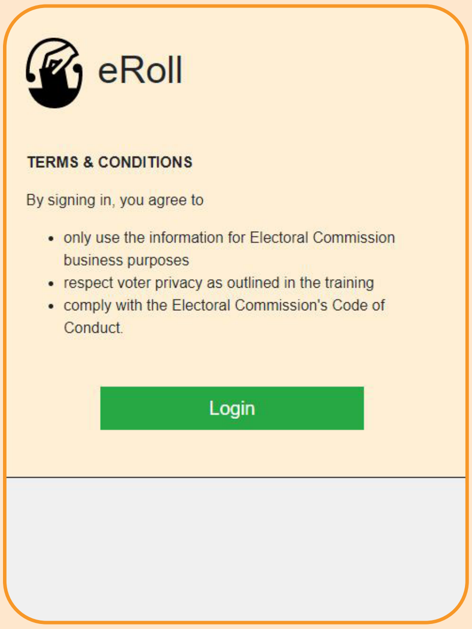
Voter says they are on the unpublished roll → **Special Vote**

Using eRoll

1

Tap **Login**

Enter your user name
and password if prompted



eRoll

TERMS & CONDITIONS

By signing in, you agree to

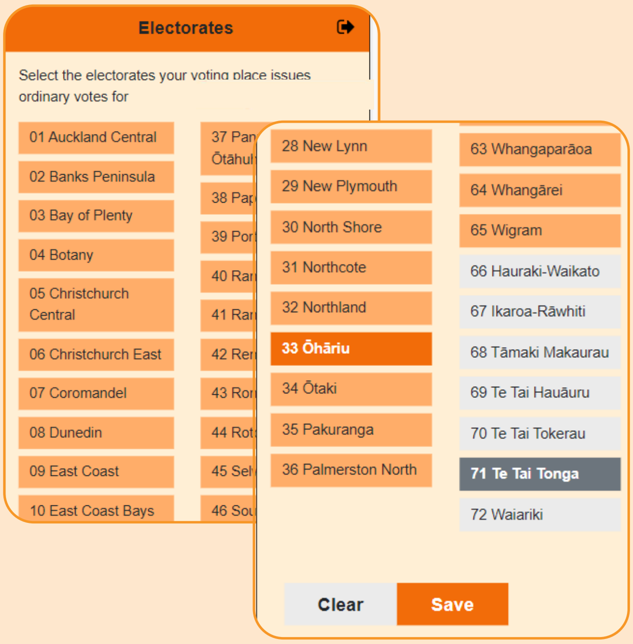
- only use the information for Electoral Commission business purposes
- respect voter privacy as outlined in the training
- comply with the Electoral Commission's Code of Conduct.

2

Tap the electorates
your voting place is
issuing ordinary votes for

Tap **Save**

Note: tap a highlighted
electorate to unselect



Electorates

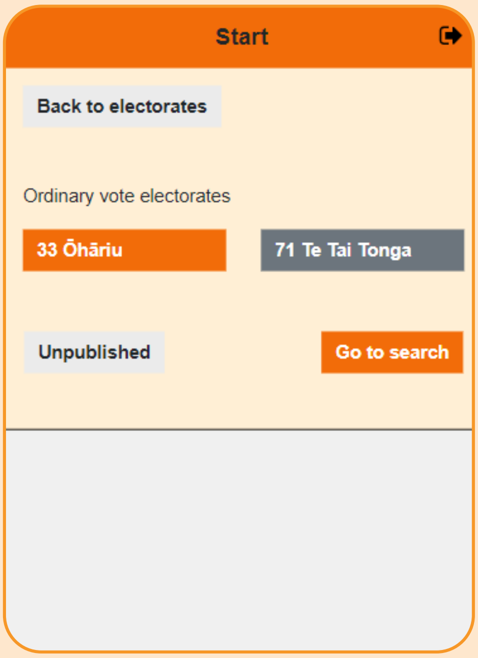
Select the electorates your voting place issues ordinary votes for

01 Auckland Central
02 Banks Peninsula
03 Bay of Plenty
04 Botany
05 Christchurch Central
06 Christchurch East
07 Coromandel
08 Dunedin
09 East Coast
10 East Coast Bays
37 Pan Ōtāhul
38 Pap
39 Por
40 Ran
41 Ran
42 Ren
43 Ron
44 Rot
45 Sel
46 Sou
28 New Lynn
29 New Plymouth
30 North Shore
31 Northcote
32 Northland
33 Ōhāriu
34 Ōtaki
35 Pakuranga
36 Palmerston North
63 Whangaparāoa
64 Whangārei
65 Wigram
66 Hauraki-Waikato
67 Ikaroa-Rāwhiti
68 Tāmaki Makaurau
69 Te Tai Hauāuru
70 Te Tai Tokerau
71 Te Tai Tonga
72 Waiariki

3

Check the correct electorates
are listed.

Tap **Go to search**



Start

Ordinary vote electorates

33 Ōhāriu
71 Te Tai Tonga

Using eRoll continued

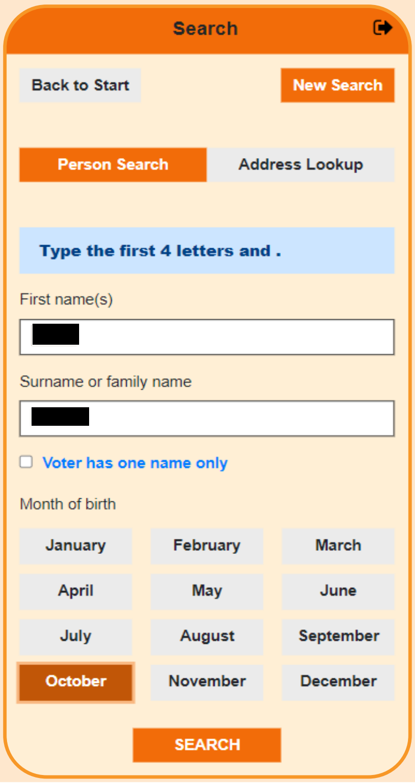
4

Enter the voter’s details into the search fields:
Only enter the first 4 letters and ‘.’

- **First name(s)**
- **Last name** (surname or family name)
- **Select month of birth**

Tap SEARCH

All three fields need to contain information.


Search
Back to Start
New Search
Person Search
Address Lookup
SEARCH

Type the first 4 letters and .

First name(s): [redacted]

Surname or family name: [redacted]

☐ Voter has one name only

Month of birth

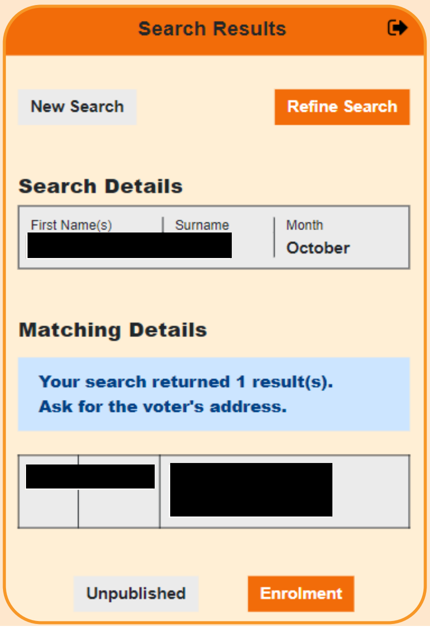
January	February	March
April	May	June
July	August	September
October	November	December

5

eRoll will show a list of voters that match the details you have entered.

Ask the voter their **address** and tap the matching record.

Note: do not show the voter the details on the mobile phone for privacy reasons.


Search Results
New Search
Refine Search
Unpublished
Enrolment

Search Details

First Name(s)	Surname	Month
[redacted]		October

Matching Details

Your search returned 1 result(s).
Ask for the voter's address.

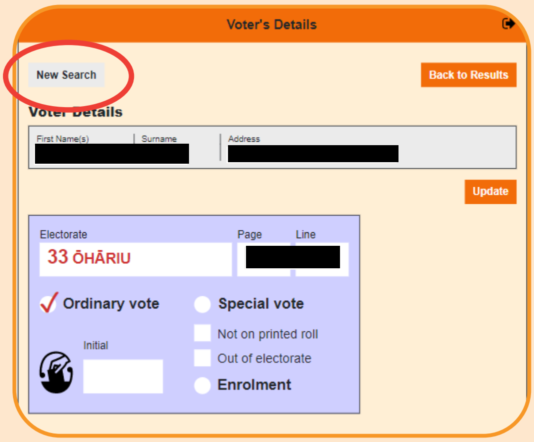
[redacted]	[redacted]

6

Copy the information shown on screen to a purple card and give it to the voter.

Direct them to the correct queue in the voting place.

Tap New Search


Voter's Details
New Search
Back to Results
Update

Voter details

First Name(s)	Surname	Address
[redacted]		[redacted]

Electorate: 33 ŌHĀRIU
Page / Line: [redacted]

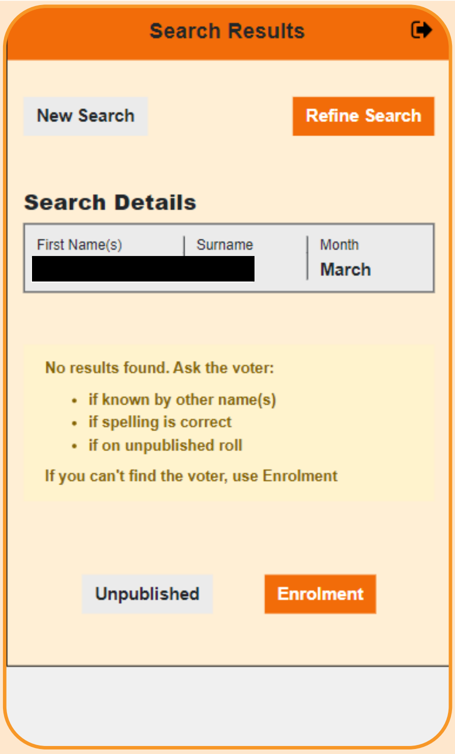
✓ Ordinary vote
○ Special vote
☐ Not on printed roll
☐ Out of electorate
Initial
○ Enrolment

Using eRoll - troubleshooting

1

If there are no results that match the voter's details, ask the voter:

- if you have the correct spelling
- if they are known by any other names
- if they could be on the unpublished roll. If yes, tap **Unpublished** .
- if you still are unable to find the voter, tap **Enrolment** .


Search Results
New Search
Refine Search

Search Details

First Name(s)	Surname	Month
[redacted]		March

No results found. Ask the voter:

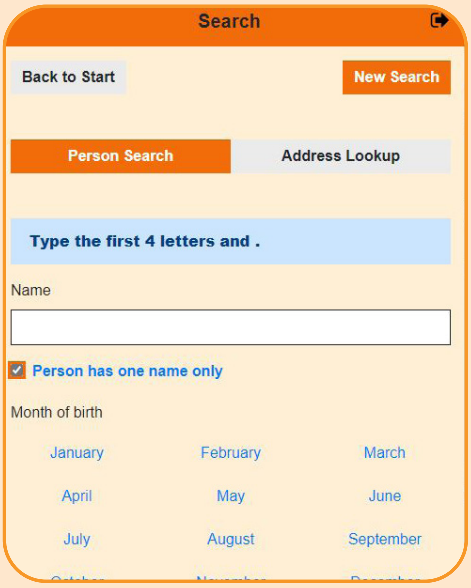
- if known by other name(s)
- if spelling is correct
- if on unpublished roll

If you can't find the voter, use Enrolment

Unpublished
Enrolment

2

If the voter only has one name then tap the ☐ Person has one name only tick box


Search
Back to Start
New Search
Person Search
Address Lookup

Type the first 4 letters and .

Name

☑ Person has one name only

Month of birth

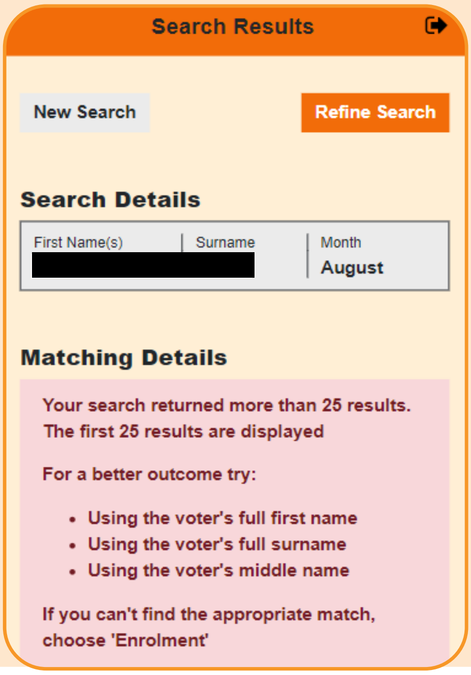
January
February
March
April
May
June
July
August
September

3

If there are more than 25 results from a search, you will get a red warning message above the results.

This could mean that the voter's details do not appear in this list.

Tap **Refine Search** and add more details to their name(s)


Search Results
New Search
Refine Search

Search Details

First Name(s)	Surname	Month
[redacted]		August

Matching Details

Your search returned more than 25 results. The first 25 results are displayed

For a better outcome try:

- Using the voter's full first name
- Using the voter's full surname
- Using the voter's middle name

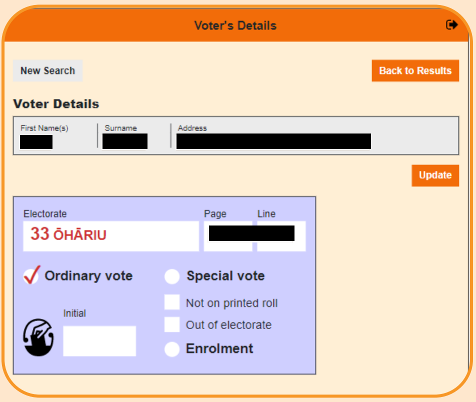
If you can't find the appropriate match, choose 'Enrolment'

Using eRoll - update address

1

If a voter gives you a different address from what is shown on screen you may be able to use eRoll to update their address.
Confirm that the address is a previous address for the voter.

Then tap **Update**


Voter's Details
New Search
Back to Results
Update

Voter Details

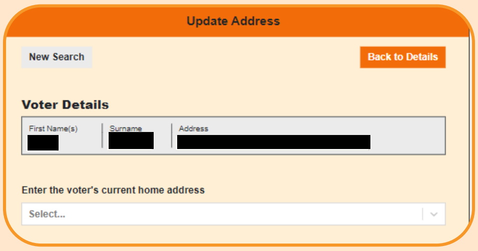
First Name(s): [redacted]
Surname: [redacted]
Address: [redacted]

Electorate: 33 ŌHĀRIU
Page / Line: [redacted]

✓ Ordinary vote
○ Special vote
☐ Not on printed roll
☐ Out of electorate
○ Enrolment
Initial:

2

Start typing the voter's new address and select from the drop down list.
If the address does not appear then select "no matching address found" at the bottom of the list.


Update Address
New Search
Back to Details

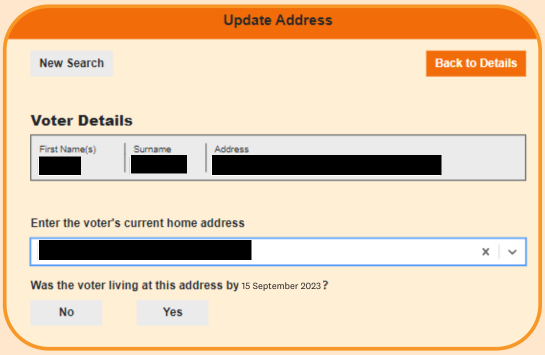
Voter Details

First Name(s): [redacted]
Surname: [redacted]
Address: [redacted]

Enter the voter's current home address
Select...

3

Ask the voter if they have been living at that address since 15 September this year and tap **No** or **Yes**


Update Address
New Search
Back to Details
No
Yes

Voter Details

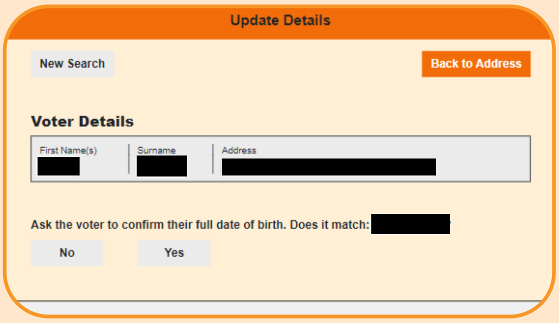
First Name(s): [redacted]
Surname: [redacted]
Address: [redacted]

Enter the voter's current home address
[redacted]

Was the voter living at this address by 15 September 2023?

4

Ask the voter to confirm their full date of birth and tap **No** or **Yes**


Update Details
New Search
Back to Address
No
Yes

Voter Details

First Name(s): [redacted]
Surname: [redacted]
Address: [redacted]

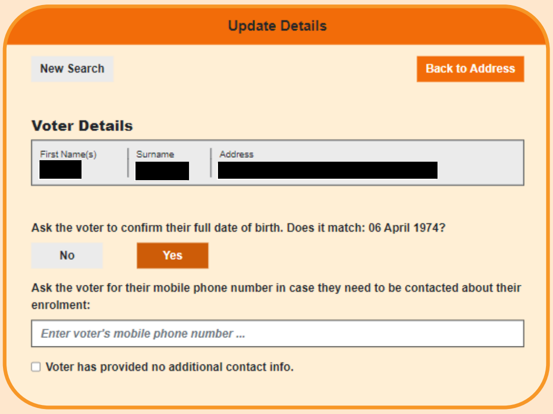
Ask the voter to confirm their full date of birth. Does it match: [redacted]

Using eRoll - update address

5

Ask the voter for their mobile phone number.

Note: if the voter does not want to give their phone number or doesn't have a mobile phone select ☐ Voter has provided no additional contact info.


Update Details

Voter Details

First Name(s) [redacted]
Surname [redacted]
Address [redacted]

Ask the voter to confirm their full date of birth. Does it match: 06 April 1974?

Ask the voter for their mobile phone number in case they need to be contacted about their enrolment:

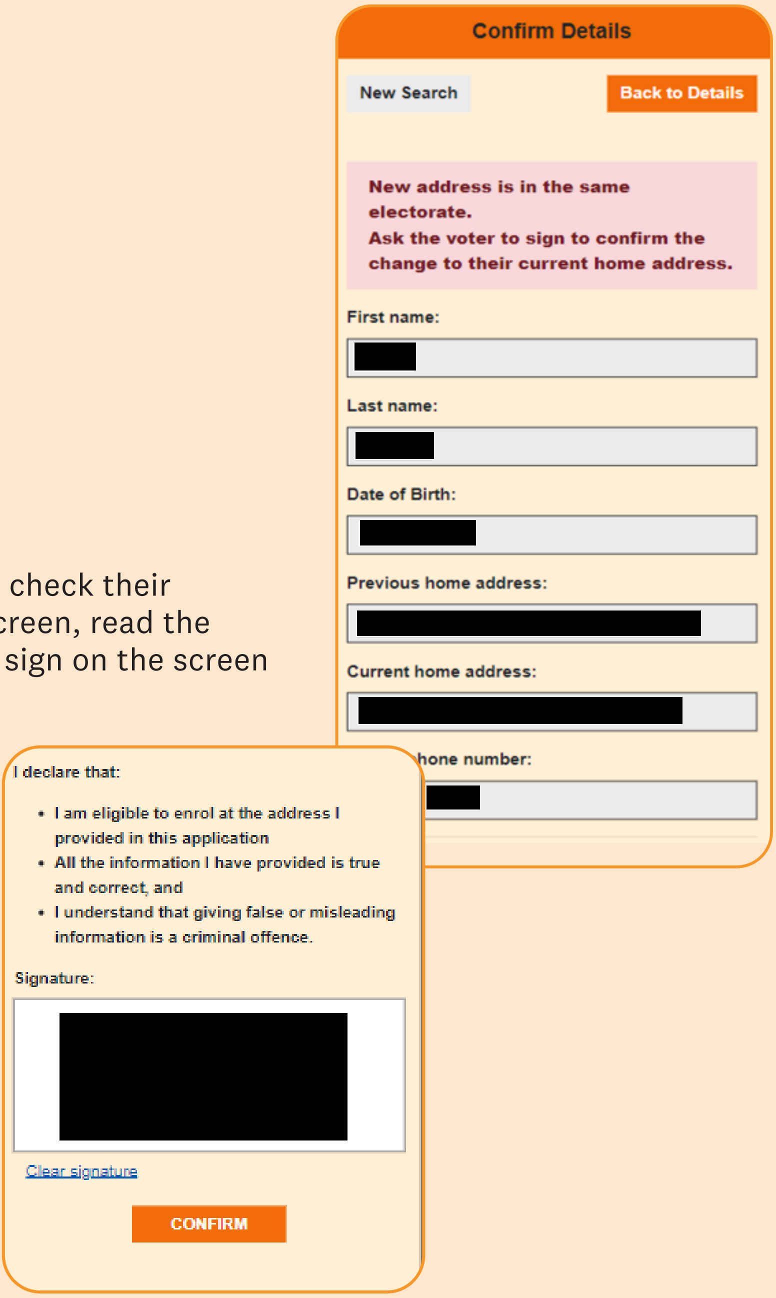
Enter voter's mobile phone number ...

☐ Voter has provided no additional contact info.

6

Ask the voter to check their details on the screen, read the declaration and sign on the screen

Tap CONFIRM


Confirm Details

New address is in the same electorate.
Ask the voter to sign to confirm the change to their current home address.

First name: [redacted]

Last name: [redacted]

Date of Birth: [redacted]

Previous home address: [redacted]

Current home address: [redacted]

hone number: [redacted]

I declare that:

- I am eligible to enrol at the address I provided in this application
- All the information I have provided is true and correct, and
- I understand that giving false or misleading information is a criminal offence.

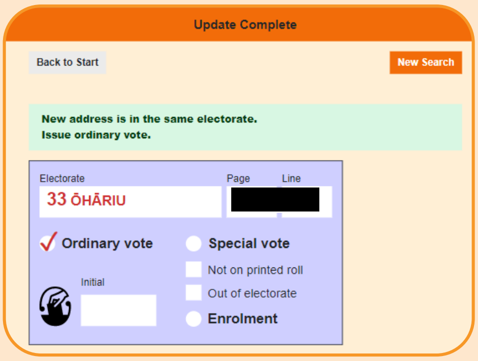
Signature:

[redacted]

Using eRoll - update address

7

Copy the information shown on screen to a purple card and give it to the voter.
Then direct them to the queue for ordinary votes.



New address is in the same electorate.
Issue ordinary vote.

Electorate: 33 ŌHĀRIU
Page / Line: [redacted]

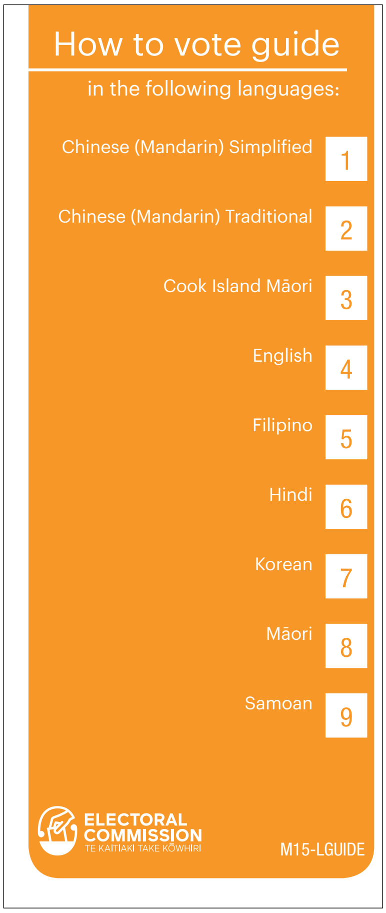
✓ Ordinary vote
○ Special vote
☐ Not on printed roll
☐ Out of electorate
○ Enrolment
Initial:

Tap New Search

Note: If the voter does not meet the criteria to complete an electronic update, the voter can fill in a paper enrolment form and receive a special vote

Providing language support

Language sheets will be available in the voting place to help you to support voters. Keep these in your drop file next to the information stand at the entrance to the voting place.



How to vote guide

in the following languages:

Chinese (Mandarin) Simplified	1
Chinese (Mandarin) Traditional	2
Cook Island Māori	3
English	4
Filipino	5
Hindi	6
Korean	7
Māori	8
Samoan	9

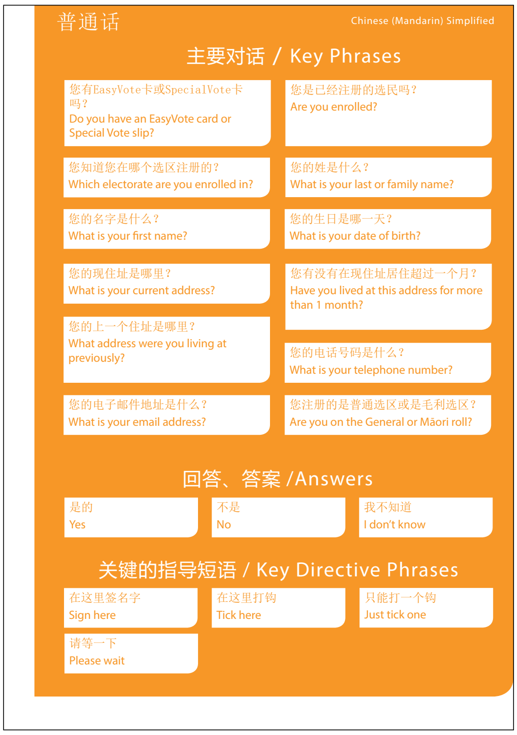
ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

M15-LGUIDE

If a voter does not appear to understand you, show them the language card (M15-LGUIDE) to identify if there is a language that can help them.

If there is, provide the voter with the appropriate language and use the key phrases and images to help the voter.

The language card should be tucked inside the mobile phone case, ready to use when helping people as they arrive at the voting place.



普通话 Chinese (Mandarin) Simplified

主要对话 / Key Phrases

您有EasyVote卡或SpecialVote卡吗？
Do you have an EasyVote card or Special Vote slip?

您是已经注册的选民吗？
Are you enrolled?

您知道您在哪个选区注册的？
Which electorate are you enrolled in?

您的姓是什么？
What is your last or family name?

您的名字是什么？
What is your first name?

您的生日是哪一天？
What is your date of birth?

您的现住址是哪里？
What is your current address?

您有没有在现住址居住超过一个月？
Have you lived at this address for more than 1 month?

您的上一个住址是哪里？
What address were you living at previously?

您的电话号码是什么？
What is your telephone number?

您的电子邮件地址是什么？
What is your email address?

您注册的是普通选区或是毛利选区？
Are you on the General or Māori roll?

回答、答案 /Answers

是的
Yes

不是
No

我不知道
I don't know

关键的指导短语 / Key Directive Phrases

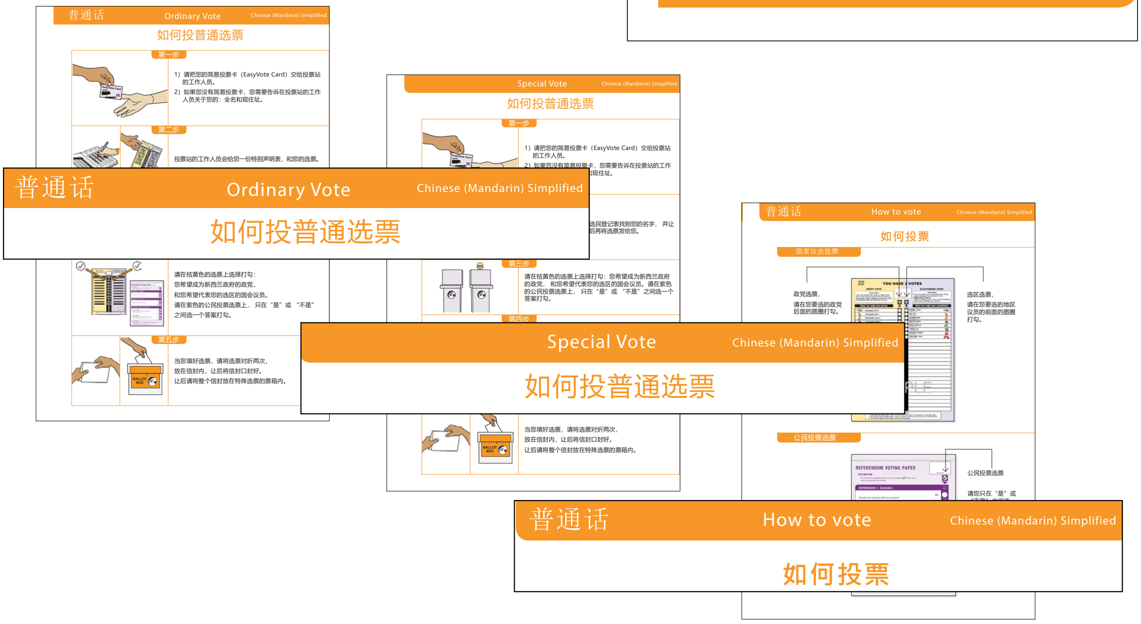
在这里签名字
Sign here

在这里打钩
Tick here

只能打一个钩
Just tick one

请等一下
Please wait

You can use the infographic pages to help the voter through the enrolling (if required) and the voting processes.



普通话 Ordinary Vote Chinese (Mandarin) Simplified
如何投普通选票

Special Vote Chinese (Mandarin) Simplified
如何投普通选票

普通话 How to vote Chinese (Mandarin) Simplified
如何投票

Voter care

Follow the guidance below to provide assistance to voters.

✓ Do	✗ Don’t
To help a voter:	
Speak slowly and carefully Ask short questions that require Yes/No answers or a shake of the head Use hand gestures, for example, point to a voting screen or an EasyVote card	Shout or talk loudly at a person with language, visual or hearing difficulties Use technical terms or jargon Explain everything in detail, unless the voter requires that
Be patient and listen attentively Know what languages are spoken by other staff members	Pretend to understand if you do not
If the voter is unsteady, bring them to the front of the queue, offer them a chair and consider how you can make voting easier e.g. bring the table top screen to them while still maintaining the privacy of the vote If a voter with a visual impairment needs guiding, offer your arm rather than grabbing theirs Make eye contact with a person with a hearing impairment to communicate with them, or communicate in writing	Assist a person with a physical disability unless asked Tap a person with a hearing impairment on the shoulder to get their attention
Helping a voter understand how to cast a vote	
You can advise voters that they have two votes on the ballot paper: one for a party and one for a candidate	You cannot influence the voter’s choice about who or what to vote for

Frequently asked questions

Enrolment

"I turn 18 on Election Day. Can I still vote?"

Yes, you can. If you are not already enrolled, you can enrol up to and including on Election Day.

"Can I tick that I am of Māori descent?"

For enrolment purposes, Māori descent means that you are descended from a NZ Māori. This includes Chatham Island Māori, but not Cook Island Māori.

Voters of Māori descent who are enrolling for the first time can choose to enrol on the Māori roll or the general roll.

“What is the difference between choosing the Māori roll and the general roll?”

Your choice affects your electorate vote but not your party vote. On the Māori roll you’ll vote for a candidate in a Māori electorate. On the general roll you’ll vote for a candidate in a general electorate. You can vote for the same list of political parties whichever roll you are on.

“I am unsure if I am enrolled” or “I am not enrolled”

We can check your details on our eRoll or a printed roll. If we cannot find you, you can fill out an enrolment form and receive a special vote. You can enrol up to and including on Election Day to vote in this election.

Roll changes since the last election

“When can I make my roll choice?”

If you are Māori, you choose which electoral roll you want to be on when you enrol for the first time. You can change your roll type at any time, except in the 3 months before a general election is being held

“Why can’t I change in the 3 months before the election?”

There are times when voters can’t change between the Māori and general rolls, including in the 3 months before a general election. The times when voters cannot change rolls is set out in the legislation passed by Parliament in November 2022.

“What’s changed for Māori voters?”

Previously, once enrolled, Māori voters could change rolls during a 4-month Māori Electoral Option period held every 5 or 6 years. In November 2022, Parliament changed the law so Māori voters could change roll types at any time, except in the 3 months before a general election.

IMPORTANT: You must not direct or instruct someone of NZ Māori descent on which type of roll (general or Māori) they should enrol on, or promote one roll over the other.

If a person of NZ Māori descent is not sure which roll they want to enrol on, advise them that they can take the enrolment form away to talk with their whānau (family).

However, a voter cannot take voting papers issued to them outside of the voting place: they cannot decide to return their papers and vote later.

Home address

"What do I use as my home address?"

Your home address is the place you choose to make your home because of family, domestic or personal reasons.

Your home address does not change if you sometimes live away from home for work or education (or because of your partner's work or education).

"My home doesn't have a full address - what do I write?"

If your home doesn't have a full address, for example, your house isn't numbered or your street doesn't have a name, write as much information as you can about where your home is located and include any details such as names of neighbours or who lived in the house before you, if you know this.

Please provide your contact details such as an email address or phone number so we can contact you later if we need to follow up.

"I am a student living away from home"

If you are studying and living away from your family home, you will have chosen when you enrolled to use either your family home or your current address. If you do not have an EasyVote card, we can search for your details on our eRoll or in a printed roll.

If you wish to change your enrolment to your current home address, you can do this with an enrolment form and be issued with a special vote.

"I have more than one house"

You can only enrol to vote in one electorate. Use the address where you choose to make your home because of family, domestic or personal reasons.

In temporary accommodation or without a fixed address

"I don't have an address", "I live in a campervan", "I'm homeless"

This includes if a voter is living in a shelter, hotel, motel, camping ground, public space, or living with other people temporarily. It also includes if the voter's home is a campervan, motorhome or car that is not permanently in one place.

Use the address you last lived at least 1 month, even if that is some time ago.
If you are unable to provide this, then you can use the address where you spend a lot of your time.

We will need a postal address on the enrolment form to send mail to you. The postal address could be a PO Box, or the address of a friend, family member, church or support group. Whoever is at the address needs to be someone who will agree to hold your mail for you to collect.

“I live on a ship or boat”

If your home is on a ship or boat that is permanently in a harbour, use the address of that ship or boat.

If your home is on a travelling ship or boat, use the last New Zealand address you lived at for at least 1 month, even if that is some time ago.

We will need a postal address on the enrolment form to send mail to you. The postal address could be a PO Box, or the address of a friend, family member, church or support group. Whoever is at the address needs to be someone who will agree to hold your mail for you to collect.

Overseas

“I have recently returned from overseas”

If you will have lived at your NZ address continuously for at least one month by Election Day, you are qualified to vote in the electorate at that address.

If less than one month, then the NZ address where you last lived for at least one month is used to determine your electorate.

If you are temporarily visiting NZ and need to enrol or update your details, then you also fill in ***Step 2B*** *on the back of the enrolment form.*

Help to complete the enrolment form or special vote declaration

“Can you help me fill out my enrolment form or special vote declaration?”

You can assist a voter with a physical impairment to complete the forms.

If the voter is physically unable to sign an enrolment form or special vote declaration, then you can sign the form and write next to the signature box

‘Voter with physical impairment — signed by their direction’

Note that for a person with a mental impairment, there are different requirements for enrolling which include the person completing the form to have an enduring power of attorney or be the person’s appointed welfare guardian. It is best in these situations to refer the person to the enrolment helpdesk on 0800 36 56 76.

Different name

If the voter verbally gives a different name to what is on the printed roll.

Ask the voter if they are known by any other names, or what name they may have used to enrol with. Check if the voter uses their names in a different order or may have changed their name after marriage or by deed poll. If this gives you a match to the name on the roll and the voter confirms that the name on the roll is theirs, then continue to issue the ordinary vote.

The voter’s details could also be searched for on the electronic roll if you have access to one.

If it is still unclear, then the voter should complete an enrolment form and be issued with a special vote.

A voter has someone else’s EasyVote card

If it appears the voter has someone else's EasyVote card.

Ask the voter why that might be.

If the voter has brought the wrong EasyVote card in error:

- Stamp the front of the card
- Put the card in an Issuing Officer’s disposal box, do not give it back to the voter
- Offer to find the voter's name on eRoll or the printed roll.

If a voter intends to vote on behalf of another person.

Explain that no one, not even a person with power of attorney can cast a vote on behalf of the voter. Even if a voter has asked someone else to do that, doing so would be an offence. If a voter cannot get to a voting place, they can request another person to bring a takeaway vote to them, which can be returned to any voting place.

Takeaway vote

“My cousin has asked me to pick up his voting papers as he’s sick and can’t leave home”

Ask the Voting Place Manager to assist the agent with a takeaway vote to take to the voter.

If the Manager is busy, ask the agent to wait in the special votes queue until the Manager is available.

“Can I return voting papers for my neighbour?”

Anyone can return a takeaway vote for another person.
They will put the voter’s envelope with the voting papers into the special votes box.

If the agent brings back the voter’s ballot paper and declaration without the outer envelope:

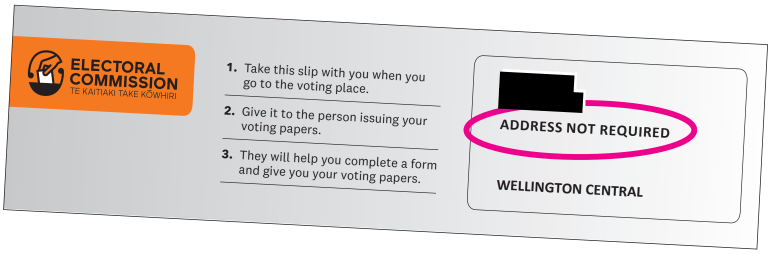
- ask the Voting Place Manager for an E79 (takeaway) envelope
- check the declaration for the voter’s electorate, not the voting papers, to maintain the secrecy of the vote
- write the name of the voter’s electorate on the envelope
- ask the agent to seal the declaration and ballot papers inside
- the agent can put the envelope in the Special Vote box.

Unpublished roll

"I am on the unpublished roll" or "I am on the private roll"

There are a number of reasons why a voter may be on the unpublished roll. Only the Registrar of Electors has access to this information. These voters cast a special vote.

Voters on the unpublished roll may have a Special Vote slip which gives their name and the electorate they are enrolled in, but states 'ADDRESS NOT REQUIRED'.



ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

1. Take this slip with you when you go to the voting place.
2. Give it to the person issuing your voting papers.
3. They will help you complete a form and give you your voting papers.

[redacted]

ADDRESS NOT REQUIRED

WELLINGTON CENTRAL

Always communicate quietly with these voters to provide some level of privacy.

"How do I enrol on the unpublished roll?"

Provide a copy of the brochure "Concerned About Your Personal Safety?" (*ROE47B*) to the voter.

Concerned about your personal safety?
ELECTORAL COMMISSION

Leaving the voting place with papers issued to a voter

"I want to take my voting papers home and return them later"

"I've decided that I don't want to vote today"

If a voter has been issued with their ballot papers, whether an ordinary or a special vote, they cannot leave the voting place with them, or return them to a voting place staff member, to vote on another day.

Allow the voter time to think how they might want to vote.

The voter must put their ballot papers into the ballot box before leaving the voting place. If they choose to vote again, they will likely be investigated for dual voting and their votes could be disallowed.

Disruptive behaviour

What if someone is behaving inappropriately or disturbing other voters?

People should only be in a voting place when they are voting or supporting someone who is voting. If a person is finished voting, or is not voting or supporting a voter, inform your Voting Place Manager who can ask them to leave a voting place.

If a person becomes disruptive, the Voting Place Manager will take the appropriate steps using guidance from the Incident Response Handbook that is supplied to each voting place.

Voter being influenced

If a support person is influencing a voter

It is an offence to communicate and/or influence a voter in a voting place. A support person should only provide general directions on how to vote and, for example, assist with naming the candidates in alphabetical order (if the voter has reading or sight issues).

If it appears that the voter is being influenced, the Voting Place Manager should explain to the support person what they are allowed to do and ask the voter if they require assistance.

Reading or marking a ballot paper for a voter

If a voter needs someone to read the information on the ballot paper or needs help marking the ballot paper

- Move to an area where you cannot be overheard
- Unless the voter knows who they want to vote for, you must read out the complete lists of all candidates and parties on the ballot paper
- You must mark the choice the voter has indicated to you
- You must not provide information about any of the candidates or parties other than what is written on the paper.
- Check that the voter’s choice has been correctly marked
- Change the option marked if the voter agrees it has been incorrectly marked
- Don’t allow an interpreter or any support person assisting the voter to:
    - interfere with the voter’s choice about who to vote for
    - provide information that may influence their decision.

Photos taken in voting place

What happens if someone takes a photo in the voting place or outside the voting place? (e.g. in a mall)

If they do, you cannot stop them. You can ask them not to post or use what they have recorded to maintain the secrecy of the vote and to protect people’s privacy.

Two forms

“Why do I have to fill in two forms?”

The enrolment form and special vote declaration are processed separately and currently the law does not allow one form to be used for both purposes.

Before leaving home

Check that you have:

○ Enough time to get to the voting place.
For your first day of voting you will be advised when you need to arrive to set up, but expect that it will take up to 90 minutes

○ Chosen clothes and shoes for comfort and warmth, that would not be considered inappropriate or politically biased.
As a Voter Assistant you will be on your feet for most of the day and could be outdoors, working with queues of voters

○ Packed food and drink for the day

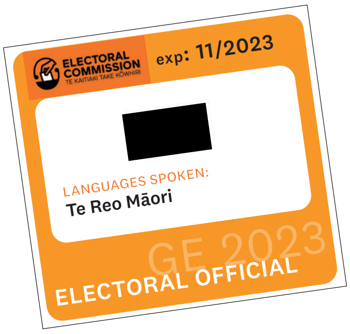
○ Packed reading glasses (if required)

○ Packed this manual

All voting place staff will be given an orange vest by the Voting Place Manager to wear with their ID card. There are two sizes of vests.

ELECTORAL OFFICIAL
ĀPIHA PŌTI
ES8-L
ELECTORAL OFFICIAL
ĀPIHA PŌTI
ES8-M

HOW CAN I HELP YOU?
ME PĒHEA TAKU ĀWHINA I A KOE?
HOW CAN I HELP YOU?
ME PĒHEA TAKU ĀWHINA I A KOE?


ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

exp: 11/2023

[redacted]

LANGUAGES SPOKEN:
Te Reo Māori

GE 2023
ELECTORAL OFFICIAL

All voting place staff must wear their vest and ID card at all times when working in the voting place. You should question any person who is handling materials such as ballot paper pads who is not wearing a vest and ID card.

Your own vote

You may vote in your voting place at any time during opening hours. Check with the Voting Place Manager who will cover your duties while you vote.

Before voting starts

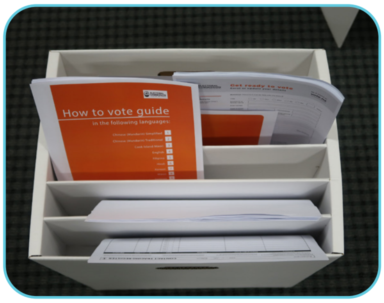
Check that you have:

- ○ Signed in with the Manager on Form S
- ○ Been shown where all the facilities are such as toilets and break rooms
- ○ Received a briefing from the Manager about emergency procedures, the Incident Management Handbook, hazards and security
- ○ Introduced yourself to other staff members and any scrutineers if present. Find out what languages other staff speak
- ○ Know when your break times will likely be

  Note: break times may need to change at short notice if the voting place is busier than expected
- ○ Switched off your personal mobile phone or other electronic devices
- ○ Checked that you have all the materials you need for your role: ask the Voting Place Manager for the mobile phone, log into eRoll and check that it is working
- ○ Reviewed the Voter Assistant processes in this manual for your role.

Dropfile

You will have a dropfile at the Voter Assistant station at the entrance to the voting place. Locate it where it is available to you, but away from public access.



Put the following materials in the dropfile:

- enrolment form pad(s)
- cardboard clipboards (can be reused between voters)
- black pens for use with enrolment forms
- language support sheets in different languages
- spare E139-PURPLE cards for the mobile phone
- Incident Management Handbook

Integrity checks

On the first day of voting you will be asked to:

1 Get the sealed box that contains key voting materials and the tracking note from the Voting Place Manager

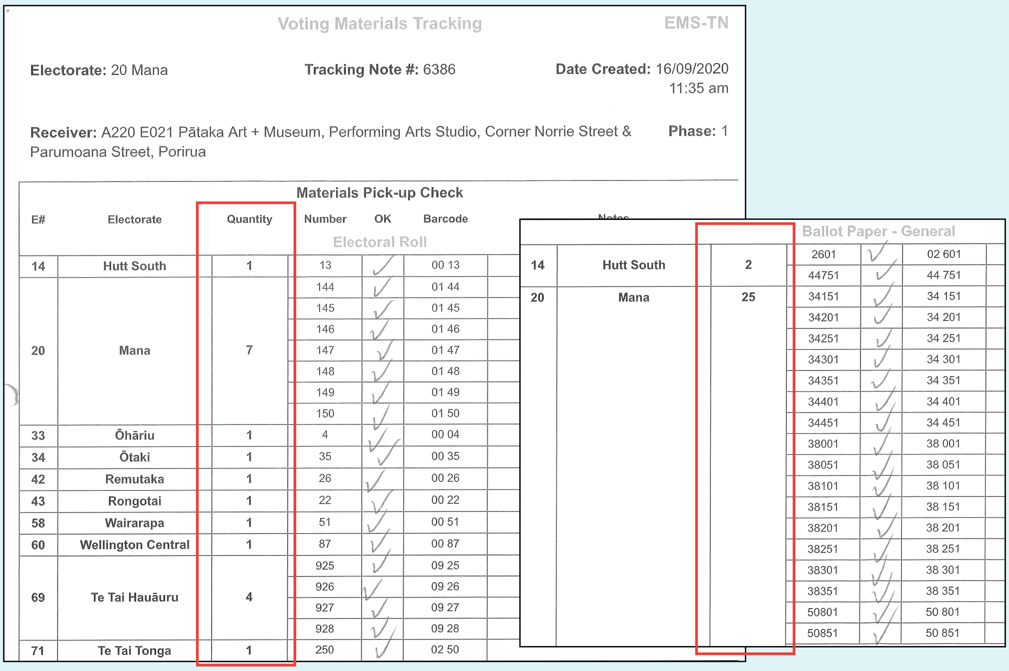
ELECTIONS
SECURITY SEAL

2 Break the tamper evident tape

3 Remove the materials and separate into piles by electorate

4 Check the quantity of each of the materials against the tracking note

E.g. 1 roll for Hutt South, 7 rolls for Mana, 1 roll for Ōhāriu, 2 ballot paper pads for Hutt South, 25 ballot paper pads for Mana.



Voting Materials Tracking EMS-TN

Electorate: 20 Mana **Tracking Note #:** 6386 **Date Created:** 16/09/2020 11:35 am

Receiver: A220 E021 Pātaka Art + Museum, Performing Arts Studio, Corner Norrie Street & Parumoana Street, Porirua **Phase:** 1

Materials Pick-up Check

Electoral Roll

E#	Electorate	Quantity	Number	OK	Barcode	Notes
14	Hutt South	1	13	✓	00 13	
20	Mana	7	144	✓	01 44	
			145	✓	01 45	
			146	✓	01 46	
			147	✓	01 47	
			148	✓	01 48	
			149	✓	01 49	
			150	✓	01 50	
33	Ōhāriu	1	4	✓	00 04	
34	Ōtaki	1	35	✓	00 35	
42	Remutaka	1	26	✓	00 26	
43	Rongotai	1	22	✓	00 22	
58	Wairarapa	1	51	✓	00 51	
60	Wellington Central	1	87	✓	00 87	
69	Te Tai Hauāuru	4	925	✓	09 25	
			926	✓	09 26	
			927	✓	09 27	
			928	✓	09 28	
71	Te Tai Tonga	1	250	✓	02 50	

Ballot Paper - General

14	Hutt South	2	2601	✓	02 601
			44751	✓	44 751
20	Mana	25	34151	✓	34 151
			34201	✓	34 201
			34251	✓	34 251
			34301	✓	34 301
			34351	✓	34 351
			34401	✓	34 401
			34451	✓	34 451
			38001	✓	38 001
			38051	✓	38 051
			38101	✓	38 101
			38151	✓	38 151
			38201	✓	38 201
			38251	✓	38 251
			38301	✓	38 301
			38351	✓	38 351
			50801	✓	50 801
			50851	✓	50 851

5 Check that all the ballot boxes are empty, if there are any scrutineers present, invite them to also check the ballot boxes.

Seal the ballot boxes and complete the seal log on the back of the ballot box with an Issuing Officer.

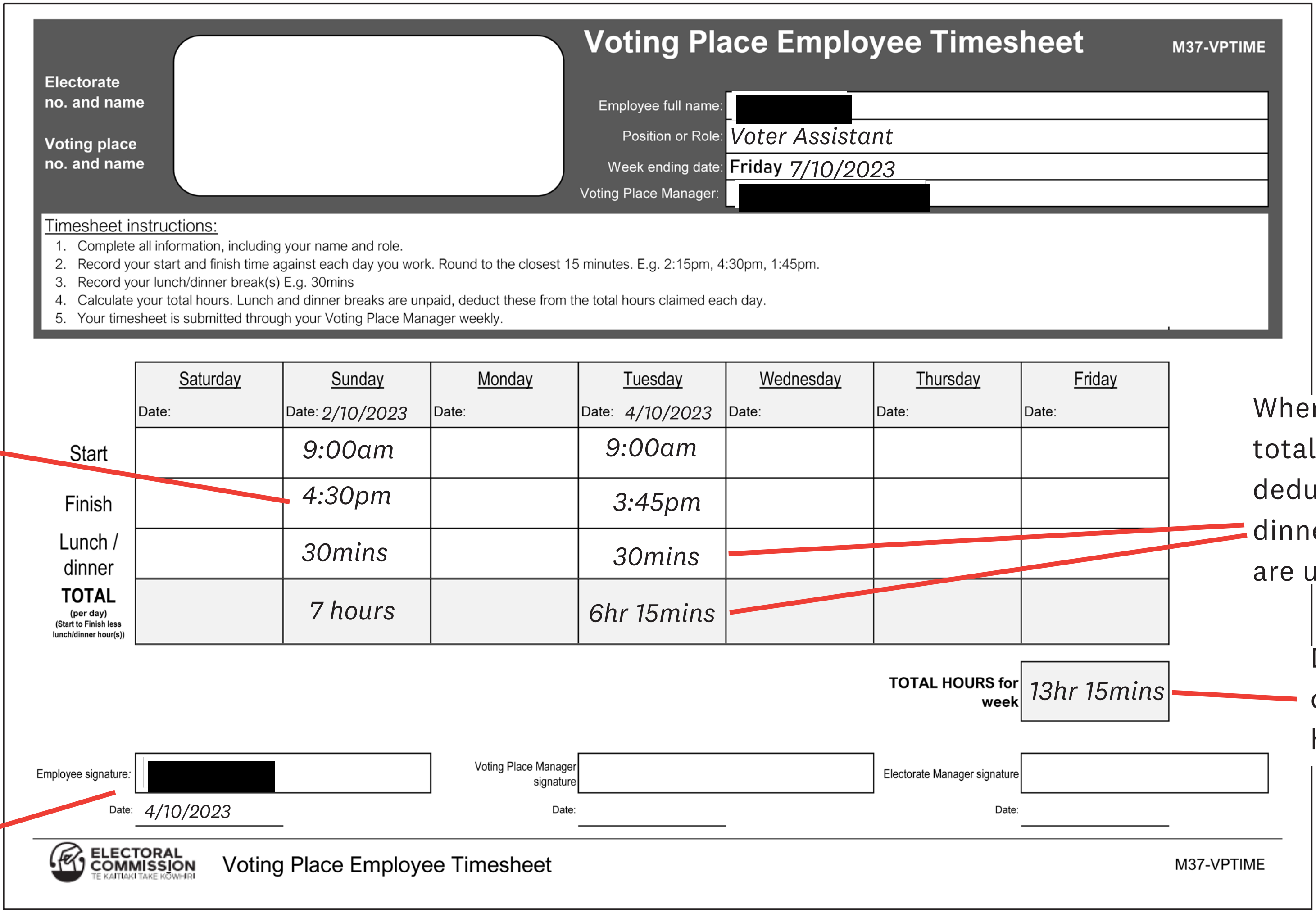
Seal number	Sealed by	Checked by	Date	Reason for removal
32640	VA	IO	2/10/23	

521350
E129

Completing your timesheet

Timesheets are located in the Voting Place folder.

Fill in your timesheet each day you are working in the voting place. If you are working in more than one voting place, complete a separate timesheet at each one.



Voting Place Employee Timesheet

M37-VPTIME

Electorate no. and name

Voting place no. and name

Employee full name: [redacted]
Position or Role: *Voter Assistant*
Week ending date: Friday *7/10/2023*
Voting Place Manager: [redacted]

Timesheet instructions:

1. Complete all information, including your name and role.
2. Record your start and finish time against each day you work. Round to the closest 15 minutes. E.g. 2:15pm, 4:30pm, 1:45pm.
3. Record your lunch/dinner break(s) E.g. 30mins
4. Calculate your total hours. Lunch and dinner breaks are unpaid, deduct these from the total hours claimed each day.
5. Your timesheet is submitted through your Voting Place Manager weekly.

	Saturday Date:	Sunday Date: *2/10/2023*	Monday Date:	Tuesday Date: *4/10/2023*	Wednesday Date:	Thursday Date:	Friday Date:
Start		*9:00am*		*9:00am*			
Finish		*4:30pm*		*3:45pm*			
Lunch / dinner		*30mins*		*30mins*			
TOTAL (per day) (Start to Finish less lunch/dinner hour(s))		*7 hours*		*6hr 15mins*			

TOTAL HOURS for week *13hr 15mins*

Employee signature: [redacted]
Date: *4/10/2023*

Voting Place Manager signature:
Date:

Electorate Manager signature:
Date:

ELECTORAL COMMISSION TE KAITIAKI TAKE KŌWHIRI Voting Place Employee Timesheet M37-VPTIME

Record your start and finish times to the closest 15mins

Make sure you sign your timesheet

When calculating your total hours for the day deduct your lunch/dinner breaks as these are unpaid

Don't forget to calculate your total hours for the week

After voting finishes

VA

1 At closing time bring in all of the signs from outside of the voting place.

M

2 The Voting Place Manager will give you the following from their supplies:

- All envelopes
- All ballot paper pads and declarations packs and cover sheets
- Takeaway votes satchel
- Scissors
- Plastic bags

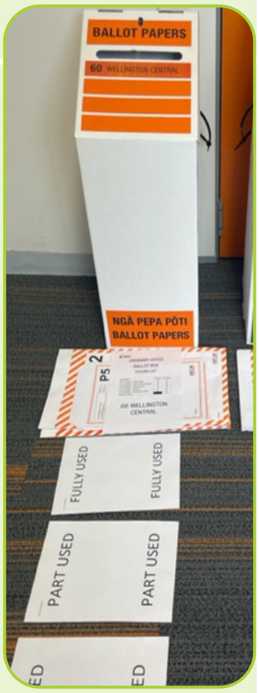
3 Cut the cable ties that link the ballot boxes together and spread them out. Do not open the ballot boxes.

4 For the ordinary votes ballot box...

From each P4 envelope unpack and match to the correct ballot box:

- Reconciliation Form A and Form G
- Form J
- Voting Material Marker Cards (M14-VMMARKER)
- And the packing instructions (M14-PACKOV).

Place them separately in front of the ballot box as pictured.


BALLOT PAPERS
NGĀ PEPA PŌTI
BALLOT PAPERS
P5
FULLY USED
FULLY USED
PART USED
PART USED

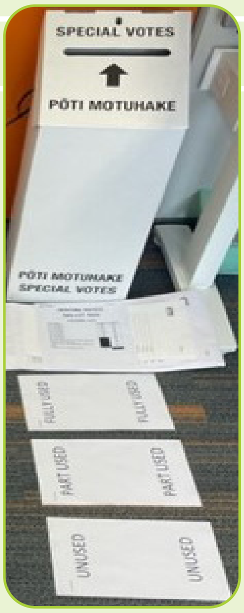
5 For the special votes ballot box...

From the S6 envelope, unpack the:

- Reconciliation Form B
- Voting Material Marker Cards (M14-VMMARKER)
- And packing instructions (M14-PACKSV).

Place them separately in front of the special vote ballot box as pictured.

Place the Takeaway votes satchel in front of the special votes ballot box.


SPECIAL VOTES
PŌTI MOTUHAKE
PŌTI MOTUHAKE
SPECIAL VOTES
FULLY USED
FULLY USED
PART USED
PART USED
UNUSED
UNUSED

Continued

IO

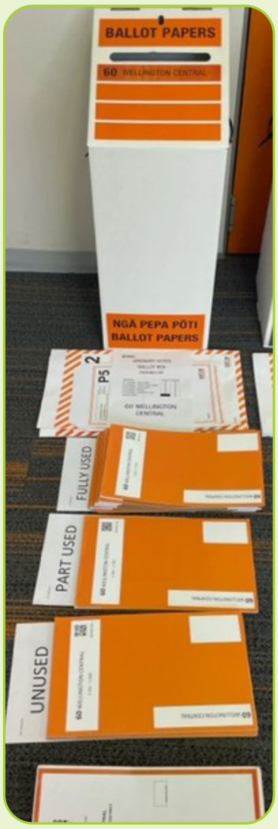
6 Ask Issuing Officers to place their materials in separate piles in front of the appropriate ballot box as indicated by the marker cards:

- fully used
- part-used
- unused
- electoral rolls.

Check the materials have been placed on the correct marker card.

Issuing Officers will also place their S7 spoilt materials envelope in front of the special vote ballot box.

For shared ballot boxes make sure the materials are kept separate for each electorate.



7 Put the other materials from the Voting Place Manager on the marker card in front of the appropriate ballot box.

M

8 Assist the Voting Place Manager as directed with the reconciliation.

You will be asked to:

- count the number of pads and declarations packs in each pile
- document the date and that number on the corresponding Voting Material Marker Cards (M14-VMMARKER) for each pile.

Then for:

Ordinary votes	Special votes
• record the last two digits of the next remaining ballot paper in every part-used pad on the part-used Voting Material Marker Card	• count the number of remaining declarations in each part-used pack and record on the part-used Voting Material Marker Card

9 Advance voting

- Pack up materials as directed by the Voting Place Manager

On Election Day

10 Assist the Voting Place Manager as directed with the preliminary count.

11 Once the votes are counted, work with the Issuing Officers to use the packing instructions (M14-PACKOV & M14-PACKSV) to pack the envelopes.

On the packing instructions, tick off each item ‘Packed’.

Troubleshooting

1. Spoilt enrolment form

If a voter spoils their enrolment form

1	Write across the enrolment form: 'Spoilt by voter and a fresh enrolment form issued' and initial this
2	Give the spoilt enrolment form to an Issuing Officer for them to put in their Envelope S7
3	Issue a fresh enrolment form.

2. More complex situations

Most situations are routine. However a few may be more complex.

If there are any doubts, the Voting Place Manager should call the Electorate Manager using the voting place mobile phone.

The Voting Place Manager must contact the Electorate Manager if:

- There is an accident in the voting place (write the details in M33-INCIDENT Incident, Near Miss and Injury Report)
- There are concerns from a staff member or the public about candidate advertising or activities in or around the voting place, particularly if voters are hindered in their access.

If you are calling your Mobile Support or Electorate Manager to report a problem or incident, provide the following information:

- **Who:** your name & number
- **When** it happened
- **Where** it happened (address/description)
- **What** happened
- **What** you did
- **What** you intend to do next

Glossary

Agent	A person appointed by a voter to collect a takeaway vote on their behalf
Ballot box	Box used for voter to place their completed ballot paper
Ballot paper	Paper on which the voter indicates their preferred candidate and political party
EasyVote card	Card posted to every voter on the printed electoral roll, providing their details from the roll
Election Day	The day of the election
Electoral roll	The printed roll used to issue ordinary votes
Electorate	Geographical area defined for voting purposes
Electorate Manager	Person responsible for the management of an electorate
Electorate headquarters	The building from which a Electorate Manager runs their electorate
Enrolment form	The application form used to enrol to vote or to update enrolment details
eRoll	An electronic version of the roll
General electorate	Electorate for voters on the general roll
Issuing Officer	Person responsible for issuing votes
Issuing point	Where votes are issued within a voting place
Issuing Support Officer	Person who fills in for other staff on breaks and supports the VPM with end of day tasks
Māori electorate	Electorate for voters on the Māori roll
Mobile Support	Person responsible for visiting voting places to ensure processes are being followed and supplies are appropriately stocked
Ordinary vote	A vote cast by a voter who is on an electoral roll at the voting place they attend
Reconciliation	Process to account for every used and unused ordinary ballot and voting paper and special vote declaration

Reference roll	A roll that is not used to issue votes from, also known as a composite roll
Registrar of Electors	Person responsible for the management of an electoral roll(s)
Scrutineer	Person who observes the conduct of the election on behalf of candidates
Security Guard	Person who is employed to assist with maintaining a safe and secure voting place
Special vote	A vote cast by a voter whose name is not on an electoral roll at an voting place (may also be referred to as a 'special declaration vote')
Special Vote slip	A tear-off slip from the letter mailed to a voter who enrolled after the electoral roll was printed, or who is on the unpublished roll, providing their details from the electoral roll and how to vote
Takeaway vote	A type of special vote that can be completed outside of a voting place
Unpublished roll	A roll containing the names of voters whose personal details are not released publicly
Voter Assistant	Person who helps to manage queues of voters and the enrolment process in a voting place
Voting Place	A physical site where voting takes place
Voting Place Manager	Person responsible for managing a voting place

Symbols used:

M	Voting Place Manager	V	Voter
IO	Issuing Officer	A	Agent (for takeaway votes)
ISO	Issuing Support Officer	MS	Mobile Support
VA	Voter Assistant	S	Security Gard

Notes:

HEALTH AND SAFETY

Keep yourself and others safe in the voting place.

Tell your Manager immediately if you notice anything that could be a hazard or could hurt you or someone else.

A hazard could be:

- An electrical cord lying across the floor or hanging loose from the wall
- A rip in the carpet or a raised piece of flooring
- A puddle of water on the floor.

Your Manager will look for ways to deal with the hazard, by either removing it, isolating it, or otherwise ensuring that it is no longer a problem.

When lifting heavy items, keep a straight back and bend your knees. Ask for help if you need it. Help others with lifting heavy or awkwardly shaped items, including at the end of the day when loading voting materials into vehicles.

Accidents, other incidents and near misses

- Tell the Voting Place Manager if you have an injure during the day, even if it is minor. The Manager has a first aid kit, and you may be asked to complete an incident form.
- If an accident happens to someone else, you may be asked to help with the response or with contacting others. After the situation is resolved, you may be asked to help with completing an incident form.
- Report serious non-injury incidents or near misses. For example something safety related that the building owner should know about.

You are likely to be very tired at the end of a long day at the Voting Place, and for some, a long drive home may be unsafe for you. Make a plan during the day of what you will do to get home safely, if you find yourself in this situation.

If there is a threat to people, materials or property - call 111

Before voting begins:

- Get familiar with the voting place including the location of the evacuation assembly point
- Make sure you know at least two ways out of the building
- Be aware of where the Incident Management Handbook is located in the voting place

If you need to leave the voting place as a result of an emergency:

- Leave all elections material behind
- Go straight to the assembly point
- Continue with your own personal evacuation plans once you have reported to your Manager.

REMEMBER:

People are the priority.

Ensure you and those around you are safe.

DO NOT

X Try to take elections material with you

X Re-enter the building once you have left

REMAIN CALM

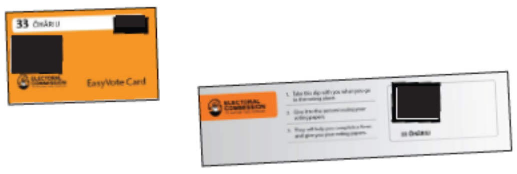
LEAVE THE VOTING PLACE QUICKLY

Electorate Manager's phone number

Managing queues with eRoll

Kia ora/Hello, do you have a voting card?

Yes



Direct to the appropriate queue

No

That's okay, let's look up your details.

What is your:

- first name
- last name
- month of birth

[search on eRoll to find possible match to the voter]

Could you please confirm your address **[check for match]**

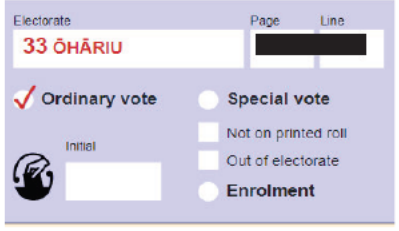
If the voter gives you another address that is different to the one in eRoll

I'm sorry, but I can't see that address. Have you lived at another address in **[give the suburb/town of the address in eRoll]**

If the voter gives you a previous address that matches the one in eRoll, tap on the record

Okay, as you have a new address, let's see if we can update it electronically

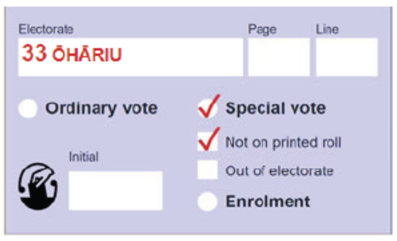
Turn over page



Electorate	Page	Line
33 ŌHĀRIU	[redacted]	

✓ Ordinary vote
○ Special vote
☐ Not on printed roll
☐ Out of electorate
○ Enrolment
Initial

Direct to OV

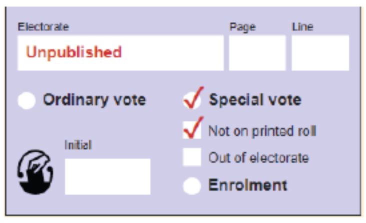


Electorate	Page	Line
33 ŌHĀRIU		

○ Ordinary vote
✓ Special vote
✓ Not on printed roll
☐ Out of electorate
○ Enrolment
Initial

Direct to SV

Voter has said they are on the unpublished roll



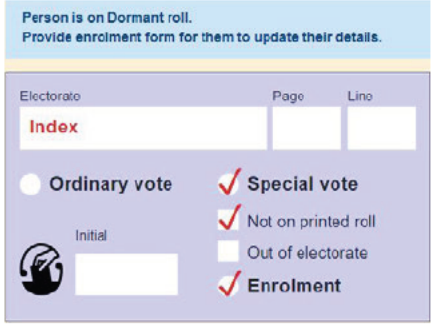
Electorate	Page	Line
Unpublished		

○ Ordinary vote
✓ Special vote
✓ Not on printed roll
☐ Out of electorate
○ Enrolment
Initial

Direct to SV

Always follow the guidance given in eRoll - other examples:

Dormant roll

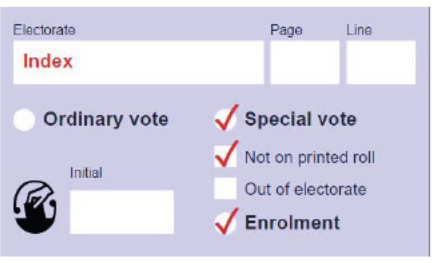


Person is on Dormant roll.
Provide enrolment form for them to update their details.

Electorate	Page	Line
Index		

○ Ordinary vote
✓ Special vote
✓ Not on printed roll
☐ Out of electorate
✓ Enrolment
Initial

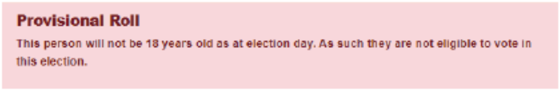
New enrolment
(voter not found
in eRoll)



Electorate	Page	Line
Index		

○ Ordinary vote
✓ Special vote
✓ Not on printed roll
☐ Out of electorate
✓ Enrolment
Initial

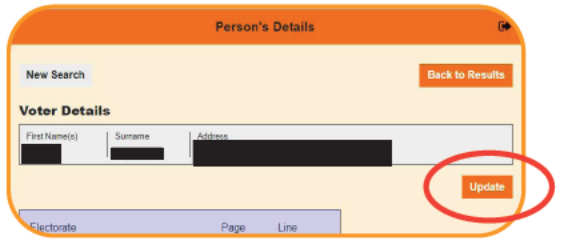
Provisional roll



Provisional Roll

This person will not be 18 years old as at election day. As such they are not eligible to vote in this election.

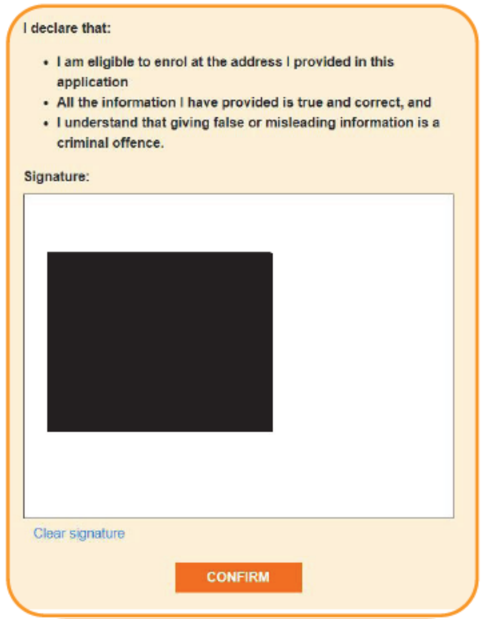
Updating a voters address with eRoll


Person's Details
New Search
Back to Results
Voter Details
First Name(s) [redacted] Surname [redacted] Address [redacted]
Update
Electorate Page Line

Tap **Update**

Ask the voter the questions as prompted on the eRoll screen

Address change within their current electorate: ask the voter to check their details and sign on screen. Provide the voting card and direct to OV


I declare that:

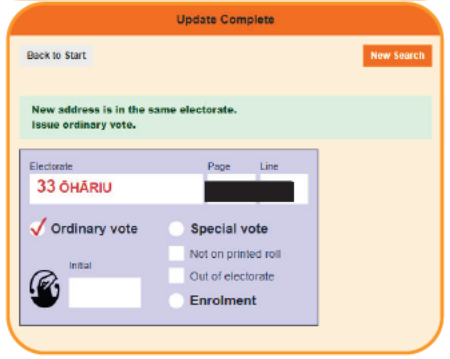
- I am eligible to enrol at the address I provided in this application
- All the information I have provided is true and correct, and
- I understand that giving false or misleading information is a criminal offence.

Signature:

[redacted]

Clear signature

CONFIRM


Update Complete
Back to Start
New Search

New address is in the same electorate.
Issue ordinary vote.

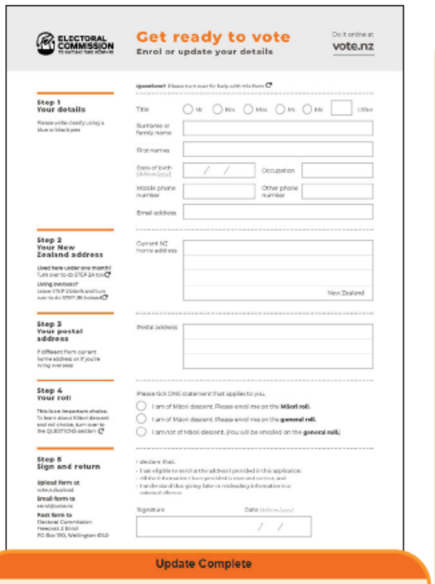
Electorate	Page	Line
33 ŌHĀRIU	[redacted]	

☑ Ordinary vote
○ Special vote
☐ Not on printed roll
☐ Out of electorate
○ Enrolment
Initial

Address change outside of their current electorate

Unfortunately your new address is outside of your current electorate. So I will need to get you to complete an enrolment form to update your details

Provide an enrolment form, clipboard and pen. Provide a voting card and direct to the special vote queue


ELECTORAL COMMISSION
Get ready to vote
Enrol or update your details
Do it online at vote.nz

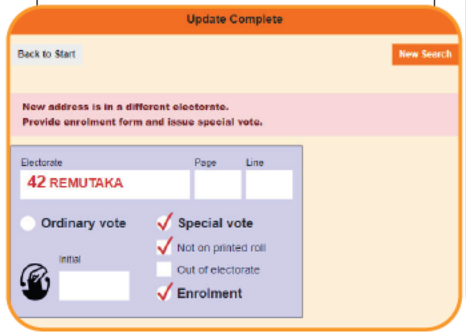
Step 1 Your details
Title
Surname or family name
First names
Date of birth
Occupation
Mobile phone number
Other phone number
Email address

Step 2 Your New Zealand address
Current NZ home address
New Zealand

Step 3 Your postal address
Postal address

Step 4 Your roll
Please tick ONE statement that applies to you.

Step 5 Sign and return
Upload form at
Email form to
Post form to
I declare that:
Signature
Date


Update Complete
Back to Start
New Search

New address is in a different electorate.
Provide enrolment form and issue special vote.

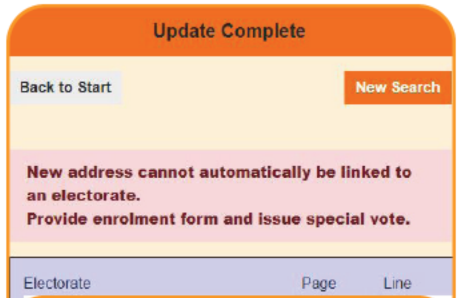
Electorate	Page	Line
42 REMUTAKA		

○ Ordinary vote
☑ Special vote
☑ Not on printed roll
☐ Out of electorate
☑ Enrolment
Initial

Multiple addresses / different date of birth / not an address in eRoll

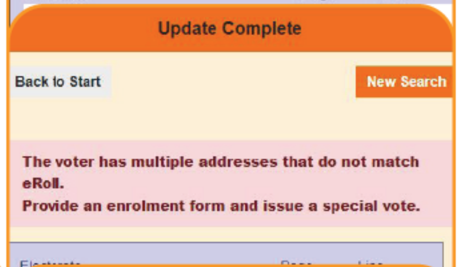
We can't update your details on our device today, but you can complete an enrolment form and complete a special vote

Provide an enrolment form, clipboard and pen. Provide the voting card and direct to SV

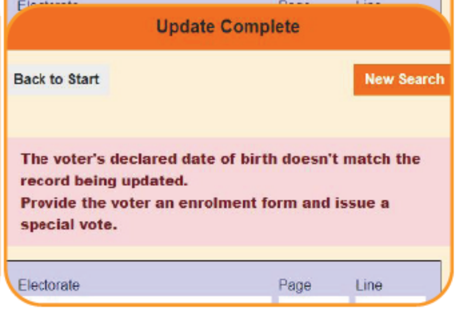

Update Complete
Back to Start
New Search

New address cannot automatically be linked to an electorate.
Provide enrolment form and issue special vote.

Electorate Page Line


Update Complete
Back to Start
New Search

The voter has multiple addresses that do not match eRoll.
Provide an enrolment form and issue a special vote.


Update Complete
Back to Start
New Search

The voter's declared date of birth doesn't match the record being updated.
Provide the voter an enrolment form and issue a special vote.

Electorate Page Line

Managing queues without eRoll

Kia ora/Hello, do you have a voting card?

V — Yes

Direct to the appropriate queue

V — No

That's okay, do you know which electorate you are enrolled in?

"Yes" → **Ordinary vote**

If the voter is not found on a printed roll, provide an enrolment form and special vote declaration

Voter is not enrolled → Provide an enrolment form → **Special Vote**

Voter is unsure

If you have a reference roll for where they live: check their details

Voter found with correct details → **Ordinary vote**

Voter not found or incorrect details → Provide an enrolment form → **Special Vote**

If you do not have a reference roll → Provide an enrolment form → **Special Vote**

Voter says they are on the unpublished roll → **Special Vote**

14/10/2023–ELECTION DAY

As at 8.00am (verbal) and 1.00pm on 14/10/2023 prepared by Crispian [redacted]

Distributed to	All GEDT/ELT members
Key Contacts	Anusha [redacted] and Crispian [redacted]
Previous ELT SITREP	3 ELT Standup SITREPS 5 13102023 - FINAL.docx
Overview	**Summary of the current event** [redacted] • eRoll issues [redacted]
Voting Services	GENERAL UPDATE **Overseas Operations** [redacted] **Auckland North Region** [redacted] • Long queues at voting places, prior to the issue with E-roll. Re-allocating staff to these places. [redacted] **Auckland South Region** [redacted] **Central North Island Region** [redacted] **Lower North Island Region** [redacted] **South Island Region** [redacted]

	[redacted] [redacted] [redacted] **Voting Services:** - eRoll issue - Staff have been advised to revert to their manual processes. [redacted]
Enrolment	**GENERAL UPDATE:** [redacted]

	[redacted]
IT	**GENERAL UPDATE:** [redacted] • eRoll server issues started around 10:05 and are continuing as at 12:05. Increasing capacity has not solved the issue IT are continuing to investigate with Catalyst. • eRoll issues **NOT RESOLVED**. (1.18pm). • eRoll **issues** has no impact on the count or release of results tonight. • eRoll performing well at the moment, processing full load. (1.59pm)
Comms & Education	**GENERAL UPDATE:** [redacted] • Few complaints re queue at Voting Places, due to eRoll holding process up. [redacted] • Brief media statement to go out on the eRoll issue and on long queues at voting places and the ability to vote if you are in the queue before 7pm. • Political parties (and scrutineers) have raised the eRoll issue with the EC. [redacted]
Customer Services	**GENERAL UPDATE:** [redacted]
Legal & Policy	**GENERAL UPDATE** [redacted]
Strategic Engagement and Partnership	**GENERAL UPDATE** [redacted]
Interagency Update	**NEMA** [redacted] [redacted]

	[redacted]
Security	GENERAL UPDATE [redacted]
People & Culture	GENERAL UPDATE: [redacted]
FOR YOUR INFORMATION	
Severe Weather Outlook – Saturday 14 October	[redacted] [redacted]

Summary

TEAMS thread	CCL Escalations Group Chat
Start time	14/10/23, 6:51:00 AM
End time	14/10/23, 5:49:00 PM

Participants

Bliss [redacted], Enize [redacted], Henry [redacted], Himanshu [redacted], Jack [redacted], Jordan [redacted], Lee [redacted], Lovepreet [redacted], Mark [redacted], Nigel [redacted], Sam [redacted], Te-Wera [redacted], Tim [redacted], Vincent [redacted], William [redacted], Zak [redacted].

Messages

[14/10 6:51 am] Vincent [redacted]

Good morning, CCL Team!

[14/10 6:51 am] Te-Wera [redacted]

Morning Vincent!

[14/10 7:21 am] Jack [redacted]

Morning

[14/10 7:21 am] Nigel [redacted]

Morning

[14/10 7:22 am] Lovepreet [redacted]

Morning

[14/10 7:27 am] William [redacted]

[redacted]

[14/10 7:27 am] Vincent [redacted]

Great - thanks William

[14/10 8:04 am] Vincent [redacted]

Just a friendly check in - how are call volumes so far team?

[14/10 8:05 am] Jack [redacted] [redacted]

16 calls so far

[14/10 8:05 am] Jack [redacted]

[redacted]

[14/10 8:09 am] Henry [redacted]

[redacted]

[14/10 8:12 am] William [redacted]

[redacted].

[14/10 8:16 am] Lee [redacted]

Morning team

[14/10 8:19 am] Nigel [redacted]

[redacted]

[14/10 8:34 am] Vincent [redacted]

[redacted]

[14/10 8:59 am] William [redacted]

80 calls so far

[14/10 8:59 am] Nigel [redacted]

In the last hour?

[14/10 9:00 am] William [redacted]

pretty much haha

[14/10 9:00 am] Zak [redacted]

Nigel [redacted]

In the last hour?

yep

[14/10 9:06 am] Henry [redacted]

[redacted]

[14/10 9:10 am] William [redacted]

[redacted]

[14/10 9:10 am] William [redacted]

[redacted]

[14/10 9:23 am] Sam [redacted]

Morning team, just had a call from Beka [redacted] at the [redacted] electorate, she's advised eRoll on one of the voting place phones is completely inaccessible. I checked her sign-in logs and the error shows the phone is not [redacted] compliant. I looked up the device in [redacted] and found the below:

[redacted]

would this require a re-image of the phone or would it be fine for us to wait?

[14/10 10:01 am] Vincent [redacted]

Hi there, Sam - looking into this

[14/10 10:03 am] Tim [redacted]

Hi, [redacted] shows the device is compliant (now) and Beka successfully authorised at 9:05am

[14/10 10:05 am] Tim [redacted]

Sam, can you confirm if this is still an issue please?

[14/10 10:08 am] Zak [redacted]

Hi Tim, i'll call the user and confirm this.

[14/10 10:18 am] Zak [redacted]

Zak [redacted]

Hi Tim, i'll call the user and confirm this.

All resolved, closing on our end.

[14/10 10:20 am] William [redacted]

eRoll is down team

[14/10 10:20 am] Zak [redacted]

Hi team mass calls for Eroll application not being able to select electorates reported as of 2 minutes ago

[14/10 10:27 am] William [redacted]

we're advising users the following: "we are enabling the BCP process for when Eroll down - please go to your voter assistance Pim, and go to page 18. it will guide you on what you need to do"

[14/10 10:27 am] Vincent [redacted]

Thanks William - thanks team -

will keep you posted - under investigation but no ETA at this stage

[14/10 10:37 am] William [redacted]

we're getting some calls advising eRoll is back up and working. only some at this stage

[14/10 10:42 am] William [redacted]

Anahera [redacted] has called in from the [redacted] High School, [redacted] Electorate. They apparently dont have any paper rolls to use. So they cant do BCP. Calling the EM now, just an FYI

[14/10 10:46 am] William [redacted]

well its kinda sorted. EM emailed them some paper enrollment forms and they're printing them out now. Hopefully no more issues.

[14/10 10:56 am] Henry [redacted]

How are call volumes now - calming down?

[14/10 10:56 am] William [redacted]

248

[14/10 10:56 am] William [redacted]

calming down now, but eRoll hit us pretty hard

[14/10 11:00 am] Zak [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[14/10 11:08 am] William [redacted]

any updates with eRoll?

[14/10 11:10 am] Vincent [redacted]

under investigation - looking at resource capacity [redacted]connections) - the major spike that caused the major impact has decreased but may be VP going to BCP -

[14/10 11:10 am] Henry [redacted]

it is with Catalyst and [redacted]. EC will advise when staff can resume using it

[14/10 11:11 am] Vincent [redacted]

Henry -- adding to you to Incident Management call -

[14/10 11:19 am] Vincent [redacted]

Hi team - Incident Management team are working through issue - looks to be a traffic capacity bottleneck - looking to scale up (doubling the number of connections) in the first instance - will look at when this proposed change will take place

[14/10 11:22 am] Henry [redacted]

Hi Vincent, looks like still a large number of calls coming in for this. can VS send another etext update to all staff at all?

[14/10 11:22 am] Bliss [redacted]

[redacted]

[redacted]

[14/10 11:25 am] Vincent [redacted]

Henry [redacted]

Hi Vincent, looks like still a large number of calls coming in for this. can VS send another etext update to all staff at all?

We have started to make some changes to increase the traffic capacity (non-disruptive change) -

We are seeing if this has made a difference - will update shortly

[14/10 11:26 am] William [redacted]

appreciate the prompt updates

[14/10 11:27 am] Vincent [redacted]

This connections uplift has shifted the bottleneck load to the next server (database server is now under load) -

[redacted]

[redacted]

[14/10 11:42 am] Vincent [redacted]

Just an update on e-Roll major incident to this thread -

Currently investigating traffic (worker) connections and server resource capacity loads with change proposals underway to scale up capacity where needed -

This may require a database server reboot to apply the upscale in capacity/resources to handle load - will let you know if this does go ahead -

[14/10 11:57 am] Henry [redacted]

how are calls looking?

[14/10 12:00 pm] William [redacted]

303

[14/10 12:34 pm] William [redacted]

Vincent [redacted]

Just an update on e-Roll major incident to this thread - Currently investigating traffic (worker) connections and server resource capacity loads with change proposals underway to scale up capacity where needed - This may require a database server reboot to apply the upscale in capacity/resourc…

can we get another update with eRoll?

[14/10 12:36 pm] Mark [redacted]

William [redacted] still discussing changes to improve service ... decision imminent on Code change with no outage, resource change with outage ruled out for now

[14/10 12:39 pm] Mark [redacted]

ok change approved to update code ... micro outage,,, right now

[14/10 12:40 pm] Mark [redacted]

should be back online already

[14/10 12:41 pm] Mark [redacted]

can get users to test now ... testing on our side looks like it may be resolved

[14/10 12:42 pm] Mark [redacted]

please confirm with users ...

[14/10 12:42 pm] William [redacted]

we are calling users back now

[14/10 12:42 pm] Mark [redacted]

wait for a few minutes

[14/10 12:42 pm] William [redacted]

lol too late

[14/10 12:42 pm] Mark [redacted]

we need to send out coms our end .. from VS

[14/10 12:42 pm] William [redacted]

we've already started, I'll tell everyone to wait tho haha

[14/10 12:43 pm] Mark [redacted]

yeah if users call in they can retry .. dont call back quite yet

[14/10 12:43 pm] Mark [redacted]

we want to manage the load -- dont want all users back in at once

[14/10 12:51 pm] William [redacted]

we've only called 4 users at this stage, and they have ALL confirmed its working.

[14/10 12:52 pm] Mark [redacted]

thanks mate!

[14/10 1:01 pm] Henry [redacted]

how are calls looking now

[14/10 1:02 pm] Enize [redacted]

Eroll still down, the user who confirmed 5 min ago advise now again that it is doing the same thing it was earlier

[14/10 1:02 pm] William [redacted]

Henry [redacted]

how are calls looking now

353

[14/10 1:03 pm] Mark [redacted]

ok will tell the team

[14/10 1:09 pm] Mark [redacted]

investigations underway again ... i'll update you as information comes in

[14/10 1:10 pm] Sam [redacted]

cheers Mark

[14/10 1:22 pm] William [redacted]

Mark [redacted]

investigations underway again ... i'll update you as information comes in could we get some comms sent out advising eRoll is down again, we're getting alot of calls regarding it.

[14/10 1:23 pm] Mark [redacted]

i dont beleive they sent out comms yet to say its back online ...

[14/10 1:23 pm] William [redacted]

William [redacted]

could we get some comms sent out advising eRoll is down again, we're getting alot of calls regarding it.

okay, relatively not that many calls - probably around 30 since 1pm

[14/10 1:23 pm] William [redacted]

users are saying they have

[14/10 1:23 pm] Mark [redacted]

Ah ok . will have that checked ...

[14/10 1:30 pm] Mark [redacted]

changes have been made and it looks like there is an improvement -please keep an eye on the call queues and let us know how it goes, we will send out coms once confirmed officially

[14/10 1:35 pm] Mark [redacted]

We believe this should now be resolved . please monitor and advise if it reoccurs

[14/10 1:36 pm] Enize [redacted]

Shall we start calling users back now?

[14/10 1:36 pm] Mark [redacted]

whats the load like ?

[14/10 1:37 pm] Mark [redacted]

they will get offical coms from VS so no need

[14/10 1:37 pm] Bliss [redacted]

Currently only one person taking a call

[14/10 1:39 pm] Mark [redacted]

William [redacted]

353

is that for the day or waiting to be answered ?

[14/10 1:40 pm] Bliss [redacted]

391 for the day now, none in queue waiting to be answered

353 would've been the total for the day at that time

[14/10 1:40 pm] Enize [redacted]

One user has confirmed now that it is working. We will keep you updated

[14/10 1:40 pm] William [redacted]

Mark [redacted]

is that for the day or waiting to be answered ?

definitely for the entire day!

[14/10 1:55 pm] Vincent [redacted]

e-Roll Major Incident - Update

Subsequent to the initial change implemented at 12:45, we have applied a further emergency change which has shown improvements to e-roll performance - Continuing to maintain close watch and monitoring

[14/10 1:59 pm] William [redacted]

yup looks really good so far

[14/10 2:00 pm] William [redacted]

we're slowly calling users to advise. very slowly at this stage

[14/10 2:20 pm] William [redacted]

any updates with eRoll? Should we start calling more users to test?

[14/10 2:25 pm] Mark [redacted]

the VC coms went out - there should be no need for a call back . but yes its considered resolved

[14/10 3:26 pm] Sam [redacted]

Sam [redacted] [redacted]

Morning team, just had a call from Beka [redacted] at the [redacted] electorate, she's advised eRoll on one of the voting place phones is completely inaccessible. I checked her sign-in logs and the error shows the phone is not Intune compliant. I looked up the device in [redacted] and found the…

Hi team, had another user Theresa [redacted] call through with this same issue since the morning. Device name: [redacted]. Would you be able to sort this one out as well? Cheers team

[14/10 3:27 pm] William [redacted]

hey team, just double checking will there be a standup at 3:30 today?

[14/10 3:30 pm] Vincent [redacted]

Hi team - we have one at 4pm

[14/10 3:54 pm] Mark [redacted]

[redacted]

[14/10 3:54 pm] Mark [redacted]

just an FYI

[redacted]

[redacted]

[14/10 5:08 pm] Henry [redacted]

Hi, how are the tickets looking now?

[14/10 5:09 pm] William [redacted]

hey henry, they're looking good. [redacted]

[14/10 5:25 pm] William [redacted]

we've got 2 users on the line with eRoll issues. Same as earlier

[14/10 5:25 pm] William [redacted]

hopefully level 1 resolves it

[redacted]

[redacted] 🙄

[redacted]

[14/10 5:40 pm] Bliss [redacted]

Had another user call up with the same issue but during the call it came back with the Electorates able to be selected, but just searched very slowly

[14/10 5:40 pm] Jordan [redacted]

Hey guys. I have escalated the E-Roll slowness issues to the Apps team. They are looking into this as a priority right now. Will update you guys as soon as I can

[14/10 5:41 pm] Jordan [redacted]

Thanks Bliss. What's the name of the user and where are they located?

[14/10 5:41 pm] William [redacted]

looks like the issues earlier in the day have returned. Not as bad but we're getting calls about it

[14/10 5:41 pm] Bliss [redacted]

Jordan [redacted]

Thanks Bliss. What's the name of the user and where are they located?

Brent [redacted], working in [redacted] Electorate at [redacted] Primary School

Can be contactable on [redacted]

[14/10 5:45 pm] Jordan [redacted]

Thanks for the information guys. Issue is across different areas so safe to say that issues have picked back up. Thankfully just slow and not completely down

[14/10 5:48 pm] Mark [redacted]

seams to have gotten better on the back end how many calls are you getting

[14/10 5:48 pm] William [redacted]

not many at all. 4 calls

[14/10 5:48 pm] Mark [redacted]

was dodgy for 515 -- to 545

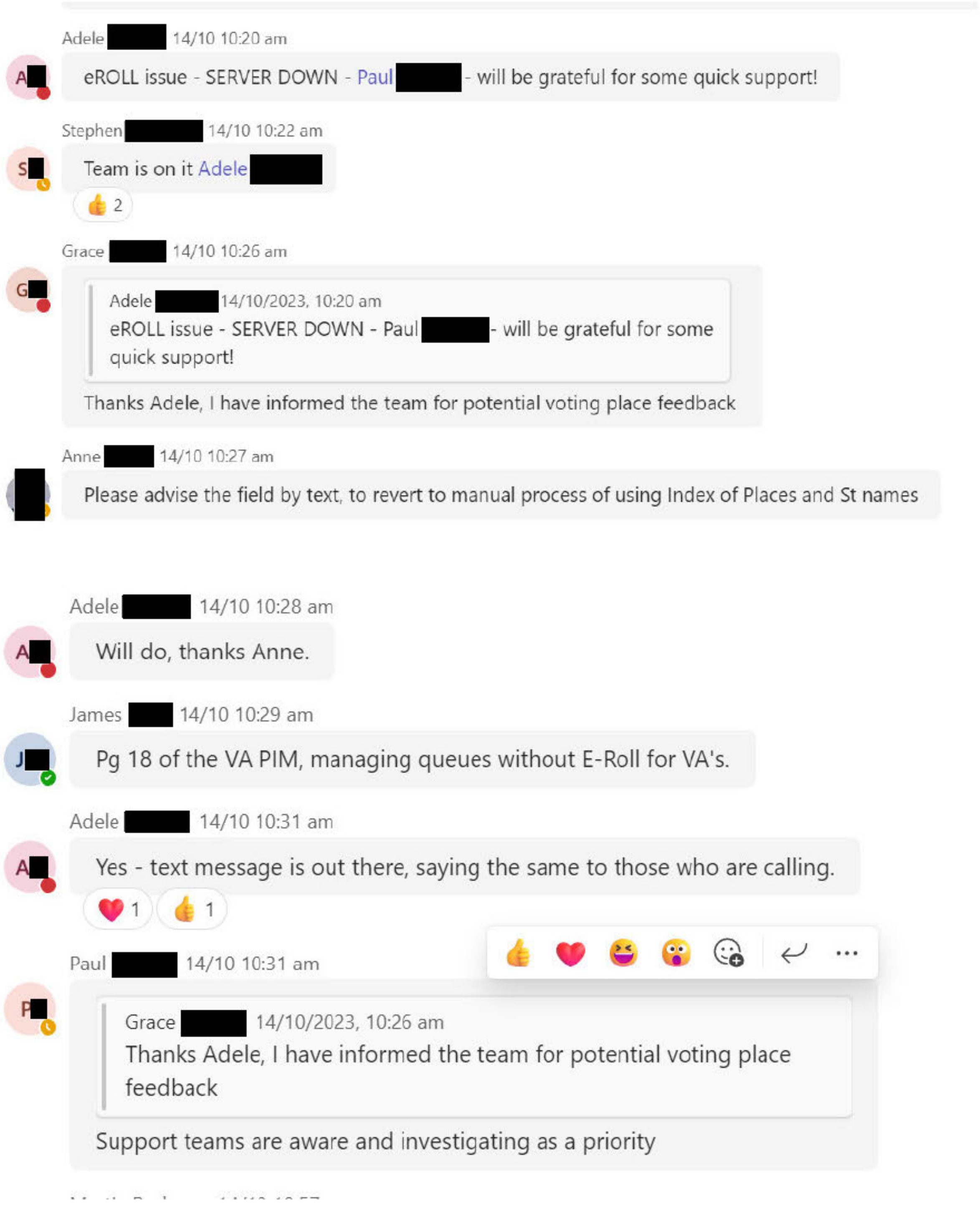
[14/10 5:49 pm] Mark [redacted]

still investigating

[14/10 5:49 pm] Mark [redacted]

keep me posted if you get more

GEDT Taskforce Chat 14 October 2023



Adele [redacted] 14/10 10:20 am

eROLL issue - SERVER DOWN - Paul [redacted] - will be grateful for some quick support!

Stephen [redacted] 14/10 10:22 am

Team is on it Adele [redacted]

👍 2

Grace [redacted] 14/10 10:26 am

> Adele [redacted] 14/10/2023, 10:20 am
> eROLL issue - SERVER DOWN - Paul [redacted] - will be grateful for some quick support!

Thanks Adele, I have informed the team for potential voting place feedback

Anne [redacted] 14/10 10:27 am

Please advise the field by text, to revert to manual process of using Index of Places and St names

Adele [redacted] 14/10 10:28 am

Will do, thanks Anne.

James [redacted] 14/10 10:29 am

Pg 18 of the VA PIM, managing queues without E-Roll for VA's.

Adele [redacted] 14/10 10:31 am

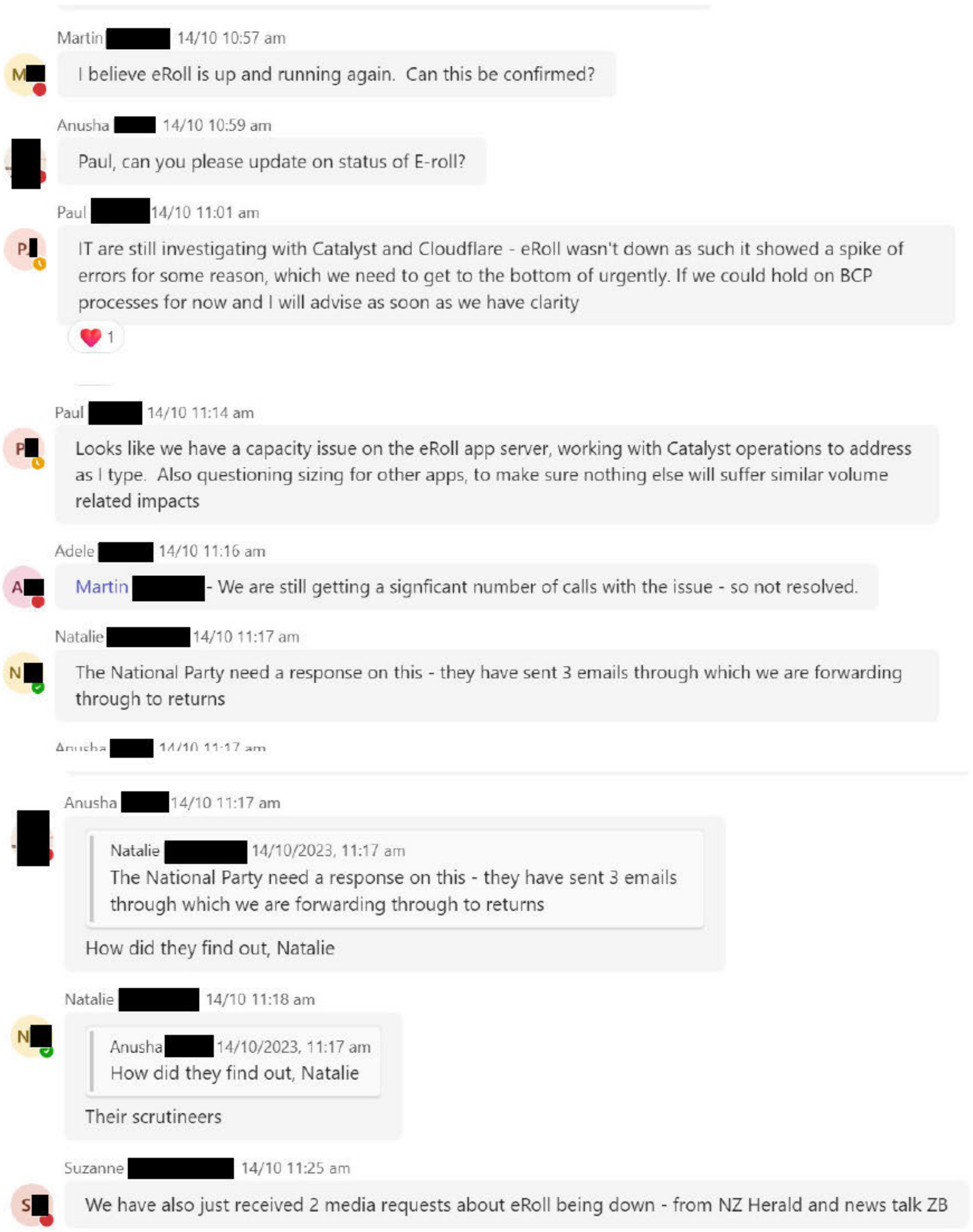
Yes - text message is out there, saying the same to those who are calling.

❤️ 1 👍 1

Paul [redacted] 14/10 10:31 am

> Grace [redacted] 14/10/2023, 10:26 am
> Thanks Adele, I have informed the team for potential voting place feedback

Support teams are aware and investigating as a priority



Martin [redacted] 14/10 10:57 am

I believe eRoll is up and running again. Can this be confirmed?

Anusha [redacted] 14/10 10:59 am

Paul, can you please update on status of E-roll?

Paul [redacted] 14/10 11:01 am

IT are still investigating with Catalyst and Cloudflare - eRoll wasn't down as such it showed a spike of errors for some reason, which we need to get to the bottom of urgently. If we could hold on BCP processes for now and I will advise as soon as we have clarity

❤ 1

Paul [redacted] 14/10 11:14 am

Looks like we have a capacity issue on the eRoll app server, working with Catalyst operations to address as I type. Also questioning sizing for other apps, to make sure nothing else will suffer similar volume related impacts

Adele [redacted] 14/10 11:16 am

Martin [redacted] - We are still getting a signficant number of calls with the issue - so not resolved.

Natalie [redacted] 14/10 11:17 am

The National Party need a response on this - they have sent 3 emails through which we are forwarding through to returns

Anusha [redacted] 14/10 11:17 am

Anusha [redacted] 14/10 11:17 am

> Natalie [redacted] 14/10/2023, 11:17 am
> The National Party need a response on this - they have sent 3 emails through which we are forwarding through to returns

How did they find out, Natalie

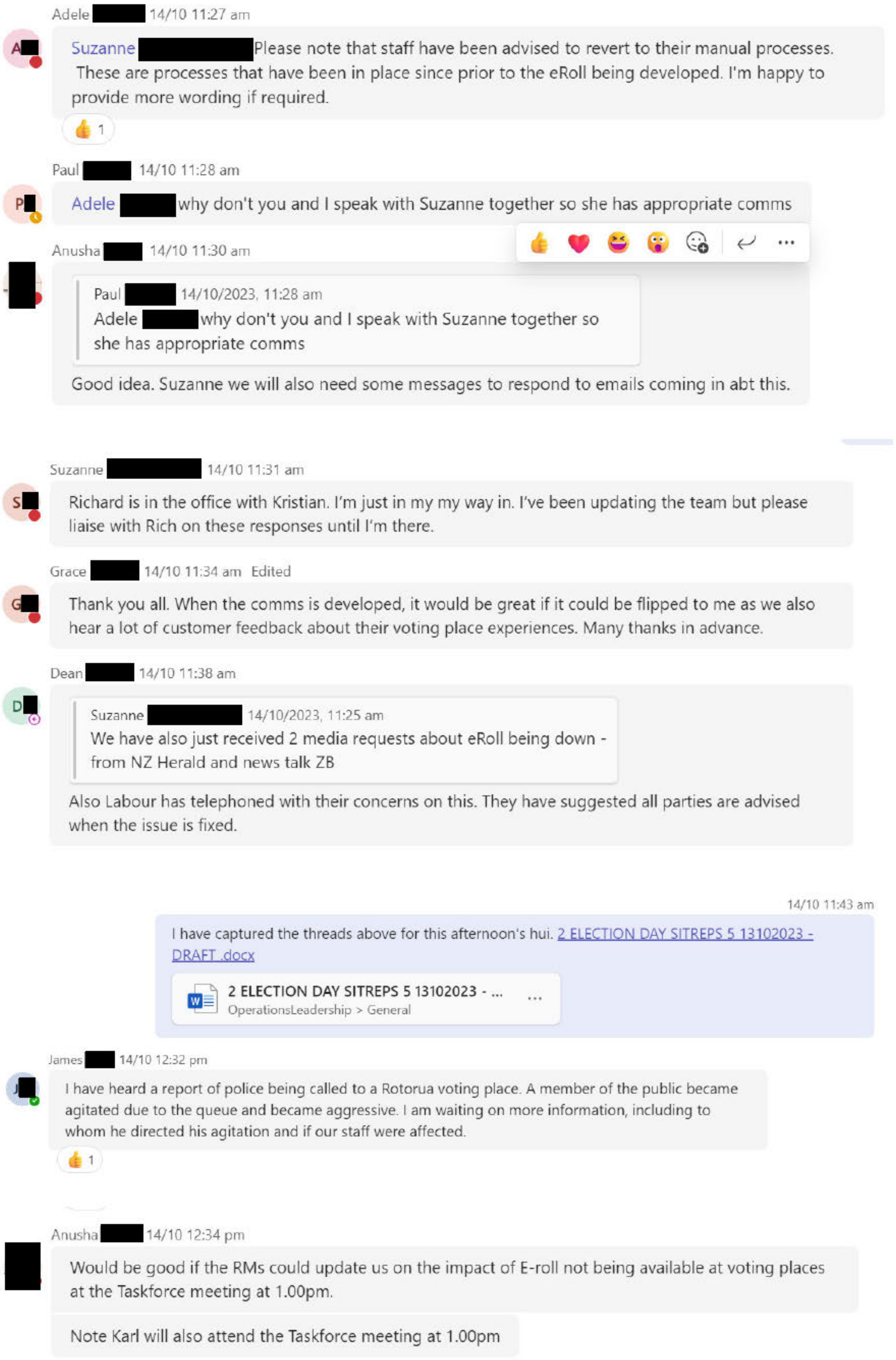
Natalie [redacted] 14/10 11:18 am

> Anusha [redacted] 14/10/2023, 11:17 am
> How did they find out, Natalie

Their scrutineers

Suzanne [redacted] 14/10 11:25 am

We have also just received 2 media requests about eRoll being down - from NZ Herald and news talk ZB



Adele [redacted] 14/10 11:27 am

Suzanne [redacted] Please note that staff have been advised to revert to their manual processes. These are processes that have been in place since prior to the eRoll being developed. I'm happy to provide more wording if required.

👍 1

Paul [redacted] 14/10 11:28 am

Adele [redacted] why don't you and I speak with Suzanne together so she has appropriate comms

Anusha [redacted] 14/10 11:30 am

> Paul [redacted] 14/10/2023, 11:28 am
> Adele [redacted] why don't you and I speak with Suzanne together so she has appropriate comms

Good idea. Suzanne we will also need some messages to respond to emails coming in abt this.

Suzanne [redacted] 14/10 11:31 am

Richard is in the office with Kristian. I'm just in my my way in. I've been updating the team but please liaise with Rich on these responses until I'm there.

Grace [redacted] 14/10 11:34 am Edited

Thank you all. When the comms is developed, it would be great if it could be flipped to me as we also hear a lot of customer feedback about their voting place experiences. Many thanks in advance.

Dean [redacted] 14/10 11:38 am

> Suzanne [redacted] 14/10/2023, 11:25 am
> We have also just received 2 media requests about eRoll being down - from NZ Herald and news talk ZB

Also Labour has telephoned with their concerns on this. They have suggested all parties are advised when the issue is fixed.

14/10 11:43 am

I have captured the threads above for this afternoon's hui. 2 ELECTION DAY SITREPS 5 13102023 - DRAFT .docx

2 ELECTION DAY SITREPS 5 13102023 - ...
OperationsLeadership > General

James [redacted] 14/10 12:32 pm

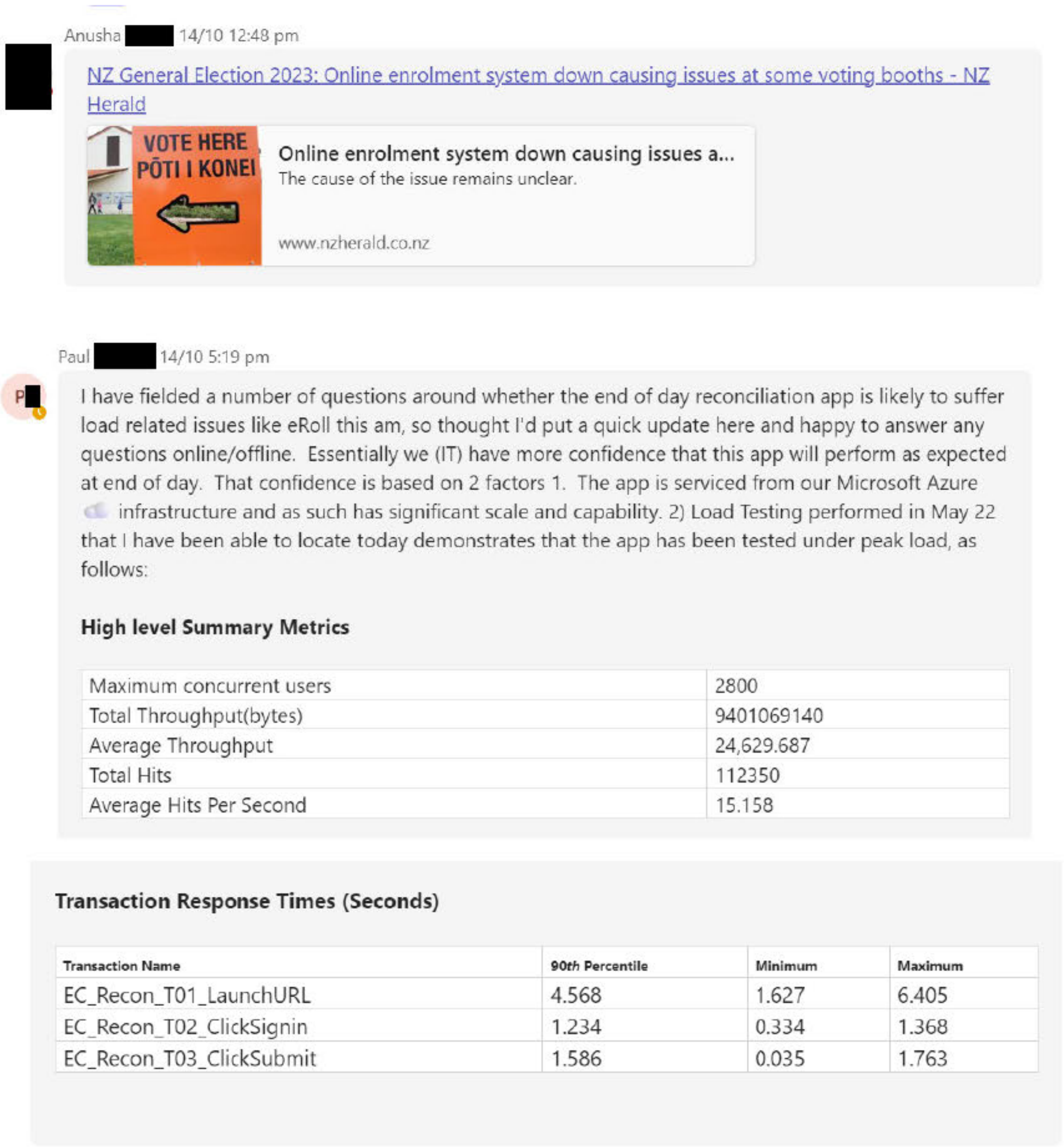
I have heard a report of police being called to a Rotorua voting place. A member of the public became agitated due to the queue and became aggressive. I am waiting on more information, including to whom he directed his agitation and if our staff were affected.

👍 1

Anusha [redacted] 14/10 12:34 pm

Would be good if the RMs could update us on the impact of E-roll not being available at voting places at the Taskforce meeting at 1.00pm.

Note Karl will also attend the Taskforce meeting at 1.00pm



[redacted]

Anusha [redacted] 14/10 12:48 pm

[NZ General Election 2023: Online enrolment system down causing issues at some voting booths - NZ Herald]

Online enrolment system down causing issues a...

The cause of the issue remains unclear.

www.nzherald.co.nz

P[redacted]

Paul [redacted] 14/10 5:19 pm

I have fielded a number of questions around whether the end of day reconciliation app is likely to suffer load related issues like eRoll this am, so thought I'd put a quick update here and happy to answer any questions online/offline. Essentially we (IT) have more confidence that this app will perform as expected at end of day. That confidence is based on 2 factors 1. The app is serviced from our Microsoft Azure infrastructure and as such has significant scale and capability. 2) Load Testing performed in May 22 that I have been able to locate today demonstrates that the app has been tested under peak load, as follows:

High level Summary Metrics

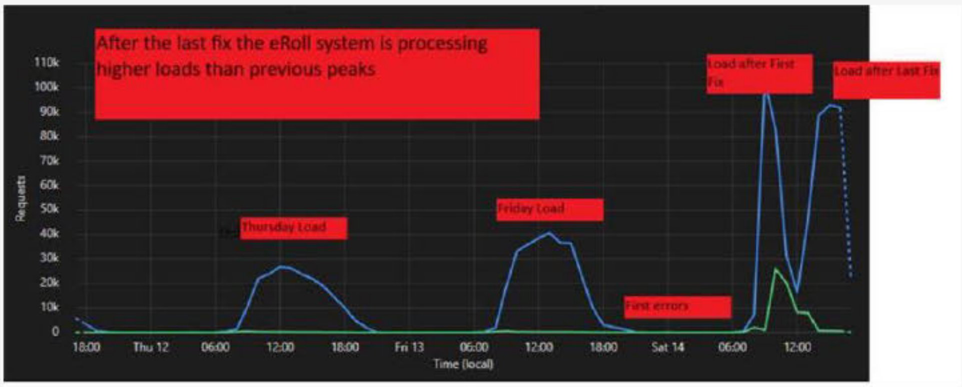
Maximum concurrent users	2800
Total Throughput(bytes)	9401069140
Average Throughput	24,629.687
Total Hits	112350
Average Hits Per Second	15.158

Transaction Response Times (Seconds)

Transaction Name	90*th* Percentile	Minimum	Maximum
EC_Recon_T01_LaunchURL	4.568	1.627	6.405
EC_Recon_T02_ClickSignin	1.234	0.334	1.368
EC_Recon_T03_ClickSubmit	1.586	0.035	1.763

Paul [redacted] 14/10 5:29 pm

And an update on eRoll just to show that we have now exceeding prior volumes and continues to perform



Processing volumes now in excess of previous peaks (Thursday and Friday). Green and Blue are good. Higher the better.

👍 2

Paul [redacted] 14/10 5:50 pm

eRoll FYI - we have seen a number of spikes in errors between 5:15 and 5:40 but transactions are still getting through at much higher volumes than Thursday and Friday but we did see some errors which would have resulted in performance slowness for some users. at 5:40 errors dropped again completely. Seems like a 25 minute drop off but now ok. Still investigating and monitoring closely

Paul [redacted] 14/10 8:45 pm

End of Reconciliation app holding up pretty well so far, processed over 60,000 requests, 26 errors (0.043%) mostly mobile connectivity related. Over 2100 users connected, 1200 peak concurrency.

👍 2

WR #419462: eRoll app response is slow or not working

Requested: 2023-10-14 10:57 **Parent request:** 419464

Status Testing/Signoff
Organisation Electoral Commission
Person Paul [redacted]
System EC Outages and Incidents
Type Maintenance
Urgency On Specified Date
Priority Critical
Details WR to capture response and details of possible [redacted] issue affecting eRoll.

- Reports from eRoll users, the app is slow or not working
- Spike at around 10:05am
- eRoll logs show 502 errors
- more details to be added

Allocated To

Catalyst Sysadmin NZ, James [redacted] Morgan [redacted] [NZOps] Incident Response

Subscribed Users

Catalyst Sysadmin NZ, Cindy [redacted], Godfrey [redacted], Ian [redacted] James [redacted] Jason [redacted] Jeff [redacted], Miroslav [redacted], Morgan [redacted] [NZOps] Incident Response, [NZOps] Pager Team, Paul [redacted], Shannon [redacted]

Notes (30)

Reverse display order

#30
a month ago
by Shannon [redacted]
2023-10-24 12:48

Incident report with EC.
Remediation work to follow.

#29
a month ago
by Andrew [redacted]
2023-10-14 20:59

[redacted] does not run regular scheduled job concurrently if they are detected as still running. No evidence of multiple job runs in the scheduled_job-instance table for these two jobs. The job scheduler will wait until no job of that name is running before starting another.

Will need to analyze further why these jobs are now taking much longer than they used to.

I saw that they have been taking longer to run in the month or so leading up to the election so it is not a sudden jump in execution time today only.

#28
a month ago
by Jeff [redacted]
2023-10-14 18:53

I'm not sure it is the culprit but its clearly not great when a job that normally takes 2 minutes to complete and runs every 15 minutes is taking closer to an hour. I've updated the Generate Suspicious Session Data and Generate Suspicious IP Data jobs to run every 3 hours with the next runs after 8pm.

The suspicious session data job has been running approximately every 90 minutes today so I'd be a little surprised if that was the ultimate cause.

#27
a month ago
by Shannon

Looking like the culprit may be some query related to a regular job that checks for suspicious IP activity.

[redacted]
2023-10-14 18:45

The job was starting to take longer than 15 minutes and may have been running multiple times concurrently, causing issues.

Jeff was apparently considering modifying the frequency from running every 15 minutes.

That process is also running against the primary database server, and could be run against a secondary instead.

#26
a month ago
by Ian [redacted]
2023-10-14 18:42

Hi Shannon,

Could you provide the update please? Thanks, Ian.

#25
a month ago
by Shannon
[redacted]
2023-10-14 18:03

New batch of 500 and 502's reported and visible in [redacted] dashboard for:

17:10 - 17:40

Investigation into those ongoing.

#24
a month ago
by Ian [redacted]
2023-10-14 13:36

confirmed as approved.

#23
a month ago
by Shannon
[redacted]
2023-10-14 13:27

Same change made on [redacted] for consistency.

#22
a month ago
by Shannon
[redacted]
2023-10-14 13:25

502's came back when electorates started using the app again?

Some old database processes with the old code still stuck waiting for a lock were killed.

New code change requested, and approved for change in the conference call:

Andrew[redacted] Can we comment out the [redacted] line from the code.
Andrew[redacted] That will prevent any future requests attempting this code and getting/queued

Change applied and service restarted.

#21
a month ago
by Andrew
[redacted]
2023-10-14 13:06

Noting that for eRoll Load Testing that was undertaken to have identified this as a bug - every load test query would need to have used a 'fake' IP address.

This bug still existed at GE 2020 but with far fewer API calls due to more limited eRoll functionality - I assert that the load never got critical

#20
a month ago
by Shannon
[redacted]
2023-10-14 12:56

Noting that post the change to the code on pubapp, the DB server load halved from 18 to 9.

502 Response codes for eroll stopped, and 200 codes went from ~40/minute to up near 1000/minute.

#19
a month ago
by Ian [redacted]
2023-10-14 12:56

Confirming approved.

Can we please keep this WR open for the time being.

#18
a month ago

by Shannon [redacted] 2023-10-14 12:51	Had approval on the call to apply the same change to the [redacted] app, which has now been applied.
#17 **a month ago** by James [redacted] 2023-10-14 12:50	Noting that for eRoll Load Testing to have identified this as a bug - every load test query would need to have used a 'fake' IP address. This bug still existed at GE 2020 but with far fewer API calls due to more limited eRoll functionality - the assertion is that the load never got critical.
#16 **a month ago** by Shannon [redacted] 2023-10-14 12:44	"The same fix could be applied to the [redacted] host, same file but the [redacted] service would need restarting instead" This would be the same fix for the [redacted]
#15 **a month ago** by Ian [redacted] 2023-10-14 12:39	Approved following discussion on issue call: No significant outage required. Only affects eRoll.
#14 **a month ago** by Shannon [redacted] 2023-10-14 12:31	From Andrew: Please change the following line [redacted] in sub framework_login [redacted] to be [redacted]
#13 **a month ago** by Shannon [redacted] 2023-10-14 12:14	Latest is that there is a slow performing database query tied to the eroll app (but not the website), which is causing 6+ second delays on queries. SMX for [redacted] is working on a workaround for that
#12 **a month ago** by Ian [redacted] 2023-10-14 12:06	Changes to the database server not approved on the basis that we're not seeing other applications using the same database experiencing similar performance issues. This may change as discussions go forward.
#11 **a month ago** by Shannon [redacted] 2023-10-14 11:51	Increasing the scale of the database server from a c16r128 to a c32r128 will only take a few minutes. If possible we would also like to increase the underlying disk speed.
#10 **a month ago** by Sam [redacted] 2023-10-14 11:38	I've increased the [redacted] from 15 to 30, run [redacted] to pick the changes up, and restarted the [redacted]
#9 **a month ago** by Shannon [redacted] 2023-10-14 11:32	Next steps will likely involve adding more CPU to the database server and retuning it, which will require a couple of minutes of outage.
#8 **a month ago**	

by Ian [redacted] 2023-10-14 11:31	Confirmed as approved.
#7 **a month ago** by Shannon [redacted] 2023-10-14 11:30	Have phone based approval to: "up the number of [redacted] from 15 to 30"
#6 **a month ago** by Sam [redacted] 2023-10-14 11:25	[redacted] has been increased to 1536 on [redacted] and [redacted] [redacted] added a [Service] override to [redacted] daemon [redacted] [redacted] and restarted [redacted], and disabled [redacted]
#5 **a month ago** by Ian [redacted] 2023-10-14 11:21	Approved to double number of [redacted] No approval as yet to increase scale of servers because it needs to be taken offline.
#4 **a month ago** by Shannon [redacted] 2023-10-14 11:18	Proposed changes: • Increase [redacted] from [redacted] to [redacted] • Increase scale of servers
#3 **a month ago** by Morgan [redacted] 2023-10-14 11:09	Hi, Please see the attached screenshots showing the 502 errors, and the affected paths. This started at around 10:05 and is ongoing.
#2 **a month ago** by James [redacted] 2023-10-14 10:58	Call with EC at ~10:30
#1 **a month ago** by James [redacted] 2023-10-14 10:57	Started WR to capture details and response

From: Morgan [redacted]
To: Ian [redacted]
Subject: FW: eRoll status update
Date: Monday, 18 December 2023 12:10:09 pm
Attachments: image001.png

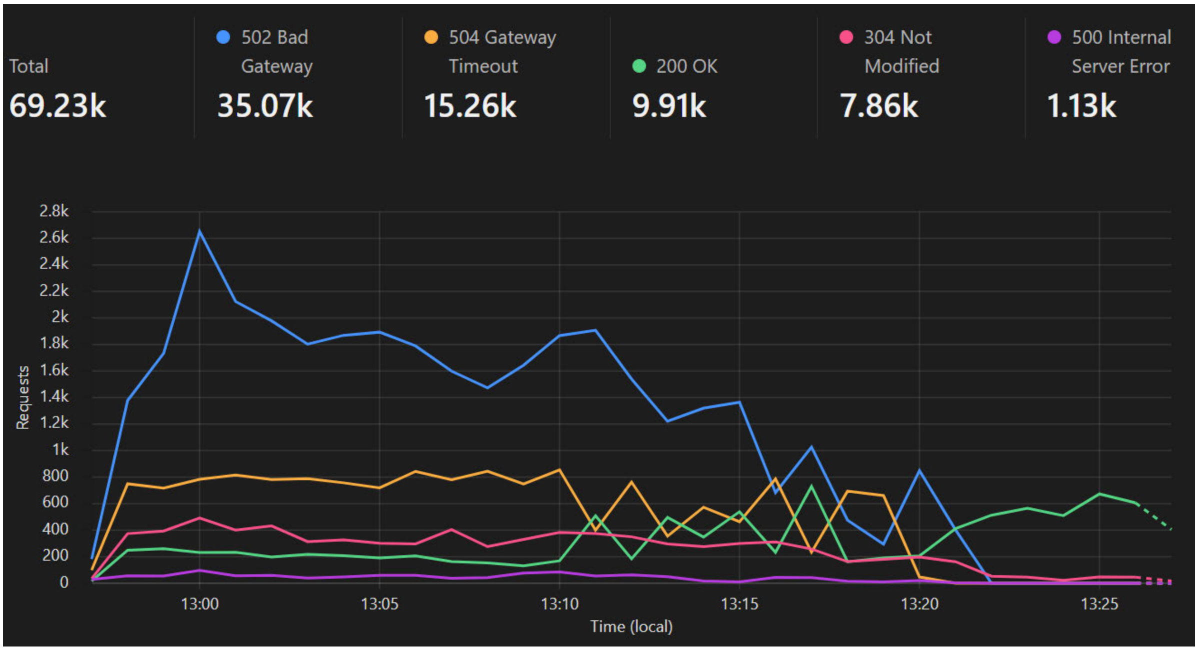
Best regards,

Morgan [redacted] | Cyber Security Analyst | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140

From: Morgan [redacted]
Sent: Saturday, October 14, 2023 1:33 PM
To: Paul [redacted] <paul [redacted] @elections.govt.nz>
Cc: Ian [redacted] <Ian [redacted] @elections.govt.nz>
Subject: eRoll status update

Hi Paul,

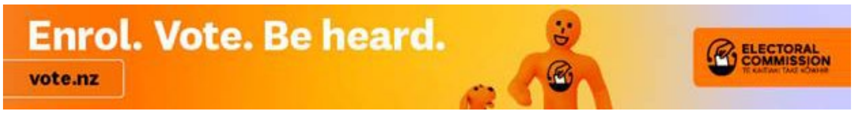
Another change was made (around 1:22) that appears to have fixed the issue. In the below graph the successful connections are shown by the green and pink lines:



We are monitoring eRoll closely.

Best regards,

Morgan [redacted] | Cyber Security Analyst | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
http://www.elections.org.nz



From: Kristina [redacted]
To: Anusha [redacted]; Martin [redacted]
Subject: FW: Software issues and lines to vote
Date: Saturday, 14 October 2023 12:28:00 pm
Importance: High

FYI,

From: [redacted] [redacted] [redacted]
Sent: Saturday, October 14, 2023 12:15 PM
To: Karl [redacted] <[redacted]>
Cc: Kristina [redacted] <[redacted]>; Dean [redacted] <[redacted]>; Hayden [redacted] <[redacted]>
Subject: Software issues and lines to vote

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Kia ora Karl,

I'm writing to follow up on a conversation I had with Dean a few minutes ago about the software issues the Commission is experiencing, and the impact on people's ability to vote. Dean was very helpful, and provided an assurance that the Commission was aware of the software issues and are working to fix it as soon as possible.

We're now receiving multiple reports from different electorates of voting queues that are lasting up to 45 minutes, potentially due to these issues, with people leaving the line before casting a ballot (examples are Kieburn School, Kelston Boys High School, St Leonards Primary School).

We are very concerned by reports that people are leaving voting lines due to the length of time they have to wait, and that they may have been discouraged from voting at all by the experience.

Could I please get an urgent update on how the Commission is managing this situation so that nobody is prevented or discouraged from voting due to the software issues and length of waiting time?

In the event that the software issues and lines persist past 1pm, could we please also get an assurance that the Commission will be putting out extensive, proactive communications to assure people that they'll all have a reasonable opportunity to vote?

Ngā mihi,
[redacted] [redacted]

[redacted]

[redacted]

[redacted]
[redacted] | [redacted]

[redacted]

Authorised by [redacted]

From: Anusha [redacted]
To: Kristina [redacted] Martin [redacted] Karl [redacted]
Subject: RE: Software issues and lines to vote
Date: Saturday, 14 October 2023 12:37:25 pm
Attachments: image001.png
image002.png

Hi all

Adele assures me that E-roll issues is not the cause of the long queues. It was expected that we will have a rush on election day. She says that every voting place has the hard copy rolls which they can use to check if someone is on the roll.

Ngā mihi

Anusha [redacted] (she/her)
Deputy Chief Executive Operations | Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 **|** Level 10, 34 – 42 Manners Street **|** Wellington **|** 6140
| Mobile [redacted] **|** Fax +[redacted] **|** http://www.elections.org.nz

---

From: Kristina [redacted] <[redacted]>
Sent: Saturday, October 14, 2023 12:31 PM
To: Anusha [redacted] <[redacted]>; Martin [redacted] <[redacted]>
Subject: FW: Software issues and lines to vote
Importance: High

FYI,

From: [redacted] [redacted] <[redacted]>
Sent: Saturday, October 14, 2023 12:15 PM
To: Karl [redacted] <[redacted]>
Cc: Kristina [redacted] <[redacted]>; Dean [redacted] [redacted]>; Hayden [redacted] <[redacted]>
Subject: Software issues and lines to vote

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Ngā mihi,
[redacted]

[redacted]

[redacted] | [redacted]

[redacted]

Authorised by [redacted]

From: [redacted]
To: Karl [redacted]
Cc: Kristina [redacted] Dean [redacted] Hayden [redacted]
Subject: Re: Software issues and lines to vote
Date: Saturday, 14 October 2023 1:27:37 pm

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Kia ora Karl,

Thanks for your reply earlier, which we have passed to our governance team.

We're getting common reports of wait times of 45-60 minutes at present. Given the issues, could I please have your assurance that anyone who is **waiting in line ** at a polling place at 7pm will still be able to cast a ballot, even if that means the polling place takes its last vote after 7pm?

Ngā mihi,
[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Authorised by [redacted]

> On 14/10/2023, at 12:27 pm, Karl [redacted]
> <[redacted]> wrote:
>
> Kia Ora [redacted]
>
> We are giving urgent priority to fixing the problems with eRoll. We are also preparing communications to tell people to continue voting.
>
> We'll provide updates to party secretaries on our progress.
>
> Karl [redacted]
>
> Get Outlook for iOS
>
> ---
>
> **From:** [redacted] <[redacted]>
> **Sent:** Saturday, October 14, 2023 12:14:36 PM

To: Karl [redacted]
Cc: Kristina [redacted] <[redacted]>; Dean [redacted]
<[redacted]>; Hayden [redacted] <[redacted]
Subject: Software issues and lines to vote

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Kia ora Karl,

I'm writing to follow up on a conversation I had with Dean a few minutes ago about the software issues the Commission is experiencing, and the impact on people's ability to vote. Dean was very helpful, and provided an assurance that the Commission was aware of the software issues and are working to fix it as soon as possible.

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Ngā mihi,
[redacted]

[redacted]

[redacted]

[redacted]
[redacted] | [redacted]

[redacted]

[redacted]

Authorised by [redacted] [redacted] [redacted]

Summary

TEAMS thread	502's have returned with some 504s as well
Start time	14/10/23, 1:02:00 PM
End time	14/10/23, 2:25:07 PM

Participants

Ian [redacted], Matthew [redacted], Morgan [redacted], Jeff [redacted], Mark [redacted], James [redacted], Vincent [redacted], Godfrey, Shannon

Messages

14/10 1:02 pm Meeting started

[14/10 1:05 pm] Paul [redacted]

Need urgent sitrep please I'm with CE!

[14/10 1:09 pm] Vincent [redacted]

Hi Godfrey - we can hear you

[14/10 1:09 pm] Ian [redacted]

Sitrep is we've confirmed the issue

not sure of the root cause yet

[14/10 2:05 pm] Ian [redacted]

Just in standup back in 5

[14/10 2:20 pm] Ian [redacted]

Closed this meeting for now - thanks all

14/10 2:25 pm Meeting ended: 1h 23m 8s

Summary

TEAMS thread	Further eroll issues
Start time	14/10/23, 5:34:10 PM
End time	14/10/23, 6:43:20 PM

Participants

Ian [redacted], Morgan [redacted], Mark [redacted] Matthew [redacted], Jeff [redacted], Paul [redacted], Adam [redacted], James [redacted], Shannon, Godfrey, Andrew

Messages

[14/10 5:34 pm]

Ian [redacted] named the meeting Further eroll issues.

14/10 5:34 pm Meeting started

[14/10 5:48 pm] Andrew [redacted]

I can hear you but you can't hear me

[14/10 5:51 pm] Andrew [redacted]

I rejoined but you still cannot hear me.

[14/10 5:51 pm] Andrew [redacted]

can you hear me?

[14/10 5:51 pm] Morgan [redacted]

Yes we can hear you, there is a lot of background noise that's quite loud

[14/10 5:52 pm] Mark [redacted]

ive muted you due to the feedback

[14/10 6:12 pm] Andrew [redacted]

thanks

[14/10 6:12 pm] Andrew [redacted]

Sorry about the mic noise

[14/10 6:39 pm] shannon [redacted]

Hey, latest from me, is that we're still investigating but a "regular job that checks for suspicious IP activity" may be involved as a culprit. It normally runs every 15 minutes, but was taking longer than 15 minutes to run and may have overlapped.

14/10 6:43 pm Meeting ended: 1h 9m 10s

[14/10 6:44 pm] Ian [redacted]

could that be caused by commenting out the code which logged IPs do you think?

[14/10 6:50 pm] shannon [redacted]

Don't think so, as they are using different database tables, but I've asked Andrew to confirm

[14/10 6:59 pm] shannon [redacted]

Jeff has changed to job to every 3 hours now

[14/10 7:02 pm] Jeff [redacted]

the job has been taking more than 15 minutes for the entirety of advanced voting won't be helping things

[14/10 7:15 pm] shannon [redacted]

Andrew also confirms that the early change isn't directly related to the suspicious ip check

[14/10 7:16 pm] shannon [redacted]

eroll traffic has basically disappeared now btw

Summary

TEAMS thread	GE2023 Election Day - IT Task activities (incl. Ext partners)
Start time	14/10/23, 7:48:00 AM
End time	14/10/23, 9:30:00 PM

[14/10 7:48 am]

Vincent [redacted] changed the group name to GE2023 Election Day - IT Task activities (incl. Ext partners).

[14/10 7:48 am] Vincent [redacted]

Good morning everyone - the following chat thread will be covering off task activities throughout the day 😜 Participants on this chat includes key external partners - Catalyst, One, CCL-Cello

[14/10 10:20 am] Vincent [redacted]

VS just dropping in - issue with e-Roll - calls coming into NST unable to lookup E-Roll - calling Jeff & Matthew to investigate

[14/10 10:22 am] Vincent [redacted]

Matthew is looking into now -

[14/10 10:23 am] Stephen [redacted]

The Task Force are aware of the issue and I informed them we are aware and working on it

[14/10 10:23 am] Matthew [redacted]

Eroll seems to be working for me but it does seem slow

[14/10 10:24 am] Henry [redacted]

SD is getting quite a few calls. what is the advice to end users- go to BCP?

[14/10 10:27 am]

Matthew [redacted] added Jeff [redacted] to the chat and shared all chat history.

[14/10 10:28 am] Morgan [redacted]

There's an increase in HTTP 502 errors in [redacted] logs for eRoll

[14/10 10:28 am] Vincent [redacted]

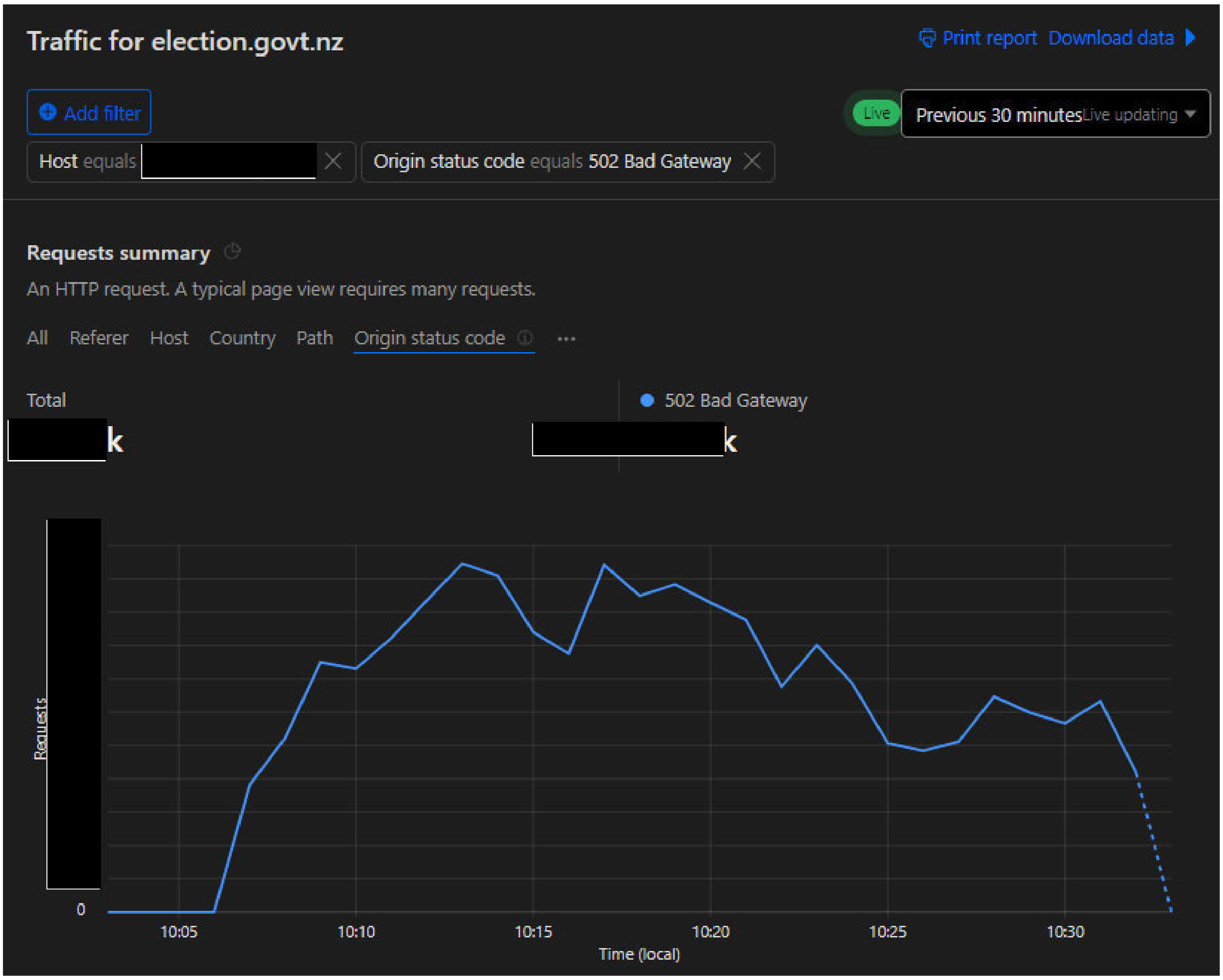
Correct Henry [redacted] - Voting Services is sending out e-text to advise users to refer to the BCP step

[14/10 10:30 am] Matthew [redacted]

jeff looking at eRoll logs and not seeing anything weird happening on that end

[14/10 10:33 am] Morgan [redacted]

From Cloudflare I can see the eRoll API paths are have the issue with the 502 errors:



Traffic for election.govt.nz

Print report
Download data
Add filter
Live
Previous 30 minutes Live updating

Host equals [redacted]

Origin status code equals 502 Bad Gateway

Requests summary

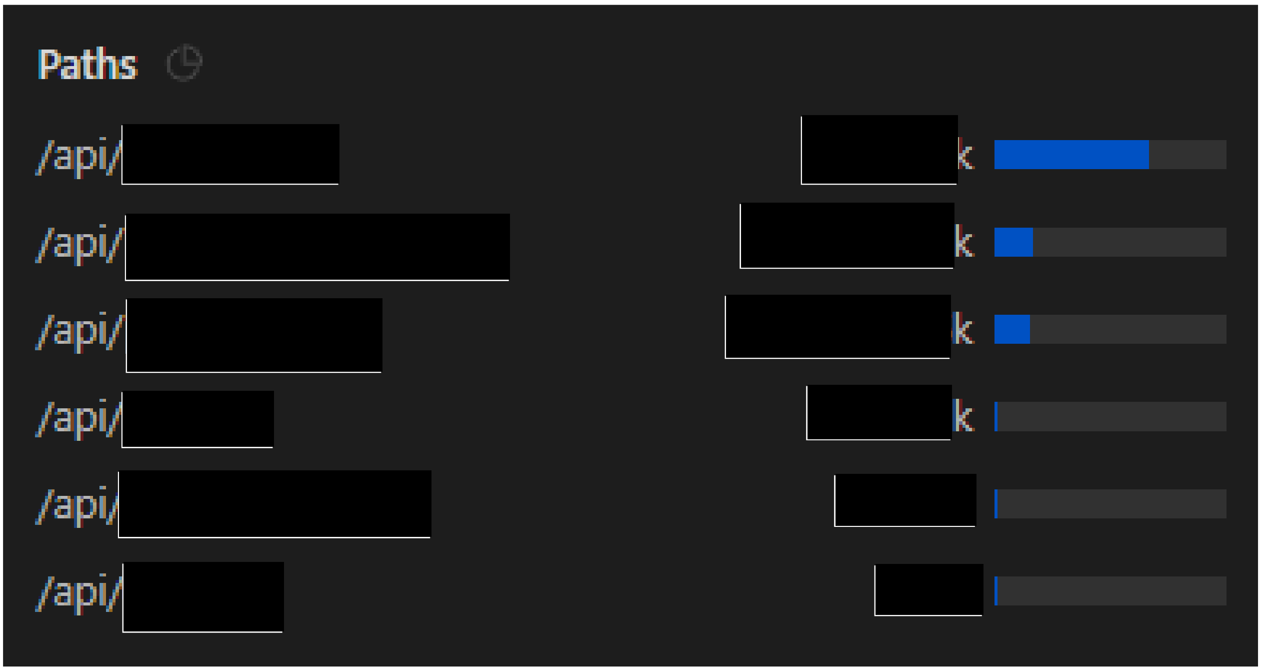
An HTTP request. A typical page view requires many requests.

All
Referer
Host
Country
Path
Origin status code
•••

Total [redacted]k

● 502 Bad Gateway [redacted]k

Requests
[redacted]
0
10:05
10:10
10:15
10:20
10:25
10:30
Time (local)



Paths

/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]
/api/[redacted]	[redacted]

[14/10 10:34 am] Ian [redacted]

Vincent [redacted] is going to set up a separate call on this folks

[14/10 11:38 am] Vincent [redacted]

Just an update on e-Roll major incident to this thread -

Separate Incident management - technical conference channel in place with Catalyst

Currently investigating traffic [redacted] connections and server resource capacity loads with change proposals underway to scale up capacity where needed -

CCL Service Desk been closely updated - they are still receiving calls related to this incident

Voting Services NST have sent out an e-TXT to advise to go to BCP

[14/10 12:06 pm] Ian [redacted]

[redacted]

[redacted]

[redacted]

Current work:

+ Urgently working through a P1 issue with Catalyst on eRoll performance.

Next scheduled update:

+ After 4:45pm, when [redacted] OR P1 eRoll issue resolved.

[14/10 12:49 pm] Vincent [redacted]

e-Roll Major Incident -

Approved emergency change has been applied to resolve SQL query lag

- Early indications are showing positive significant signs in performance & traffic metrics for e-Roll

- Maintaining close watch and monitoring

[14/10 1:53 pm] Vincent [redacted]

e-Roll Major Incident - Update

Subsequent to the initial change implemented at 12:45, we have applied a further emergency change which has shown improvements to e-roll performance - Continuing to maintain close watch and monitoring

[14/10 1:55 pm] Stephen [redacted]

Vincent [redacted] how do we know there are improvements if people have been told not to use it?

[14/10 1:56 pm] Vincent [redacted]

VS have started to advise the user community to start to use it again

[14/10 1:56 pm] Ian [redacted]

We're currently monitoring progress vs previous peak on Friday

Summary

TEAMS thread	Chief Information Officer and Senior Manager IT Services conversations on election day
Start time	14/10/23, 6:09:00 AM
End time	14/10/23, 7:37:00 PM

[14/10 6:09 am] Paul [redacted]

Morena - looks like we are all set for the day with systems. Can you create the Teams channel for the day and include all IT, Lucy and key relationship managers - Catalyst, Cello, One, CCL and anyone else you think and then start posting the updates on key tasks - can you also let me know before 8 if there is anything of significance to update taskforce.

[14/10 6:57 am] Ian [redacted]

yep doing it now

[14/10 6:59 am] Paul [redacted]

Thanks

[redacted]

[14/10 7:11 am] Ian [redacted]

Vince is just creating the TEAMS channel

[14/10 7:15 am] Pau [redacted]

Cool

[redacted]

[redacted]

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[14/10 11:09 am] Ian [redacted]

sounds fixable

[14/10 11:09 am] Paul [redacted]

hope so

[14/10 11:09 am] Paul [redacted]

and avoidable

[14/10 11:10 am] Ian [redacted]

we're missing a "Size for GE day volumes" across the apps

[redacted]

[14/10 11:27 am] Ian [redacted]

guess we're going to have take everything down and scale it all up

[14/10 11:28 am] Ian [redacted]

as I don't like the wait and see where the bottleneck goes to approach from Shannon

[14/10 11:29 am] Paul [redacted]

Nope

[14/10 11:29 am] Paul [redacted]

Can you keep me posted

[14/10 11:30 am] Ian [redacted]

now doubling another set of connections further into the system

[14/10 11:32 am] Ian [redacted]

there was load testing performed as recently as September last month

[14/10 11:32 am] Ian [redacted]

just finding out a bit more

[14/10 11:36 am] Ian [redacted]

I'm going to hold off changing server capacity until I have your okay because it involves bringing the service down completely for a minute or two

[14/10 11:37 am] Ian [redacted]

if you could ask for business approval on that front if you're able then that'd be much appreciated in order to get this fixed quickly.

[14/10 11:45 am] Ian [redacted]

just checking outage < 10 mins

[14/10 11:46 am] Ian [redacted]

discussing how much to increase database server config by - to make sure they have thought it through and aren't been too cautious

[14/10 11:59 am] Ian [redacted]

brilliant point by Vince

[14/10 11:59 am] Paul [redacted]

I missed it!

[14/10 12:00 pm] Ian [redacted]

here to help

[14/10 12:00 pm] Pau [redacted]

brillianet

[14/10 12:48 pm] Paul [redacted]

Wellington on how are we looking????

[14/10 12:48 pm] Ian [redacted]

yep really good

[14/10 12:48 pm] Ian [redacted]

I've found out the reason why not picked up earlier

[14/10 12:50 pm] Paul [redacted]

How are we looking

[14/10 12:50 pm] Ian [redacted]

Great no issues

[14/10 12:50 pm] Ian [redacted]

go for it

[14/10 12:50 pm] Ian [redacted]

Will continue to monitor obviously

[14/10 12:55 pm] Ian [redacted]

unscientific reasons why this wasn't picked up previously:

+ it is a branch of inefficient code that is triggered by a new request from a different IP to the previous one. Looks like load testing only happened from a single IP therefore the code didn't go down that branch.

+ peak request got up to 350,000 hour this morning - previous peak on advance voting period was 54,000 so didn't create enough transactions for the system to get overloaded.

This is only speculation, I will need to do more investigation on the load testing plus we need to check when that inefficient code was put in.

[14/10 12:58 pm] Ian [redacted]

Morgan is picking up a reoccurence of the 502 errors

[14/10 12:58 pm] Ian [redacted]

more to follow

[14/10 1:07 pm] Paul [redacted]

can you share the live graph with me so i can show Karl

[14/10 1:07 pm] Ian [redacted]

Morgan will call you now directly

[14/10 1:07 pm] Paul [redacted]

have we got an update from Catalyst

[14/10 1:07 pm] Ian Henry

and share it

[14/10 1:08 pm] Ian [redacted]

I've got Catalyst on the line at the moment - they're unable to provide an update until Shannon turns up

[14/10 1:10 pm] Paul [redacted]

Fab! Do we need to get some over there to man mark them

[14/10 1:11 pm] Ian [redacted]

I don't think they're onsite

[14/10 1:11 pm] Paul [redacted]

Interesting not what Godfrey said!!

[14/10 1:11 pm] Ian [redacted]

Shannon is definitely at home

[14/10 1:11 pm] Ian [redacted]

unless he's brought his kid to work with him

[14/10 1:12 pm] Paul Jepson

right

[14/10 1:13 pm] Paul [redacted]

I think we need a whiteboard session to work through this

[14/10 1:15 pm] Ian [redacted]

Neither Shannon, Godfrey or James are in the office

[14/10 1:21 pm] Ian [redacted]

commenting out the successful login update itself to see if that reduces contention

[14/10 1:22 pm] Ian [redacted]

we're starting to get to the point where we should say no more stick to BCP - this is soaking up time and I don't like this patch as we go approach

[14/10 1:22 pm] Ian [redacted]

checking the effects of the change now

[14/10 1:23 pm] Ian [redacted]

green shoots of recovery

[14/10 1:23 pm] Paul [redacted]

does that mean working?

[14/10 1:24 pm] Ian [redacted]

yes but need to see it operating okay as the full load comes on

[14/10 1:25 pm] Paul [redacted]

do we need a controlled release? got to be careful confidence is shot, we don't need any further damage - a big ask i know

[14/10 1:25 pm] Ian [redacted]

I think lets see it run okay for 10 minutes and then review

[14/10 1:25 pm] Ian [redacted]

we've already made that change

[14/10 1:26 pm] Ian [redacted]

the issues seem to be related to the number of different IPs being used by eRoll and how the system is logging that

[14/10 1:26 pm] Paul [redacted]

ok - risk?

[14/10 1:26 pm] Paul [redacted]

bad design then

[14/10 1:26 pm] Ian [redacted]

low risk - no change to function or other apps

[14/10 1:27 pm] Ian [redacted]

Paul [redacted] - bad design then

I would think so - especially given the use case is for use out in the field by thousands of users simultaneously

[14/10 1:28 pm] Ian [redacted]

morgan is sending you a visual

[14/10 1:28 pm] Ian [redacted]

that shows second fix being applied

[14/10 1:28 pm] Ian [redacted]

so you can use with Karl if need be

[14/10 1:28 pm] Paul [redacted]

please im still here

[14/10 1:30 pm] Paul [redacted]

via email

[14/10 1:30 pm] Ian [redacted]

he is changing to email now - about 2 mins away

[14/10 1:30 pm] Paul [redacted]

do we want full load back on

[14/10 1:31 pm] Paul [redacted]

Adele will need to comms out when we are ready

[14/10 1:32 pm] Ian [redacted]

Yes please - Catalyst are saying logs are looking good. Cloudflare showing similar.

Catalyst are saying unlikely that this particular issue will reoccur

Yes please go ahead with full load.

[14/10 1:32 pm] Ian [redacted]

email is with you now

[14/10 1:34 pm] Ian [redacted]

There were reports of [redacted] running slowly for Enrolment - Jeff has investigated thoroughly - there were less than 5 users affected intermittently.

[14/10 1:34 pm] Ian [redacted]

so no relation or significant problem there

[14/10 1:34 pm] Paul [redacted]

probably related

[14/10 1:34 pm] Ian [redacted]

I don't think so

[14/10 1:34 pm] Ian [redacted]

just watercooler chat

[14/10 1:35 pm] Paul [redacted]

adele has instructed full load

[14/10 1:35 pm] Paul [redacted]

with Jeff

[14/10 1:37 pm] Ian [redacted]

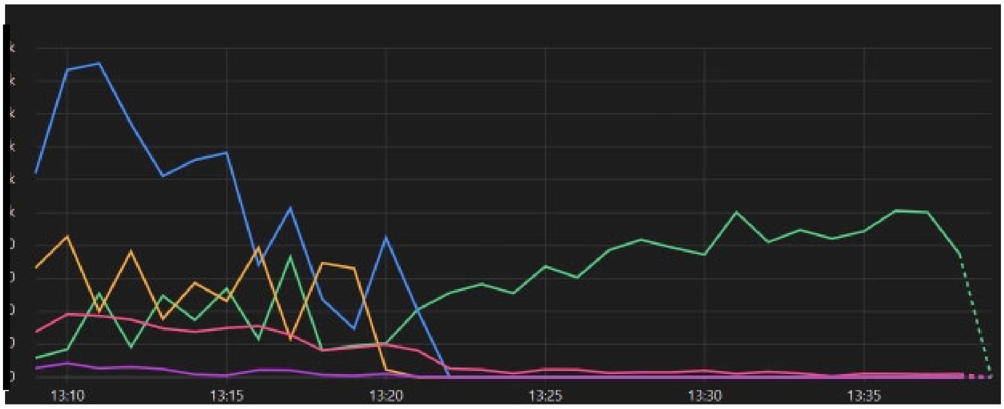
no issue so far

[14/10 1:39 pm] Ian [redacted]

Service desk queues are now clear

[14/10 1:40 pm] Ian [redacted]

[redacted] just now - GREEN is good - all other colours are bad - ignore the dotted line



[14/10 1:40 pm] Ian [redacted]

any feedback from the field now?

[14/10 5:06 pm] Ian [redacted]

[redacted]

[14/10 5:06 pm] Paul [redacted]

OK can you message morgan to send me those stats or graph or whatever on eroll so can do an update and close out.

[14/10 5:08 pm] Ian [redacted]

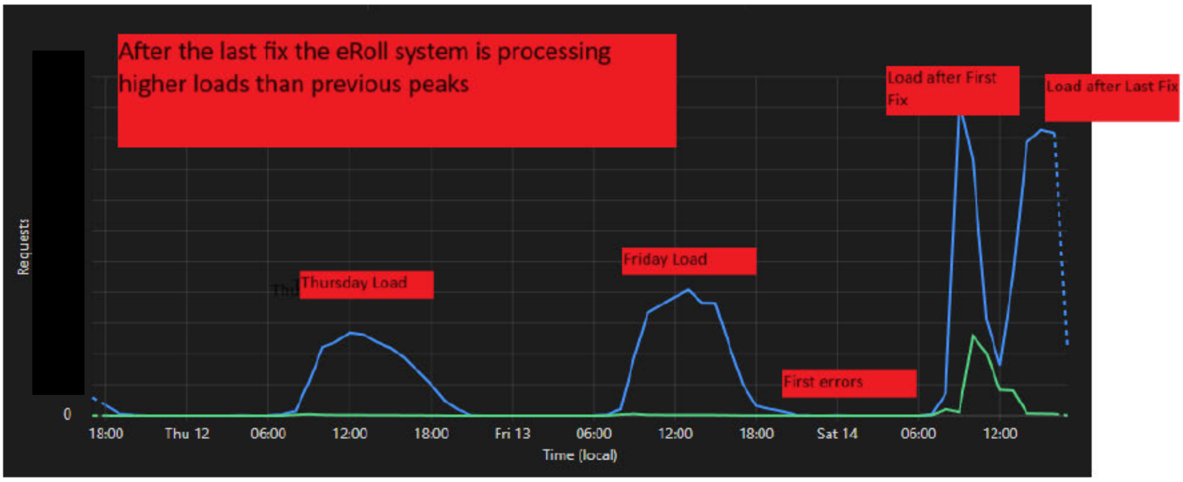
he's on this call but have messaged Mark [redacted]

[14/10 5:15 pm] Ian [redacted]

have given up on Mark [redacted]

[14/10 5:15 pm] Ian [redacted]

Morgan doing graph for me now



After the last fix the eRoll system is processing higher loads than previous peaks

Processing volumes now in excess of previous peaks (Thursday and Friday). Green and Blue are good. Higher the better.

[14/10 5:31 pm] Ian [redacted]

Morgan just said it is seeing issues again

[14/10 5:31 pm] Ian [redacted]

stand by caller

[14/10 5:33 pm] Ian [redacted]

doesn't seem absolutely as bad - is generating some calls to SD

[14/10 5:33 pm] Ian [redacted]

I'll reset up the call with Catalyst

[14/10 5:34 pm] Paul [redacted]

you're kidding

[14/10 6:13 pm] Ian [redacted]

no further reoccurence - Shannon will keep looking at logs and update at 6.30 on progress to finding what the issue was

[14/10 7:37 pm] Ian [redacted]

[redacted]

From: Media Enquiries
To: Karl [redacted]; Media Enquiries; Anusha [redacted]
Cc: Adele [redacted] Richard [redacted] Suzanne [redacted]; Media Enquiries; Martin [redacted] Jo [redacted]
Subject: RE: ERoll statement
Date: Saturday, 14 October 2023 12:16:53 pm
Attachments: image001.png

How about:

People can still vote. However, we are currently experiencing issues with our electronic version of the electoral roll. We are working to resolve it and are using manual processes that were used prior to 2020 before introducing the electronic roll into voting places.

This will have no impact on most people's voting experience, although it may cause slight delays at some of our busiest voting places.
[ENDS]

Kristian [redacted] | Senior Media and Communications Advisor | **Electoral Commission** | **Te Kaitiaki Take Kōwhiri** | PO Box: 3220 | Level 4, 34-42 Manners Street | Wellington | [redacted]
[redacted] | **vote.nz** | **elections.nz**

From: Karl [redacted] <[redacted]>
Sent: Saturday, October 14, 2023 12:15 PM
To: Media Enquiries <[redacted]>; Anusha [redacted] <[redacted]>
Cc: Adele [redacted] <[redacted]>; Richard [redacted] <[redacted]>; Suzanne [redacted] <[redacted]>; Media Enquiries <[redacted]>; Martin [redacted] <[redacted]>; Jo [redacted] <[redacted]>
Subject: Re: ERoll statement

Can we start with "People can still vote ….

Get Outlook for iOS

From: Media Enquiries <[redacted]>
Sent: Saturday, October 14, 2023 12:13:51 PM
To: Karl [redacted] <[redacted]>; Anusha [redacted] <[redacted]>
Cc: Adele [redacted] <[redacted]>; Richard [redacted] <[redacted]>; Suzanne [redacted] <[redacted]>; Media Enquiries <[redacted]>; Martin [redacted] <[redacted]>; Jo [redacted] <[redacted]>
Subject: ERoll statement

Kia ora Karl,
We've had queries from most major media outlets about our electronic electoral roll.
Are you OK with the following response:

We are currently experiencing issues with our electronic version of the electoral roll. We are working to resolve it and are using manual processes that were used prior to 2020 before introducing the electronic roll into voting places. People can still vote, and this will have no impact on most people's voting experience, although it may cause slight delays at some of our busiest voting places.
[ENDS]

Ngā mihi
k

Kristian [redacted] | Senior Media and Communications Advisor | **Electoral Commission** | **Te Kaitiaki Take Kōwhiri** | PO Box: 3220 | Level 4, 34-42 Manners Street | Wellington | [redacted]
[redacted] | vote.nz | elections.nz

From: Adele [redacted] <[redacted]
Sent: Saturday, October 14, 2023 12:09 PM
To: Kristian [redacted] <[redacted]>; Richard [redacted] <[redacted]>; Martin [redacted] <[redacted]>; Jo [redacted] <[redacted]>
Cc: Media Enquiries [redacted]>; Suzanne [redacted]>
Subject: RE: ERoll

Just some thoughts re: edits…

From: Kristian [redacted] <[redacted]
Sent: Saturday, October 14, 2023 11:58 AM
To: Adele [redacted] <[redacted]>; Richard [redacted] <[redacted]>; Martin [redacted] <[redacted]>; Jo [redacted] <[redacted]>
Cc: Media Enquiries <[redacted]>; Suzanne [redacted] <[redacted]>
Subject: ERoll

Kia ora all,
Are you OK with the following response:

We are currently experiencing issues with our electronic version of the electoral roll. We are working to resolve it and are using manual processes that were used prior to 2020 before introducing the electronic roll into voting places. People can still vote, and ~~for~~ this will have no impact on most people's voting experience, although it may cause slight delays at some of our busiest voting places.
[ENDS]

Once you're all happy with it,
I'll send to Karl and Anusha for approval.
Ngā mihi
k

Kristian [redacted] | Senior Media and Communications Advisor | **Electoral Commission** | **Te Kaitiaki Take Kōwhiri** | PO Box: 3220 | Level 4, 34-42 Manners Street | Wellington | [redacted]
[redacted] | vote.nz | elections.nz

From: Adele [redacted]
To: Media Enquiries; Martin [redacted] Clare [redacted] Karl [redacted]; Anusha [redacted]
Cc: Suzanne [redacted]; Paul [redacted]
Subject: RE: FINAL STATEMENT
Date: Saturday, 14 October 2023 2:34:31 pm
Attachments: image001.png

Kia ora – the below looks very good. Can confirm that we are no longer getting calls about eRoll.

A

From: Media Enquiries <[redacted]>
Sent: Saturday, October 14, 2023 2:27 PM
To: Media Enquiries <[redacted]>; Martin [redacted] <[redacted]>; Clare [redacted] <[redacted]>; Karl [redacted] <[redacted]>; Anusha [redacted] <[redacted]>; Adele [redacted] <[redacted]>
Cc: Suzanne [redacted] <[redacted]>; Media Enquiries <[redacted]>; Paul [redacted] <[redacted]>
Subject: FINAL STATEMENT

Voting continues today with a large number of people coming out to vote.
There was an issue with the electronic version of the electoral roll at voting places which has now been fixed. The app is used to look up people who don't have their EasyVote card or don't know which electorate they are in.
The issue has had no impact on most people's voting experience but caused some delays for people casting a special vote at some of our busiest voting places.
Separate to this, there have been queues at some voting places today due to high demand and additional staff have been brought in to support our busiest voting places. Between 11am and 2pm are usually the busiest times to vote on election day.

Anyone in line at a voting place at 7pm, will be able to vote.

More than 2,300 voting places are open until 7pm today which is a similar number to previous elections.

In the South Island, two voting places are closed due to the weather.

The Adventure Bike Park at Cracroft, Banks Peninsula, was closed due to high winds, which meant that the voting place located there closed too. Alternative voting places to the Bike Park are Te Hāpua Halswell Centre, Thorrington School Hall, Somerfield School Hall, and Pioneer Recreation and Sport Centre.

Tihiraki North Loburn School is currently closed due to fallen trees and flooding from a broken water tank. The nearest alternative voting place is Loburn School Te Kura Aromauka.

From: Media Enquiries <[redacted]>
Sent: Saturday, October 14, 2023 2:21 PM
To: Martin [redacted] <[redacted]>; Clare [redacted] <[redacted]>; Karl [redacted] [redacted] <[redacted]>; Anusha [redacted] <[redacted]>; Adele [redacted] <[redacted]>
Cc: Suzanne [redacted] <[redacted]>; Media Enquiries <[redacted]>; Paul [redacted] [redacted]>
Subject: RE: Updated statement for approval

Can we please confirm if the eroll is back up? Statement amended to say that. Also added that more staff have been brought in at busiest places.

The issue to the electronic version of the electoral roll at voting places has been fixed.
The app is used to look up people who don't have their EasyVote card or don't know which electorate they are in.

The issue has had no impact on most people's voting experience but caused some delays for people casting a special vote at some of our busiest voting places.
Separate to this, there have been queues at some voting places today due to high demand and additional staff have been brought in to support our busiest voting places. Between 11am and 2pm are usually the busiest times to vote on election day.

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Tihiraki North Loburn School is currently closed due to fallen trees and flooding from a broken water tank. The nearest alternative voting place is Loburn School Te Kura Aromauka.

From: Martin [redacted] <[redacted]>
Sent: Saturday, October 14, 2023 2:03 PM
To: Clare [redacted] <[redacted]>; Karl [redacted] <[redacted]>; Anusha [redacted] <[redacted]>; Adele [redacted] <[redacted]>
Cc: Suzanne [redacted] <[redacted]>; Media Enquiries <[redacted]>; Paul [redacted] <[redacted]>
Subject: RE: Updated statement for approval

Kia ora Clare. Just noting from Paul [redacted] (cc'd in) that full load is coming back on eRoll and it's performing OK at the moment. We'll want to get you a definitive statement about it being resolved but I think you can redraft on this basis.
Martin

From: Clare [redacted] <[redacted]>
Sent: Saturday, October 14, 2023 1:57 PM
To: Karl [redacted] <[redacted]>; Anusha [redacted] <[redacted]>; Adele [redacted] <[redacted]>; Martin [redacted] <[redacted]>
Cc: Suzanne [redacted] [redacted]>; Media Enquiries <[redacted]>
Subject: Updated statement for approval

Hi all – is this statement correct and able to be used to respond to political parties, the media and social media?
Thanks, Clare
We are working hard to resolve an issue with the electronic version of the electoral roll.
The electronic version of the electoral roll is used to look up people who don't have their EasyVote card or don't know which electorate they are in.
The issue has had no impact on most people's voting experience but is causing some delays for people casting a special vote at some of our busiest voting places.
Separate to this, there have been queues at some voting places today due to high demand. Between 11am and 2pm are usually the busiest times on election day.

Anyone in line at a voting place at 7pm, they will be able to vote.

In the South Island, two voting places are closed due to the weather.

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Tihiraki North Loburn School is currently closed due to fallen trees and flooding from a broken water tank. The nearest alternative voting place is Loburn School Te Kura Aromauka.

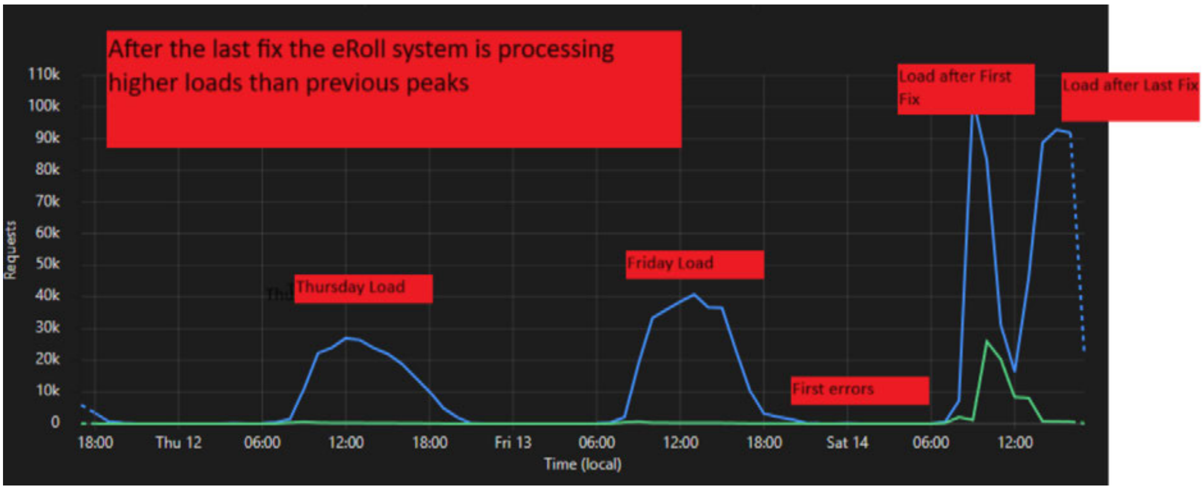
Clare [redacted] (she/her) | Senior Media and Communications Advisor | **Electoral Commission** | **Te Kaitiaki Take Kōwhiri** |
PO Box 3220 | Level 4, 34-42 Manners St, Wellington | Phone +[redacted] | Mobile [redacted] | vote.nz |
elections.nz

15/10/2023 - E +1 SITREPS

As at 2.43pm on 15/10/2023 prepared by Crispian [redacted]

Distributed to	All GEDT/ELT members
Key Contacts	Anusha [redacted] and Crispian [redacted]
Previous ELT SITREP	2 ELECTION DAY SITREPS 5 14102023 - FINAL .docx
Overview	**Summary of the current event** • Post election process
Voting Services	**GENERAL UPDATE** **Overseas Operations** [redacted] **Auckland North Region** [redacted] **Auckland South Region** [redacted] **Central North Island Region** [redacted] **Lower North Island Region** [redacted]

	South Island Region - [redacted] [redacted] - [redacted] - [redacted] - [redacted] - [redacted] [redacted] **Voting Services:** - [redacted] - [redacted]
Enrolment	**GENERAL UPDATE:** - [redacted] - [redacted]
IT	**GENERAL UPDATE:** - [redacted] - [redacted]

	- Update on eRoll after the fix (5.29pm, 14 Oct), exceeding higher volumes to process requests and performs well.  After the last fix the eRoll system is processing higher loads than previous peaks
Comms & Education	**GENERAL UPDATE:** [redacted]
Customer Services	**GENERAL UPDATE:** [redacted]
Strategic Engagement and Partnership	**GENERAL UPDATE** [redacted]
Security	**GENERAL UPDATE** [redacted]
People & Culture	**GENERAL UPDATE:** [redacted]

From: Kristina [redacted]
To: Kristina [redacted]
Bcc: [redacted]
Subject: Election day update
Date: Saturday, 14 October 2023 2:57:00 pm
Attachments: image001.png

Tēnā koe party secretaries

Voting continues today with a large number of people coming out to vote.

There was an issue with the electronic version of the electoral roll at voting places which has now been fixed. The app is used to look up people who don’t have their EasyVote card or don’t know which electorate they are in.

The issue has had no impact on most people’s voting experience but caused some delays for people casting a special vote at some of our busiest voting places.

Separate to this, there have been queues at some voting places today due to high demand and additional staff have been brought in to support our busiest voting places. Between 11am and 2pm are usually the busiest times to vote on election day.

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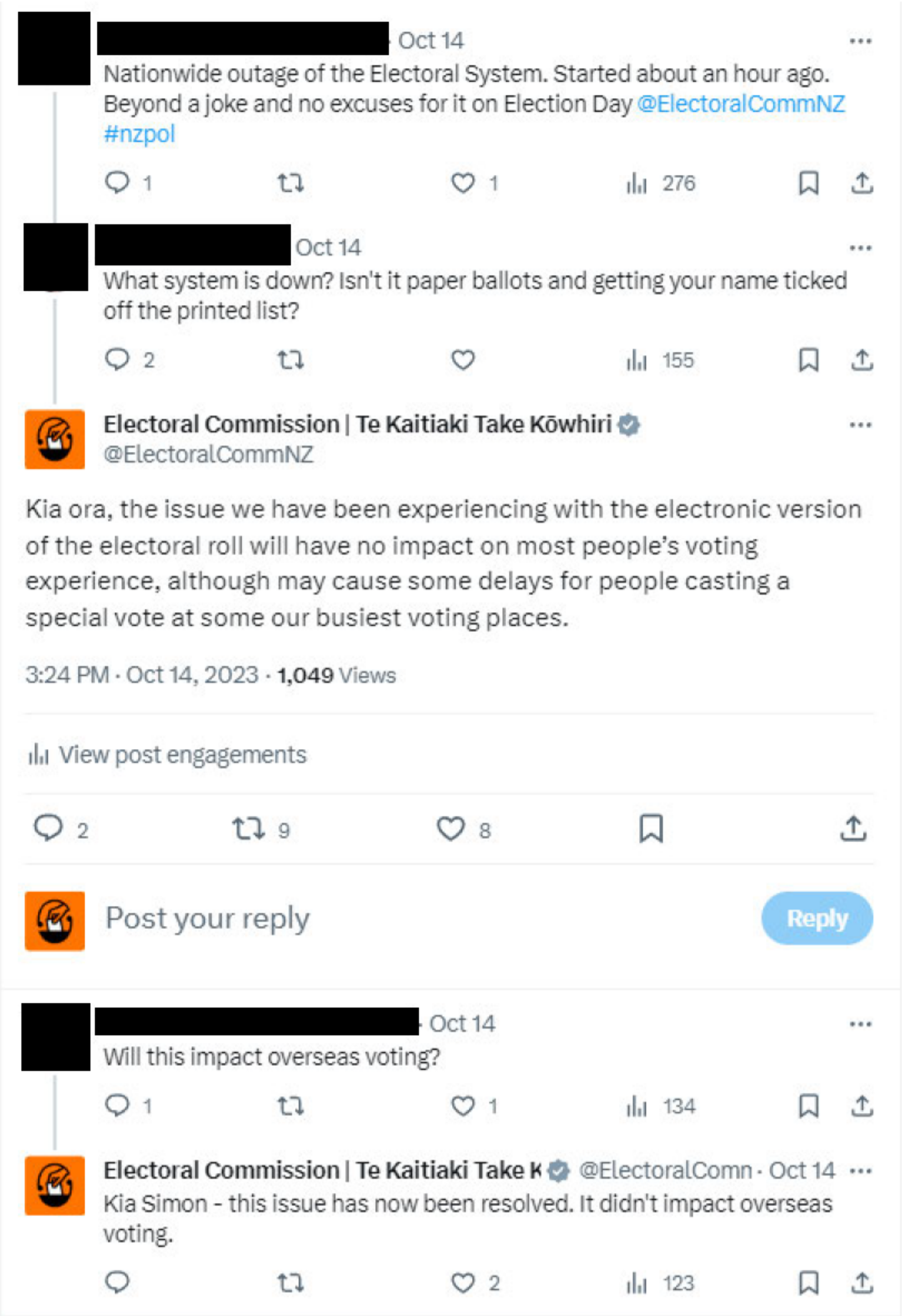
Tihiraki North Loburn School is currently closed due to fallen trees and flooding from a broken water tank. The nearest alternative voting place is Loburn School Te Kura Aromauka.

Ngā mihi

Kristina

Kristina [redacted] | Manager, Legal and Policy | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 10, 34 – 42 Manners Street | Wellington | 6140
Phone + [redacted] | vote.nz | elections.nz

Public tweets:



[redacted] [redacted] Oct 14

Nationwide outage of the Electoral System. Started about an hour ago. Beyond a joke and no excuses for it on Election Day @ElectoralCommNZ #nzpol

[redacted] [redacted] Oct 14

What system is down? Isn't it paper ballots and getting your name ticked off the printed list?

Electoral Commission | Te Kaitiaki Take Kōwhiri
@ElectoralCommNZ

Kia ora, the issue we have been experiencing with the electronic version of the electoral roll will have no impact on most people's voting experience, although may cause some delays for people casting a special vote at some our busiest voting places.

3:24 PM · Oct 14, 2023 · **1,049** Views

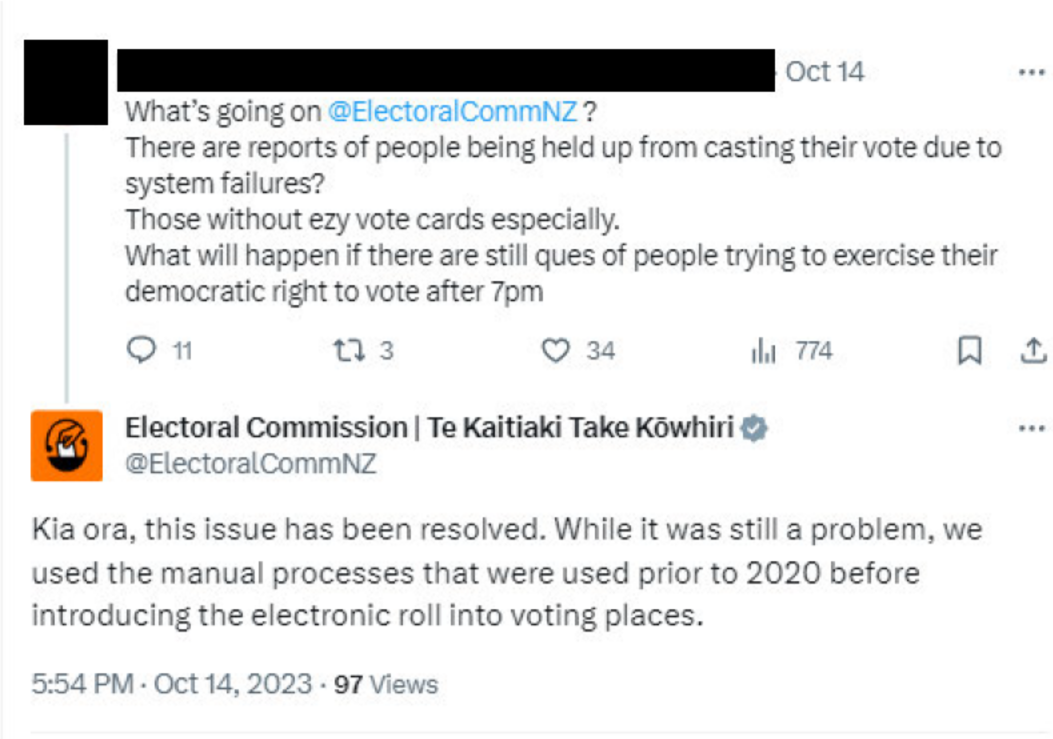
[redacted] [redacted] Oct 14

Will this impact overseas voting?

Electoral Commission | Te Kaitiaki Take K @ElectoralComm · Oct 14

Kia Simon - this issue has now been resolved. It didn't impact overseas voting.

Public tweet:



[redacted] [redacted] Oct 14

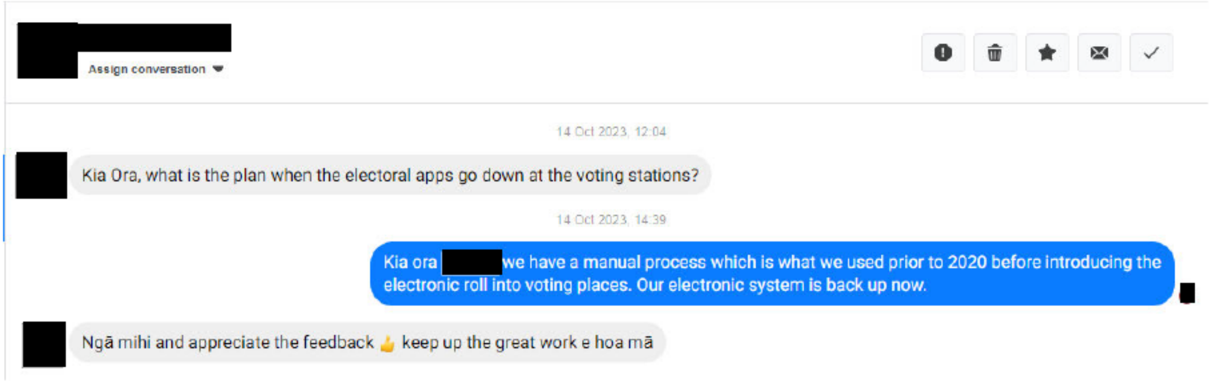
What's going on @ElectoralCommNZ ?
There are reports of people being held up from casting their vote due to system failures?
Those without ezy vote cards especially.
What will happen if there are still ques of people trying to exercise their democratic right to vote after 7pm

Electoral Commission | Te Kaitiaki Take Kōwhiri
@ElectoralCommNZ

Kia ora, this issue has been resolved. While it was still a problem, we used the manual processes that were used prior to 2020 before introducing the electronic roll into voting places.

5:54 PM · Oct 14, 2023 · **97** Views

Private message:


[redacted]

14 Oct 2023, 12:04

[redacted] Kia Ora, what is the plan when the electoral apps go down at the voting stations?

14 Oct 2023, 14:39

Kia ora [redacted] we have a manual process which is what we used prior to 2020 before introducing the electronic roll into voting places. Our electronic system is back up now.

[redacted]

[redacted] Ngā mihi and appreciate the feedback 👍 keep up the great work e hoa mā

Date Created	Correspondence #	Message Body	Notes
Oct-23	1	Name [redacted] Email [redacted] From site elections.nz Subject Voting Type Complaint Message I would like to lodge a formal complaint to the commission about the following two incidents on election day. 1. the lack of voting booths at Auckland City Hospital on election day. My mother was in hospital and many patients and staff in her ward were expecting to be able to vote at the voting station set up on the level 5 foyer. However this station, while there for the week prior was not there on the actual election day. This meant no patients, visitors or staff could vote. This is unacceptable that the commission did not account for the hospital population who needed to vote ON election day. 2. After not being able to vote at the hospital I drove to three kings where, due to the website fault and all regular voters having to make special votes there were no statutory declaration forms left for people to make special votes (I was voting out of electorate). I waited for 25 minutes until forms were Available and in that time I saw 6 people get up and leave-time is a privilege. These two issues, both on election day are unacceptable and expect the commission to explain why it thought 1. No voting station at New Zealand's largest hospital on voting was acceptable 2. The estimate votes that were not taken due to the commission's inability to keep online systems in place	
Nov-10	2	Kia ora [redacted] We wanted to let you know we are still investigating your complaint (Reference [redacted]) and will endeavour to get back to you as soon as possible. Thank you for your patience. Ngā mihi, Heather Heather | Customer Services | Electoral Commission | Te Kaitiaki Take Kōwhiri | PO Box 190 | Wellington | 6140 | Phone 0800 36 76 56	
Dec-05	3	Kia ora [redacted] Thank you for your feedback. Our voting places have to follow specific rules set out in legislation. This particularly applies to voting places open on election day. On election day, we have to complete the count of votes where they were taken. To do this, we need a locked room in which we can conduct the count, away from the public. Because voting places in hospitals are in large, open areas, we cannot complete our count securely. We also work with hospital staff according to their circumstances. It's often not possible to operate a voting place until 7pm in a hospital because this conflicts with visiting hours for the public. Thanks for your feedback.	
Oct-15	1	Mr Le Quesene You have some real questions to answer. While spending your time pursuing a bunch of woke, flowery, racist objectives, you haven't delivered on the really basic stuff like running an election successfully (making sure everyone gets their voter pack on time, or making sure the voter ID works). This kind of failure is pervasive in government - and things are now about to change for the better. You have been part of the problem. Time to resign. [redacted] (retired high-school maths teacher)	
Oct-16	2	Dear [redacted] Thank you for your interest in the electoral process. The delivery times for EasyVote packs are largely determined by timelines set down in law. These, the NZ Post delivery schedule, and our communication of the timelines to the public will be examined in our post-election report, which will identify ways to improve the timeliness of information getting to voters. We will also investigate the causes of the temporary outage of the eRoll app on Election Day. Manual backup processes were in place to issue voting papers while the app was not working. Yours sincerely Ethan [redacted]	
Oct-15	1	Name [redacted] Email [redacted] From site elections.nz Subject Parties and candidates Type Complaint Message This is my own personal complaint to all at the EC, from top down, of your incompetence at your handling of all things voting this year. From your lack of support for one new Party, namely, NZ Loyal, to leaving their party name off one of the Northland voting papers, to not getting voting papers out in time to some of your electronic systems failing on election day! Shit! You all should be sacked and decommissioned for such incompetence in your roles! I advise you all be replaced by people who know how to do their job properly!	No response as there is no request included.
Oct-14	1	Caller [redacted] at a VP in Ohakune - unable to enter elector's address in eRoll as it was a new build. Have had [redacted] add AP in MIKE so this can be updated by VP staff.	
Oct-14	1	Hi I went to vote at Napier surf club booth, Marine Parade, about 1 30 pm. There was a queue of 6-8 people all waiting while one person filled out special voting papers. The app was down, the other officer didn't know what to do, one person from tukituki electorate couldn't vote as they had no papers for that electorate , and didn't k ow what to do . Other people want Ing to do special votes couldn't for the same reasons. It was incompetent and undemocratic. You have had 3 years to sort this, and you had one job.... Regards, [redacted]	
Oct-14	2	Kia ora [redacted] Thank you for your enquiry. We would like to investigate this issue, but we will require more information from you before we can do that. Please provide us with Phone number (if you wish to be contacted further about this) Name of voting place staff member the issue concerns Have you voted? If not, why. What happened? Other details Do you wish to be contacted further about this issue? Ngā mihi, Tiana | Customer Services | Electoral Commission | Te Kaitiaki Take Kōwhiri | PO Box 190 | Wellington | 6140 | Phone 0800 36 76 56	
Oct-18	3	Thanks for getting back to me. I don't need to be contacted. I did vote. There were only two staff on, one was away on lunch break. I don't know their names. English accent. They were telling people they'd run out of tukituki papers and didn't know what to do. Also, they didn't k ow what to do with unenrolled people. The app was not working. 4 or 5 people left without voting. Hopeless Regards, [redacted]	
Oct-14	1	We received this complaint about a voting place. Name of enquirer not given Is the complaint on behalf of someone else? Yes If so, who? a friend who was voting at the same time as her Contact information (if you wish to be contacted further about this) N/A Electorate where issue occurred Rotorua Voting Place where issue occurred Glenholme School Hall, 149 Ranolf Street Date/Time of incident (be as precise as possible) 14 October, around 12 30-12 45 Name of voting place staff member the issue concerns/who they spoke to not taken Have you voted? Yes If not, why. What happened? Other details Caller advised that the person on the door at this voting place is directing everyone to complete a special vote, which is causing unnecessary queues. Her friend, who is in the electorate and on the printed roll was directed to the special vote queue as he didn't have an EV card. She advised her friend that this was incorrect, and told him to stand in the ordinary vote line, where he was looked up and marked off the printed roll, and given his voting paper. She wanted feedback to be given that people who are enrolled in electorate but don't have EV card should not be directed to special vote line. She mentioned the app being down, so this is related to eRoll and perhaps the workaround being used is not efficient. Do you wish to be contacted further about this issue? No	
Oct-14	1	Received this complaint about a voting place - marked as urgent as he hasn't voted, but hopefully we have found a way for him to vote. Name of enquirer [redacted] Is the complaint on behalf of someone else? No If so, who? Contact information (if you wish to be contacted further about this) N/A Electorate where issue occurred Whanganui Voting Place where issue occurred Presbyterian Centre, 35 Argyle Street Date/Time of incident (be as precise as possible) Around noon, 14 October Name of voting place staff member the issue concerns/who they spoke to Unknown lady who he thought may have been Indian Have you voted? No If not, why. What happened? [redacted] went in to the voting place, after waiting in line for half an hour, was then told he needed to fill out a "boarding pass" and then was sat at a desk for another 20 minutes without being seen. He said people who came in after him were standing up and filling out "boarding passes" behind him, but he was just left sitting there. [redacted] has social anxiety and advised he felt like he was being treated differently. Eventually he had an anxiety attack and had to get up and leave. He called us from the car outside the voting place. Other details Found another voting place at Ramanui School that [redacted] can get to. He was worried about the same thing happening again. I called through to electorate HQ to discuss his situation, have asked them to let them know at Ramanui School VP that [redacted] will be coming in, he has already had a bad experience and to try to treat him with some sensitivity. Was unsure what the "boarding passes" were, but as eRoll is down, I'm assuming they were enrolment forms [redacted] only updated his enrolment details yesterday, and they wouldn't have been able to look him up.) I confirmed [redacted] enrolment over the phone, and confirmed he is enrolled and does not need to enrol. I also asked for this to be passed on to VP at Ramanui School, so he can bypass the enrolment form, as he will be telling them this also. I have told him that he will need to cast a special vote, so he may need to wait, which will involve him being sat down without anything to fill out. This may be what happened at the first voting place, but his perception was that he was being treated differently. We also discussed a takeaway, but he has nobody to pick papers up for him. Do you wish to be contacted further about this issue? No	

Summary

TEAMS thread	CCL Escalations Group Chat
Start time	14/10/23, 6:51:00 AM
End time	14/10/23, 5:49:00 PM

Participants

Bliss [redacted], Enize [redacted], Henry [redacted], Himanshu [redacted], Jack [redacted], Jordan [redacted], Lee [redacted], Lovepreet [redacted], Mark [redacted], Nigel [redacted], Sam [redacted], Te-Wera [redacted], Tim [redacted], Vincent [redacted], William [redacted], Zak [redacted].

Messages

[14/10 6:51 am] Vincent [redacted]

Good morning, CCL Team!

[14/10 6:51 am] Te-Wera [redacted]

Morning Vincent!

[14/10 7:21 am] Jack [redacted]

Morning

[14/10 7:21 am] Nigel [redacted]

Morning

[14/10 7:22 am] Lovepreet [redacted]

Morning

[14/10 7:27 am] William [redacted]

[redacted]

[14/10 7:27 am] Vincent [redacted]

Great - thanks William

[14/10 8:04 am] Vincent [redacted]

Just a friendly check in - how are call volumes so far team?

[14/10 8:05 am] Jack [redacted] [redacted]

16 calls so far

[14/10 8:05 am] Jack [redacted]

[redacted]

[14/10 8:09 am] Henry [redacted]

[redacted]

[14/10 8:12 am] William [redacted]

[redacted].

[14/10 8:16 am] Lee [redacted]

Morning team

[14/10 8:19 am] Nigel [redacted]

[redacted]

[14/10 8:34 am] Vincent [redacted]

[redacted]

[14/10 8:59 am] William [redacted]

80 calls so far

[14/10 8:59 am] Nigel [redacted]

In the last hour?

[14/10 9:00 am] William [redacted]

pretty much haha

[14/10 9:00 am] Zak [redacted]

Nigel [redacted]

In the last hour?

yep

[14/10 9:06 am] Henry [redacted]

[redacted]

[14/10 9:10 am] William [redacted]

[redacted]

[14/10 9:10 am] William [redacted]

[redacted]

[14/10 9:23 am] Sam [redacted]

Morning team, just had a call from Beka [redacted] at the [redacted] electorate, she's advised eRoll on one of the voting place phones is completely inaccessible. I checked her sign-in logs and the error shows the phone is not [redacted] compliant. I looked up the device in [redacted] and found the below:

[redacted]

would this require a re-image of the phone or would it be fine for us to wait?

[14/10 10:01 am] Vincent [redacted]

Hi there, Sam - looking into this

[14/10 10:03 am] Tim [redacted]

Hi, [redacted] shows the device is compliant (now) and Beka successfully authorised at 9:05am

[14/10 10:05 am] Tim [redacted]

Sam, can you confirm if this is still an issue please?

[14/10 10:08 am] Zak [redacted]

Hi Tim, i'll call the user and confirm this.

[14/10 10:18 am] Zak [redacted]

Zak [redacted]

Hi Tim, i'll call the user and confirm this.

All resolved, closing on our end.

[14/10 10:20 am] William [redacted]

eRoll is down team

[14/10 10:20 am] Zak [redacted]

Hi team mass calls for Eroll application not being able to select electorates reported as of 2 minutes ago

[14/10 10:27 am] William [redacted]

we're advising users the following: "we are enabling the BCP process for when Eroll down - please go to your voter assistance Pim, and go to page 18. it will guide you on what you need to do"

[14/10 10:27 am] Vincent [redacted]

Thanks William - thanks team -

will keep you posted - under investigation but no ETA at this stage

[14/10 10:37 am] William [redacted]

we're getting some calls advising eRoll is back up and working. only some at this stage

[14/10 10:42 am] William [redacted]

Anahera [redacted] has called in from the [redacted] High School, [redacted] Electorate. They apparently dont have any paper rolls to use. So they cant do BCP. Calling the EM now, just an FYI

[14/10 10:46 am] William [redacted]

well its kinda sorted. EM emailed them some paper enrollment forms and they're printing them out now. Hopefully no more issues.

[14/10 10:56 am] Henry [redacted]

How are call volumes now - calming down?

[14/10 10:56 am] William [redacted]

248

[14/10 10:56 am] William [redacted]

calming down now, but eRoll hit us pretty hard

[14/10 11:00 am] Zak [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[14/10 11:08 am] William [redacted]

any updates with eRoll?

[14/10 11:10 am] Vincent [redacted]

under investigation - looking at resource capacity [redacted] connections) - the major spike that caused the major impact has decreased but may be VP going to BCP -

[14/10 11:10 am] Henry [redacted]

it is with Catalyst and [redacted]. EC will advise when staff can resume using it

[14/10 11:11 am] Vincent [redacted]

Henry -- adding to you to Incident Management call -

[14/10 11:19 am] Vincent [redacted]

Hi team - Incident Management team are working through issue - looks to be a traffic capacity bottleneck - looking to scale up ([redacted] the number of connections) in the first instance - will look at when this proposed change will take place

[14/10 11:22 am] Henry [redacted]

Hi Vincent, looks like still a large number of calls coming in for this. can VS send another etext update to all staff at all?

[14/10 11:22 am] Bliss [redacted]

[redacted]

[redacted]

[14/10 11:25 am] Vincent [redacted]

Henry [redacted]

Hi Vincent, looks like still a large number of calls coming in for this. can VS send another etext update to all staff at all?

We have started to make some changes to increase the traffic capacity (non-disruptive change) -

We are seeing if this has made a difference - will update shortly

[14/10 11:26 am] William [redacted]

appreciate the prompt updates

[14/10 11:27 am] Vincent [redacted]

This connections uplift has shifted the bottleneck load to the next server ([redacted] server is now under load) -

[redacted]

[redacted]

[14/10 11:42 am] Vincent [redacted]

Just an update on e-Roll major incident to this thread -

Currently investigating traffic [redacted] connections and server resource capacity loads with change proposals underway to scale up capacity where needed -

This may require a [redacted] server reboot to apply the upscale in capacity/resources to handle load - will let you know if this does go ahead -

[14/10 11:57 am] Henry [redacted]

how are calls looking?

[14/10 12:00 pm] William [redacted]

303

[14/10 12:34 pm] William [redacted]

Vincent [redacted]

Just an update on e-Roll major incident to this thread - Currently investigating traffic [redacted] connections and server resource capacity loads with change proposals underway to scale up capacity where needed - This may require a [redacted] server reboot to apply the upscale in capacity/resourc...

can we get another update with eRoll?

[14/10 12:36 pm] Mark [redacted]

William [redacted] still discussing changes to improve service ... decision imminent on Code change with no outage, resource change with outage ruled out for now

[14/10 12:39 pm] Mark [redacted]

ok change approved to update code ... micro outage,,, right now

[14/10 12:40 pm] Mark [redacted]

should be back online already

[14/10 12:41 pm] Mark [redacted]

can get users to test now ... testing on our side looks like it may be resolved

[14/10 12:42 pm] Mark [redacted]

please confirm with users ...

[14/10 12:42 pm] William [redacted]

we are calling users back now

[14/10 12:42 pm] Mark [redacted]

wait for a few minutes

[14/10 12:42 pm] William [redacted]

lol too late

[14/10 12:42 pm] Mark [redacted]

we need to send out coms our end .. from VS

[14/10 12:42 pm] William [redacted]

we've already started, I'll tell everyone to wait tho haha

[14/10 12:43 pm] Mark [redacted]

yeah if users call in they can retry .. dont call back quite yet

[14/10 12:43 pm] Mark [redacted]

we want to manage the load -- dont want all users back in at once

[14/10 12:51 pm] William [redacted]

we've only called 4 users at this stage, and they have ALL confirmed its working.

[14/10 12:52 pm] Mark [redacted]

thanks mate!

[14/10 1:01 pm] Henry [redacted]

how are calls looking now

[14/10 1:02 pm] Enize [redacted]

Eroll still down, the user who confirmed 5 min ago advise now again that it is doing the same thing it was earlier

[14/10 1:02 pm] William [redacted]

Henry [redacted]

how are calls looking now

353

[14/10 1:03 pm] Mark [redacted]

ok will tell the team

[14/10 1:09 pm] Mark [redacted]

investigations underway again ... i'll update you as information comes in

[14/10 1:10 pm] Sam [redacted]

cheers Mark

[14/10 1:22 pm] William [redacted]

Mark [redacted]

investigations underway again ... i'll update you as information comes in could we get some comms sent out advising eRoll is down again, we're getting alot of calls regarding it.

[14/10 1:23 pm] Mark [redacted]

i dont beleive they sent out comms yet to say its back online ...

[14/10 1:23 pm] William [redacted]

William [redacted]

could we get some comms sent out advising eRoll is down again, we're getting alot of calls regarding it.

okay, relatively not that many calls - probably around 30 since 1pm

[14/10 1:23 pm] William [redacted]

users are saying they have

[14/10 1:23 pm] Mark [redacted]

Ah ok . will have that checked ...

[14/10 1:30 pm] Mark [redacted]

changes have been made and it looks like there is an improvement -please keep an eye on the call queues and let us know how it goes, we will send out coms once confirmed officially

[14/10 1:35 pm] Mark [redacted]

We believe this should now be resolved . please monitor and advise if it reoccurs

[14/10 1:36 pm] Enize [redacted]

Shall we start calling users back now?

[14/10 1:36 pm] Mark [redacted]

whats the load like ?

[14/10 1:37 pm] Mark [redacted]

they will get offical coms from VS so no need

[14/10 1:37 pm] Bliss [redacted]

Currently only one person taking a call

[14/10 1:39 pm] Mark [redacted]

William [redacted]

353

is that for the day or waiting to be answered ?

[14/10 1:40 pm] Bliss [redacted]

391 for the day now, none in queue waiting to be answered

353 would've been the total for the day at that time

[14/10 1:40 pm] Enize [redacted]

One user has confirmed now that it is working. We will keep you updated

[14/10 1:40 pm] William [redacted]

Mark [redacted]

is that for the day or waiting to be answered ?

definitely for the entire day!

[14/10 1:55 pm] Vincent [redacted]

e-Roll Major Incident - Update

Subsequent to the initial change implemented at 12:45, we have applied a further emergency change which has shown improvements to e-roll performance - Continuing to maintain close watch and monitoring

[14/10 1:59 pm] William [redacted]

yup looks really good so far

[14/10 2:00 pm] William [redacted]

we're slowly calling users to advise. very slowly at this stage

[14/10 2:20 pm] William [redacted]

any updates with eRoll? Should we start calling more users to test?

[14/10 2:25 pm] Mark [redacted]

the VC coms went out - there should be no need for a call back . but yes its considered resolved

[14/10 3:26 pm] Sam [redacted]

Sam [redacted] [redacted]

Morning team, just had a call from Beka [redacted] at the [redacted] electorate, she's advised eRoll on one of the voting place phones is completely inaccessible. I checked her sign-in logs and the error shows the phone is not [redacted] compliant. I looked up the device in [redacted] and found the…

Hi team, had another user Theresa [redacted] call through with this same issue since the morning. Device name: [redacted]. Would you be able to sort this one out as well? Cheers team

[14/10 3:27 pm] William [redacted]

hey team, just double checking will there be a standup at 3:30 today?

[14/10 3:30 pm] Vincent [redacted]

Hi team - we have one at 4pm

[14/10 3:54 pm] Mark [redacted]

[redacted]

[redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

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[redacted] [redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

[redacted] [redacted] [redacted] [redacted]

[redacted]

[14/10 3:54 pm] Mark [redacted]

just an FYI

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[14/10 5:08 pm] Henry [redacted]

Hi, how are the tickets looking now?

[14/10 5:09 pm] William [redacted]

hey henry, they're looking good. [redacted]

[14/10 5:25 pm] William [redacted]

we've got 2 users on the line with eRoll issues. Same as earlier

[14/10 5:25 pm] William [redacted]

hopefully level 1 resolves it

[redacted]

[redacted] 🙄

[redacted]

[14/10 5:40 pm] Bliss [redacted]

Had another user call up with the same issue but during the call it came back with the Electorates able to be selected, but just searched very slowly

[14/10 5:40 pm] Jordan [redacted]

Hey guys. I have escalated the E-Roll slowness issues to the Apps team. They are looking into this as a priority right now. Will update you guys as soon as I can

[14/10 5:41 pm] Jordan [redacted]

Thanks Bliss. What's the name of the user and where are they located?

[14/10 5:41 pm] William [redacted]

looks like the issues earlier in the day have returned. Not as bad but we're getting calls about it

[14/10 5:41 pm] Bliss [redacted]

Jordan [redacted]

Thanks Bliss. What's the name of the user and where are they located?

Brent [redacted], working in [redacted] Electorate at [redacted] Primary School

Can be contactable on [redacted]

[14/10 5:45 pm] Jordan [redacted]

Thanks for the information guys. Issue is across different areas so safe to say that issues have picked back up. Thankfully just slow and not completely down

[14/10 5:48 pm] Mark [redacted]

seams to have gotten better on the back end how many calls are you getting

[14/10 5:48 pm] William [redacted]

not many at all. 4 calls

[14/10 5:48 pm] Mark [redacted]

was dodgy for 515 -- to 545

[14/10 5:49 pm] Mark [redacted]

still investigating

[14/10 5:49 pm] Mark [redacted]

keep me posted if you get more

From: Don [redacted]
To: Karl [redacted]; Lucy [redacted]
Cc: Paul [redacted]; Godfrey; james [redacted]
Subject: eRoll application
Date: Saturday, 14 October 2023 3:52:29 pm
Attachments: signature.asc

Kia ora Karl, Lucy and Paul

At time of writing this email the eRoll app connectivity issues are resolved and have been for a number of hours. What follows is very early analysis based on my sitting next to some of the people resolving the issue and following our internal conversations. As well as discussions with Godfrey and James.

Issues began just after 10am as can be seen from graphs showing connection requests. At that point we experienced request loads of in excess of [redacted]/hour. The 2020 peak load experienced was [redacted]/hour.

Our operations and application teams were working on the response immediately and engaging in constant communications with EC. Remediation attempts began right away including upping the [redacted] and [redacted] limits. Each change we made was communicated to EC and approved or not after a brief risk assessment.

The initial changes helped but didn't solve the root cause which was deep in the way the app connects to the backend system. A change to a database query was identified and implemented at 12:45. There was still some Tidy-up activity carried on for another 30 minutes. We haven't seen any problems since that completed.

The root cause of the problem is behaviour that has been encoded in the system since it was first developed and released prior to 2020. It has worked without issue for that GE and in the early voting period.

Today's issue would not easily have been identified in the standard load tests that we always run as it related to the individual identities (IP addresses) of [redacted] of devices in the field. It was triggered by the extra load *probably* a result of more people voting on the day and the app being used for more tasks.

I'd like to thank all the EC staff, lead by Paul, for their role in supporting our activities and providing input to our analysis. Decisions were made quickly and coherently. This allowed our team to focus on continuing to work on solutions rather than waiting for long periods of time.

If you have any further questions please don't hesitate to contact me by email or phone.

Ngā mihi
Don

```
--
----[redacted]---------[redacted]
Don [redacted] (he,him)                or
Cata             Ltd - Expert Open Source Solutions
Level 6,150-154 Willis Street, PO Box 11-053
                   aland
[redacted]
```

From: Morgan [redacted]
To: Ian Henry
Subject: FW: eRoll status update
Date: Monday, 18 December 2023 12:10:09 pm
Attachments: image001.png

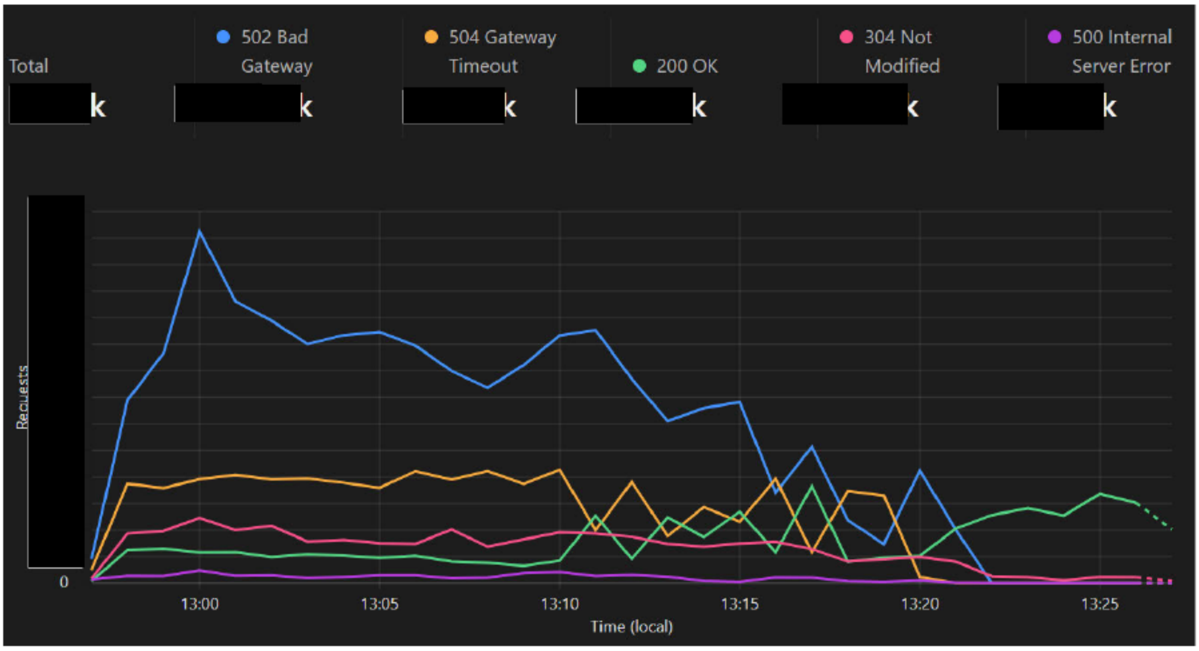
Best regards,

Morgan [redacted] | Cyber Security Analyst | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140

From: Morgan [redacted]
Sent: Saturday, October 14, 2023 1:33 PM
To: Paul [redacted] <paul [redacted] @elections.govt.nz>
Cc: Ian [redacted] <Ian [redacted] @elections.govt.nz>
Subject: eRoll status update

Hi Paul,

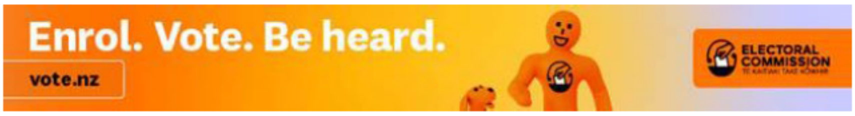
Another change was made (around 1:22) that appears to have fixed the issue. In the below graph the successful connections are shown by the green and pink lines:



We are monitoring eRoll closely.

Best regards,

Morgan [redacted] | Cyber Security Analyst | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
http://www.elections.org.nz



Summary

TEAMS thread	502's have returned with some 504s as well
Start time	14/10/23, 1:02:00 PM
End time	14/10/23, 2:25:07 PM

Participants

Ian [redacted], Matthew [redacted], Morgan [redacted], Jeff [redacted], Mark [redacted], James [redacted], Vincent [redacted], Godfrey, Shannon

Messages

14/10 1:02 pm Meeting started

[14/10 1:05 pm] Paul [redacted]

Need urgent sitrep please I'm with CE!

[14/10 1:09 pm] Vincent [redacted]

Hi Godfrey - we can hear you

[14/10 1:09 pm] Ian [redacted]

Sitrep is we've confirmed the issue

not sure of the root cause yet

[14/10 2:05 pm] Ian [redacted]

Just in standup back in 5

[14/10 2:20 pm] Ian [redacted]

Closed this meeting for now - thanks all

14/10 2:25 pm Meeting ended: 1h 23m 8s

Summary

TEAMS thread	Further eroll issues
Start time	14/10/23, 5:34:10 PM
End time	14/10/23, 6:43:20 PM

Participants

Ian [redacted], Morgan [redacted], Mark [redacted] Matthew [redacted], Jeff [redacted], Paul [redacted], Adam [redacted], James [redacted], Shannon, Godfrey, Andrew

Messages

[14/10 5:34 pm]

Ian [redacted] named the meeting Further eroll issues.

14/10 5:34 pm Meeting started

[14/10 5:48 pm] Andrew [redacted]

I can hear you but you can't hear me

[14/10 5:51 pm] Andrew [redacted]

I rejoined but you still cannot hear me.

[14/10 5:51 pm] Andrew [redacted]

can you hear me?

[14/10 5:51 pm] Morgan [redacted]

Yes we can hear you, there is a lot of background noise that's quite loud

[14/10 5:52 pm] Mark [redacted]

ive muted you due to the feedback

[14/10 6:12 pm] Andrew [redacted]

thanks

[14/10 6:12 pm] Andrew [redacted]

Sorry about the mic noise

[14/10 6:39 pm] shannon [redacted]

Hey, latest from me, is that we're still investigating but a "regular job that checks for [redacted] activity" may be involved as a culprit. It normally runs every 15 minutes, but was taking longer than 15 minutes to run and may have overlapped.

14/10 6:43 pm Meeting ended: 1h 9m 10s

[14/10 6:44 pm] Ian [redacted]

could that be caused by commenting out the code which logged IPs do you think?

[14/10 6:50 pm] shannon [redacted]

Don't think so, as they are using different database tables, but I've asked Andrew to confirm

[14/10 6:59 pm] shannon [redacted]

Jeff has changed to job to every 3 hours now

[14/10 7:02 pm] Jeff [redacted]

the job has been taking more than 15 minutes for the entirety of advanced voting won't be helping things

[14/10 7:15 pm] shannon [redacted]

Andrew also confirms that the early change isn't directly related to the [redacted] check

[14/10 7:16 pm] shannon [redacted]

eroll traffic has basically disappeared now btw

Summary

TEAMS thread	GE2023 Election Day - IT Task activities (incl. Ext partners)
Start time	14/10/23, 7:48:00 AM
End time	14/10/23, 9:30:00 PM

[14/10 7:48 am]

Vincent [redacted] changed the group name to GE2023 Election Day - IT Task activities (incl. Ext partners).

[14/10 7:48 am] Vincent [redacted]

Good morning everyone - the following chat thread will be covering off task activities throughout the day 😜 Participants on this chat includes key external partners - Catalyst, One, CCL-Cello

[14/10 10:20 am] Vincent [redacted]

VS just dropping in - issue with e-Roll - calls coming into NST unable to lookup E-Roll - calling Jeff & Matthew to investigate

[14/10 10:22 am] Vincent [redacted]

Matthew is looking into now -

[14/10 10:23 am] Stephen [redacted]

The Task Force are aware of the issue and I informed them we are aware and working on it

[14/10 10:23 am] Matthew [redacted]

Eroll seems to be working for me but it does seem slow

[14/10 10:24 am] Henry [redacted]

SD is getting quite a few calls. what is the advice to end users- go to BCP?

[14/10 10:27 am]

Matthew [redacted] added Jeff [redacted] to the chat and shared all chat history.

[14/10 10:28 am] Morgan [redacted]

There's an increase in HTTP 502 errors in [redacted] logs for eRoll

[14/10 10:28 am] Vincent [redacted]

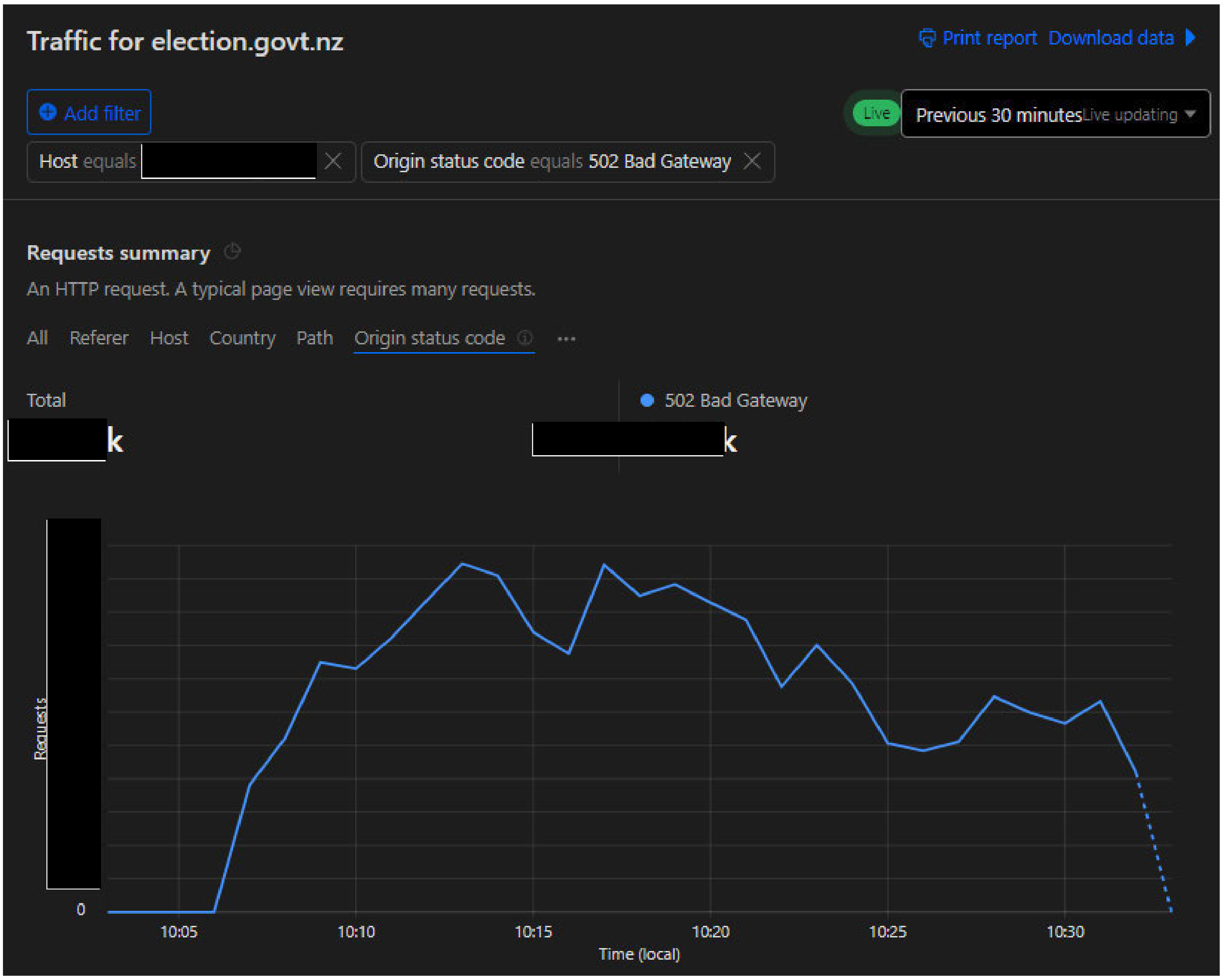
Correct Henry [redacted]- Voting Services is sending out e-text to advise users to refer to the BCP step

[14/10 10:30 am] Matthew [redacted]

jeff looking at eRoll logs and not seeing anything weird happening on that end

[14/10 10:33 am] Morgan [redacted]

From [redacted] I can see the eRoll API paths are have the issue with the 502 errors:


Print report
Download data
Add filter
Live
All
Referer
Host
Country
Path
Origin status code
···
[redacted]
Requests
0
10:05
10:10
10:15
10:20
10:25
10:30
Time (local)

Traffic for election.govt.nz

Previous 30 minutes Live updating

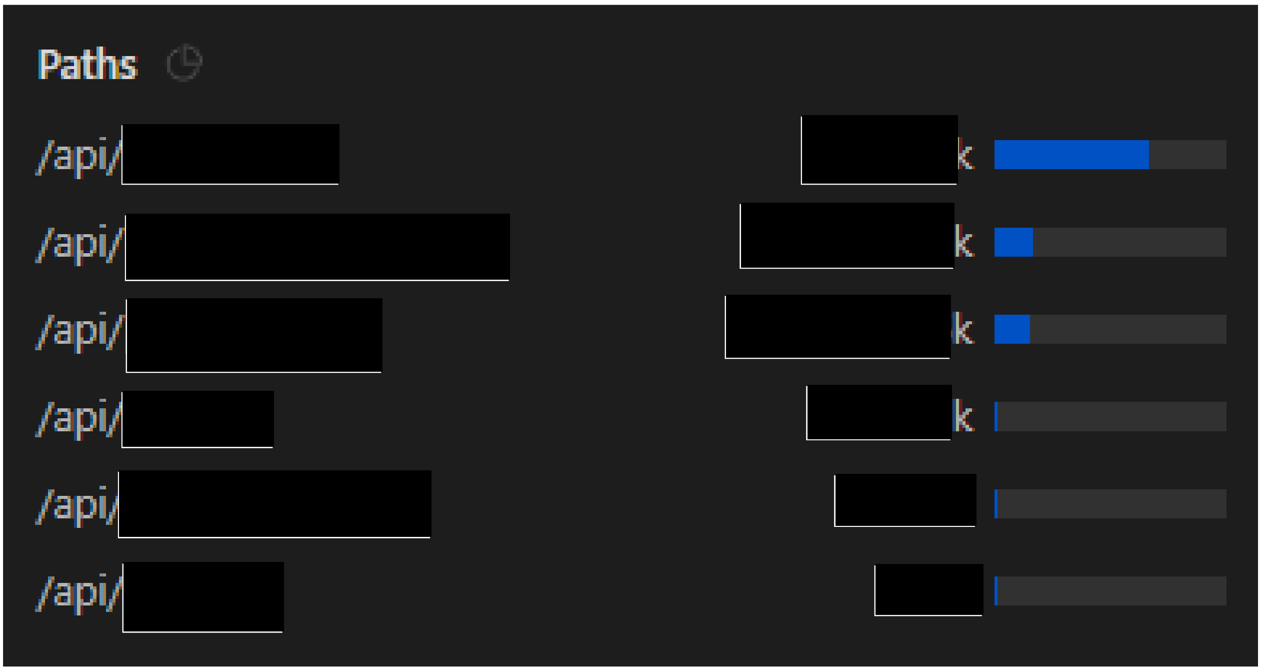
Host equals [redacted]

Origin status code equals 502 Bad Gateway

Requests summary

An HTTP request. A typical page view requires many requests.

Total	● 502 Bad Gateway
[redacted]k	[redacted]k



Paths

/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]k
/api/[redacted]	[redacted]
/api/[redacted]	[redacted]

[14/10 10:34 am] Ian [redacted]

Vincent[redacted] is going to set up a separate call on this folks

[14/10 11:38 am] Vincent [redacted]

Just an update on e-Roll major incident to this thread -

Separate Incident management - technical conference channel in place with Catalyst

Currently investigating traffic [redacted] connections and server resource capacity loads with change proposals underway to scale up capacity where needed -

CCL Service Desk been closely updated - they are still receiving calls related to this incident

Voting Services NST have sent out an e-TXT to advise to go to BCP

[14/10 12:06 pm] Ian [redacted]

[redacted]

[redacted]

[redacted]

Current work:

+ Urgently working through a P1 issue with Catalyst on eRoll performance.

Next scheduled update:

+ After 4:45pm, when [redacted] OR P1 eRoll issue resolved.

[14/10 12:49 pm] Vincent [redacted]

e-Roll Major Incident -

Approved emergency change has been applied to resolve SQL query lag

- Early indications are showing positive significant signs in performance & traffic metrics for e-Roll

- Maintaining close watch and monitoring

[14/10 1:53 pm] Vincent [redacted]

e-Roll Major Incident - Update

Subsequent to the initial change implemented at 12:45, we have applied a further emergency change which has shown improvements to e-roll performance - Continuing to maintain close watch and monitoring

[14/10 1:55 pm] Stephen [redacted]

Vincent [redacted] how do we know there are improvements if people have been told not to use it?

[14/10 1:56 pm] Vincent [redacted]

VS have started to advise the user community to start to use it again

[14/10 1:56 pm] Ian [redacted]

We're currently monitoring progress vs previous peak on Friday

Summary

TEAMS thread	Chief Information Officer and Senior Manager IT Services conversations on election day
Start time	14/10/23, 6:09:00 AM
End time	14/10/23, 7:37:00 PM

[14/10 6:09 am] Paul [redacted]

Morena - looks like we are all set for the day with systems. Can you create the Teams channel for the day and include all IT, Lucy and key relationship managers - Catalyst, Cello, One, CCL and anyone else you think and then start posting the updates on key tasks - can you also let me know before 8 if there is anything of significance to update taskforce.

[14/10 6:57 am] Ian [redacted]

yep doing it now

[14/10 6:59 am] Paul [redacted]

Thanks

[redacted]

[14/10 7:11 am] Ian [redacted]

Vince is just creating the TEAMS channel

[14/10 7:15 am] Pau [redacted]

Cool

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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[redacted]

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[14/10 11:09 am] Ian [redacted]

sounds fixable

[14/10 11:09 am] Paul [redacted]

hope so

[14/10 11:09 am] Paul [redacted]

and avoidable

[14/10 11:10 am] Ian [redacted]

we're missing a "Size for GE day volumes" across the apps

[redacted]

[redacted]

[14/10 11:27 am] Ian [redacted]

guess we're going to have take everything down and scale it all up

[14/10 11:28 am] Ian [redacted]

as I don't like the wait and see where the bottleneck goes to approach from Shannon

[14/10 11:29 am] Paul [redacted]

Nope

[14/10 11:29 am] Paul [redacted]

Can you keep me posted

[14/10 11:30 am] Ian [redacted]

now [redacted] another set of connections further into the system

[14/10 11:32 am] Ian [redacted]

there was load testing performed as recently as September last month

[14/10 11:32 am] Ian [redacted]

just finding out a bit more

[14/10 11:36 am] Ian [redacted]

I'm going to hold off changing server capacity until I have your okay because it involves bringing the service down completely for a minute or two

[14/10 11:37 am] Ian [redacted]

if you could ask for business approval on that front if you're able then that'd be much appreciated in order to get this fixed quickly.

[14/10 11:45 am] Ian [redacted]

just checking outage < 10 mins

[14/10 11:46 am] Ian [redacted]

discussing how much to increase [redacted] server config by - to make sure they have thought it through and aren't been too cautious

[14/10 11:59 am] Ian [redacted]

brilliant point by Vince

[14/10 11:59 am] Paul [redacted]

I missed it!

[14/10 12:00 pm] Ian [redacted]

here to help

[14/10 12:00 pm] Pau [redacted]

brillianet

[14/10 12:48 pm] Paul [redacted]

Wellington on how are we looking????

[14/10 12:48 pm] Ian [redacted]

yep really good

[14/10 12:48 pm] Ian [redacted]

I've found out the reason why not picked up earlier

[14/10 12:50 pm] Paul [redacted]

How are we looking

[14/10 12:50 pm] Ian [redacted]

Great no issues

[14/10 12:50 pm] Ian [redacted]

go for it

[14/10 12:50 pm] Ian [redacted]

Will continue to monitor obviously

[14/10 12:55 pm] Ian [redacted]

unscientific reasons why this wasn't picked up previously:

+ it is a branch of inefficient code that is triggered by a new request from a different IP to the previous one. Looks like load testing only happened from a single IP therefore the code didn't go down that branch.

+ peak request got up to [redacted] hour this morning - previous peak on advance voting period was [redacted] so didn't create enough transactions for the system to get overloaded.

This is only speculation, I will need to do more investigation on the load testing plus we need to check when that inefficient code was put in.

[14/10 12:58 pm] Ian [redacted]

Morgan is picking up a reoccurence of the 502 errors

[14/10 12:58 pm] Ian [redacted]

more to follow

[14/10 1:07 pm] Paul [redacted]

can you share the live graph with me so i can show Karl

[14/10 1:07 pm] Ian [redacted]

Morgan will call you now directly

[14/10 1:07 pm] Paul [redacted]

have we got an update from Catalyst

[14/10 1:07 pm] Ian Henry

and share it

[14/10 1:08 pm] Ian [redacted]

I've got Catalyst on the line at the moment - they're unable to provide an update until Shannon turns up

[14/10 1:10 pm] Paul [redacted]

Fab! Do we need to get some over there to man mark them

[14/10 1:11 pm] Ian [redacted]

I don't think they're onsite

[14/10 1:11 pm] Paul [redacted]

Interesting not what Godfrey said!!

[14/10 1:11 pm] Ian [redacted]

Shannon is definitely at home

[14/10 1:11 pm] Ian [redacted]

unless he's brought his kid to work with him

[14/10 1:12 pm] Paul Jepson

right

[14/10 1:13 pm] Paul [redacted]

I think we need a whiteboard session to work through this

[14/10 1:15 pm] Ian [redacted]

Neither Shannon, Godfrey or James are in the office

[14/10 1:21 pm] Ian [redacted]

commenting out the successful login update itself to see if that reduces contention

[14/10 1:22 pm] Ian [redacted]

we're starting to get to the point where we should say no more stick to BCP - this is soaking up time and I don't like this patch as we go approach

[14/10 1:22 pm] Ian [redacted]

checking the effects of the change now

[14/10 1:23 pm] Ian [redacted]

green shoots of recovery

[14/10 1:23 pm] Paul [redacted]

does that mean working?

[14/10 1:24 pm] Ian [redacted]

yes but need to see it operating okay as the full load comes on

[14/10 1:25 pm] Paul [redacted]

do we need a controlled release? got to be careful confidence is shot, we don't need any further damage - a big ask i know

[14/10 1:25 pm] Ian [redacted]

I think lets see it run okay for 10 minutes and then review

[14/10 1:25 pm] Ian [redacted]

we've already made that change

[14/10 1:26 pm] Ian [redacted]

the issues seem to be related to the number of different IPs being used by eRoll and how the system is logging that

[14/10 1:26 pm] Paul [redacted]

ok - risk?

[14/10 1:26 pm] Paul [redacted]

bad design then

[14/10 1:26 pm] Ian [redacted]

low risk - no change to function or other apps

[14/10 1:27 pm] Ian [redacted]

Paul [redacted]- bad design then

I would think so - especially given the use case is for use out in the field by thousands of users simultaneously

[14/10 1:28 pm] Ian [redacted]

morgan is sending you a visual

[14/10 1:28 pm] Ian [redacted]

that shows second fix being applied

[14/10 1:28 pm] Ian [redacted]

so you can use with Karl if need be

[14/10 1:28 pm] Paul [redacted]

please im still here

[14/10 1:30 pm] Paul [redacted]

via email

[14/10 1:30 pm] Ian [redacted]

he is changing to email now - about 2 mins away

[14/10 1:30 pm] Paul [redacted]

do we want full load back on

[14/10 1:31 pm] Paul [redacted]

Adele will need to comms out when we are ready

[14/10 1:32 pm] Ian [redacted]

Yes please - Catalyst are saying logs are looking good. [redacted] showing similar.

Catalyst are saying unlikely that this particular issue will reoccur

Yes please go ahead with full load.

[14/10 1:32 pm] Ian [redacted]

email is with you now

[14/10 1:34 pm] Ian [redacted]

There were reports of [redacted] running slowly for Enrolment - Jeff has investigated thoroughly - there were less than 5 users affected intermittently.

[14/10 1:34 pm] Ian [redacted]

so no relation or significant problem there

[14/10 1:34 pm] Paul [redacted]

probably related

[14/10 1:34 pm] Ian [redacted]

I don't think so

[14/10 1:34 pm] Ian [redacted]

just watercooler chat

[14/10 1:35 pm] Paul [redacted]

adele has instructed full load

[14/10 1:35 pm] Paul [redacted]

with Jeff

[14/10 1:37 pm] Ian [redacted]

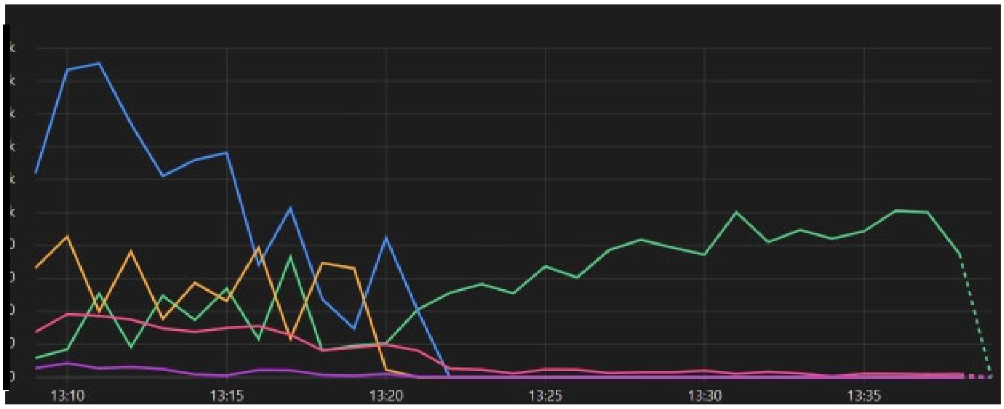
no issue so far

[14/10 1:39 pm] Ian [redacted]

Service desk queues are now clear

[14/10 1:40 pm] Ian [redacted]

[redacted] just now - GREEN is good - all other colours are bad - ignore the dotted line



[14/10 1:40 pm] Ian [redacted]

any feedback from the field now?

[14/10 5:06 pm] Ian [redacted]

[redacted]

[14/10 5:06 pm] Paul [redacted]

OK can you message morgan to send me those stats or graph or whatever on eroll so can do an update and close out.

[14/10 5:08 pm] Ian [redacted]

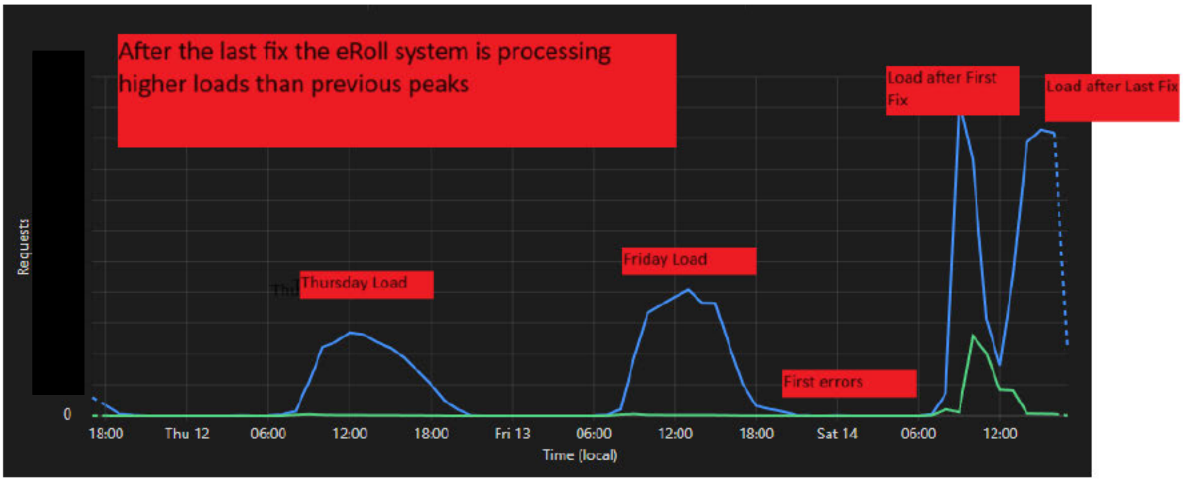
he's on this call but have messaged Mark [redacted]

[14/10 5:15 pm] Ian [redacted]

have given up on Mark [redacted]

[14/10 5:15 pm] Ian [redacted]

Morgan doing graph for me now



After the last fix the eRoll system is processing higher loads than previous peaks

Processing volumes now in excess of previous peaks (Thursday and Friday). Green and Blue are good. Higher the better.

[14/10 5:31 pm] Ian [redacted]

Morgan just said it is seeing issues again

[14/10 5:31 pm] Ian [redacted]

stand by caller

[14/10 5:33 pm] Ian [redacted]

doesn't seem absolutely as bad - is generating some calls to SD

[14/10 5:33 pm] Ian [redacted]

I'll reset up the call with Catalyst

[14/10 5:34 pm] Paul [redacted]

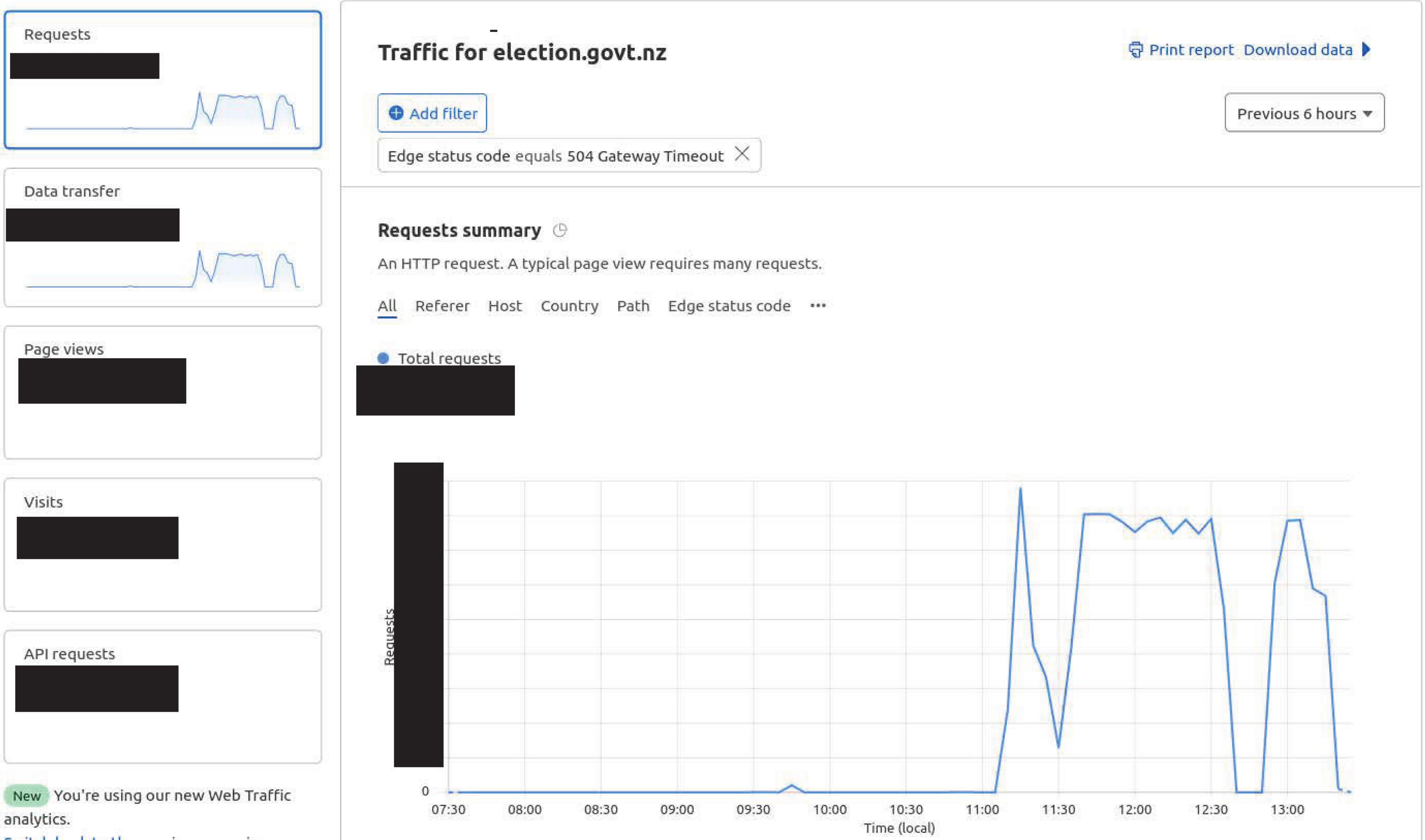
you're kidding

[14/10 6:13 pm] Ian [redacted]

no further reoccurence - Shannon will keep looking at logs and update at 6.30 on progress to finding what the issue was

[14/10 7:37 pm] Ian [redacted]

[redacted]



Requests
[redacted]
Data transfer
[redacted]
Page views
[redacted]
Visits
[redacted]
API requests
[redacted]
Print report
Download data
Add filter
Previous 6 hours
All
Referer
Host
Country
Path
Edge status code
•••
Total requests
[redacted]
Requests
[redacted]
0
07:30
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
Time (local)

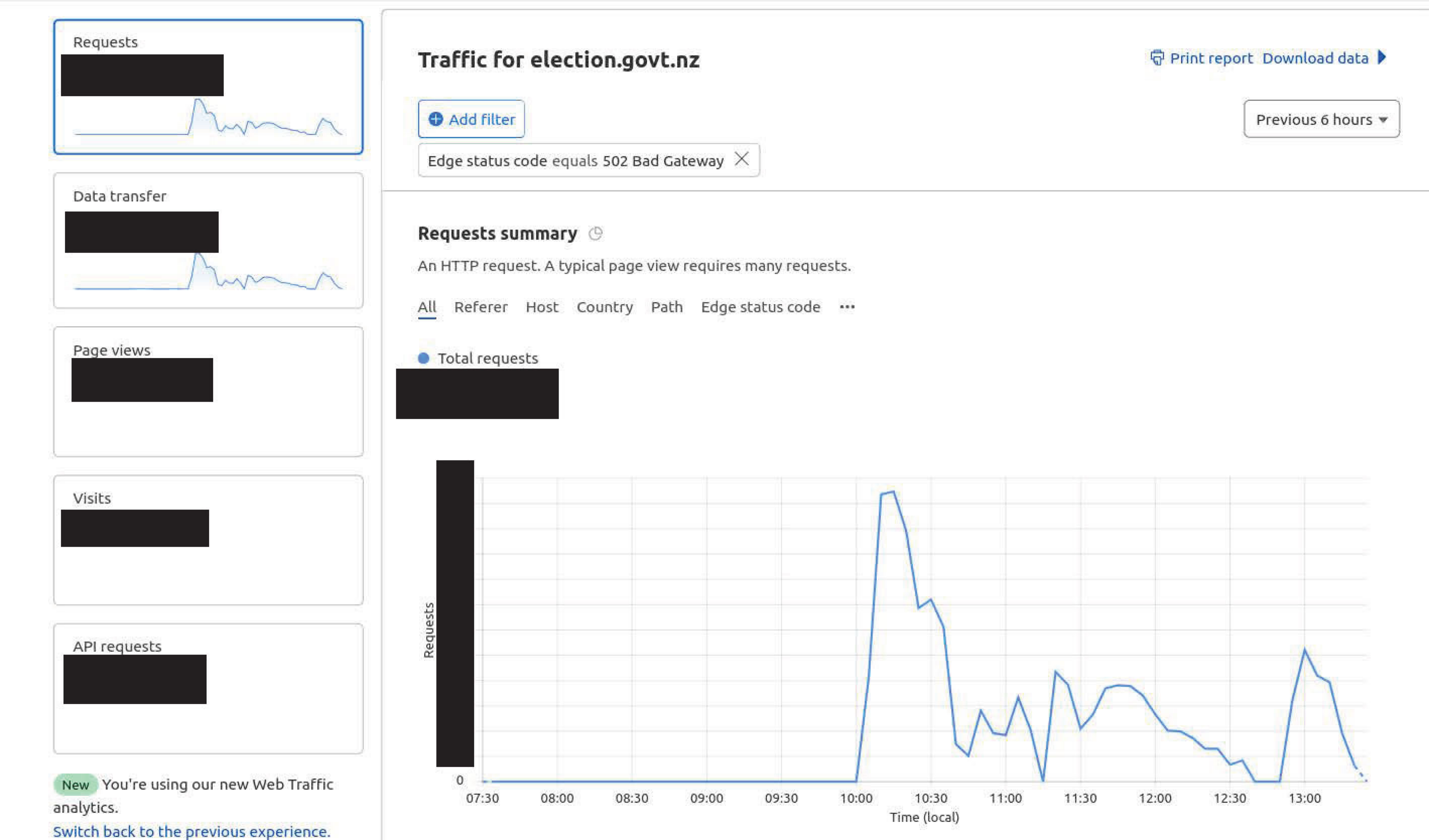
Traffic for election.govt.nz

Edge status code equals 504 Gateway Timeout

Requests summary

An HTTP request. A typical page view requires many requests.

New You're using our new Web Traffic analytics.



Requests

[redacted]

Data transfer

[redacted]

Page views

[redacted]

Visits

[redacted]

API requests

[redacted]

New You're using our new Web Traffic analytics.

Switch back to the previous experience.

Traffic for election.govt.nz

Print report Download data

Add filter

Previous 6 hours

Edge status code equals 502 Bad Gateway

Requests summary

An HTTP request. A typical page view requires many requests.

All Referer Host Country Path Edge status code •••

● Total requests

[redacted]

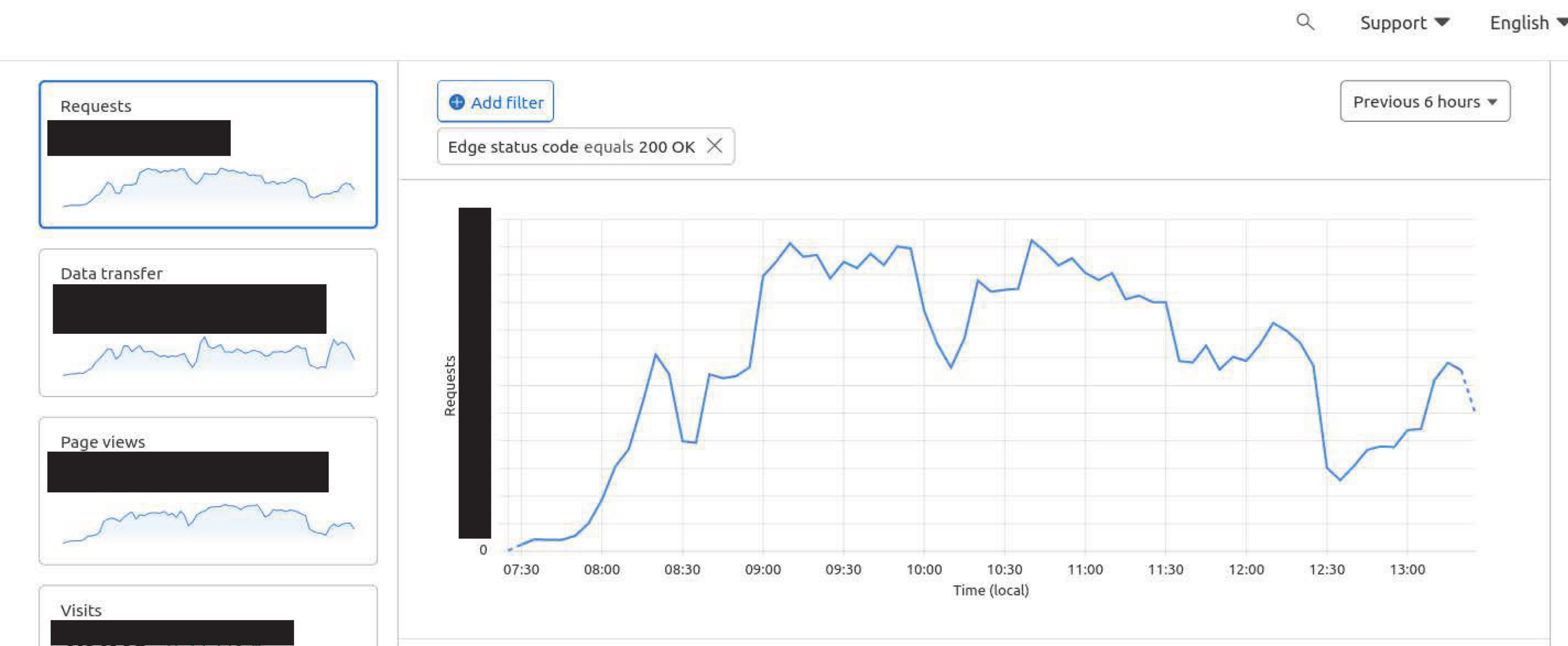
[redacted]

Requests
0
07:30
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
Time (local)

Print report
Download data

Traffic for election.govt.nz

Requests summary



Support
English
Requests
Data transfer
Page views
Visits
Add filter
0
07:30
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
Time (local)

Requests [redacted]

Data transfer [redacted]

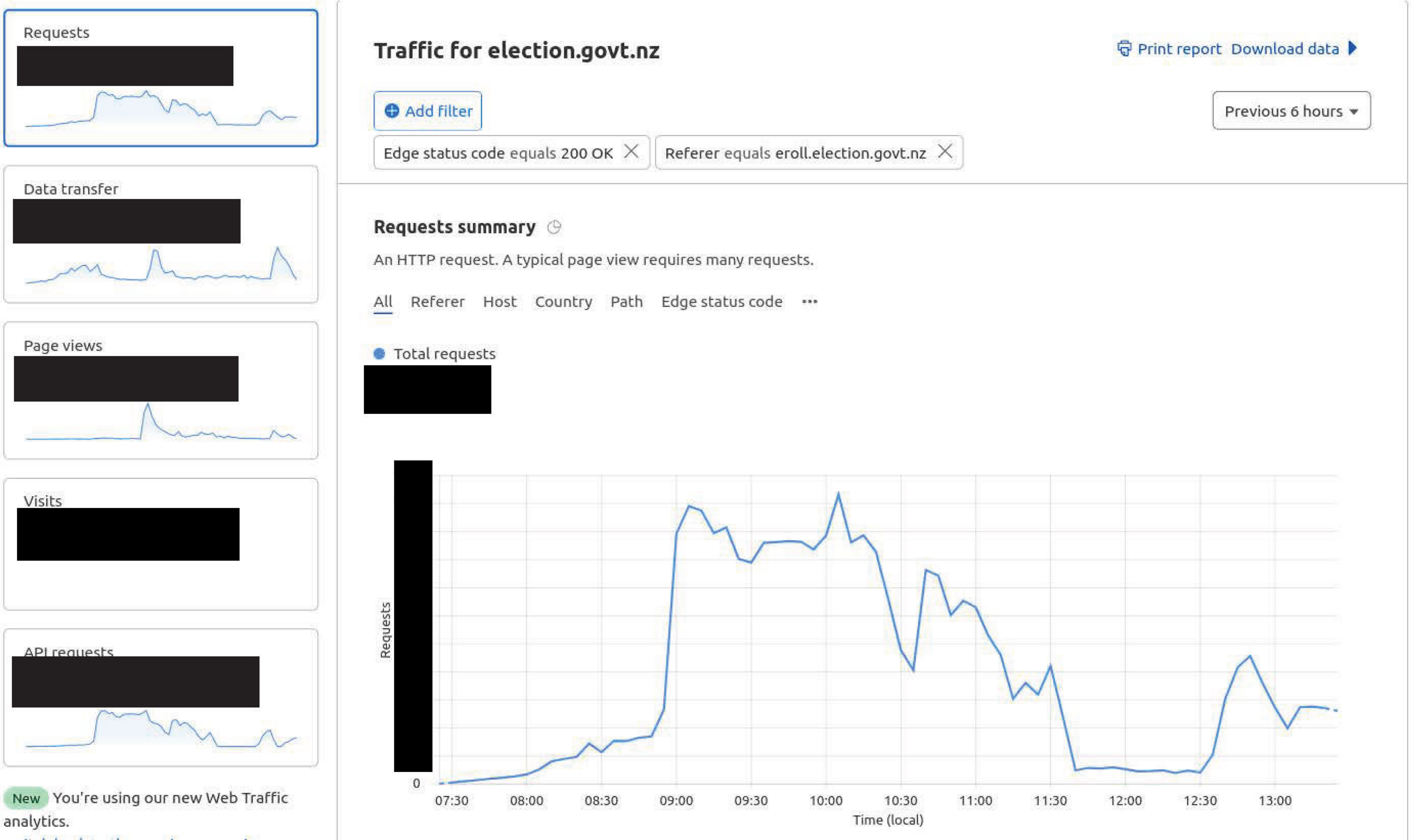
Page views [redacted]

Visits [redacted]

Edge status code equals 200 OK

Previous 6 hours

Requests [redacted]


Print report
Download data
Add filter
Previous 6 hours
All
Referer
Host
Country
Path
Edge status code
•••
Requests
0
07:30
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
Time (local)

Requests

[redacted]

Data transfer

[redacted]

Page views

[redacted]

Visits

[redacted]

API requests

[redacted]

New You're using our new Web Traffic analytics.

Traffic for election.govt.nz

Edge status code equals 200 OK

Referer equals eroll.election.govt.nz

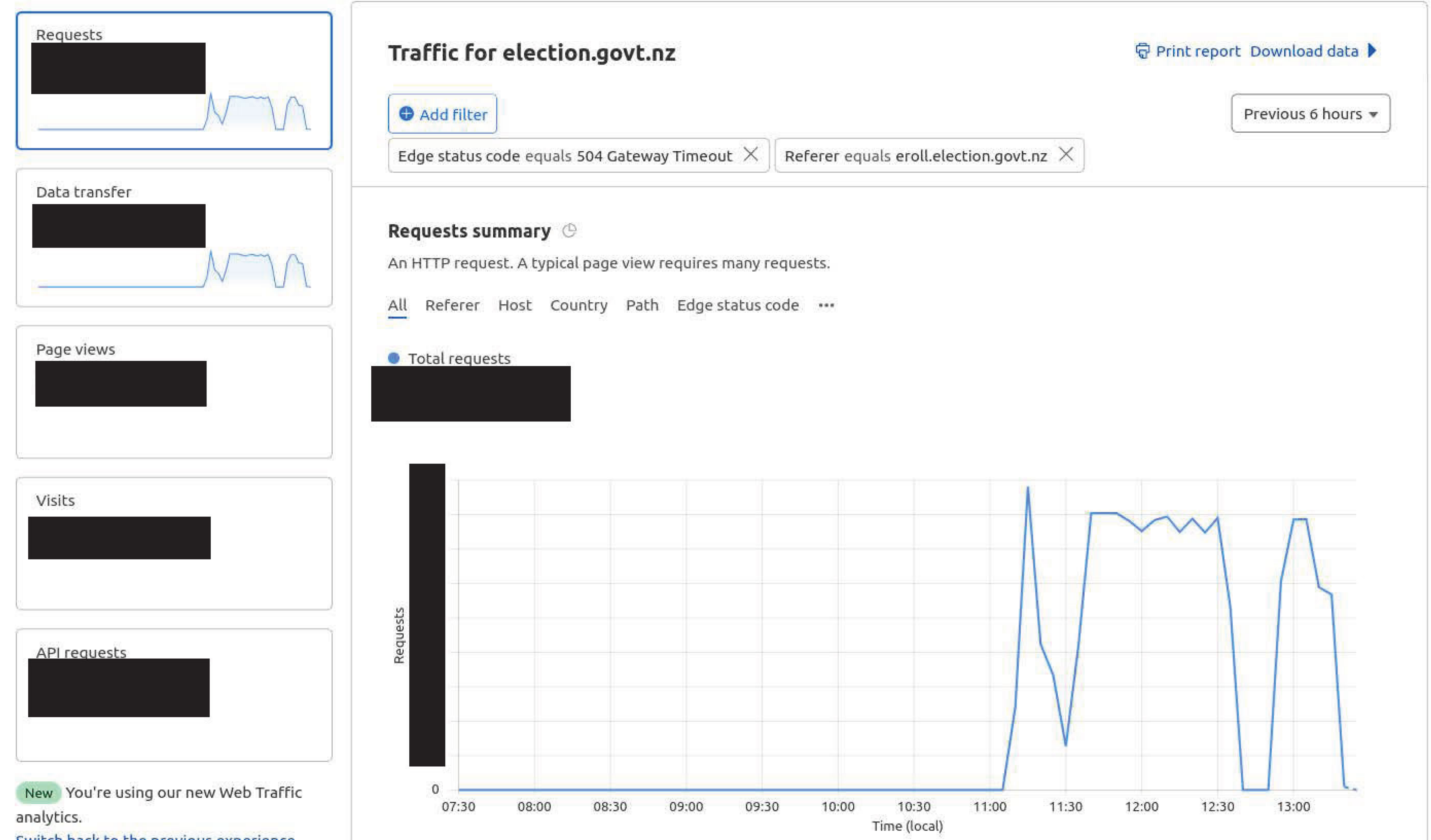
Requests summary

An HTTP request. A typical page view requires many requests.

Total requests

[redacted]

[redacted]



Requests
[redacted]

Data transfer
[redacted]

Page views
[redacted]

Visits
[redacted]

API requests
[redacted]

New You're using our new Web Traffic analytics.

Switch back to the previous experience

Traffic for election.govt.nz

Print report
Download data
Add filter

Previous 6 hours

Edge status code equals 504 Gateway Timeout

Referer equals eroll.election.govt.nz

Requests summary

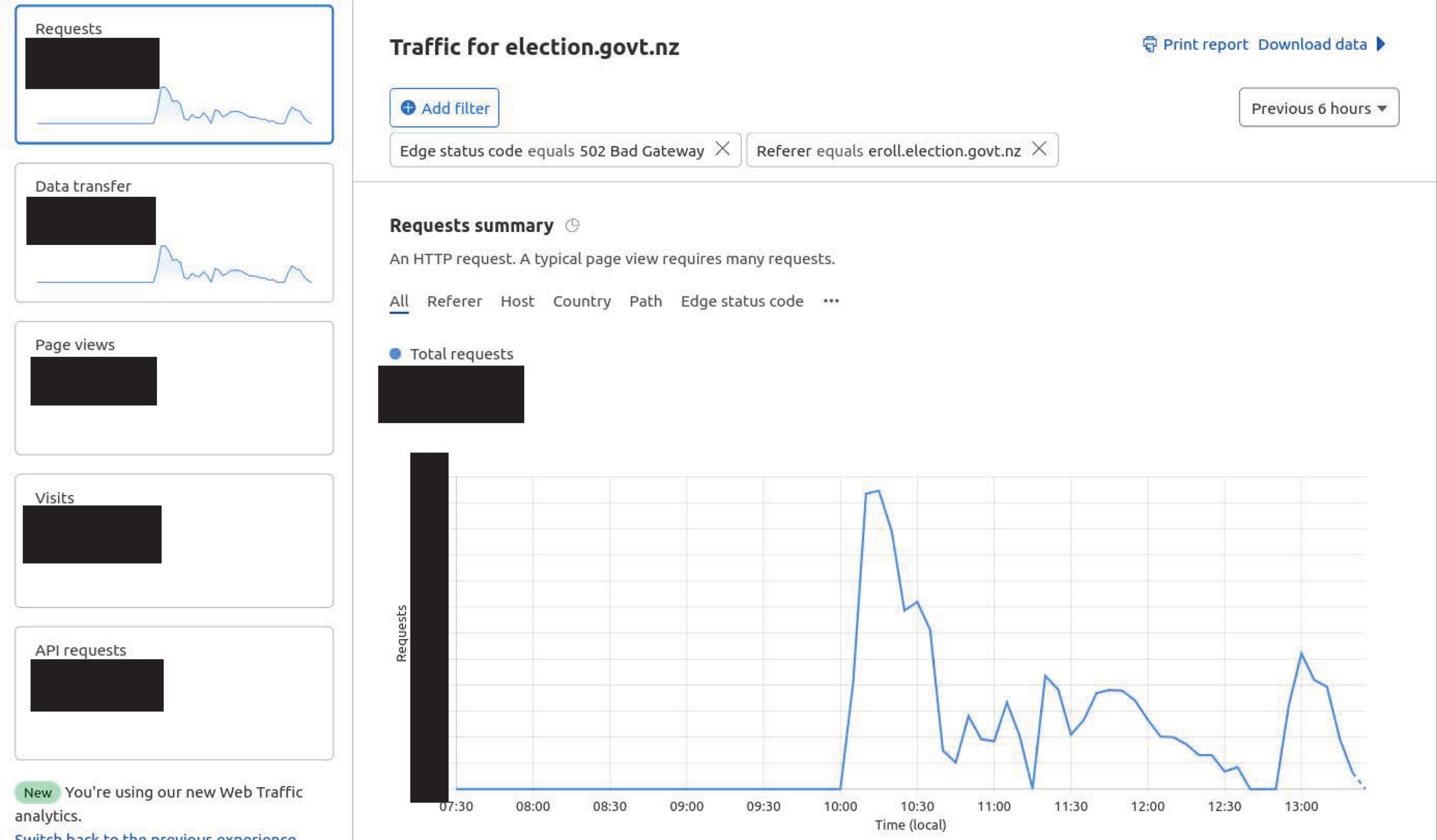
An HTTP request. A typical page view requires many requests.

All
Referer
Host
Country
Path
Edge status code
•••

● Total requests
[redacted]

[redacted]

Requests
0
07:30
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
Time (local)



Requests

[redacted]

Data transfer

[redacted]

Page views

[redacted]

Visits

[redacted]

API requests

[redacted]

New You're using our new Web Traffic analytics.

Switch back to the previous experience

Traffic for election.govt.nz

Print report Download data

Add filter

Previous 6 hours

Edge status code equals 502 Bad Gateway

Referer equals eroll.election.govt.nz

Requests summary

An HTTP request. A typical page view requires many requests.

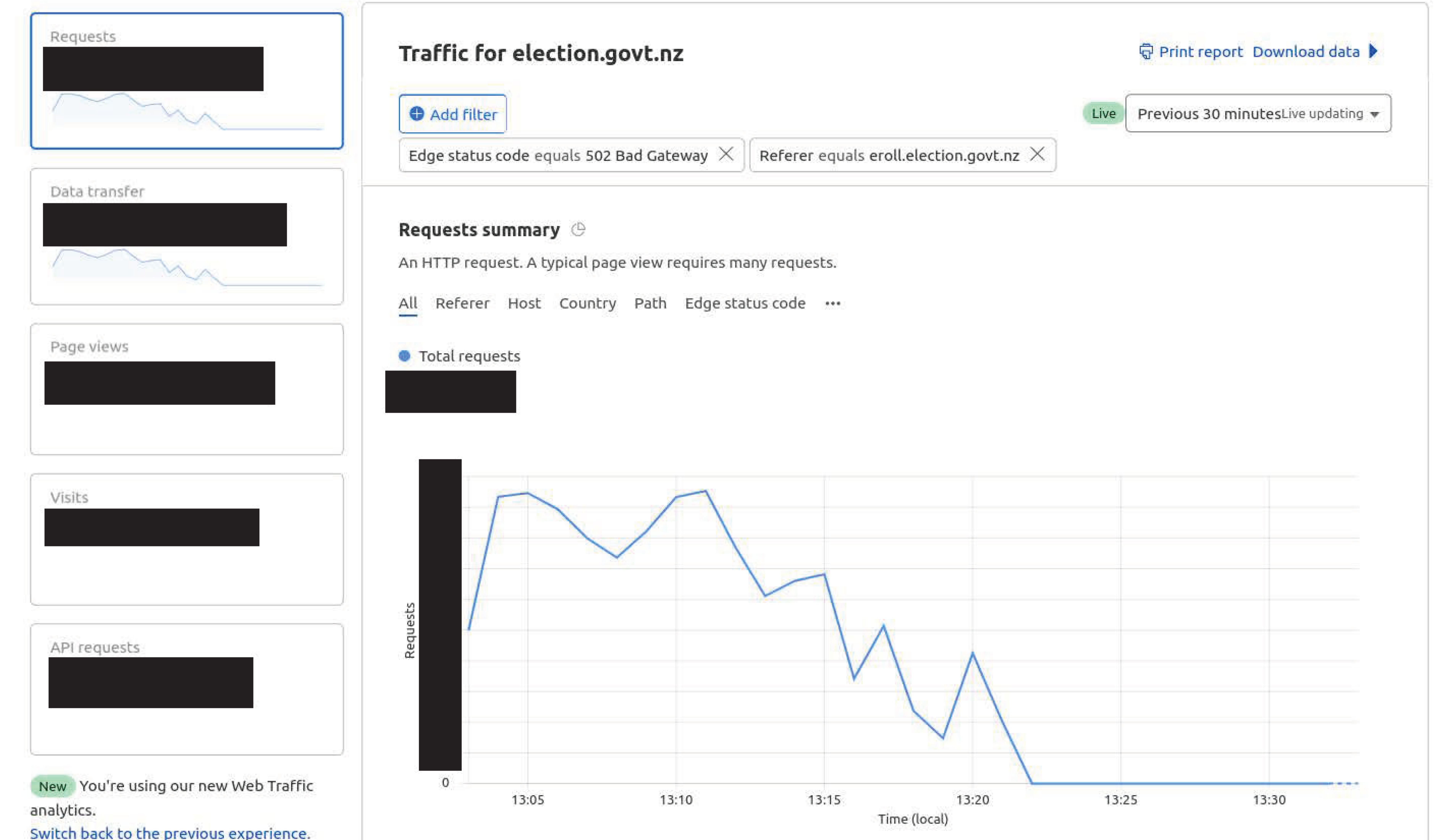
All Referer Host Country Path Edge status code •••

● Total requests

[redacted]

[redacted]

Requests
07:30
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
Time (local)


Print report
Download data
Add filter
Live
All
Referer
Host
Country
Path
Edge status code
Requests
0
13:05
13:10
13:15
13:20
13:25
13:30
Time (local)

Requests
[redacted]

Data transfer
[redacted]

Page views
[redacted]

Visits
[redacted]

API requests
[redacted]

New You're using our new Web Traffic analytics.
Switch back to the previous experience.

Traffic for election.govt.nz

Previous 30 minutes Live updating

Edge status code equals 502 Bad Gateway

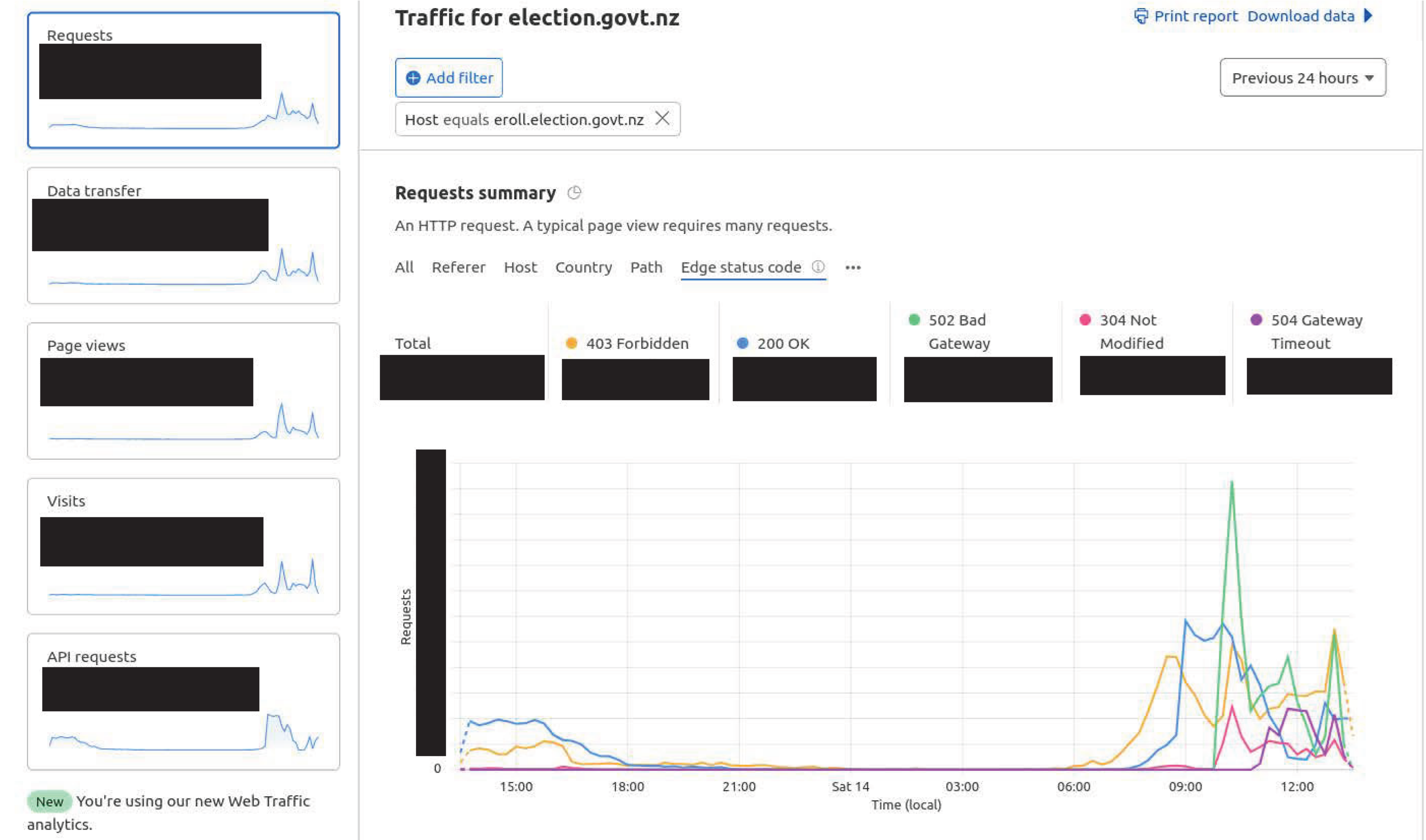
Referer equals eroll.election.govt.nz

Requests summary

An HTTP request. A typical page view requires many requests.

● Total requests
[redacted]

[redacted]



Requests
[redacted]

Data transfer
[redacted]

Page views
[redacted]

Visits
[redacted]

API requests
[redacted]

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Traffic for election.govt.nz

Print report Download data

Add filter

Previous 24 hours

Host equals eroll.election.govt.nz

Requests summary

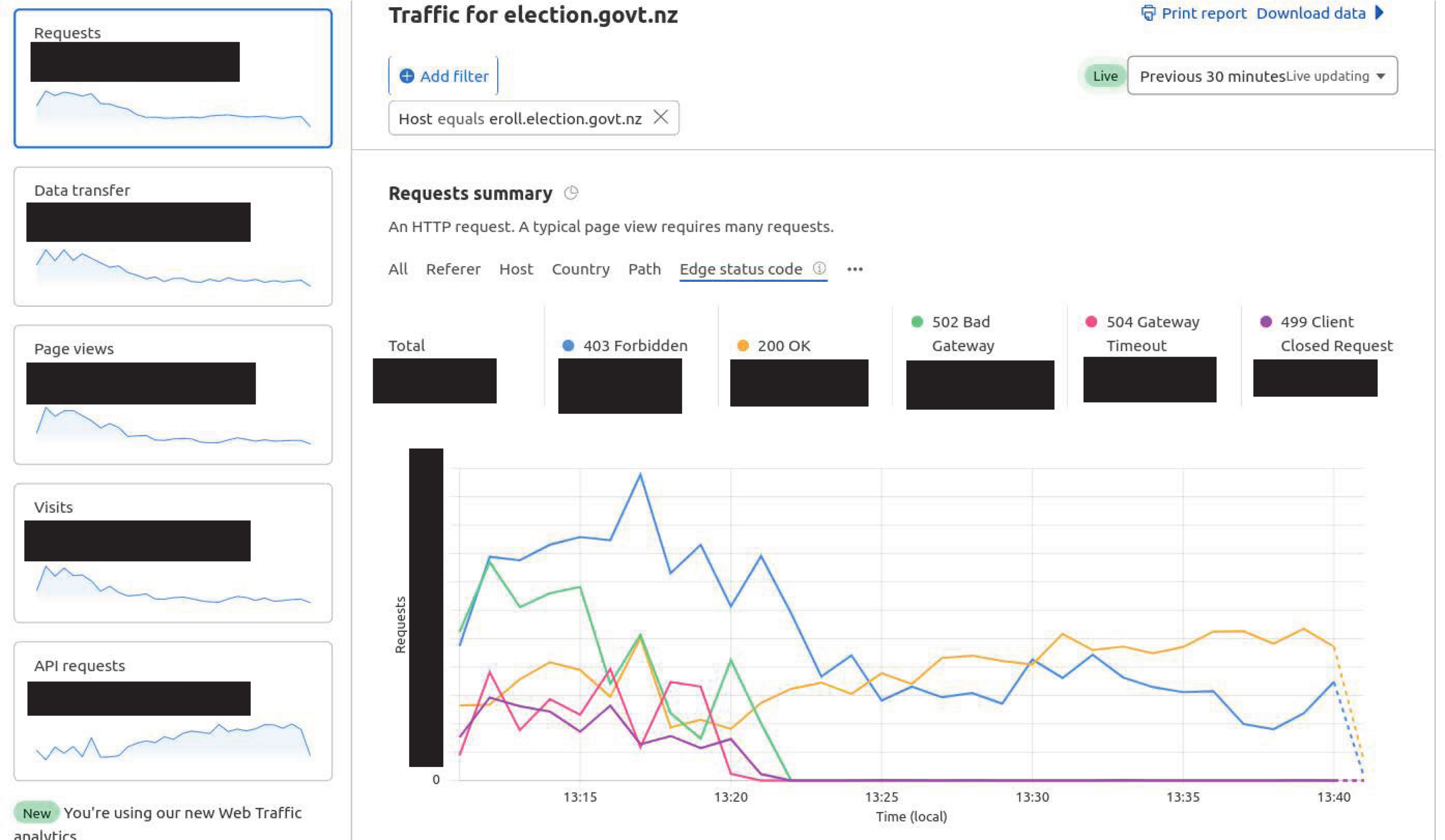
An HTTP request. A typical page view requires many requests.

All Referer Host Country Path Edge status code ⓘ •••

Total	● 403 Forbidden	● 200 OK	● 502 Bad Gateway	● 304 Not Modified	● 504 Gateway Timeout
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

Requests
0
15:00
18:00
21:00
Sat 14
03:00
06:00
09:00
12:00
Time (local)



Requests

[redacted]

Data transfer

[redacted]

Page views

[redacted]

Visits

[redacted]

API requests

[redacted]

New You're using our new Web Traffic analytics

Traffic for election.govt.nz

Print report Download data

Add filter

Host equals eroll.election.govt.nz ✕

Live Previous 30 minutes Live updating ▾

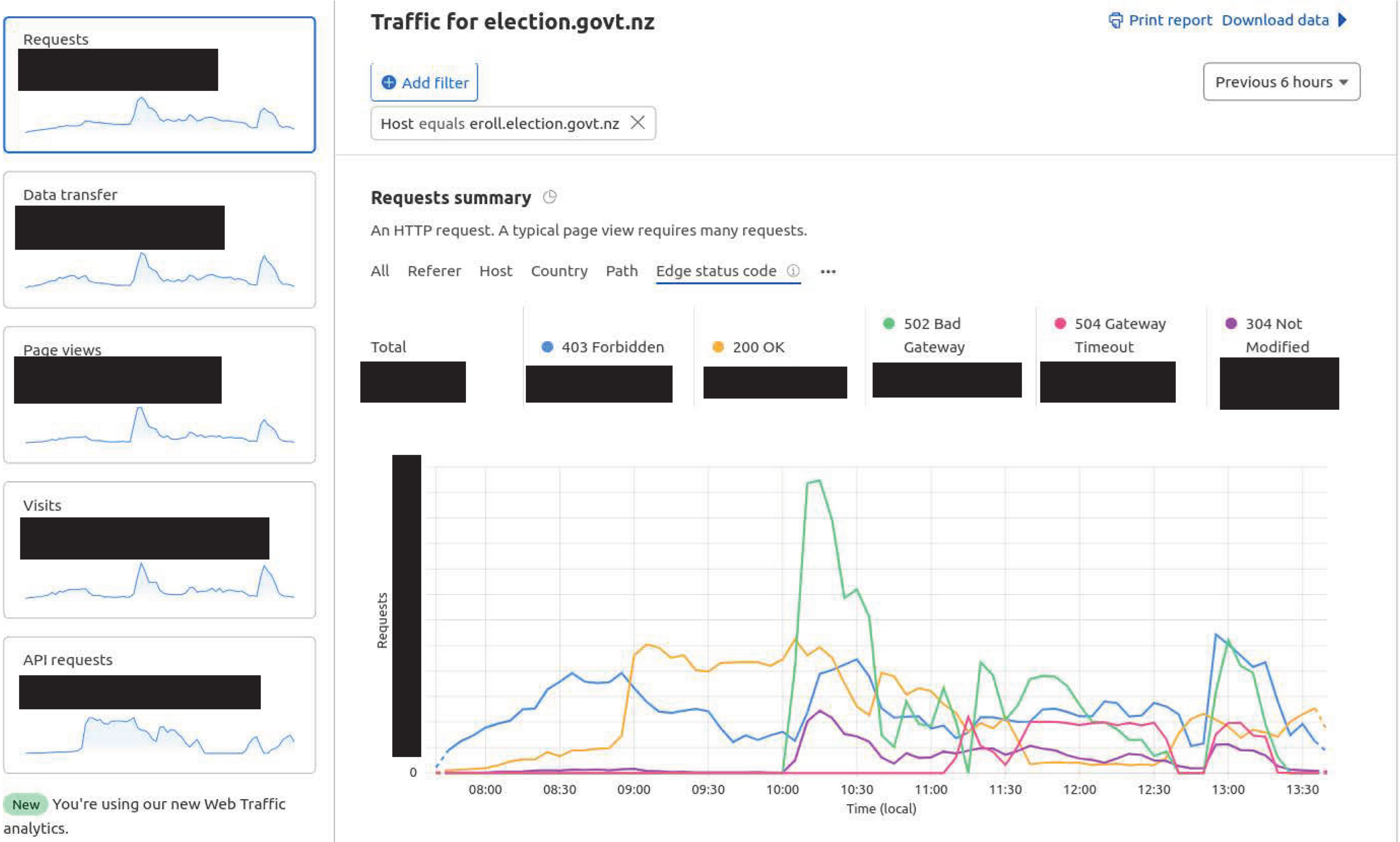
Requests summary

An HTTP request. A typical page view requires many requests.

All Referer Host Country Path Edge status code ⓘ •••

Total	● 403 Forbidden	● 200 OK	● 502 Bad Gateway	● 504 Gateway Timeout	● 499 Client Closed Request
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]



Requests
[redacted]

Data transfer
[redacted]

Page views
[redacted]

Visits
[redacted]

API requests
[redacted]

New You're using our new Web Traffic analytics.

Traffic for election.govt.nz

Host equals eroll.election.govt.nz ✕

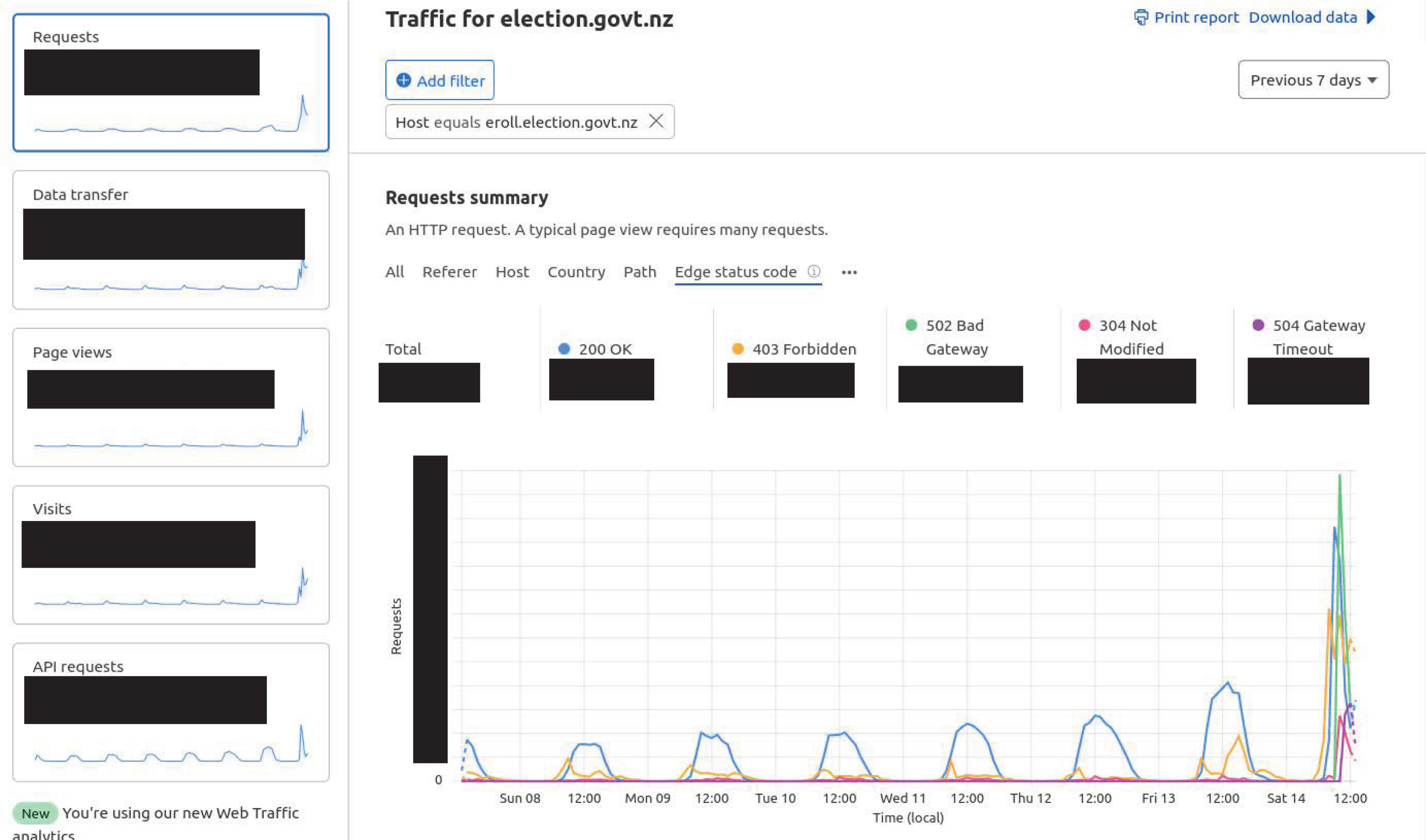
Requests summary

An HTTP request. A typical page view requires many requests.

Total	● 403 Forbidden	● 200 OK	● 502 Bad Gateway	● 504 Gateway Timeout	● 304 Not Modified
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

Print report
Download data
Add filter
Previous 6 hours
All
Referer
Host
Country
Path
Edge status code
•••
Requests
0
08:00
08:30
09:00
09:30
10:00
10:30
11:00
11:30
12:00
12:30
13:00
13:30
Time (local)



Requests
[redacted]

Data transfer
[redacted]

Page views
[redacted]

Visits
[redacted]

API requests
[redacted]

New You're using our new Web Traffic analytics

Traffic for election.govt.nz

Print report Download data

⊕ Add filter

Host equals eroll.election.govt.nz ✕

Previous 7 days ▾

Requests summary

An HTTP request. A typical page view requires many requests.

All Referer Host Country Path **Edge status code** ⓘ •••

Total [redacted]

● 200 OK [redacted]

● 403 Forbidden [redacted]

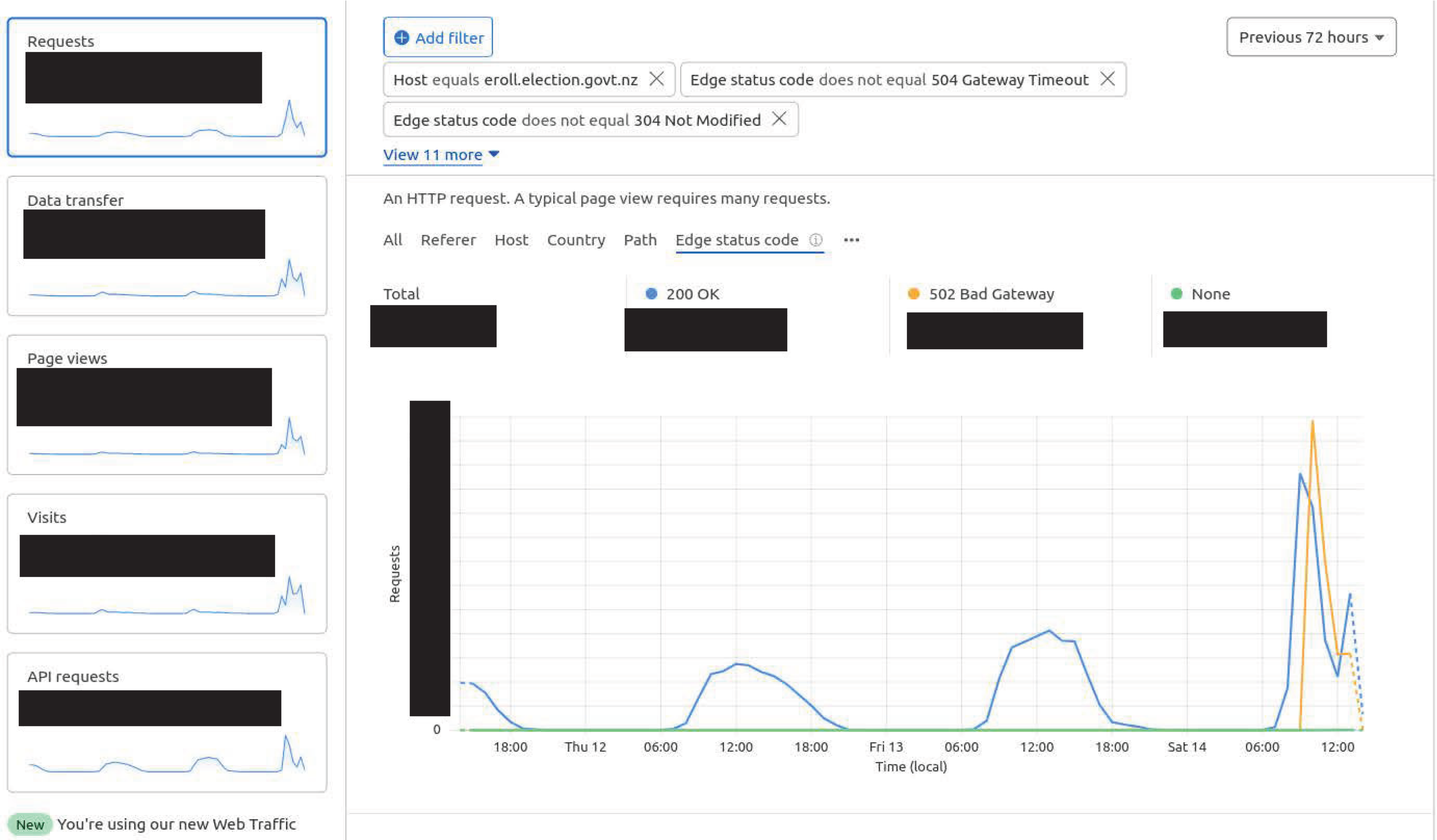
● 502 Bad Gateway [redacted]

● 304 Not Modified [redacted]

● 504 Gateway Timeout [redacted]

[redacted]

Requests
0
Sun 08
12:00
Mon 09
12:00
Tue 10
12:00
Wed 11
12:00
Thu 12
12:00
Fri 13
12:00
Sat 14
12:00
Time (local)



Add filter
Previous 72 hours
View 11 more
All
Referer
Host
Country
Path
Edge status code
Requests
0
18:00
Thu 12
06:00
12:00
18:00
Fri 13
06:00
12:00
18:00
Sat 14
06:00
12:00
Time (local)
New

Requests [redacted]

Data transfer [redacted]

Page views [redacted]

Visits [redacted]

API requests [redacted]

Host equals eroll.election.govt.nz

Edge status code does not equal 504 Gateway Timeout

Edge status code does not equal 304 Not Modified

An HTTP request. A typical page view requires many requests.

Total [redacted]

● 200 OK [redacted]

● 502 Bad Gateway [redacted]

● None [redacted]

Requests [redacted]

You're using our new Web Traffic

Paths

/api/[redacted] [redacted]

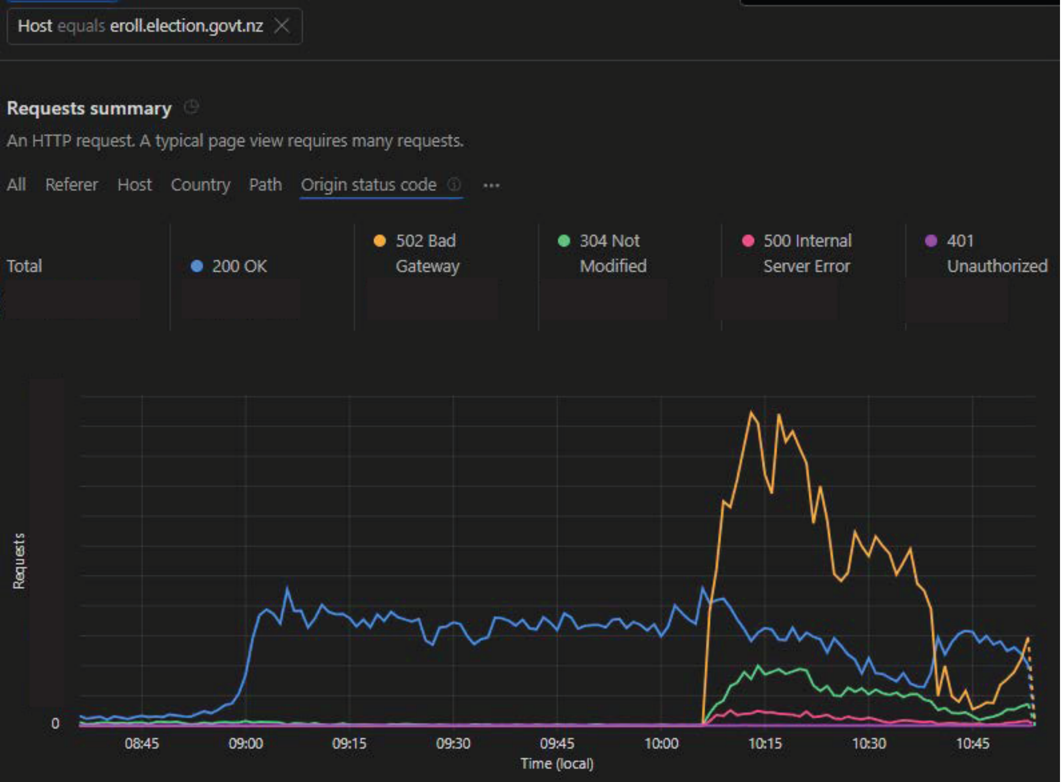
/api/[redacted] [redacted]

/api/[redacted] [redacted]

/api/[redacted] [redacted]

/api/[redacted] [redacted]

/api/[redacted] [redacted]



Host equals eroll.election.govt.nz

Requests summary

An HTTP request. A typical page view requires many requests.

All
Referer
Host
Country
Path
Origin status code
•••
Total
● 200 OK
● 502 Bad Gateway
● 304 Not Modified
● 500 Internal Server Error
● 401 Unauthorized
Requests
0
08:45
09:00
09:15
09:30
09:45
10:00
10:15
10:30
10:45
Time (local)

WR #419462: eRoll app response is slow or not working

Requested: 2023-10-14 10:57 **Parent request:** 419464

Status Testing/Signoff
Organisation Electoral Commission
Person Paul [redacted]
System EC Outages and Incidents
Type Maintenance
Urgency On Specified Date
Priority Critical
Details WR to capture response and details of possible [redacted] issue affecting eRoll.

- Reports from eRoll users, the app is slow or not working
- Spike at around 10:05am
- eRoll logs show 502 errors
- more details to be added

Allocated To

Catalyst Sysadmin NZ, James [redacted] Morgan [redacted] [NZOps] Incident Response

Subscribed Users

Catalyst Sysadmin NZ, Cindy [redacted], Godfrey [redacted], Ian [redacted] James [redacted] Jason [redacted] Jeff [redacted], Miroslav [redacted], Morgan [redacted] [NZOps] Incident Response, [NZOps] Pager Team, Paul [redacted], Shannon [redacted]

Notes (30)

Reverse display order

#30
a month ago
by Shannon [redacted]
2023-10-24 12:48

Incident report with EC.
Remediation work to follow.

#29
a month ago
by Andrew [redacted]
2023-10-14 20:59

[redacted] does not run regular scheduled job concurrently if they are detected as still running. No evidence of multiple job runs in the [redacted] table for these two jobs. The job scheduler will wait until no job of that name is running before starting another.

Will need to analyze further why these jobs are now taking much longer than they used to.

I saw that they have been taking longer to run in the month or so leading up to the election so it is not a sudden jump in execution time today only.

#28
a month ago
by Jeff [redacted]
2023-10-14 18:53

I'm not sure it is the culprit but its clearly not great when a job that normally takes 2 minutes to complete and runs every 15 minutes is taking closer to an hour. I've updated the [redacted] and [redacted] jobs to run every 3 hours with the next runs after 8pm.

The [redacted]ob has been running approximately every 90 minutes today so I'd be a little surprised if that was the ultimate cause.

#27
a month ago
by Shannon

Looking like the culprit may be some query related to a regular job that checks for [redacted] activity.

[redacted]
2023-10-14 18:45

The job was starting to take longer than 15 minutes and may have been running multiple times concurrently, causing issues.

Jeff was apparently considering modifying the frequency from running every 15 minutes.

That process is also running against the primary [redacted] server, and could be run against a secondary instead.

#26
a month ago
by Ian [redacted]
2023-10-14 18:42

Hi Shannon,

Could you provide the update please? Thanks, Ian.

#25
a month ago
by Shannon
[redacted]
2023-10-14 18:03

New batch of 500 and 502's reported and visible in [redacted] dashboard for:

17:10 - 17:40

Investigation into those ongoing.

#24
a month ago
by Ian [redacted]
2023-10-14 13:36

confirmed as approved.

#23
a month ago
by Shannon
[redacted]
2023-10-14 13:27

Same change made on [redacted] for consistency.

#22
a month ago
by Shannon
[redacted]
2023-10-14 13:25

502's came back when electorates started using the app again?

Some old database processes with the old code still stuck waiting for a lock were killed.

New code change requested, and approved for change in the conference call:

Andrew[redacted] Can we comment out the [redacted] line from the code.
Andrew[redacted] That will prevent any future requests attempting this code and getting/queued

Change applied and service restarted.

#21
a month ago
by Andrew
[redacted]
2023-10-14 13:06

Noting that for eRoll Load Testing that was undertaken to have identified this as a bug - every load test query would need to have used a 'fake' IP address.

This bug still existed at GE 2020 but with far fewer API calls due to more limited eRoll functionality - I assert that the load never got critical

#20
a month ago
by Shannon
[redacted]
2023-10-14 12:56

Noting that post the change to the code on [redacted], the [redacted] server load halved from 18 to 9.

502 Response codes for eroll stopped, and 200 codes went from [redacted] to up near [redacted]

#19
a month ago
by Ian [redacted]
2023-10-14 12:56

Confirming approved.

Can we please keep this WR open for the time being.

#18
a month ago

by Shannon
[redacted]
2023-10-14 12:51

Had approval on the call to apply the same change to the [redacted] app, which has now been applied.

#17
a month ago
by James [redacted]
2023-10-14 12:50

Noting that for eRoll Load Testing to have identified this as a bug - every load test query would need to have used a 'fake' IP address.
This bug still existed at GE 2020 but with far fewer API calls due to more limited eRoll functionality - the assertion is that the load never got critical.

#16
a month ago
by Shannon
[redacted]
2023-10-14 12:44

"The same fix could be applied to the [redacted] host, same file but the [redacted] service would need restarting instead"

This would be the same fix for the [redacted]

#15
a month ago
by Ian [redacted]
2023-10-14 12:39

Approved following discussion on issue call:

No significant outage required.
Only affects eRoll.

#14
a month ago
by Shannon
[redacted]
2023-10-14 12:31

From Andrew:

Please change the following line [redacted]
in sub framework_login

[redacted]
to be
[redacted]

#13
a month ago
by Shannon
[redacted]
2023-10-14 12:14

Latest is that there is a slow performing database query tied to the eroll app (but not the website), which is causing 6+ second delays on queries.

SMX for [redacted] is working on a workaround for that

#12
a month ago
by Ian [redacted]
2023-10-14 12:06

Changes to the [redacted] server not approved on the basis that we're not seeing other applications using the same database experiencing similar performance issues.

This may change as discussions go forward.

#11
a month ago
by Shannon
[redacted]
2023-10-14 11:51

Increasing the scale of the [redacted] server from a [redacted] to a [redacted] will only take a few minutes.

If possible we would also like to increase the underlying disk speed.

#10
a month ago
by Sam [redacted]
2023-10-14 11:38

I've increased the [redacted] from [redacted] to [redacted], run [redacted] to pick the changes up, and restarted the [redacted]

#9
a month ago
by Shannon
[redacted]
2023-10-14 11:32

Next steps will likely involve adding more CPU to the [redacted] server and retuning it, which will require a couple of minutes of outage.

#8
a month ago

by Ian [redacted] 2023-10-14 11:31	Confirmed as approved.
#7 **a month ago** by Shannon [redacted] 2023-10-14 11:30	Have phone based approval to: "up the number of [redacted] from [redacted] to [redacted]"
#6 **a month ago** by Sam [redacted] 2023-10-14 11:25	[redacted] has been increased to [redacted] on [redacted] and [redacted] [redacted] added a [Service] override to [redacted] [redacted] and restarted [redacted], and disabled [redacted]
#5 **a month ago** by Ian [redacted] 2023-10-14 11:21	Approved to [redacted] number of [redacted] No approval as yet to increase scale of servers because it needs to be taken offline.
#4 **a month ago** by Shannon [redacted] 2023-10-14 11:18	Proposed changes: • Increase [redacted] from [redacted] to [redacted] • Increase scale of servers
#3 **a month ago** by Morgan [redacted] 2023-10-14 11:09	Hi, Please see the attached screenshots showing the 502 errors, and the affected paths. This started at around 10:05 and is ongoing.
#2 **a month ago** by James [redacted] 2023-10-14 10:58	Call with EC at ~10:30
#1 **a month ago** by James [redacted] 2023-10-14 10:57	Started WR to capture details and response

06/11/2023 - E +23 SITREPS

As at 3.23pm on 06/11/2023 prepared by Crispian [redacted]

Distributed to	All GEDT/ELT members
Key Contacts	Anusha [redacted] and Crispian [redacted]
Previous ELT SITREP	E+20 SITREPS 8 03112023 - FINAL.docx
Overview	[redacted]
Voting Services	[redacted]
Recount	[redacted] [redacted] [redacted]

	[redacted]
Enrolment	**GENERAL UPDATE:** **GE 2023** [redacted] **Port Waikato By-election** [redacted] • To have further discussion on the use of eRoll for the by-election
IT	**GENERAL UPDATE:** • Nothing significant to report for General Election activity [redacted]
Comms & Education	[redacted]
Customer Services	[redacted]
Legal & Policy	[redacted]
Strategic Engagement and Partnership	[redacted]
Security	[redacted]

	[redacted]
People & Culture	[redacted]

07/11/2023 - E +24 SITREPS

As at 3.25pm on 07/11/2023 prepared by Crispian [redacted], approved by Anusha [redacted]

Distributed to	All GEDT/ELT members
Key Contacts	Anusha [redacted] and Crispian [redacted]
Previous ELT SITREP	E+23 SITREPS 9 06112023 - FINAL.docx
Overview	[redacted]
Voting Services	**GENERAL UPDATE** **Port Waikato By-election** • By-election logins creating some issues for staff, not having access to apps that are required. • Wifi coverage an issue at HQ, • IT is investigating above mentioned issues. [redacted]
Enrolment	**GENERAL UPDATE:** • Nothing to update • To meet with Port Waikato EM and Principal Advisor VS to discuss the use of eRoll at voting places.
IT	**GENERAL UPDATE:** • General Election - Nothing significant to report

	[redacted] • Port Waikato by-election – Customer Experience/Field Testing of mobile devices and Applications (eRoll and End of Day) commenced today, due to complete by 9/11. • Port Waikato by-election – eRoll Load Testing planned and scheduled to take place early next week.
Comms & Education	[redacted]
Customer Services	[redacted]
Legal & Policy	[redacted]
Strategic Engagement and Partnership	[redacted]
Security	[redacted]
People & Culture	[redacted]

08/11/2023 - E + 25 SITREPS

As at 3.21pm on 08/11/2023 prepared by Grace [redacted] approved by Anusha [redacted]

Distributed to	All GEDT/ELT members
Key Contacts	Anusha [redacted] and Crispian [redacted]
Previous ELT SITREP	E+24 SITREPS 9 07112023 - FINAL.docx
Overview	[redacted]
Voting Services	**GENERAL UPDATE** **Port Waikato By-election** • Escalated to IT for support due to issues. • Testing underway at voting places to ensure good connectivity (user experience + functionality) • Testing to be undertaken in relation to eRoll [redacted]
Enrolment	**GENERAL UPDATE:** • Discussion to be had with Karl on the use eRoll for the by-election.
IT	[redacted]

Comms & Education	[redacted]
Customer Services	[redacted]
Data & Insights	[redacted]
Legal & Policy	[redacted]
Strategic Engagement and Partnership	[redacted]
Security	[redacted]
People & Culture	[redacted]

09/11/2023 - E +26 SITREPS

As at 2.42pm on 09/11/2023 prepared by Crispian [redacted]

Distributed to	All GEDT/ELT members
Key Contacts	Anusha [redacted] and Crispian [redacted]
Previous ELT SITREP	E+25 SITREPS 9 08112023 - FINAL.docx
Overview	[redacted]
Voting Services	[redacted]
Port Waikato by-election	**Port Waikato by-election** • All is tracking well to commence Advance Voting on Monday, 13 November • eRoll will not be used. [redacted]
Enrolment	[redacted]
IT	[redacted]

Comms & Education	[redacted]
Customer Services	[redacted]
Legal & Policy	[redacted]
Strategic Engagement and Partnership	[redacted]
Security	[redacted]
People & Culture	[redacted]

Incident Report

eRoll Application Performance Issues

Incident Date:	14 October 2023
Prepared by:	NZ Operations, Catalyst EC team, Katrina [redacted]
Date of Report:	19 October 2023
WR:	[redacted]request_id=419462

1. Purpose

This incident report describes issues that arose in connection with the eRoll application on Polling Day, the steps Catalyst took to resolve these issues in consultation with the Electoral Commission, and Catalyst's recommendations for the Electoral Commission's consideration around by-election readiness and initial recommendations for election readiness for GE2026.

2. Summary

- Diminution in performance for the period of the issue was due to historical code that caused a bottleneck under GE2023 transaction volumes.
- Fixes applied on 14 October will provide sufficient resilience for Port Waikato by-election.
- Recommendations have been identified to provide ongoing resilience for General Election functionality, including review of architecture to align to enhanced technology since initial development of the system, increased load testing across additional scenarios and usage of a secondary database for scheduled tasks.

Shortly after 10:00 on 14 October 2023 issues arose in connection with the eRoll application. Connections to the [redacted] database from the eRoll application reached a point where transactions against a particular database table were not processed as fast as they were being received. This resulted in slow process times and timeouts for end users.

An initial action to increase server resources did not resolve the issue. A specific database query was identified as the cause of poor performance. The query was confirmed as non-essential to the operation of eRoll. Accordingly, a code change was applied at 13.21 to disable the code that triggered the query. This returned the system to full operation.

Root cause analysis of the fault has determined that heavier than expected load adversely impacted the database query, coupled with the running of a scheduled back end process which also consumed considerable database resource.

3. Description of events

At 10:15 on Polling day the Catalyst Principal Operations Engineer and Senior Networking Engineer noticed anomalous network traffic and began to investigate. At approximately 10:30 Catalyst were informed by the Electoral Commission that polling place staff were experiencing slow performance, or were unable to access the application.

An initial working theory, that this was a recurrence of a previous [redacted] issue, was ruled out and focus shifted to troubleshooting the eRoll application and API interface with the [redacted] system.

From 9:00 to 10:00 the eRoll application performed as expected and processed approximately [redacted] requests. After 10:00 intermittent requests began returning a 502 - Bad Gateway error code[1]. A 502 generally points to an issue with an upstream (back-end) server.

Shortly after 11:00, [redacted] connections were exhausted and unable to accept further requests for processing. Queued requests that couldn't be allocated to a [redacted] eventually timed out and returned a 504 - Gateway Timeout error code.

An configuration change to provide more resources to the system was approved at 11:31. The issue was unresolved following this change as the upstream [redacted] system had insufficient throughput to process the increased volume of requests.

In parallel, continued investigation of the [redacted] system's performance showed the database running at high load. One database query, used to track successful logins, was identified as the potential cause.

At 12:40 a code workaround to improve the efficiency of the query was deployed. This resulted in initial immediate resolution of system errors for a short period of time. Resource use ramped up shortly after, as polling booth staff began to use the system, which required a further revision to stabilise. Catalyst obtained EC's approval for a further code customisation to bypass the poorly performing query altogether. This update resolved the performance issues.

A further performance issue occurred from 17:10 to 17:40 which had limited end-user impact. This was again noted as being a combination of a particularly high number of eRoll calls to access electorate information, in combination with the [redacted] scheduled task. When the task completed, no further errors were reported and the system ran without incident for the rest of Polling Day.

4. Timeline

Date/Time	Description
Saturday, 2023-10-14, @10:15	Catalyst operations staff notice anomalous network traffic and initiate verification process.
10:30	Catalyst Account Manager informed by EC CIO of another potential [redacted] issue. Catalyst Account Manager contacts operations team.

---

[1] Approximately 25% of total requests between 10:00 and 11:00.

10:52	Operations engineers rule out [redacted] as a contributing factor. The issue is confirmed as one with eRoll throwing 502: Bad Gateway errors for staff in polling places.
11:01	Principal Operations Engineer suggests the issue as “insufficiently large [redacted]” bottlenecking requests to the application.
11:07	"[redacted] are not enough" found in [redacted] log file on application and web servers
11:18	Catalyst proposes to make changes to increase [redacted] from [redacted] to [redacted] and increase the scale of the eRoll servers.
11:25	Database load noted as issue
11:31	EC approves increased capacity changes
11:33	[redacted] workers also increased
11:39	Increased capacity and connections has not remediated the issues with the application
11:45	Specific at-login database query highlighted as potential issue
12:29	Code change for database query fix suggested by developer
12:31	Fix is proposed to bypass the source IP address of the eRoll client.
12:39	EC approves the change; fix implemented
12:40	Application stops reporting errors.
12:50	Catalyst Project Manager notes that this code unchanged from GE2020, but with far fewer API calls due to more limited eRoll functionality, the load never reached this critical point.
12:56	Approval for the same fix to be applied to the [redacted] application.
Date/Time	**Description**
13:00	Problems with [redacted] recur
13:20	A second application query fix suggested by developer (bypass of code method and thus the query)

13:21	Approval gained, query removed, application restarted. Errors cease.
13:25	Some electorates continue to report similar issues. Approval to remove a database lock sought from EC.
13:36	EC approves the change.
17:10-17:40	eRoll reports some 502 errors
18:45	Root cause posited as query related to a regular job that checks for [redacted] [redacted] Application errors cease when scheduled job concludes.

5. Diagnosis

A frequently called method in the eRoll application updates the [redacted] database to track successful logins and record the source IP address in the [redacted] database table.

Around 10:00 on Election Day, the heavy volume of updates to the [redacted] table began to slow significantly, in some cases taking several seconds to return. New requests were queued, waiting for previous updates to complete. As a result, all requests began to take longer to process, creating a build up of waiting transactions.

This had a knock-on effect on downstream resources that eventually could not keep up with demand. There was a further spike in web requests after 10:00. This likely relates to end users refreshing or re-requesting information as performance wanes - further exacerbating already suboptimal performance.

As transactions are processed, the high volume of updates to the table would have been increasing the amount of database "bloat" in both the table and its indexes. Over time, this would have increased the time taken to locate the row for updates.

A scheduled job that [redacted] was running in the background almost continuously throughout the day. This job runs resource intensive database queries and contributed to heavy load, with performance further adversely affected by database bloat.

Bypassing updates to the [redacted] table markedly improved processing speed of requests and stabilised resource usage to a sustainable level.

6. Background

All the [redacted] applications are built on shared application framework code. The part of the framework which caused the issue in this report was originally written to handle logins for the main [redacted] application. It is a part of a security mechanism for tracking failed login attempts, in order to lock out a user account after threshold number of failures is reached.

While the same method is present in API-driven applications like eRoll and the [redacted] application, it is not strictly needed. That is because the true user login is handled in [redacted], and the account that the framework is tracking is a single account shared by all users of the application.

The fact that all requests to the eRoll application were updating the same shared user record contributed to the degraded performance. The implementation of this method in eRoll pre-dates the GE2020.

6.1. Changes since the 2020 General Election

While the failed login attempt logic was not identified as an issue in the running of GE2020, a number of factors have changed:

- More extensive overall usage - [redacted] transactions per hour in 2023 vs [redacted] transactions per hour in 2020
- New functions, including allowing eRoll to be used to make simple data updates as well as additional address search features.

However, as set out under Load testing below, these changes were factored into the load testing completed prior to Polling Day.

6.2. Load testing

Catalyst load tested the eRoll code that updates the [redacted] database table prior to both 2020 and 2023 General Elections.

In the previous two General Elections, a [redacted] load test plan with throughput requirements was provided by the Electoral Commission. In 2020, EC specified a test plan with targets of [redacted] requests per hour – double the expected volume. This is the same level of load that was experienced in the first hour of peak operation when polling places opened in 2023.

While a test plan was not provided for the 2023 GE, Catalyst updated the load test suite. This included new scenarios, including new eRoll functions. Load testing did not uncover any potential performance issues.

These load tests demonstrated eRoll successful throughput well in excess of the [redacted] transactions per hour baseline set in 2020. The maximum actual load for eRoll on Polling Day 2020 was [redacted] requests per hour.

Load testing replicates real life scenarios as much as possible, but the additional contributing factors on the day – extended heavy load on a database table impacting performance and database intensive additional background jobs - generated resource use over and above expectations.

7. Corrective actions for Port Waikato by-election readiness

Issues experienced on Polling Day were a function of the very high levels of load. A single electorate byelection will only generate a small proportion of the transactions processed on Polling Day. The risk of a recurrence under these circumstances is extremely low. The system was in operation through the advance voting period without issue.

However we recommend that the workaround applied on Election Day is retained permanently.

No other remedial actions for by-election readiness are recommended.

8. Future recommendations / corrective actions

The following recommendations will improve overall performance and provide assurance that the system will function adequately under expected peak loads for future General Elections.

1. Ensure load test targets are agreed between Catalyst and EC that reflect 'on-the-day' usage as closely as possible. There is a comprehensive load test suite, but given the experience on Election Day, this should be reviewed with EC to include additional scenarios and confirm it aligns with the usage patterns and outcomes expected by the business.

2. Run load testing over a longer time period to help identify system components that may degrade under extended peak usage.

3. End-to-end review of resource usage and apply tuning adjustments if needed.

4. Move scheduled tasks to run against the secondary database server so that they do not apply additional load at peak times. Note that Catalyst does not anticipate the [redacted] task will adversely affect performance for the by-election.

5. Infrastructure review of system architecture to take advantage of cloud native capabilities, such as parallel processing and auto-scaling of the hosting environment.

6. Review eRoll methods to identify if there is static data that may be cached and reduce database load at peak times.

Item #: 23.17-02

Item: **IT incidents during GE23**

To: Electoral Commission

For: Board meeting 6 December 2023

Prepared by: Paul [redacted], Chief Information Officer

Recommendations

It is recommended that the Board:

1. **note** the findings of the reports relating to eRoll and [redacted] drafted in collaboration with the Catalyst team
2. **note** these reports have been presented to and noted by the Chief Electoral Officer and Deputy Chief Executive Enterprise Services
3. **note** the Commission's approach and plan to addressing the underlying focus areas and improvements in our investment decisions and delivery.

Purpose

1. This document provides a Board level summary of the key lessons learned from investigations into major IT outages in the week prior to, and on the day of, the General Election 2023.

Background

2. This document summarises key areas of focus in terms of IT capability maturity for the Board's information. These areas will form the basis of the revised target operating model for IT to be delivered in 2024, after the appointment of the new, permanent Chief Information Officer (incoming CIO).

3. These reports do not include the independent, external assurance review requested by the Chief Electoral Officer. This will be conducted as a separate, independent piece of assurance in 2024.

Discussion

4. There were several lessons learned from both the [redacted] and eRoll Incidents, summarised below:

   a) **Application Design** – While changes made to the eRoll application worked well functionally, they did not work effectively from a performance perspective. The incoming CIO will review the current software development lifecycle to ensure appropriate checks and controls are in place to capture all functional and non-functional requirements by 30 June 2024.

   b) **Load Testing** – While load testing was completed in July 2023 for the General Election on review these tests were conducted in environments and conditions that were not entirely representative of the operating environment on Election Day. While this is complex to replicate, using specialist resource and tools to aid the testing would have significantly reduced the risk of the eRoll event occurring. By 30 June 2024 the incoming CIO will review how load testing of key business applications is delivered in future, including the use of external third-party specialist providers.

   c) **Monitoring –** The Commission's time to react could have been significantly improved with effective monitoring and proactive identification of issues. This is difficult with limited visibility of what monitoring is being undertaken by our third-party service providers, like Catalyst. The incoming CIO will undertake a review of the monitoring in place and produce a plan to address the findings by 30 June 2024.

d) **Incident management –** The major IT incident management process introduced by Catalyst and EC in late August did not have sufficient time to embed in both organisations and was not followed as intended by either the Commission or Catalyst, and instead was heavily reliant on senior managers. The current CIO has re-communicated the process to the IT team and will continue to work to embed in 2024.

5. The lessons above point to specific areas related to the incidents but are also symptomatic of some of the key capability gaps or low levels of maturity within the Commission. These include better investment decisions including better business cases and connected decision making. Using Treasury's Better Business Cases approach the five case models outlined below can be ascertained along with ensuring any investment meets our strategic intentions, case for change and successful delivery of projects:

    - a compelling case for change – the 'strategic case'.
    - optimises value-for-money – the 'economic case'.
    - commercially viable – the 'commercial case'.
    - financially affordable – the 'financial case'.
    - achievable – the 'management case'.

Next steps

6. The DCE Enterprise Services and the incoming CIO will work to address the short-term action plan as outlined in para 4 above.
7. The DCE Enterprise services along with the incoming CIO will review the IT operating model and recommend a future state IT operating model for implementation during 2024.
8. The DCE Enterprise Services will work with ELT and SLG to improve our investment process and decisions as we prioritise our work for GE26.

Appendices

A. eRoll Incident 141023 report Final – dated 17 November 2023
B. [redacted] Incident 111023 report Final – dated 20 November 2023

Item #: 23.17-02 Appendix A

Item: **eRoll Incident 14/10/23 - Report**

To: Electoral Commission

For: Board meeting 6 December 2023

Prepared by: Paul [redacted], Chief Information Officer

Recommendations

It is recommended that the Board:

1. **note** the findings of the report drafted in collaboration with Catalyst Executive and Senior Management
2. **note** the recommendations produced from the Post Incident Review process
3. **endorse** management's approach to addressing the underlying areas for improvement to prevent such an issue arising in future.

Purpose

1. This document seeks to clarify for the Commission's Executive Leadership Team and Board members the events that occurred on the day of the General Election 2023 in relation to the performance of the eRoll application.

Background

2. This document also sets out the lessons learned and associated recommendations from the Post Incident Reviews conducted internally within Catalyst, with the Commission and then jointly in collaboration with each other.

3. This report precedes but does not preclude the independent, external assurance review requested by the Chief Electoral Officer. This will be conducted as a separate, independent piece of assurance.

Discussion

4. On Saturday 14 October 2023, at approximately 10:15 voting place staff across the country began to raise concerns accessing and using the eRoll application. Voting Services management notified IT senior management on site at the National Office, and investigations by technical staff began and a major IT incident 'bridge' was opened at 10:35 to commence dialogue with the various technical support staff and Catalyst, our service delivery partner for the eRoll application.

5. At approximately 11:00, having validated the issues reported were the cause of unexpected systems performance issues, Catalyst support engineers began to diagnose the potential root cause as an overload of connections on the application, essentially severely degrading performance of the application and user experience.

6. Between 11:20 and 11:35 two changes recommended by Catalyst to increase capacity, were implemented. Firstly [redacted] were increased; this had minimal impact and we were able to observe this had not achieved the desired effect quite quickly. Secondly, an increase [redacted] was implemented, but unfortunately this again did not resolve the poor performance of the application.

7. At approximately 12:30 after further investigation, Catalyst suggested the root cause may be a specific piece of code within the application that queried the database at each login. Following review and approval by IT senior management a recommended change to this code was made.

Initial results were promising, and a successful test of the Wellington electorate appeared to have suggested the fix had indeed been successful. However, once full load was introduced on the system at 13:00, performance issues returned.

8. Catalyst support engineers proposed bypassing this code section completely and after review and approval by IT senior management the change was made around 13:35. This time the testing with Wellington proved successful and then full load was re-introduced across the country and the eRoll application returned to performing as it had during the Advanced Voting period, during the preceding two weeks.

9. Increased monitoring and vigilance remained in place through the day, and at about 17:10 a small number of errors, like those experienced earlier in the day were observed, however end-user impact was negligible, due to the drop in connections at this time. On investigation it appeared the root cause this time was a regular monitoring routine that was causing database contention. The performance of the eRoll application returned to optimal levels at 17:40, which coincided with the monitoring routine completing. No further issues were observed or experienced.

10. Following the events of 14 October, several meetings and workshops have taken place between the Electoral Commission and Catalyst to better understand the events of the day, to ensure lessons are learned and to ensure that the risk of any future failure especially for the upcoming by-election in Port Waikato.

Lessons learned and recommendations

11. In terms of lessons learned, the approach has been taken to understand the answers to three key questions and to structure the response to those questions by way of explaining the root cause and proposed recommendations associated with each of the areas identified.

12. **How could we have avoided this situation on Election Day?**

    - **Application Design –** In 2020 the eRoll application was used as a tool to look-up entries on the Master roll. The code base used in the GE2023 was changed in 2021 to include additional functionality including to perform roll update functions. Whilst functionally this has proven to work effectively, from a performance perspective it is believed this wasn't completely understood, especially in terms of the likely field use cases that may come into play.

      It is recommended that the current practices associated with software development are reviewed with Catalyst to ensure appropriate checks and controls are in place to capture all requirements appropriately.

    - **Load Testing –** Comprehensive Load testing was completed in July 2023 with the new eRoll code base and whilst [redacted] scenarios were tested successfully, this was conducted over a short period of time (6 minutes) and the results extrapolated over an hour. On further review these tests were conducted in an environment that was not representative of the production environment. With the complex end-to-end solution which involves leveraging mobile devices in the field, sometimes with poor connection, full emulation of the election day environment would be complex and costly to replicate. The volumetric assumptions used on GE2023 were based on GE 2020 however the reality in GE2023 was a significantly higher volume of enrolment activities on polling day and [redacted]+ transactions per hour over [redacted] concurrent connections proved too much for the application. In conclusion and with hindsight it is clear this testing did not fully stress the application over high volumes of concurrent device connections as experienced on election day.

I recommend that for future load testing, clear requirements and associated assumptions based on the context at the time documented and agreed. All load/stress testing should be as close to the Production environment as is feasible and conducted by an external 3rd Party to provide additional validation and assurance.

13. **Could we have responded better on Election Day?**
    - **Monitoring** – With the hindsight of looking through operational logs from the [redacted] Security Monitoring tool show that 502 (Slow Performance) errors began at 9:59 but it took until 10:15 for the issues to be escalated. Subsequent discussions have clarified to a point what monitoring is in place across the EC system.

      In order to provide assurance that all appropriate controls are in place I recommend that a fuller review of the monitoring in place and a plan produced to address any gaps identified.

    - **Incident management** – Whilst a major IT incident management process between Catalyst and EC was developed in late August, due to the high turnover of key staff leading up to the election, it had not been effectively implemented and leading up to and including election day was heavily reliant on senior managers driving the process and interaction, which was less than optimal. Once the Incident Bridge had been established on Election Day effective communication and decision making was established, however initial Service Recovery actions could have been more timely had these processes been followed. Effective implementation of the new Incident processes and embedding them within both teams would be mutually beneficial.

      I recommend that the IT Major Incident Management process and procedure developed in August are implemented effectively within the Commission and Catalyst and other third-party service providers.

14. **How do we ensure these issues do not reoccur?**
    - **Root Cause** – Following the Post Implementation Review and the detailed technical review conducted between the Commission and Catalyst, we now have a much better understanding of the technical issues and are confident we have identified the root cause, which essentially relates to two factors; an [redacted] query' and a [redacted] routine' that analyses traffic to public facing apps'. Now we have this clarity it provides both the Commission and Catalyst the ability to state with confidence how these issues can be avoided in future.

    - **Problem Repetition avoidance Actions** – Now we understand the technical issues that ultimately caused the performance errors on the day and the testing that was conducted to provide assurance going into the General Election it is important that we act in a timely manner to address the findings and action the recommendations highlighted in this document to ensure similar problems are not experienced in future.

      I recommend that the progress is tracked as part of a regular update by the Chief Information Officer to the Executive Leadership Team (ELT).

Conclusion

15. The degradation in the eRoll application performance on Election Day was ultimately avoidable, with clearer and more accurate requirements and thorough load testing that was more representative of the environment and context on the day.

16. Both the Commission's IT team and Catalyst worked very well together to diagnose the problem when it occurred and to deliver service recovery actions once the incident bridge and process was up and running.

17. There are clearly several lessons to be learned from this event and it is important these are addressed as quickly as possible to ensure this situation is not repeated in future.

Next steps

18. Management to work in collaboration with Catalyst to define and schedule the activity recommended in this paper.

19. Produce and publish a plan of action to track and report progress up the ELT.

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Item: [redacted] **Incident 11/10/23 - Report**

To: Karl [redacted] (Chief Electoral Officer), Lucy [redacted] (Deputy Chief Executive- - Enterprise Services)

Prepared by: Paul [redacted] (Chief Information Officer)

Recommendations

It is recommended that the Chief Electoral Officer and DCE – Enterprise Services:

1. **note** the findings of the report drafted, and the lessons learned, actions taken and recommendations produced from the Post Incident Review process
2. **endorse** Managements approach to addressing the underlying areas for improvement to prevent such an issue arising in future.

Purpose

1. This document summarises the events that occurred on 11 October 2023, when parts of the Commission were unable to access key systems due to an IT issue. It also sets out the learnings, actions taken and associated recommendations from the Post Incident Reviews conducted internally within Catalyst and [redacted], then with the Commission.

Background

2. On Wednesday, 11 October 2023, at approximately 7:45am, Catalyst cloud operations support staff began noticing network connectivity issues and established an internal incident management process led by the Catalyst Chief Information Officer (CIO).

3. It was established that the issues stemmed from upstream problems with [redacted]'s main Auckland 'Point of Presence' (POP) connection.

4. The Electoral Commission CIO contacted the Catalyst Operations Manager to notify him that the Commission was experiencing issues with connectivity to its applications ([redacted], [redacted] and [redacted]) hosted on the Catalyst Cloud.

5. Subsequently, Catalyst Cloud sent a notification at 9:04am to all affected clients to confirm that transient packet loss was being experienced due to an issue with an upstream provider [redacted].

6. [redacted] engineers confirmed to Catalyst that they had discovered the root cause related to post maintenance related tasks and that the connectivity would soon be stabilised.

7. Catalyst confirmed to the Commission at 10:22am that the network had stabilised at around 10:15am.

Discussion

Lessons learned and recommendations

8. [redacted] – Catalyst has used [redacted] since 2020 to mitigate against Direct Denial of Service (DDoS) attack in a climate when many major organisations in New Zealand were being targeted. [redacted] was selected because of the breadth of their network services, international coverage, and resilient and redundant architecture. The [redacted] services have never failed in the three years Catalyst has used their services.

9. The outage was caused by the [redacted] Auckland POP not re-establishing effective operation following planned service maintenance. This was caused primarily because of a [redacted] engineer re-enabling operational services from Auckland before maintenance tasks had been completed. [redacted] have advised that they have made a procedural change to prevent this from happening again in the future.

10. **Service Maintenance Notification** – Catalyst were not subscribed to [redacted]'s notification service at the time of the incident, so failed to realise the maintenance was planned and subsequently failed to notify the Commission as per normal practice. Had this been notified, the Commission would have challenged the timing of the maintenance given the Election period change freeze. At a minimum appropriate checks and enhanced monitoring and awareness would have been in place.

11. Catalyst has now subsequently subscribed to maintenance notifications and will review the [redacted] service maintenance calendar daily to ensure nothing goes unnoticed in future.

12. **Issue Notification to the Commission** – Catalyst followed their own incident management process by performing the issue Identification process first. The notification step happens next. This initial Identification process requires investigation of the issue, its impact and likely clients that may be affected. According to the incident management process, once this is established, notifications to clients and client account managers is then made via emails, messaging, or text.

13. Catalyst has accepted that notification for incidents to the Commission needs to be much quicker, especially if they may be impacted by an incident before the initial Identification phase is fully completed. Future communication will now be via a phone call by the Incident Manager or Operations Manager to the Catalyst EC Account Manager or Catalyst EC Programme Manager, who will then inform the Commission via a phone call. Catalyst and the Commission will also work together to ensure that the recently developed Incident Management processes are implemented and embedded within both organisations.

Conclusion

14. The connectivity failure was due mainly to [redacted] operator error, proceeding prematurely with actions before they were due. We are informed that this has been dealt with by [redacted] and assured this cannot be repeated in future.

15. Communications before the change and at the start of the incident can be improved. Catalyst has addressed their awareness of change events within [redacted] already and will work with the Commission to address the Incident Management process engagement and communication going forward.

Next steps

16. Management to work in collaboration with Catalyst to re-implement the Incident Management process and ensure communications are effective.

From: Ethan [redacted]
To: Ian [redacted]
Cc: Karl [redacted]; Kristina [redacted]
Subject: RE: eRoll OIA # 84
Date: Monday, 18 December 2023 3:05:05 pm
Attachments: 23.17-02 Appendix B IT incidents ([redacted]).pdf
image001.png
23.17-02 Appendix A IT incidents (eRoll).pdf
23.17-02 - IT incidents during GE23.pdf

Hi Ian - please see attached Board papers that went to the 6 December meeting.

The draft minutes from 6 Dec quoted below will be approved at the 13 February 2024 Board meeting but have been reviewed and amended so can be treated as near-final.

Ethan

===

IT incidents during GE23

Lucy [redacted] & Paul [redacted] joined the meeting for the following two items

The Board:

1. **noted** the findings of the reports relating to eRoll and [redacted], drafted in collaboration with the Catalyst team
2. **noted** that these reports have been presented to and noted by the Chief Electoral Officer and DCE Enterprise Services
3. **noted** the Commission's approach and plan to address the underlying focus areas and improvements in our investment decisions and delivery

Lucy [redacted] and Paul [redacted] outlined two reports into IT matters that arose during the election campaign: the temporary eRoll application failure on Election Day and the 11 October incident in which parts of the Commission were unable to access key systems ([redacted], [redacted] and [redacted]) for several hours due to a problem with IT service provider [redacted]. The reports conclude that:

- The eRoll problem on election day could have been avoided with clearer and more accurate system requirements, and more thorough and representative load testing. Ideally such testing should be conducted by a different organisation with specialist testing expertise. The Acting CIO has been engaging with Catalyst to produce a well-coordinated and accurate report building on Catalyst's initial reporting.
- The [redacted] issue was largely due to [redacted] operator error, and the company 'assured [us] this cannot be repeated in future'. Communication and incident management processes will be improved.

The Board discussed the independent external assurance review requested by the CEO on system testing, and whether the Commission has the right expertise in-house or requires external assistance. The Commission's business owners could be better connected to IT systems and decision-making, taking a more proactive stance on quality assurance processes. The Digital Governance Group was a potential vehicle for building a stronger focus on such incident management safeguards, but it is more appropriate for ELT and the Programme office to play a stronger role in digital governance in the upcoming electoral cycle and beyond.

The Commission's systems architecture is relatively complex, and has grown organically since the organisation was formed. IT is establishing the current state of all Commission systems to improve reporting to ELT and the Board. This information will inform the future direction of IT systems development.

Some expertise may be brought in-house over that period, based on the findings of the Commission's planning for how it configures its mix of in-house and third-party suppliers.

The Board discussed whether a separate, external review or advice on testing processes would be useful. The Commission made public statements that this would be examined as part of the GE23 review. A mix of external advice and growing internal capability will be prioritised. A decision will be made based upon Enterprise Services providing an update on the IT operating model, including proposed next steps for IT capability growth, including whether both in-house and external testing approaches are needed.

From: Ian [redacted] <Ian [redacted]@elections.govt.nz>
Sent: Monday, December 18, 2023 2:59 PM

To: Ethan [redacted] <Ethan [redacted]@elections.govt.nz>
Cc: Karl [redacted] <Karl [redacted]@elections.govt.nz>; Kristina [redacted] <Kristina [redacted]@elections.govt.nz>
Subject: eRoll OIA # 84
Importance: High

Hi Ethan,

Could I please have the exact copies that the Board received please – it is for OIA 84 regarding eRoll.
There should be PDF copies and any attachments included?
If I could have a copy of the Board minutes recording any decisions for just this item that'd be much appreciated too.

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

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From: Paul [redacted] <paul [redacted]@elections.govt.nz>
Sent: Monday, December 18, 2023 2:40 PM
To: Ian [redacted] <Ian [redacted]@elections.govt.nz>
Subject: Board papers

Sorry thought I had sent earlier

Regards
Paul

Paul [redacted] (he/him) | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
[redacted] | vote.nz | elections.nz

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–

From: Paul [redacted]
To: katrina
Subject: Check-In on eRoll

Microsoft Teams meeting

Join on your computer, mobile app or room device

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

From: Paul [redacted]
To: katrina; Godfrey [redacted].
Subject: Draft eRoll paper
Date: Monday, 13 November 2023 12:16:00 pm
Attachments: eRoll Incident 141023 report DRAFTv0.2.docx
image001.png
Importance: High

Hi there,

Please find attached the draft paper to go to Karl etc once we are all happy.

Katrina, I will walk through with you when we meet later today.

Kind regards
Paul

Paul [redacted] (he/him) | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

From: Paul [redacted]
To: katrina
Subject: eRoll Catch up

Microsoft Teams meeting

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

From: Paul [redacted]
To: katrina
Subject: ERoll Follow-up
Date: Friday, 10 November 2023 7:55:00 am
Attachments: image001.png

Hi Katrina,

Apologies for not being in touch this week, it has been another rollercoaster as I'm sure you'd understand.

You will also probably have heard that Karl has taken a decision on balance of risk and benefit to EC, not to run with eRoll for the upcoming By Election. This doesn't however mean we take our eye off the ball with completion of the load testing and field testing which should be done by mid next week. We will also continue to focus on completing this part of the review, before working with our assurance team on the TOR for the external assurance.

I am hoping to finish the aligned PIR as agreed bu close today and will aim to set up a meeting to run through with you on Monday 13/11 assuming you have some availability. I am currently free 12-1, 2-3 or after 5. Hopefully sometime there works for you. Let me know and I'll book something in.

Regards
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

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Item #:

Item: **eRoll Incident 14/10/23 - Report**

To: Electoral Commission

For: Board meeting XX XXX 2023

Prepared by: Paul [redacted], Chief Information Officer

Recommendations

It is recommended that the Board:

1. **note** the findings of the report drafted in collaboration with Catalyst Executive and Senior Management.
2. **note** the recommendations produced from the Post Incident Review process.
3. **endorse** Managements approach to addressing the underlying areas for improvement to prevent such an issue arising in future.

Purpose

1. This document seeks to clarify for the Commissions Executive Leadership Team and Board members the events that occurred on the day of the General Election 2023 in relation to the performance of the eRoll Application. It also sets out the learnings and associated recommendations from the Post Incident Reviews conducted internally within Catalyst, with the Commission and then jointly in collaboration with each other.

2. This report precedes but does not preclude the independent, external assurance review requested by the Chief Electoral Officer. This will be conducted as a separate, independent piece of assurance.

Background

3. On Saturday, 14th October 2023, at approximately 10:15 Voting place staff across the country began to raise concerns accessing and using the eRoll application. Voting Services management notified IT senior management on site at the National Office, and investigations by technical staff began and a Major IT incident bridge was opened at 10:35 to commence dialogue with the various technical support staff and Catalyst our Service Delivery Partner for the eRoll application.

4. At approximately 11:00, having validated the issues reported were the cause of unexpected systems performance issues, Catalyst support engineers began to diagnose the potential root cause as an overload of connections on the application, essentially severely degrading performance of the application and user experience.

5. Between 11:20 and 11:35 two changes recommended by Catalyst to increase capacity, were implemented. Firstly "[redacted]" were increased, this had minimal impact and we were able to observe this had not achieved the desired effect quite quickly. Secondly an increase "[redacted]" was implemented, unfortunately this again did not resolve the poor performance of the application,

6. At approximately 12:30 after further investigation, Catalyst suggested the root cause may be a specific piece of code within the application that queried the database at each login. Following review and approval by IT senior management a recommended change to this code was made. Initial results were promising, and a successful test of the [redacted] electorate appeared to have suggested the fix had indeed been successful. However, once full load was introduced on the system at 13:00, performance issues returned.

7. Catalyst support engineers propose bypassing this code section completely and after review and approval by IT senior management the change was made around 13:35. This time the testing with [redacted] proved successful and then full load was re-introduced across the country and the eRoll application, returned to performing as it had during the Advanced Voting period, during the preceding 2 weeks.

8. Increased monitoring and vigilance remained in place through the day, and at about 17:10 a small number of errors, like those experienced earlier in the day were observed, however end-user impact was negligible, due to the drop in connections at this time. On investigation it appeared the root cause this time was a regular monitoring routine that was causing database contention. The performance of the eRoll application returned to optimal levels at 1740, which coincided with the monitoring routine completing. No further issues were observed or experienced.

9. Following the events of 14th October, several meetings and workshops have taken place between the Electoral Commission and Catalyst to better understand the events of the day, to ensure lessons are learned and to ensure that the risk of any future failure especially for the upcoming By Election, in Port Waikato.

Lessons Learned and Recommendations

In terms of lessons learned, the approach has been taken to understand the answers to 3 key questions and to structure the response to those questions by way of explaining the root cause and proposed recommendations associated with each of the areas identified.

10. **How could we have avoided this situation on Election Day?**

    - **Application Design –** In 2020 the eRoll application was used as a tool to look-up entries on the Master roll. The code base used in the GE2023 was changed in 2021 to include additional functionality including to perform roll update functions. Whilst functionally this has proven to work effectively, from a performance perspective it is believed this wasn't completely understood, especially in terms of the likely field use cases that may come into play.

      It is recommended that the current practices associated with software development are reviewed with Catalyst to ensure appropriate checks and controls are in place to capture all requirements appropriately.

    - **Load Testing –** Comprehensive Load testing was completed in July 2023 with the new eRoll code base and whilst 1,000 scenarios were tested successfully, this was conducted over a short period of time (6 minutes) and the results extrapolated over an hour. On further review these tests were conducted in an environment that was not representative of the production environment. With the complex end-to-end solution which involves leveraging mobile devices in the field, sometimes with poor connection, full emulation of the election day environment would be complex and costly to replicate. The volumetric assumptions used on GE2023 were based on GE 2020 however the reality in GE2023 was a significantly higher volume of enrolment activities on polling day and [redacted] per hour over [redacted] connections proved too much for the application. In conclusion and with hindsight it is clear this testing did not fully stress the application over high volumes of concurrent device connections as experienced on election day.

I recommend that for future load testing, clear requirements and associated assumptions based on the context at the time documented and agreed. All load/stress testing should be as close to the Production environment as is feasible and conducted by an external 3rd Party to provide additional validation and assurance.

11. **Could we have responded better on Election Day?**

- **Monitoring** – With the hindsight of looking through operational logs from the [redacted] Security Monitoring tool show that 502 (Slow Performance) errors began at 9.59 but it took until 10:15am for the issues to be escalated. Subsequent discussions have clarified to a point what monitoring is in place across the EC system.

  In order to provide assurance that all appropriate controls are in place I recommend that a fuller review of the monitoring in place and a plan produced to address any gaps identified.

- **Incident management** – Whilst a major IT incident management process between Catalyst and EC was developed in late August, due to the high turnover of key staff leading up to the election, it had not been effectively implemented and leading up to and including election day was heavily reliant on senior managers driving the process and interaction, which was less than optimal. Once the Incident Bridge had been established on Election Day effective communication and decision making was established, however initial Service Recovery actions could have been more timely had these processes been followed. Effective implementation of the new Incident processes and embedding them within both teams would be mutually beneficial.

  I recommend that the IT Major Incident Management process and procedure developed in August are implemented effectively within the Commission and Catalyst and other third-party service providers.

12. **How do we ensure these issues do not reoccur?**

- **Root Cause** – Following the Post Implementation Review and the detailed technical review conducted between the Commission and Catalyst, we now have a much better understanding of the technical issues and are confident we have identified the root cause, which essentially relates to two factors; an 'at login database query' and a 'scheduled maintenance routine' that analyses traffic to public facing apps'. Now we have this clarity it provides both the Commission and Catalyst the ability to state with confidence how these issues can be avoided in future.

- **Problem Repetition avoidance Actions** – Now we understand the technical issues that ultimately caused the performance errors on the day and the testing that was conducted to provide assurance going into the General Election it is important that we act in a timely manner to address the findings and action the recommendations highlighted in this document to ensure similar problems are not experienced in future.

  I recommend that the progress is tracked as part of a regular update by the Chief Information Officer to the Executive Leadership Team (ELT).

Conclusion

13. The degradation in the eRoll application performance on Election Day, was ultimately avoidable, with clearer and more accurate requirements and thorough Load Testing that was more representative of the environment and context on the day.
14. Both the Commissions IT team and Catalyst worked very well together to diagnose the problem when it occurred and to deliver Service Recovery actions once the Incident Bridge and process was up and running.
15. There are clearly several lessons to be learned from this event and it is important these are addressed as quickly as possible to ensure this situation is not repeated in future.

Next steps

16. Management to work in collaboration with Catalyst to define and schedule the activity recommended in this paper.
17. Produce and publish a plan of action to track and report progress up the ELT.

Appendices

A. Catalyst Incident Report – dated 19th October 2023
B. Minutes of the eRoll technical discussion – dated 31st October 2023.
C. Testing overview for GE2023 - dated 31st July 2023.
D. Public Applications Load test document – dated September 2023.

From: Paul [redacted]
To: katrina
Cc: Lucy [redacted]
Subject: eRoll PIR Follow-up
Date: Friday, 27 October 2023 8:38:00 am
Attachments: image001.png

Morena,

It was good to meet you ove the airwaves yesterday and I am looking forward to working with you to bring the focus agreed.

It would be good to have a quick catch up over Teams today or Monday, just so we can agree our approach and what we need to do to complete our agreed actions.

My diary is packed today, but I could do half hour between 12 and 1pm, alternatively Monday I am available before 0915, 1030-1100, 12-1pm 2:30-3pm or after 4pm.

Let me know what works for you.

Ngā mihi
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

-

From: Ian [redacted]
To: Jeff ; Adam [redacted]; andrew [redacted]; Shannon [redacted]; Morgan [redacted]; Jon [redacted]; Jason [redacted]; Godfrey [redacted]
Subject: eRoll technical - initial session
Start: Tuesday, 31 October 2023 11:00:00 am
End: Tuesday, 31 October 2023 12:30:00 pm
Location: [redacted] Meeting
Attachments: 20231014 - eRoll Incident Report final.pdf

Hi everyone,

As part of preparation for the by-election Godfrey and Paul have jointly tasked us to have a technical session so that we can give the CEO confidence about the performance of eRoll solution in the by-election

Could we please meet to go through the following items:

PIR discussion

1 Any questions on the diagnosis on page 4 of the attached PIR

2 Performance issues 10:15am to 15:36:

Walk through each of the four changes made intended to fix system performance, to understand more about what each change was and any side-effects (such as [redacted] – would this cause [redacted] issues for example):

* [redacted]
* [redacted]
* the first code change
* the second code change

3 The cause of the performance degradation at 17:10 to 17:40 – what was this exactly and how confident are we in the posited issue

[redacted]

5 Any other points that people want to cover

By-election preparation

1 Is our recommendation to keep with the changes made for the by-election

2 Can we load test and if so, how and when should we do so

3 What monitoring should we put in place during advance voting and election day itself

4 Any other actions we should taking in the group's opinion

5 Confidence rating from the group that eRoll will be performant in the by-election

Other

1 Are there any consequences from an [redacted] perspective that we need to take into account

2 I'll take minutes to send around later same day to check for understanding and make sure we've got everything captured

---

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

ELECTORAL COMMISSION
TE KAITIAKI TAKE KŌWHIRI

eRoll Technical Discussion

31 October 2023

Location	Microsoft Teams Meeting
Time	11am to 12pm.
Chair	Ian [redacted] (Senior Manager IT Services EC)
Present	Adam [redacted] (Senior Architect EC) Andrew [redacted] ([redacted] Lead Catalyst) Brian [redacted] (Security Analyst Catalyst) Godfrey [redacted] (Relationship Manager Catalyst) Gregorio [redacted] (Security Manager Catalyst) James [redacted] (Programme Manager Catalyst) Jason [redacted] (Solutions Architect EC) Jeff [redacted] (Senior Systems Specialist EC) Morgan [redacted] (Analyst EC) Shannon [redacted] (Operations Manager)

Introduction

Ian introduced the purpose of the meeting as being to work through any technical questions with the eRoll PIR and being able to give the Chief Electoral Officer confidence about the performance of the eRoll solution in the upcoming by-election.

An agenda had previously been sent through as part of the invitation together with a copy of the eRoll PIR produced by Catalyst.

General Election

1. Any questions on the diagnosis on page 4 of the attached PIR

There were no initial questions on the diagnosis provided.

2. Performance issues 10:15 to 15:36

Walk through each of the four changes made intended to fix system performance, to understand more about what each change was and any side-effects (such as no longer recording what IPs were accessing eRoll – would this cause any security issues for example):

- **doubling [redacted] connections**
- **doubling [redacted] connections**
- **the first code change**
- **the second code change.**

Andrew provided a summary of the changes noting the following points:

Doubling the [redacted] connections was a first logical step to increase capacity and reduce potential bottlenecks at the [redacted] webserver while minimising the change in the operating environment.

Likewise the second change to double the number of [redacted] connections was the next logical step to increase capacity in the web server running the backend application and server code.

Andrew's detailed review of [redacted] database logs identified a large set of SQL queries taking a long time to complete as a probable cause of slowness. These queries were being made by the connection API which updated a specific row/table database combination with the IP of the system user account each time causing database contention and slowness of response. The code was not required for successful operation and the system user account is only used internally for connecting application and database.

This flaw had been present since GE2020 but the combination of number of concurrent users together with the increases in functionality for the application meant that the SQL queries having resource contention was significantly higher than encountered during GE2020, advance voting for GE2023 or load testing for GE2023.

Shannon noted an additional point that the eRoll system was successfully processing [redacted] transactions per hour on election day before volumes rose above that – in comparison advance voting peak was approximately [redacted] transactions successful per hour

Andrew noted that the first code change was a change to the update to amend the IP address being stored to 127.0.0.1. When this had little effect the code change was made to remove that particular SQL query code from the connection API completely thereby reducing the database resource contention.

Andrew confirmed that there are other tables which store the unique IP of the endpoint accessing eRoll which were unaffected by the change and therefore a log of events maintained. Andrew also confirmed that if a single IP address had been presented for end-devices that this would have made no difference as evidenced by the first code change of storing 127.0.0.1.

3. The cause of the performance degradation at 17:10 to 17:40 – what was this exactly and how confident are we in the posited issue

Shannon confirmed that this was caused by placing additional load on the Mike database from a regular operational report that checks for IP abuse. Ian confirmed that this had little to no impact on the end user experience in the field.

A change was made to the frequency of the report to run every three hours rather than one hour.

4. Walk through the analysis produced by Catalyst security team who reviewed logs to establish there had been no outside interference on the Mike or eRoll systems on election day

Gregorio confirmed that the Catalyst security team had analysed the end-point IP records that were experiencing performance issues and that these were as expected with no malicious or outside of New Zealand IPs found.

5. Any other points that people want to cover

Shannon confirmed that a separate question regarding failed Mike 502 statuses at 09:59 were unrelated – with two failures at 09:59 in contrast to 2835 successful requests in the same one minute interval.

By-election preparation

6. Is our recommendation to keep with the changes made for the by-election.

The group agreed a recommendation that the changes made should be replicated for the by-election noting that there would be a [redacted] release that would incorporate all four changes listed in agenda item 2 and the reporting frequency change in agenda item 3.

This was felt to be lowest risk given that the eRoll solution with changes had been proven in the afternoon of the general election day with the by-election being a fraction of the volumes by comparison.

7. Can we load test and if so, how and when should we do so.

Godfrey led the discussion about load testing for the by-election. The group noted that this was possible but would involve additional work would be required from a requirements, design and implementation perspective that would provide no benefit given that the performance load of the eRoll solution during the by-election was so much smaller than the recent election day and there were no functional changes to the application being made ahead of the by-election.

There was general agreement however that there should be a separate work request raised to specify ongoing and regular load tests for Andrew to carry out in the [redacted] environment as eRoll function could be expected to evolve and potentially extend before GE2026. This should include collaboration around requirements and simulation of election day including multiple applications accessing Mike at the same time.

Jeff also noted that the eRoll application had run successfully for two previous by-elections in 2022 without performance issues.

8. What monitoring should we put in place during advance voting and election day itself.

Shannon confirmed that Catalyst was investigating upgrades to their monitoring capability as part of their ongoing approach to operational improvement but these wouldn't be in place for the by-election.

Godfrey confirmed that the existing Catalyst monitoring meant that network performance issues were identified before 10am on election day and the same would be true in the case of any performance issues during another electoral event.

9. Any other actions we should taking in the group's opinion.

Andrew will raise a work request to review the SQL queries of the Mike suspicious session and IP data program being run as part of the report referenced in item 3 of the agenda. It may be possible to optimise this further.

10. Confidence rating from the group that eRoll will be performant in the by-election.

The group across both EC and Catalyst were highly confident that eRoll would be performant in the by-election given the following factors:

- once the necessary fixes had been made on election day the eRoll system was performant with GE2023 volumes
- volumes (and therefore load on the system) were a fraction of GE2023.

Other

11. Are there any consequences from an [redacted] app perspective that we need to consider.

None other than ensuring that the [redacted] application goes through the same scheduled release as the [redacted] release for the by-election.

Closing

Ian thanked the attendees for their time and noted that minutes would be sent to the group for review to check for accuracy before being finalised.

From: Paul [redacted]
To: katrina
Subject: FW: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy
Date: Tuesday, 31 October 2023 5:43:00 pm
Attachments: eRoll technical discussion 31-Oct-23.docx
image001.png

Hi Katrina,

Attached the notes from today's technical meeting as discussed. I haven't had chance to review, but thought I would forward on so as not to delay.

Safe travels tomorrow

Regards

Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

-

From: Ian [redacted] <Ian [redacted]@elections.govt.nz>
Sent: Tuesday, October 31, 2023 4:25 PM
To: Adam [redacted] <Adam [redacted]@elections.govt.nz>; Godfrey [redacted]@catalyst.net.nz>; [redacted] <james[redacted]@catalyst.net.nz>; Jason [redacted] <Jason [redacted]@elections.govt.nz>; Jeff [redacted] <Jeff [redacted]@elections.govt.nz>; Morgan [redacted] <Morgan [redacted]@elections.govt.nz>
Cc: Paul [redacted] <paul [redacted]@elections.govt.nz>
Subject: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy

Hi there

Thank you for the eRoll technical discussion today - could you please review these minutes for accuracy and let me know if you're happy as stated?

Godfrey / James, could I ask you please to coordinate any Catalyst feedback?

Thanks all – let me know if this causes you any issues, ideally I'd like to finalise tomorrow if possible but shout out if that's not possible.

Best regards

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

From: Don [redacted]
To: Lucy [redacted]; Paul [redacted]
Cc: katrina; Godfrey
Subject: Incident Report
Date: Monday, 16 October 2023 9:27:43 am
Attachments: signature.asc

Kia ora Lucy and Paul

I have asked Katrina [redacted] to lead our PIR process. Paul, Katrina is our COO and CEO when I was overseas in September and at times I am otherwise unavailable.

Work on this report has already begun.

Again, if you have any questions or need to contact me please don't hesitate to do so.

Ngā mihi
Don

[redacted]

Load Test Report

Public Applications Load Test Report

Catalyst.Net Ltd

a Catalyst IT group company

Version 1.2

November 2023

Commercial in Confidence

catalyst

expert open source solutions

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1 Document Control

1.1 Version

Version	Date	Change Reason	Author	Reviewed By
1.0	14/09/2023	Original Version	Andrew [redacted]	[redacted]
1.1	18/09/2023	Typos and minor edits	Andrew [redacted]	James [redacted]
1.2	14/11/2023	Additional test methodology added	Andrew [redacted]	[redacted]
			[redacted]	

2 Overview

The main goal of the load testing exercise was to provide a baseline of performance of functionality enhancements for the Public applications. A secondary objective was to find any quick wins that would provide increased throughput or response times.

[redacted]

The eRoll application has been recently extended to allow for limited updates to be sent back to [redacted] for processing. An additional address search feature has also been added. These new scenarios were incorporated in the eRoll load tests.

[redacted]

3 Summary

For the baseline load test run, the overall time taken to process all the scenarios was 29 minutes. A number of simple parameter changes were made to the [redacted] webserver configurations. The same set of scenarios were then run again and the overall time taken to process them. It was found that a single parameter change each t[redacted] webserver reduced the overall time to 21 minutes. This provided an increase in throughput of over 25%.

4 Test Environment

4.1 Test hosts

The secondary cluster in [redacted] was temporarily reconfigured to act as an independent environment for performing load testing against. This ensured that the load test results would match actual the production environment since the [redacted] and [redacted] clusters are identically configured.

Three load test runner hosts, in a [redacted] configuration, were used to execute the all the test scenarios against the load test environment. One test execution script was configured to use [redacted] for the [redacted] requests and a second test execution script was configured to use [redacted] for eRoll requests. Both these scripts were run on each load test runner host.

4.2 Test scripts

These are the same as used in previous Public Application Load Test exercises. Although the eRoll and [redacted] load test scripts were enhanced to incorporate new scenarios:

[redacted]

- eRoll scripts had a new Address search API call added
- eRoll scripts had a person update scenario added

All these load test scripts have the following features:

- The scenario creation script extracts random data from the test database and writes out a set of test scenarios using this data.
- The load test run script performs each test scenario in parallel using a configured number of workers on the load test runner host.
- The load test script uses the [redacted] library to drive the application interface.
- The output files containing data about each request of every scenario from every worker are analysed by both a statistics script to generate overall statistics and a script to generate statistical graphs.

4.3 Host Statistics

Each host has data collected from it to read various aspects of the state of the host. This data is visualised through a tool called [redacted] These graphs show the following states: CPU %, Network Requests, Load, Memory, Processes.

Note that this data collection is performed as standard on all Production and UAT hosts as part of standard monitoring by Catalyst.

5 Test Scenarios

5.1 [redacted]

[redacted]

5.2 [redacted] application

[redacted]

5.3 eRoll application

The test scenarios for Enrol OnLine comprise of a user performing a selection of the following application API calls:

- Get the current set of Electorates with an election
- Perform a Lookup Address operation
- Perform a Person Search (variations include using wildcards, no midname)
- Perform some Address Completion calls
- Submit an Update to generate an MDA2 correspondence
- Perform a user Logout

The percentage of each of the above API calls between July 2022 and August 2023 was obtained from the database.

API route	%
[redacted]	11
[redacted]	2
[redacted]	40
[redacted]	43
[redacted]	1
[redacted]	3
Total	*100*

The Load test runs consist of 1,000 scenarios for each runner host, with the overall number of API calls for each route matching the above percentage.

5.4 Methodology

Load Test Scenarios

A load test run is in two parts. The first part prepares a mix of all [redacted] scenarios for executing against the pubweb server. The second part is the 1,000 eRoll scenarios prepared for executing against the eRoll web server. These are created for all three load test runner hosts. Overall there are 24,000 scenarios executed in each full test run.

Load Test Execution

On each runner host, the [redacted] scenarios were started running against the pubweb server. Then, after a few minutes, on each runner host, the 1,000 eRoll scenarios were started running against the eroll web server.

6 Results

The following sections presents details from two Load test runs. The first being the baseline run using existing production configuration settings. The second run evaluates a set of configuration changes made to the public web and application services.

A number of other configuration runs were performed. The data from those are not presented here, but they helped with the choice of configuration changes presented in the second load test run.

6.1 Baseline Run

The baseline run used the existing [redacted] configurations used in production.

The total overall time to execute all 24,000 scenarios, using the three load test runners was 29.5 minutes.

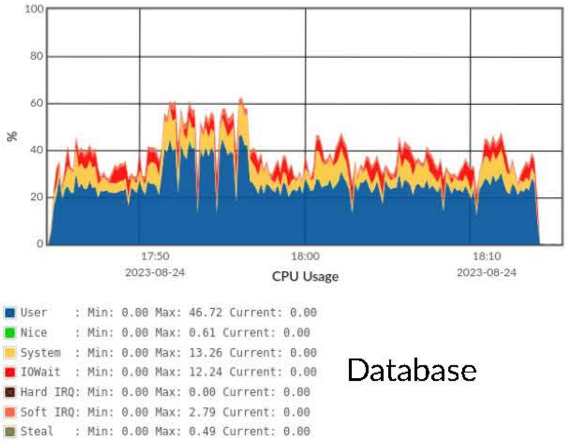
Request Statistics

All responses occur under 10 seconds and generally under [redacted], and under 3s for eRoll.

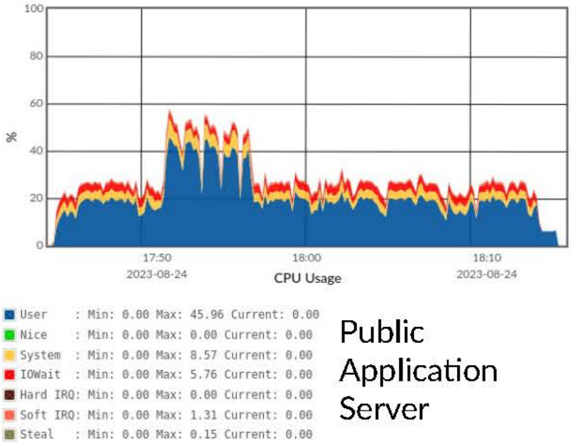
Step	requests	min	median	mean	95th	max	>10s	Error
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
eRoll - Address completion	3,227	0.18	1.98	2.20	2.86	9.31	0	0
eRoll - Electorates	2,837	0.21	1.98	2.11	2.52	9.27	0	0
eRoll - Enrol Update MDA2	623	0.70	2.71	2.89	3.75	9.96	0	0
eRoll - Logout	947	0.21	1.97	2.08	2.50	9.22	0	0
eRoll - Lookup Address	279	0.21	1.96	2.17	2.76	9.25	0	0
eRoll - Search	7,561	0.23	2.02	2.19	2.61	9.43	0	0
eRoll - Search - Mononym	277	0.26	2.04	2.24	2.63	9.21	0	0
eRoll - Search - No Midnames	7,486	0.24	2.01	2.17	2.58	9.29	0	0
eRoll - Search - Wild	7,354	0.23	2.03	2.18	2.60	9.33	0	0
eRoll - Search - Wild - No Midnames	7,322	0.25	2.02	2.17	2.58	9.35	0	0
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CPU utilisation

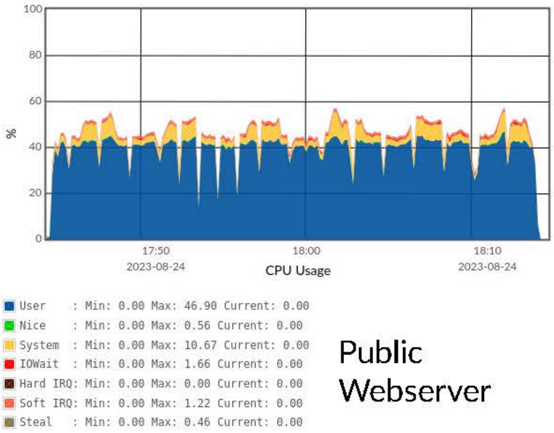
The following graphs show the CPU utilisation on the pubweb, pubapp and db servers. The extra processing load of eRoll can be easily seen in these server graphs.



Database



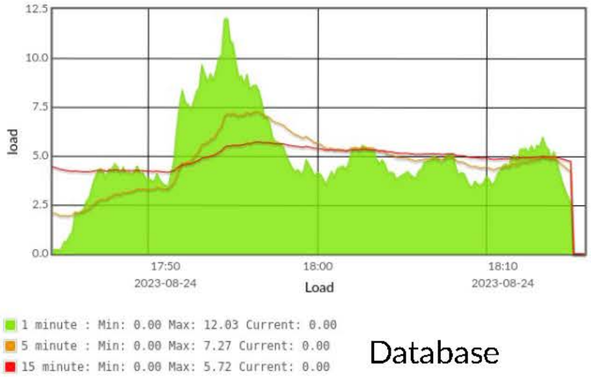
Public
Application
Server



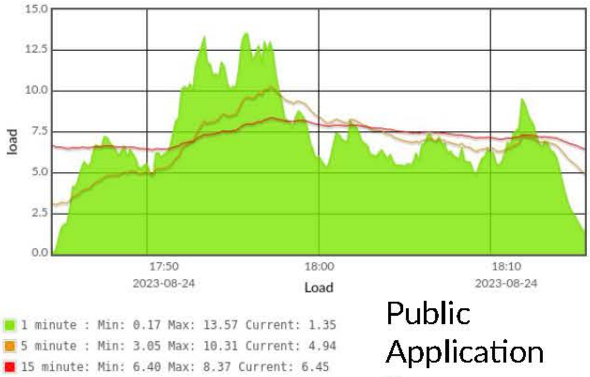
Public
Webserver

Host Load

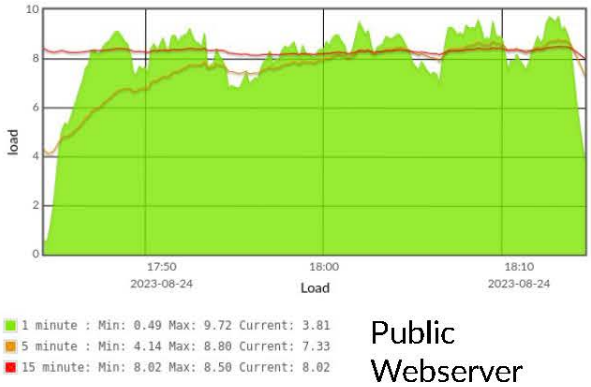
The following graphs show the load on the pubweb, pubapp and db servers. The load is well within the capacity of the hosts.



Database



Public
Application
Server



Public
Webserver

6.2 Reconfiguration run

This run included the following configuration changes:

- doubled the number of [redacted] on the public web server
- Increased [redacted] on the public application server
- Increased [redacted] on the application server

The total overall time to execute all 24,000 scenarios, using the three load test runners was 21.5 minutes.

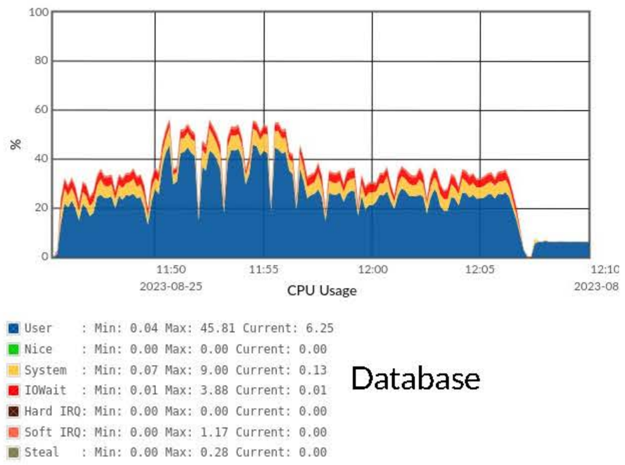
Request Statistics

Almost all responses occur under 10s [redacted] and generally under 4s for eRoll.

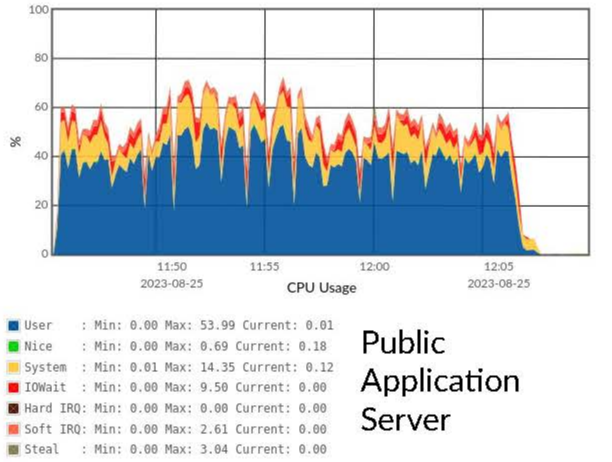
Step	requests	min	median	mean	95th	max	>10s	Error
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
eRoll - Address completion	3,276	0.20	2.52	2.85	8.30	9.35	0	0
eRoll - Electorates	2,967	0.25	2.50	2.74	3.62	9.33	0	30
eRoll - Enrol Update MDA2	631	0.80	3.35	3.84	9.53	10.23	3	0
eRoll - Logout	621	0.22	2.49	2.72	3.65	9.25	0	0
eRoll - Lookup Address	327	0.24	2.51	2.71	3.76	9.26	0	4
eRoll - Search	7,473	0.26	2.53	2.81	7.36	9.37	0	82
eRoll - Search - Mononym	249	0.32	2.56	2.84	6.64	9.44	0	3
eRoll - Search - No Midnames	7,648	0.27	2.52	2.76	3.55	9.40	0	65
eRoll - Search - Wild	7,313	0.28	2.55	2.80	3.67	9.45	0	62
eRoll - Search - Wild - No Midnames	7,283	0.27	2.55	2.77	3.41	9.48	0	76
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CPU utilisation

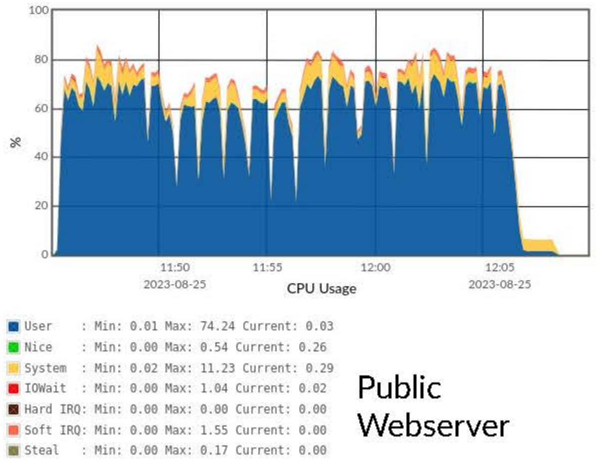
The following graphs show the CPU utilisation on the pubweb, pubapp and db servers. The extra processing load of eRoll can be easily seen in these server graphs.



Database



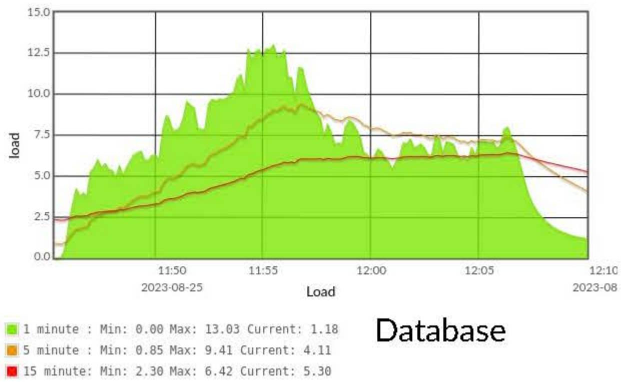
Public Application Server



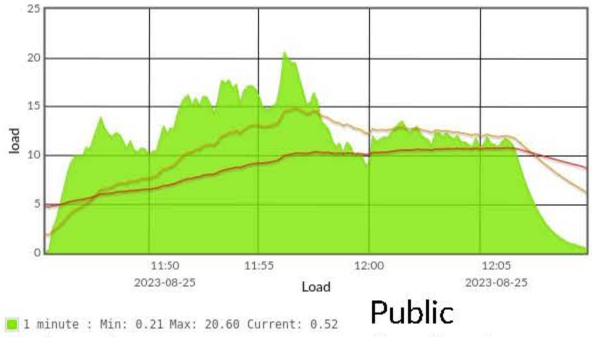
Public Webserver

Host Load

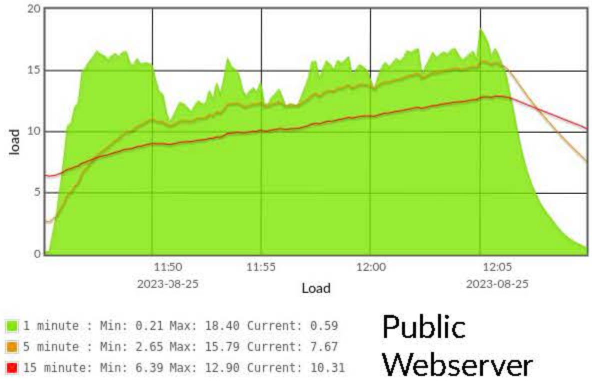
The following graphs show the load on the pubweb, pubapp and db servers. The load is also well within the capacity of the hosts.



Database



Public Application Server



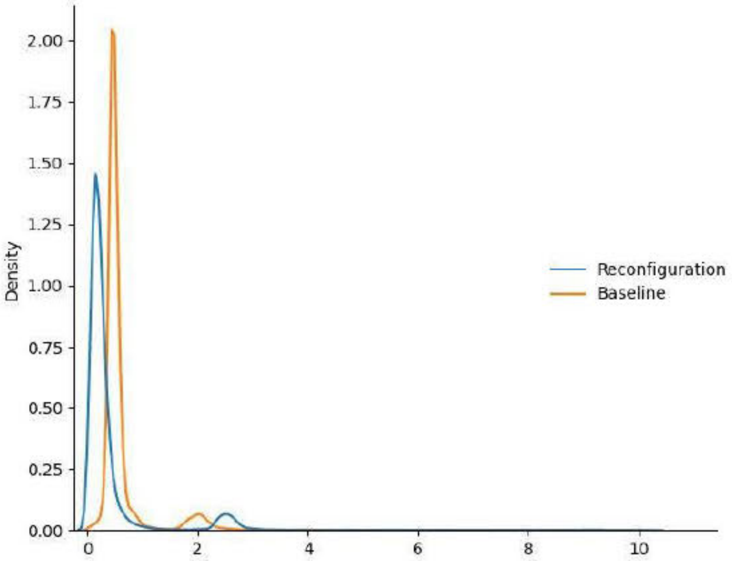
Public Webserver

6.3 Comparison

The kernel density estimate graph shows time distribution of all the [redacted] response times. The following graphs show the results from the two load test runs.

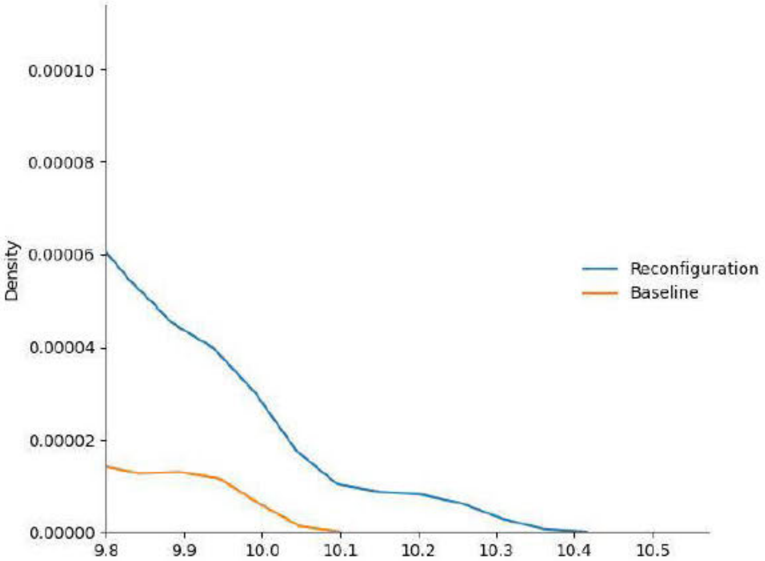
The large peak shows the majority of the [redacted] related requests and the small peak shows the majority of eRoll related requests.

The Reconfiguration run shows the reduction in response times for the [redacted] related requests with a marginal increase for the eRoll released requests. This shows why the reconfiguration reduces the overall time for all the requests from 29.5 minutes to 21.5 minutes. This is an over 25% improvement in overall response times.



The tail of the density graph (magnified) shows the times of the very small number of longer running requests.

The Reconfiguration run shows just a marginal increase in maximum request time from 10.1 to 10.4 seconds.



6.4 Request performance

The two load test runs each executed a total of over 556,000 requests, of which eRoll contributed over 37,000 requests. The requests per hour are calculated below:

- Baseline (All) tests took 29.5 minutes > 1.1 million requests per hour
- Baseline (eRoll) tests took 6.5 minutes > 340,000 requests per hour
- Reconfiguration (All) tests took 21.5 minutes > 1.5 million requests per hour
- Reconfiguration (eRoll) tool 6.5 minutes > 340,000 requests per hour

There are two large contributors to the overall number of requests. [redacted] requests provide application usage data and the Address Completion and Email validation helper requests are a part of the interactive features of all the applications. Excluding these to leave the 'primary' application functionality, the total 'primary' requests per hour can be calculated.

There were a total of over 154,000 'primary' requests, of which eRoll contributed over 34,000. The 'primary' requests per hour are calculated below:

- Baseline (All) tests took 29.5 minutes > 310,000 requests per hour
- Baseline (eRoll) tests took 6.5 minutes > 310,000 requests per hour
- Reconfiguration (All) tests took 21.5 minutes > 430,000 requests per hour
- Reconfiguration (eRoll) tool 6.5 minutes > 310,000 requests per hour

7 Recommendations

An over 25% reduction in overall time has been shown to be achieved with a few simple configuration changes on the Public Web and Public Application servers. A [redacted] ticket was raised to implement these changes prior to the general election: [redacted] 98483. These were applied to production in the code migration on 6th September 2023, [redacted]

A quick investigation into some errors in the eRoll [redacted] logs from the Reconfiguration were due to SSL handshaking between the eRoll webserver and the [redacted]. There are some [redacted] options that may help reduce the SSL processing overhead incurred and minimise these types of errors. A [redacted] story has been raised to investigate these options: [redacted] 97755.

From: Paul [redacted]
To: Katrina [redacted].
Subject: RE: Draft eRoll paper
Date: Friday, 17 November 2023 5:14:00 pm
Attachments: eRoll Incident 141023 report Finalv1.0.docx
image001.png

Hi Katrina

And here is the final draft

Regards
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

-

From: Pau [redacted]
Sent: Friday, November 17, 2023 2:13 PM
To: Katrina [redacted]@catalyst.net.nz>
Subject: RE: Draft eRoll paper

Thanks Katrina,

Much appreciated. I will make that final amendment and send on Final draft which I will walk Karl and Lucy through on Tuesday

Regards
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

-

From: Katrina [redacted] [redacted]@catalyst.net.nz>
Sent: Friday, November 17, 2023 11:08 AM
To: Paul [redacted] <pau[redacted]@elections.govt.nz>
Subject: Re: Draft eRoll paper

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Kia ora Paul,

I've had feedback from the team, who are in agreement with your description of the event, commentary on the factors at play and recommendations.

There is one small correction in para 13 - "through" should be "thorough".

Thank you for giving us the opportunity to provide input into the report. If you have any further questions or concerns please contact me any time.

Kind regards
Katrina

On 17/11/23 09:03, Paul [redacted] wrote:

> Thanks Katrina, FYI - I'll be meeting with Karl on Tuesday to walk through the latest version.
>
> Kind regards
> Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

From: Katrina [redacted]@catalyst.net.nz>
Sent: Friday, November 17, 2023 8:51 AM
To: Paul [redacted] <pau[redacted]@elections.govt.nz>
Subject: Re: Draft eRoll paper

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Thanks Paul,

I'll circulate this at our end and work on getting our review completed as quickly as possible.

Kind regards
Katrina

On 16/11/23 22:48, Paul [redacted] wrote:

> Hi Katrina,
>
> Apologies for lateness, but here's the updated document for your review.
>
> I have reflected the feedback from the earlier version, and hope this is now aligned with your view.
>
> Regards
> Paul
>
> Paul [redacted] (he/him) | Chief Information Officer
> Electoral Commission | Te Kaitiaki Take Kōwhiri
> PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
> Mob [redacted] | Fax [redacted] | vote.nz | elections.nz
>
> ---
>
> **From:** Katrina [redacted]@catalyst.net.nz>
> **Sent:** Tuesday, November 14, 2023 3:35 PM
> **To:** Paul [redacted] <paul[redacted]@elections.govt.nz>
> **Subject:** Re: Draft eRoll paper
>
> **Electoral Commission Cyber Security Warning:** This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.
>
> Hi Paul,
>
> Here are the additional items on my list.
>
> 1. IR adoption timeline:
>
> The draft BC and IR plans I sent you this morning were sent to Ian in early June for review and signed off by James [redacted] on 25 August. The Security IR plan was sent under separate copy from our Security Manager. I haven't chased him up around when, but could if you think the information is useful.
>
> 2. Load testing method elaboration:
>
> Andrew has updated the load test report - there are two copies attached, one with track changes on, so you have the information if you need it in future.
>
> 3. Effective communication wording:

I have left this until you have had a chance to review and feedback on whether the IR documents impact your thoughts on the incident management paragraph in general.

Very happy to catch up again if you would like to talk anything through. I'm available for the rest of the afternoon today, and also most of tomorrow afternoon.

Kind regards
Katrina

On 13/11/23 14:35, Katrina [redacted] wrote:

> Thanks Paul,
>
> We'll review and I'll bring any questions to our meeting.
>
> Ngā mihi
>
> Katrina
>
> On 13/11/23 12:16, Paul [redacted] wrote:
>
>> Hi there,
>>
>> Please find attached the draft paper to go to Karl etc once we are all happy.
>>
>> Katrina, I will walk through with you when we meet later today.
>>
>> Kind regards
>> Paul
>>
>> **Paul** [redacted] | Chief Information Officer
>> **Electoral Commission** | Te Kaitiaki Take Kōwhiri
>> PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
>> Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

--
Katrina [redacted]
Chief Op[redacted] Officer

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

From: Paul [redacted]
To: Katrina [redacted]
Subject: RE: Draft eRoll paper
Date: Thursday, 16 November 2023 9:13:00 am
Attachments: image001.png

Hi Katrina,

I have scheduled 10:30 and invited Cindy and Ian from our side to see if we can round this out. Happy for you to include Andrew

Regards
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

From: Katrina [redacted]@catalyst.net.nz>
Sent: Thursday, November 16, 2023 8:37 AM
To: Paul [redacted] <paul[redacted]@elections.govt.nz>
Subject: Re: Draft eRoll paper

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Hi Paul,

I'm available between 10am & 1.30pm today. Would it be useful to bring Andrew in on the load testing conversation? If you think so, I'll check if he's free.

Kind regards
Katrina

On 16/11/23 08:28, Paul [redacted] wrote:

> Hi Katrina,
>
> Thanks for sending the IR documents through. I would appreciate the version control on these documents updated. I have been referenced in all 3 but did not join the Commission until 11/09/23, therefore a misalignment with James approving the documents and me being listed as the CIO? I will discuss with Godfrey at the account meeting today, a time to review these documents and ensure the processes are implemented going forwards. On reflection I will adjust my observations in the relevant section, in the next version.
>
> On the Load Testing, I think this is worthy of a follow-up discussion, so if you have time today when I could call to discuss that would be great.
>
> Thanks and regards
> Paul
>
> **Paul** [redacted] | Chief Information Officer
> Electoral Commission | Te Kaitiaki Take Kōwhiri
> PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
> Mob [redacted] | Fax [redacted] | vote.nz | elections.nz
>
> **From:** Katrina [redacted]@catalyst.net.nz>
> **Sent:** Tuesday, November 14, 2023 3:35 PM
> **To:** Paul [redacted] <paul[redacted]@elections.govt.nz>

Subject: Re: Draft eRoll paper

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Hi Paul,

Here are the additional items on my list.

1. IR adoption timeline:

The draft BC and IR plans I sent you this morning were sent to Ian in early June for review and signed off by James [redacted] on 25 August. The Security IR plan was sent under separate copy from our Security Manager. I haven't chased him up around when, but could if you think the information is useful.

2. Load testing method elaboration:

Andrew has updated the load test report - there are two copies attached, one with track changes on, so you have the information if you need it in future.

3. Effective communication wording:

I have left this until you have had a chance to review and feedback on whether the IR documents impact your thoughts on the incident management paragraph in general.

Very happy to catch up again if you would like to talk anything through. I'm available for the rest of the afternoon today, and also most of tomorrow afternoon.

Kind regards
Katrina

On 13/11/23 14:35, Katrina [redacted] wrote:

> Thanks Paul,
>
> We'll review and I'll bring any questions to our meeting.
>
> Ngā mihi
>
> Katrina
>
> On 13/11/23 12:16, Paul [redacted] wrote:
>
> > Hi there,
> >
> > Please find attached the draft paper to go to Karl etc once we are all happy.
> >
> > Katrina, I will walk through with you when we meet later today.
> >
> > Kind regards
> > Paul
> >
> > **Paul** [redacted] | Chief Information Officer
> > **Electoral Commission** | Te Kaitiaki Take Kōwhiri
> > PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
> > Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

[redacted]

[redacted]

[redacted]

From: Don [redacted]
To: Karl [redacted]; Lucy [redacted]; Paul [redacted]
Cc: Godfrey
Subject: Re: Election day
Date: Tuesday, 17 October 2023 8:50:51 am
Attachments: signature.asc

Hi Karl

Many thanks for the reply.

Yes a quick pivot to the by-election is certainly underway as we continue to support the official count process.

Cheers
Don

On Mon, 2023-10-16 at 19:47 +0000, Karl [redacted] wrote:

> Morning Don
>
> Thank you and thanks to your team for the support around the clock.
>
> I look forward to the PIR and getting assurance ahead of the by-election. Lucy and co will be in contact.
>
> Karl
>
> ---
>
> **From:** Don [redacted]@catalyst.net.nz>
> **Sent:** Sunday, October 15, 2023 11:51 AM
> **To:** Karl [redacted] <Kar[redacted]@elections.govt.nz>; Lucy [redacted] <Lucy[redacted]@elections.govt.nz>; Paul [redacted] <pau[redacted]@elections.govt.nz>
> **Cc:** Godfrey <[redacted]@catalyst.net.nz>
> **Subject:** Election day
>
> Hi Karl
>
> Just a quick note to congratulate you and your team on running a successful election day and pre-election day processes. Watching the count and media coverage things have seemed to work well and a lot has been processed in the electorates successfully.
>
> At our end the results entry, media feeds and public results all appear to have performed well.
>
> There are a few tired bodies out there but our team, led by Godfrey, remains on call and standby if anything that crops up between now and Monday. I'm also available to take calls and questions.
>
> We will begin a full PIR process for the e-Roll incident on Monday morning.
>
> Cheers
> Don

[redacted]

[redacted]

From: Ian [redacted]
To: Godfrey [redacted]
Cc: Paul [redacted]; james [redacted]
Subject: RE: eRoll attendees
Date: Monday, 30 October 2023 4:54:00 pm
Attachments: image001.png

Awesome, thanks everyone

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

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From: Godfrey [redacted]@catalyst.net.nz>
Sent: Monday, October 30, 2023 3:34 PM
To: Ian [redacted] <Ian [redacted]@elections.govt.nz>
Cc: Paul [redacted] <paul.[redacted]@elections.govt.nz>; james [redacted] <james [redacted]@catalyst.net.nz>
Subject: Re: eRoll attendees

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Hi Ian,

I can confirm that Shannon will be attending. He had to reschedule other stuff or ask for a change in time.

Jon was not the author of the report and James is in the midst of asking Gregorio or Brian to attend as they were the primary persons who performed the analysis for the security report. One of them will attend tomorrow's meeting.

I hope that is ok.

Cheers,
Godfrey

On 30/10/23 12:21, Ian [redacted] wrote:

> Hi Godfrey
>
> Just noting that for the technical eRoll meeting tomorrow that Jon from security has declined and Shannon from Ops is only tentative.
> Are you able to ask them to come please as a priority given that the execs have committed to an action plan?
>
> Thanks and regards,
>
> Ian.
>
> **Ian** [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
> PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
> Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

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--

-------- [redacted] ---

From: Paul [redacted]
To: katrina
Cc: Lucy [redacted]; Don [redacted]; Karl [redacted]; Ian [redacted]; Godfrey [redacted]
Subject: RE: eRoll Incident Follow-up
Date: Tuesday, 31 October 2023 5:54:00 pm
Attachments: image001.png

Hi Katrina,

Great to meet you in person, and to work through our actions together.

I have noted progress against our actions below for posterity and will be in touch hopefully tomorrow with the updated incident flow.

Let me know if there is anything I have missed.

Regards
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

–

From: Paul [redacted]
Sent: Friday, October 27, 2023 1:48 PM
To: katrina [redacted]@catalyst.net.nz>
Cc: Lucy [redacted] <Lucy [redacted]@elections.govt.nz>; Don [redacted]@catalyst.net.nz>; Karl [redacted] <Karl [redacted]@elections.govt.nz>; Ian [redacted] <Ian [redacted]@elections.govt.nz>; Godfrey [redacted]@catalyst.net.nz>
Subject: eRoll Incident Follow-up

Kia Ora Katrina,

Thanks for your time today to follow-up on the eRoll PIR and progress the follow-on actions.

In general, I believe we have good alignment on the key aspects of the event on election day and the key items we need to work through over the comings days/weeks to ensure we have a single coherent story on what occurred, how we could avoid such events in the future, specifically to ensure we have taken all practical, reasonable steps to ensure systems will work effectively during the up coming Port Waikato By election.

In terms of immediate focus, we agreed the following points:

- **Monitoring** – [redacted] explained the EC perspective on available/accessible monitoring to give confidence we are tracking system performance effectively. [redacted] outlined previous intentions to introduce applications monitoring which would have been beneficial in this situation. ~~***Action K[redacted] to provide WR No. to review and understand prioritisation***~~. *On review it was confirmed that the statement related to additional security monitoring that had been proposed previously. We agreed that it would be good to confirm what monitoring is in place around Health of Infrastructure and Applications performance so we all have the same understanding.* ***Action K[redacted] to provide overview of current state monitoring.***
- **Incident Management** – It was acknowledged that once up and running the comms channels between EC and Catalyst worked well, especially decisioning on proposed changes etc. It was agreed that there is an opportunity to improve process and procedure on both sides and this is something we can work through specifically~~. ***Action P[redacted] to draft initial thoughts on IM and pass to K[redacted] for review and feedback within Catalyst.***~~ *We discussed my version of events specifically the discrepancies identified in the timeline in an attempt to understand the delta*

and what was driving this. We agreed that I would combine the two views and highlight the areas of contention for Catalyst to review and refine to ensure alignment. ***Action P[redacted] to combine views and send to K[redacted]***

- **Root Cause –** Whilst we are reasonably confident that "load" was the ultimate root cause of the issue experienced on election day, it is important that we dig into the known facts and associated changes from a technical perspective to ensure we have a common understanding and agreed position on whether the election day changes should remain in place going forwards, or what else we need to do to ensure we are set-up for success going forwards. ~~***Action – (P[redacted] Ian[redacted] to facilitate a meeting with Shannon and Co. from Catalyst to work through the technicalities and report back.***~~ P[redacted] reported that a very constructive technical meeting had taken place and that from an initial verbal update, P[redacted] had received positive outcomes. Ian [redacted] was writing up. **Action P[redacted] to forward the meeting notes to Katrina for information.**
- **Load Testing –** We agreed that we need to repeat the Load testing on eRoll for the by election, but need to ensure we have clear requirements from EC. P[redacted] also expressed a preference to do some field testing in Waikato, to ensure we test application performance and user experience on location at selected voting places. ~~***Actions - P[redacted] to confirm requirements and timeframes for field testing. K[redacted] to confirm timeframe for Load testing prior to the start of advanced voting (13/11) for the upcoming by election***~~. *It seemed the recommendation from the technical meeting was not to repeat the tests as nothing extra was likely to be gained from running such tests. This needed to be confirmed. We did agree that the field testing if we could execute effectively would be a useful new test to conduct.* ***Action: P[redacted] to confirm outcome and next steps from the technical meeting, K[redacted] to confirm availability of Catalyst tech staff to support potential field test next week.***

Let me know if you think I have missed anything, in the meantime I look forward to our next follow-up on Tuesday, at 4:30pm.

Ngā mihi
Paul

Paul [redacted] | Chief Information Officer
Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Mob [redacted] | Fax [redacted] | vote.nz | elections.nz

-

From: Ian [redacted]
To: Paul [redacted]
Subject: FW: eRoll technical - initial session
Date: Tuesday, 14 November 2023 10:40:00 am
Attachments: Screenshot 2023-10-31 at 11-29-50[redacted]
[redacted].png
Screenshot 2023-10-31 at 11-35-55[redacted]
[redacted].png

FYI - this is already distilled in the technical report anyway

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | Electoral Commission | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

-----Original Message-----
From: Ian [redacted]
Sent: Tuesday, October 31, 2023 12:02 PM
To: Shannon [redacted] <[redacted]@catalyst net nz>
Cc: Morgan [redacted] <Morgan [redacted]@elections.govt.nz>; Adam [redacted] <Adam [redacted]@elections.govt nz>
Subject: FW: eRoll technical - initial session

That's great thanks Shannon

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | Electoral Commission | Te Kaitiaki Take Kōwhiri PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140 Phone [redacted] | Mob [redacted] | Fax [redacted] [redacted] | Home | Vote NZ

-----Original Message-----
From: Shannon [redacted] <[redacted]@catalyst net.nz>
Sent: Tuesday, October 31, 2023 11:41 AM
To: Ian [redacted] <Ian [redacted]@elections.govt nz>
Subject: Re: eRoll technical - initial session

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Hi Ian,

screenshot from [redacted] for Election day and a couple of days before that, with a previous peak of [redacted] requests[redacted], and an on-the-day peak of over [redacted] requests[redacted] before the main issues.

screenshot of the day, showing that we were still getting a minimum of [redacted] requests/[redacted] even during the outage.

Cheers,
Shannon.

From: Jeff [redacted]
To: Ian [redacted]; Adam [redacted]; Jason [redacted]
Cc: Paul [redacted]
Subject: RE: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy
Date: Tuesday, 7 November 2023 2:26:53 pm
Attachments: image001.png

In section 2, the comment around advanced voting peak being [redacted] transactions per hour is something I'm not sure about. It was said on the call but it is the same number as the 2020 peak which makes me question if Shannon was answering the question he thought he was. Either way it was what was said so the minutes are accurate

No other comments

Jeff [redacted] | Senior Systems Analyst | **Electoral Commission** | Te Kaitiaki Take Kowhiri | PO Box 3220 | Level 10, 34-42 Manners St, Wellington | Phone [redacted] | www.vote.nz

---

From: Ian [redacted] <Ian [redacted] @elections.govt.nz>
Sent: Friday, November 3, 2023 1:04 PM
To: Adam [redacted] <Adam [redacted] @elections.govt.nz>; Jeff [redacted] <Jeff [redacted] @elections.govt.nz>; Jason [redacted] <Jason [redacted] @elections.govt.nz>
Cc: Paul [redacted] <pau [redacted] @elections.govt.nz>
Subject: FW: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy

Hi,

As the senior tech reps, could you please confirm that you're happy with this write-up?

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
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From: Morgan [redacted] <Morgan [redacted] @elections.govt.nz>
Sent: Wednesday, November 1, 2023 1:46 PM
To: Ian [redacted] <Ian [redacted] @elections.govt.nz>
Subject: RE: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy

Hi Ian,

The summary looks good to me.

Best regards,

Morgan [redacted] | Cyber Security Analyst | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140

From: Ian [redacted] <Ian [redacted] @elections.govt.nz>
Sent: Wednesday, November 1, 2023 1:43 PM
To: Godfrey [redacted] < [redacted] @catalyst.net.nz>; Adam [redacted] <Adam [redacted] @elections.govt.nz>; james [redacted] <james [redacted] @catalyst.net.nz>; Jason [redacted] <Jason [redacted] @elections.govt.nz>; Jeff [redacted] <Jeff [redacted] @elections.govt.nz>; Morgan [redacted] <Morgan [redacted] @elections.govt.nz>
Cc: Paul [redacted] <pau [redacted] @elections.govt.nz>
Subject: RE: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy

Thanks [redacted].

Morgan/Jason/Jeff/Adam – can you please confirm you're happy with the summary I sent yesterday.

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

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From: Godfrey [redacted] <[redacted]@catalyst.net.nz>
Sent: Wednesday, November 1, 2023 11:34 AM
To: Ian [redacted] <Ian[redacted]@elections.govt.nz>; Adam [redacted] <Adam[redacted]@elections.govt.nz>; james[redacted] <james[redacted]@catalyst.net.nz>; Jason [redacted] <Jason[redacted]@elections.govt.nz>; Jeff [redacted] <Jeff[redacted]@elections.govt.nz>; Morgan [redacted] <Morgan[redacted]@elections.govt.nz>
Cc: Paul [redacted] <pau[redacted]@elections.govt.nz>
Subject: Re: eRoll technical discussion 31-Oct-23 minutes - could you please review for accuracy

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

Hi Ian,

Thank you Ian for the minutes. Feedback that I have is that the minutes are an accurate description of the meeting except for clarity on one point that I'll describe below.

Point 9. The review was for 'the SQL queries of the [redacted] suspicious session and IP data program' as opposed to 'the SQL queries', just to be specific. There is a WR for it:

https://[redacted]=420765

Cheers,
Godfrey

On 31/10/23 16:24, Ian [redacted] wrote:

> Hi there
>
> Thank you for the eRoll technical discussion today - could you please review these minutes for accuracy and let me know if you're happy as stated?
>
> Godfrey / James, could I ask you please to coordinate any Catalyst feedback?
>
> Thanks all – let me know if this causes you any issues, ideally I'd like to finalise tomorrow if possible but shout out if that's not possible.
>
> Best regards

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | [redacted] | [Home | Vote NZ]()

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--
--------[redacted]---
Godfrey
Director
Catalyst.Net Limited - Expert Open Source Solutions

Catal a Catal
DDI: [redacted] | Mob: [redacted] | [www.catalyst.net.nz]()

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If you have received this email in error, please reply via email or call +64 4 499 2267.

From: Ian [redacted]
To: Godfrey [redacted]; Paul [redacted]
Subject: RE: FYI - meeting set up now
Date: Friday, 27 October 2023 2:13:00 pm
Attachments: image001.png

Good stuff thanks Godfrey, I've included you now.

Thanks and regards,

Ian.

Ian [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

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From: Godfrey [redacted]@catalyst.net.nz>
Sent: Friday, October 27, 2023 1:23 PM
To: Ian [redacted] <Ian [redacted]@elections.govt.nz>; Paul [redacted] <paul [redacted]@elections.govt.nz>
Subject: Re: FYI - meeting set up now

Electoral Commission Cyber Security Warning: This email originated from outside of the Commission. Please take extra care when clicking links or opening attachments. When in doubt, contact the IT Service Desk.

I'd like to attend please Ian. Could you please send me the invite.

Cheers,
Godfrey

On 27/10/23 13:13, Ian [redacted] wrote:

> Hi both,
>
> I've set that meeting up now – James [redacted] invited as well from a programme perspective.
> I've deliberately left you both out so we can get into a bit of detail (hope you don't mind)
>
> Thanks and regards,
>
> Ian.
>
> **Ian** [redacted] | Senior Manager IT Services | **Electoral Commission** | Te Kaitiaki Take Kōwhiri
> PO Box 3220 | Level 4, 34 – 42 Manners Street | Wellington | 6140
> Phone [redacted] | Mob [redacted] | Fax [redacted] | Home | Vote NZ

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[redacted]

[redacted]

From: Don [redacted]
To: Lucy [redacted]; Paul [redacted]
Cc: katrina; Godfrey
Subject: Re: Incident Report
Date: Tuesday, 17 October 2023 8:11:30 pm
Attachments: signature.asc

Kia ora Lucy

Godfrey has replied to a similar question from Paul in some detail and we certainly understand your interest and concern.

The shorter answer is, we have had a PIR ready for a couple of days but without the PIR from [redacted] it is incomplete. Our CIO, Jason, has been in very regular contact with [redacted] and has been assured that this is "coming" and a priority. It's pretty frustrating and we are pushing hard on our side.

Ngā mihi
Don

On Tue, 2023-10-17 at 04:24 +0000, Lucy [redacted] wrote:

> Kia ora Don
>
> Thank you for this update. Katrina has emailed with an expected final report for e-Roll this Friday. Can you confirm when we will receive the report for the incident last Wednesday.
>
> Ngā mihi
>
> **Lucy** [redacted] | Deputy Chief Executive, Enterprise Services
>
> ---
>
> **From:** Don [redacted] <[redacted]@catalyst.net.nz>
> **Sent:** Monday, October 16, 2023 9:28 AM
> **To:** Lucy [redacted] <Lucy.[redacted]@elections.govt.nz>; Paul [redacted] <paul [redacted]@elections.govt.nz>
> **Cc:** katrina <[redacted]@catalyst.net.nz>; Godfrey <[redacted]@catalyst.net.nz>
> **Subject:** Incident Report
>
> Kia ora Lucy and Paul
>
> I have asked Katrina [redacted] to lead our PIR process. Paul, Katrina is our COO and CEO when I was overseas in September and at times I am otherwise unavailable.
>
> Work on this report has already begun.
>
> Again, if you have any questions or need to contact me please don't hesitate to do so.
>
> Ngā mihi
> Don
>
> --

> [redacted]

[redacted]or
Catalyst.net Ltd - Expert Open Source Solutions
Level 6,150-154 Willis Street, PO Box 11-053
Wellington New Zealand
Tel:[redacted]
Mob:[redacted]
http://catalyst.net.nz

[redacted] Work - Story #98483

Reconfigure Public web servers based on Load Testing results

08/25/2023 01:16 PM - Andrew [redacted]

Status:	Done	**Start date:**		
Priority:	Normal	**Due date:**		
Assignee:	Andrew [redacted]	**% Done:**	0%	
Category:		**Estimated time:**	0.00 hour	
Target version:	Migration 2023-09-06			
WR #:	405517	**Story Progress:**		
Reference:		**Size:**		

Description

The recent Load testing runs have showed there are a few changes to the public web servers that will increase throughput.
The single biggest effect is to increase the number of [redacted] on pubweb hosts.
A secondary change is to up the number of [redacted] from [redacted] to [redacted]

History

#1 - 08/25/2023 01:16 PM - Andrew [redacted]

- WR # set to 405517

- Target version set to Work in progress

#2 - 08/31/2023 12:59 PM - Andrew [redacted]

- Status changed from In progress to Peer review

#3 - 09/01/2023 12:04 PM - Andrew [redacted]

- Status changed from Peer review to Ready for Testing

#4 - 09/04/2023 05:43 PM - Jeff [redacted]

- Target version changed from Work in progress to Migration 2023-09-06

- Status changed from Ready for Testing to Done

Can't really test this but accepting based on code on master

[redacted] Work - Story #99103

Investigate [redacted] suspicious session and ip data

11/01/2023 11:13 AM - Andrew [redacted]

Status:	Ready for Testing	**Start date:**	
Priority:	Normal	**Due date:**	
Assignee:		**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:	Work in progress		
WR #:	420765	**Story Progress:**	
Reference:		**Size:**	

Description

Investigate why the [redacted] suspicious session and ip data scheduled jobs take a log time.

Related issues:

Related to [redacted] Work - Story #98941: Investigate performance of the generate_...	**Cancelled**

History

#1 - 11/23/2023 04:45 PM - Andrew [redacted]

- WR # set to 420765

- Status changed from Ready to Ready for Testing

- Description updated

#2 - 11/23/2023 04:52 PM - Andrew [redacted]

- Target version set to Work in progress

#3 - 11/23/2023 04:53 PM - Andrew [redacted]

- Related to Story #98941: Investigate performance of the generate_*_details jobs added

#4 - 12/04/2023 11:51 AM - Jeff [redacted]

I can't see a way to verify these changes will work on UAT. Any suggestions? Is there a way to simulate the volume of transactions we'd see in an election to check how long the jobs now take?

#5 - 12/06/2023 06:09 PM - Andrew [redacted]

Hi Jeff,

Yes I can move a number of the session log records to be more recent so that those jobs will process more things.

Let me know when you are availablto do the testing and we will update the records accordingly.

Mike Work - Story #97755

Implement eRoll SSL proxy reuse configuration on [redacted]

06/13/2023 05:09 PM - Andrew [redacted]

Status:	Ready	**Start date:**	
Priority:	Normal	**Due date:**	
Assignee:		**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:			
WR #:		**Story Progress:**	
Reference:		**Size:**	

Description

The [redacted] proxy to https ideally requires verification and reuse parameters to be set.
The following parameters will need to be set:

proxy_ssl_verify
proxy_ssl_trusted_certificate
proxy_ssl_certificate
proxy_ssl_certificate_key
proxy_ssl_session_reuse

History

#1 - 06/13/2023 05:28 PM - Andrew [redacted]

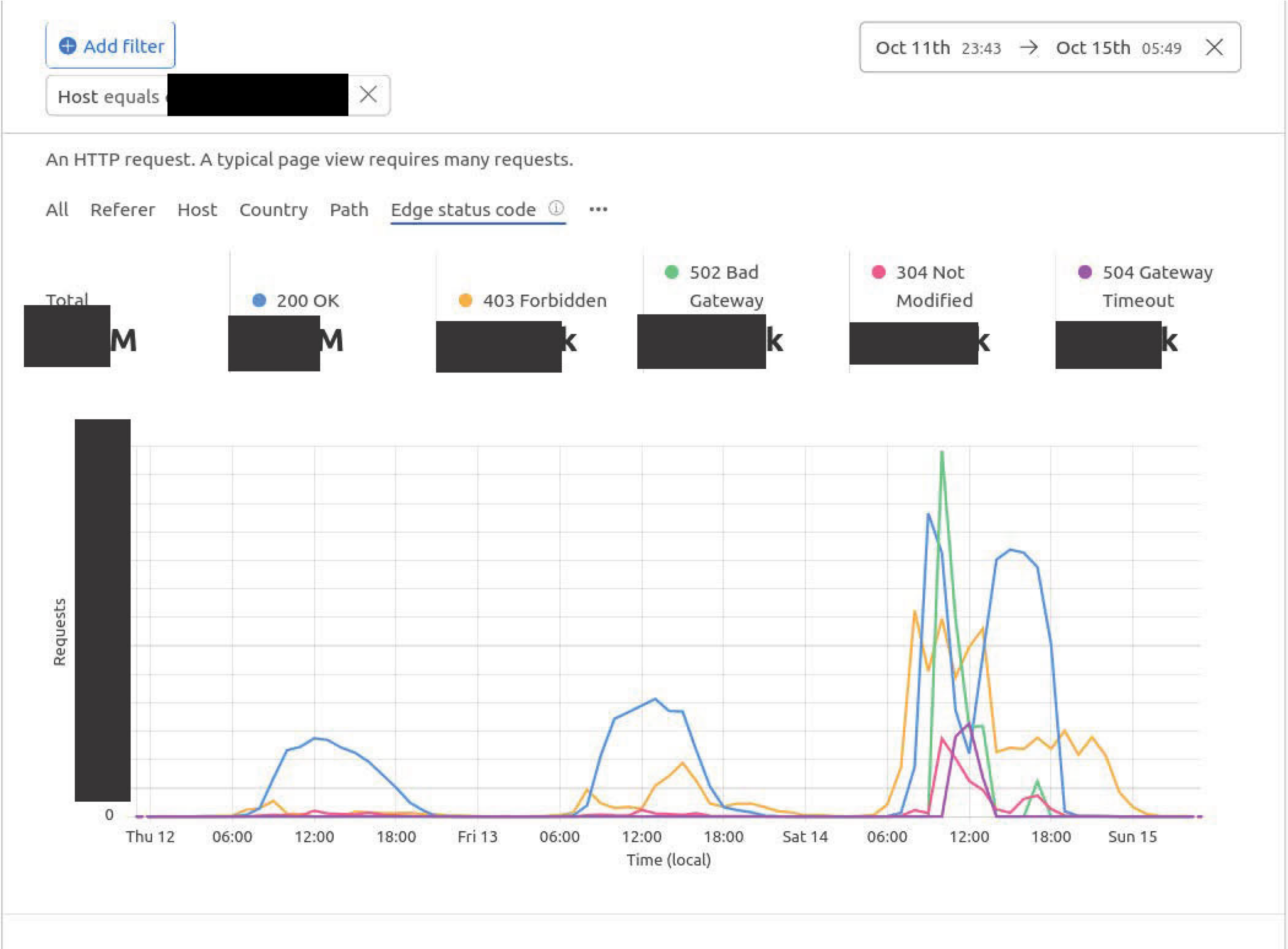
This will need some further investigation before being implemented as some initial testing on [redacted] does not work with:

[redacted]

Even though the pem file is what [redacted] uses in its ssl certificate settings on the backend server.

#2 - 12/06/2023 01:38 PM - Andrew [redacted]

- Story points set to 3.0



⊕ Add filter

Host equals [redacted] ✕

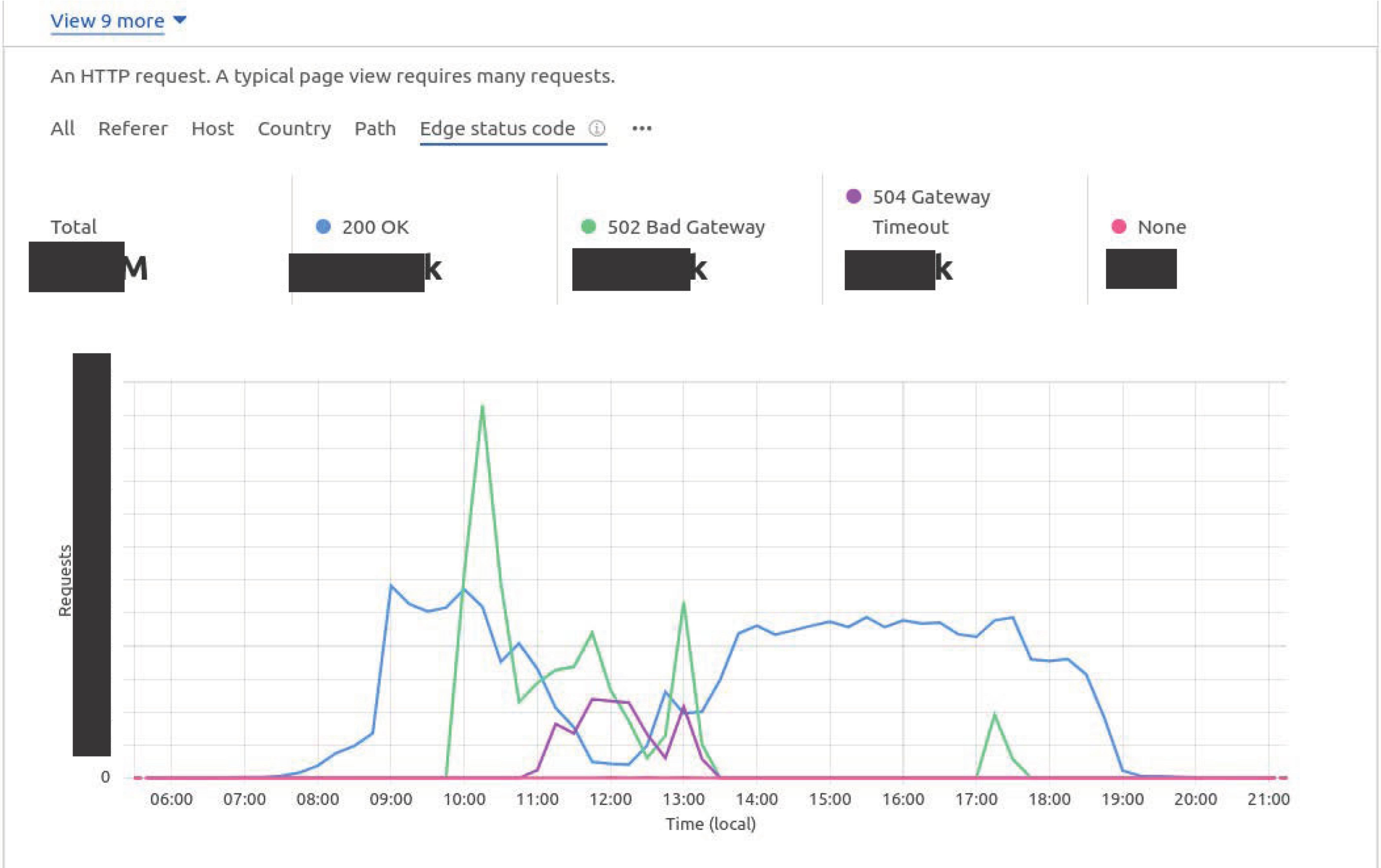
Oct 11th 23:43 → Oct 15th 05:49 ✕

An HTTP request. A typical page view requires many requests.

All | Referer | Host | Country | Path | **Edge status code** ⓘ | ···

Total	● 200 OK	● 403 Forbidden	● 502 Bad Gateway	● 304 Not Modified	● 504 Gateway Timeout
[redacted]M	[redacted]M	[redacted]k	[redacted]k	[redacted]k	[redacted]k

Requests
[redacted]
0
Thu 12
06:00
12:00
18:00
Fri 13
06:00
12:00
18:00
Sat 14
06:00
12:00
18:00
Sun 15
Time (local)



View 9 more ▾

An HTTP request. A typical page view requires many requests.

All | Referer | Host | Country | Path | **Edge status code** ⓘ | •••

Total
[redacted]M

● 200 OK
[redacted]k

● 502 Bad Gateway
[redacted]k

● 504 Gateway Timeout
[redacted]k

● None
[redacted]

[redacted]

Requests
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
Time (local)

Step	requests	min	median	mean
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
eRoll - Address completion	6761	0.067413092	0.102482796	0.129491692
eRoll - Electorates	5723	0.067796946	0.09388113	0.115728922
eRoll - Enrol Update MDA2	1224	0.507575989	0.619249582	0.712572265
eRoll - Logout	462	0.070995092	0.093446612	0.12173216
eRoll - Lookup Address	417	0.069848061	0.093597174	0.117069505
eRoll - Search	11128	0.083206177	0.113114476	0.135554096
eRoll - Search - Mononym	431	0.086733103	0.121084213	0.147298205
eRoll - Search - No Midnames	11064	0.081752062	0.113383532	0.137107847
eRoll - Search - Wild	10780	0.087097168	0.126117468	0.152746589
eRoll - Search - Wild - No Midnames	10804	0.086790085	0.126210928	0.152651398

95th	max	>10s	Error
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
0.244004965	2.063746214	0	0
0.205347633	1.810512066	0	0
1.074598455	5.204643011	0	0
0.168264472	1.867255926	0	0
0.230989313	1.015604973	0	0
0.221885478	1.992878914	0	0
0.247951984	1.211118937	0	0
0.232082224	1.880640984	0	0
0.263451898	1.889228821	0	0
0.259735286	5.1337502	0	0

System	Need Load test	Who Tests	Comment	Status	Date Start	Planned date end	WR	Comment	Report	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
eRoll	Yes	Catalyst	Load will start from EUC and Adv Voting.	Completed	20/07/2023	31/07/2023	405521		Public applications Load Test 2023.pdf	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]			[redacted]	
[redacted]	[redacted]		[redacted]	[redacted]						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]		[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]				[redacted]		
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]		
[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]		[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]						
[redacted]	[redacted]		[redacted]	[redacted]						
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[redacted]	[redacted]		[redacted]	[redacted]						
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[redacted]	[redacted]		[redacted]	[redacted]						
[redacted]	[redacted]			[redacted]						
[redacted]	[redacted]			[redacted]						
[redacted]	[redacted]			[redacted]						
[redacted]	[redacted]		[redacted]	[redacted]						

WR #419464: GE2023 - Post Election Fixes - Master

Requested: 2023-10-14 16:36 **Parent request:** 403094

Status	Testing/Signoff
Organisation	Electoral Commission
Person	Paul [redacted]
System	EC Requests for Support
Type	Maintenance
Urgency	Anytime
Priority	Low
Details	Master WR to consolidate all Post-GE2023 Fixes.

Allocated To

James [redacted]

Subscribed Users

Andrew [redacted], Catalyst Sysadmin NZ, James [redacted] Miroslav [redacted] Paul [redacted] Shannon [redacted]

Notes (3)

Reverse display order

#3 **12 days ago** by Andrew [redacted] 2023-11-29 10:13	All post election fixes have been dealt with. Closing as Testing/Signoff
#2 **18 days ago** by Andrew [redacted] 2023-11-23 17:20	Noting suspicious IP check has been resolvedwithout needing to modify the database used.
#1 **2 months ago** by Shannon [redacted] 2023-10-14 19:05	* Shift eroll suspicious IP check to a secondary database.

WR #420443: PWBE2023 - eRoll Load Testing

Requested: 2023-10-27 10:40 **Parent request:** 418933

Status Testing/Signoff
Organisation Electoral Commission
Person Paul [redacted]
System EC Requests for Support
Type Maintenance
Urgency Before Specified Date
Priority Medium
Requested By 2023-11-03
Invoice To MSA

Details WR to track activity for load testing eRoll ahead of the Port Waikato By Election.

Tasks:
☐ Load test plan/metrics to be provided by EC
☐ Load testing to be completed by Catalyst
☐ Scale UAT hosts back to normal and decommission runner hosts, see WR422493
☐ Load test report - to be attached once completed
☐ Load test remediation work

Allocated To

Andrew [redacted], Cindy [redacted], Jason [redacted], Paul [redacted]

Subscribed Users

Andrew [redacted], Catalyst Sysadmin NZ, Cindy [redacted], Godfrey [redacted], Ian [redacted], James [redacted], Jason [redacted], Jeff [redacted], Miroslav [redacted], Paul [redacted], Shannon [redacted]

Notes (22)

Reverse display order

#22
36 minutes ago
by Andrew [redacted]
2023-11-29 13:41

No remediation work was identified in this round of load testing.

#21
a day ago
by Cindy [redacted]
2023-11-28 12:58

This has been reviewed by Paul, Ian, Jason and myself and we are happy with the report and findings.

#20
a day ago
by Andrew [redacted]
2023-11-28 11:47

confirmed UAT Maint hosts are back to their original configurations
and all loadtest hosts are decommissioned.

#19
a day ago
by Andrew [redacted]
2023-11-28 11:43

I have added the v1.1 labelled - load testing report for eRoll, [redacted] for the Port Waikato By Election.

#18
6 days ago
by Andrew

I have added the Load test report and created WR422493 to put UAT Maint back to normal cpu/ram configuration and turn off all load test runner hosts.

[redacted]
2023-11-23 10:17

#17
6 days ago
by Cindy
[redacted]
2023-11-23 08:18

great thanks

#16
7 days ago
by Andrew
[redacted]
2023-11-22 17:09

Hi Cindy & Jason,

This load test report is going through review.
It will be available tomorrow morning.

Thanks
Andrew

#15
8 days ago
by Cindy
[redacted]
2023-11-21 14:24

Hi Andrew
Have spoken to Jason and Jeff - we have a baseline report from 2020 which we have referenced to obtain the following acceptance criteria
95% of response times under 5 seconds and 99% under 10 seconds
let me know if you have any other questions
Cheers, Cindy

#14
9 days ago
by Andrew
[redacted]
2023-11-20 17:39

Hi Cindy & Jason,

Can you confirm what the acceptability criteria are for the required load test requests per hour are.
I am expecting something like "At the given requests per hour, it will be acceptable to have 95% of response times under 10 seconds", for example.

Thanks
Andrew

#13
9 days ago
by Cindy
[redacted]
2023-11-20 14:04

Hi Andrew
Can we get the following information for Advance Voting on the friday before GE and for GE day so that we can see the mix of what was happening on those days? And see if it was comparable to this

API route %
[redacted] 11
[redacted] 2
[redacted] 40
[redacted] 43
[redacted] 1
[redacted] 3
Total 100

#12
9 days ago
by Andrew
[redacted]
2023-11-20 10:14

Please note that in the statistics summary for this load test, summary_95pc_10s.csv,
the 50 'EOL - Pre submit' errors are due to an issue with the test data only.
It is reporting that no contact number is being supplied, mobile or other.
I will fix that for any future load test run.

#11
12 days ago
by Andrew
[redacted]
2023-11-17 17:17

Please let me know if you would like any further load test runs.
Otherwise, I will start writing the load test report for this run on Monday.

See attached statistics summary for this load test: summary_95pc_10s.csv

Thanks
Andrew

#10
12 days ago
by Andrew
[redacted]
2023-11-17 17:11

Hi,

I have run now our Load testing tool configured to emulate the desired request rates.
Note that I am not making any special distinctions for any requests.
For example, the load test treats the following requests like any other:
1. background requests used for storing [redacted]

2. address street matching requests, where the user is incrementally adding 1 character at a time, resulting a more refined address result

These are the eRoll stats from this load test run, from 14:25 to 15:28.
As you can see the total number of eRoll requests completed in that 63 minute period
was 58,794. All requests completed well within 10 seconds.

These requests were run at the same time as 9329 [redacted] and 1916 [redacted] tests were also running. The [redacted] data jobs were also running too.

```
Step    requests        min     median  mean    95th    max     >10s    Error

eRoll - Address completion      6761    0.07    0.10    0.13    0.24    2.06    0       0

eRoll - Electorates     5723    0.07    0.09    0.12    0.21    1.81    0       0

eRoll - Enrol Update MDA2       1224    0.51    0.62    0.71    1.07    5.20    0       0

eRoll - Logout  462     0.07    0.09    0.12    0.17    1.87    0       0

eRoll - Lookup Address  417     0.07    0.09    0.12    0.23    1.02    0       0

eRoll - Search  11128   0.08    0.11    0.14    0.22    1.99    0       0

eRoll - Search - Mononym        431     0.09    0.12    0.15    0.25    1.21    0       0

eRoll - Search - No Midnames    11064   0.08    0.11    0.14    0.23    1.88    0       0

eRoll - Search - Wild   10780   0.09    0.13    0.15    0.26    1.89    0       0

eRoll - Search - Wild - No Midnames     10804   0.09    0.13    0.15    0.26    5.13    0       0



Application     Total

eRoll   58794
```

#9
14 days ago
by Andrew [redacted]
2023-11-15 18:28

Load testing is still progressing but I am still aiming to get a report out by Friday.

#8
15 days ago
by Jason[redacted]
2023-11-14 09:58

Hi Andrew

Increasing the specs for the load test runners as per note #7 is ok with EC.

Jason

#7
15 days ago
by Andrew [redacted]
2023-11-14 09:51

I am not seeing enough load being generated from the load test runners, in my initial test yesterday.
I am asking to increase the specs to [redacted] for today/tomorrow to see if it is the load test runner specs that are the issue. If needed tomorrow as well, I will look into shelving them overnight too to reduce costs.

All the load test runner hosts will be torn down immediately after running the last of the load tests.

Thanks
Andrew

#6
16 days ago
by Andrew [redacted]
2023-11-13 11:42

Apologies, it is taking longer to set up the data and test environment.

I am expecting to start running the load tests today, Monday and tomorrow, Tuesday.
With a report expected on Thursday/Friday

#5
21 days ago
by Andrew
[redacted]
2023-11-08 09:03

Hi Cindy,

I will be doing the Load testing from today. I expect to finish it on Friday.

Thanks
Andrew

#4
21 days ago
by Cindy
[redacted]
2023-11-08 08:01

Hi Andrew - will we be starting this today? Cheers, Cindy

#3
22 days ago
by Andrew
[redacted]
2023-11-07 10:33

FYI: Added WR421187 to request temporary upgrade of UAT Maint hosts to production levels for Load Testing eRoll.

#2
23 days ago
by Cindy
[redacted]
2023-11-06 19:58

This approach has been confirmed by EC Mgmt - Paul and Ian

Confirmed load test to be undertaken in UAT Maint env that is already upgraded to production levels

Requirements confirmed as:

Port Waikato Load testing
≈ there are approx 60 thousand voters in Port Waikato
≈ assume 60 thousand voters on By-Election Day
≈ assume 30 thousand requests in the first 3 hours
≈ assume max 20,000 requests per hour
then spec up to 60 thousand requests in an hour
≈ assume 0% have EasyVote Cards

Number of voting places = 42
Number of phones available for use = 105
x2 contingency on voting places up to 84

assuming a GE turnout for an Electorate - not typical by-election

[redacted] = 2,000 requests per hour
= 10,000 requests per hour

running the [redacted] and [redacted] jobs at the same time continuously

#1
24 days ago
by Cindy
[redacted]
2023-11-05 14:30

Requirements for load test - still to be accepted by EC but to give you an indication of what is required.

Still to confirm if undertake in UAT (up specd) or DR

Port Waikato Load testing
≈ there are approx 60 thousand voters in Port Waikato
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Number of voting places = 42
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x2 contingency on voting places up to 84

assuming a GE turnout for an Electorate - not typical by-election

[redacted] = 2,000 votes per hour
= 10,000 requests per hour
running the [redacted] and [redacted] jobs at the same time continuously

WR #420471: Investigate [redacted] spikes at 09:59 on Polling Day

Requested: 2023-10-27 14:41

Status	Testing/Signoff
Organisation	Electoral Commission
Person	Paul [redacted]
System	EC Outages and Incidents
Type	Maintenance
Urgency	As Soon As Possible
Priority	Medium
Details	At 09:59am on 14/10/2023 EC have noted 4 connection failures to [redacted] in the [redacted] dashboard, which directly precedes the issues subsequently experienced with eRoll. This WR tracks activity to verify these failures, why the occurred and whether they are in any way related to the issues with eRoll.

Allocated To

Andrew [redacted] Catalyst Sysadmin NZ

Subscribed Users

Andrew [redacted], Catalyst Sysadmin NZ, Godfrey [redacted], James [redacted], Katrina [redacted], Paul [redacted], Shannon [redacted]

Notes (6)

Reverse display order

#6
a month ago
by Andrew [redacted]
2023-10-30 17:56

I have looked at the [redacted] Webserver and application logs at 09:59.

There are only 2 failed requests reported as 502 at that time by the webserver.
However, the application server does perform these 2 requests. But it is not clear why the result was not sent back to the webserver and on back to the user.

During that 1 minute interval at 09:59, 2835 requests were successfully processed.

#5
a month ago
by Andrew [redacted]
2023-10-30 17:51

The polling-day-mike-stats-requests.png graph shows the total number of requests, stacked by HTTP status throughout polling day. This graph shows the number of MIKE requests received in 10 minute intervals, with an average of 23,000 between 08:00 and 19:00.

This graph does show the numbers of the other HTTP statuses, but they are almost invisible due to the large number of successful requests in comparison.

Successful requests are Status 200, 302 (redirect) and 304 (Cached)
Failed requests are Timeout 408, Client Ended 499, Other (e.g. 502)

#4
a month ago
by Andrew [redacted]
2023-10-30 17:41

The polling-day-mike-stats-percentage.png graph shows the percentage of request HTTP status throughout polling day. This graphs shows the overall MIKE request success rate at over 99% during the day.

The anomaly at 20:40 showing a large number of cached responses and errors is due to the very small number of requests received during that time, 8 requests, 7 cached, 1 error.

Successful requests are Status 200, 302 (redirect) and 304 (Cached)
Failed requests are Timeout 408, Client Ended 499, Other (e.g. 502)

Not also, that there were 3 requests at ~9:40, 4 at ~9:05 and 4 at around ~8:55.

#3
a month ago
by Shannon
[redacted]
2023-10-30 16:06

I don't believe the spikes were a contributor to the outage.

#2
a month ago
by Shannon
[redacted]
2023-10-30 16:04

4 requests out of 9.3k requests in that same 2 minute window.

#1
a month ago
by Shannon
[redacted]
2023-10-30 15:48

4 requests to [redacted] via [redacted] with 502 response codes from [redacted] (edge and origin) between 9:58 and 10:00

From IP: [redacted]

WR #420765: Review SQL queries for the [redacted] Suspicious session and ip data

Requested: 2023-11-01 11:10 **Parent request:** 419462

Status In Progress
Organisation Electoral Commission
Person Paul [redacted]
System EC Outages and Incidents
Type Maintenance
Urgency Sometime soon
Priority Medium
Details Review the SQL queries involved in the generation of the [redacted] Suspicious session and ip data for [redacted]

In the lead up and on the recent GE 2023 these queries were taking about an hour to execute instead of the typical approx minutes or less.

Allocated To

Andrew [redacted]

Subscribed Users

Andrew [redacted], Catalyst Sysadmin NZ, Godfrey [redacted], Ian [redacted] Miroslav [redacted] Paul [redacted], Shannon [redacted], Terry [redacted], Will [redacted]

Notes (1)

#1
6 days ago
by Andrew [redacted]
2023-11-23 16:44

See [redacted]/99103

WR #421113: PWBE2023 - eRoll Load Testing - test runner hosts

Requested: 2023-11-06 13:06 **Parent request:** 420443

Status Testing/Signoff

Organisation Electoral Commission

Person Paul [redacted]

System EC Requests for Support

Type Maintenance

Urgency Before Specified Date

Priority High

Requested By 2023-11-08

Agreed Due 2023-11-10

Details Please can we restart the [redacted] hosts as defined in WR413274.

However, this time, I would like to have 10 test runner hosts.

These hosts will need security group access to the following host port combinations.

[redacted]

These hosts will be short-lived, they will be decommissioned in about 2 weeks (but the definition needs to stay to be able to create more).

No backup is required.

Allocated To

Catalyst Sysadmin NZ, Levon [redacted], [NZOps] Medium - Client

Subscribed Users

Andrew [redacted], Catalyst Sysadmin NZ, Ian [redacted], James [redacted], Jeff [redacted], Levon [redacted], Miroslav [redacted], [NZOps] Medium - Client, Paul [redacted], Shannon [redacted]

Notes (9)

Reverse display order

#9
15 days ago
by Andrew [redacted]
2023-11-14 12:48

Hi Levon,

Jason approved the increase to [redacted] request_id=420443 [redacted]

Thanks
Andrew

#8
19 days ago
by Levon [redacted]
2023-11-10 13:10

Hosts built and puppeted.

There are now 10 [redacted] hosts running [redacted] size instances ready for loadtesting whenever.

#7
19 days ago
by Levon [redacted]
2023-11-10 11:01

Security groups done. Building final 4 hosts now

#6
19 days ago
by Levon [redacted]
2023-11-10 09:11

The outbound security groups were updated yesterday as requested as part of WR415741,

Now that I have the IPs for the new loadtest hosts I'll update the inbound side of things.

#5
19 days ago
by Levon [redacted]
2023-11-10 08:57

I've built and puppeted 6 of 10 loadtest hosts. However we've run out of vpu allocation in the [redacted] region of the [redacted] tenant.

Capacity will need to be increased by cloud to progress further.

#4
20 days ago
by Levon [redacted]
2023-11-09 17:03

I'll get this done tonight as its required tomorrow.

#3
20 days ago
by Adriana [redacted]
2023-11-09 14:10

Must be completed by COB tomorrow

Cheers
Adri

#2
21 days ago
by Andrew
[redacted]
2023-11-08 15:35

Please can access to these ports also be opened up on [redacted] host too.

#1
23 days ago
by Adriana [redacted]
2023-11-06 13:36

Kia ora team,

Details read

[redacted]

Indicating work on these hosts have already been done?

Please can you let us know what is required from us (is it create 9 test runner hosts?)

Cheers
Adri