31 May 2023

File Ref: OIAPR-1274023063-2225

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Tēnā koe ███

Request for information 2023-109

I refer to your request for information dated 3 and 4 May 2023, which was received by Greater Wellington Regional Council (Greater Wellington) on 3 and 4 May 2023. You have requested the following through 3 separate emails made over the dates above:

"I am requesting documentation about the real time information screens for when real time information is not displayed, but another message such as "real time information is unavailable, please visit this website, which we have unhelpfully spread over multiple lines, for todays timetable information".

Ideally, if there is an API for these signs that would be wonderful. If there is code that is used to perform the update then that would be even better. If there is code available for the update to these signs for the recent disruption that would be amazing.

If there is any limitations to these screens (such as frequency of updates) then that would be beneficial.

I'm trying to understand why non real time timetables is not possible as eluded to by the councils chairs, Daran Ponter, lack of response to this question. It would be much more accessible than a sign that shows the website spread over multiple lines which requires mobile internet at the station.

"An addition to my request. Can I also have documentation about the real time info signs used for the bus network. I note they say "SCHED" when real time info is unavailable which would be exactly what I am suggesting could happen for these train disruptions.

Potentially putting on your councillor hats for a moment. If it truely isn't possible currently, maybe some work could be done to make it possible, or atleast be able to explain succinctly to commuters why it is impossible (though I highly doubt it's impossibility, my guess is laziness)

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info@gw.govt.nz

Just noting that todays train "real time info" sign says SCHED so I have absolutely no idea why that was not possible to program it to show that earlier this week. Perhaps someone could help me understand why it wasn't done if it was possible?

Just a reminder that the lgoima request was made yesterday and I haven't had any confirmation. I'm expecting a response "without undue delay, no later than" 31 may. I trust that the spirit of the lgoima will be upheld."

Greater Wellington's response follows:

Background

Metlink uses a vehicle tracking system to estimate arrival times of services based on actual GPS locations of buses and trains, called Real Time Information (RTI). On-street digital displays are also used to provide messages advising of major service changes or disruptions. The tracking information collected from the system provides us with data about service performance, which helps us refine timetables and manage contractual agreements around service quality and performance.

Many of the busiest bus stops and most train stations have digital departure displays on street or on the platform. Departure times for each stop, even if it doesn't have a digital display, can be found on the Metlink website and app by typing in the stop name, stop number or station name in the search bar.

Buses and trains that are running and tracked by GPS will display as an estimated number of minutes to arrival. DUE means the bus or train is nearby and should turn up shortly. Services that have not started their trip or are not currently being tracked by GPS will display as a scheduled time and say SCHED. If a service says CAN, it has been cancelled.

Train services will display if a train is running "All stops" or "Express". When buses replace trains, signage will display a system message with more information.

There are significant limitations in place with the current RTI system; such limitations do not facilitate communication of real-time information to customers which is extremely problematic for short notice changes. As you point out, this is not helpful for our customers and does not provide the level of service we would like. The current RTI system used by Metlink is 12 years old and is limited by its outdated functionality and inability to facilitate disruption information in near-real time.

Our business case to replace our end-of-life RTI system was recently approved by Waka Kotahi. Unlike the current system, our new system will allow dynamic changes to the network in near-real time. The new RTI system will be more responsive, real time, and more customisable than the present solution, allowing us to communicate last-minute disruptions much quicker than what is possible with the current system. The project to replace this system has recently begun, with the timeline for replacement spanning the next two years.

<u>Response to your questions:</u>

1. *I am requesting documentation about the real time information screens for when real time information is not displayed, but another message such as "real time information is unavailable, please visit this website, which we have unhelpfully spread over multiple lines, for todays timetable information".*

   Ideally, if there is an API for these signs that would be wonderful. If there is code that is used to perform the update then that would be even better. If there is code available for the update to these signs for the recent disruption that would be amazing.

   If there is any limitations to these screens (such as frequency of updates) then that would be beneficial.

We are refusing the part of your request regarding documentation about real time information screens under section 17(e) of the Local Government Official Information and Meetings Act 1987 (the Act) on the basis that the document alleged to contain the information requested does not exist or, despite reasonable efforts to locate it, cannot be found.

When refusing under section 17(e) of the Act, we are required to consider whether consulting with you would remove the reason for refusal. In this case, we do not believe that consultation would remove our reason for refusal.

You have requested an Application Programming Interface (API); this may be under an assumption that we can log into software for the RTI platform displays, and type in new timetables on an as-needed basis. While we have an API (open data portal) that allows third parties to access real-time position and cancellation information, our 12-year-old RTI system predates API functionality of this nature. We are therefore unable to do ad hoc changes, e.g. facilitate last-minute disruption timetables, because our data publishing system and RTI systems are not agile systems capable of managing these ad hoc timetable changes. Any change to the network ('new route,' 'moved stop,' etc.) takes between 7 and 10 days to publish through all our systems.

As noted above, our current RTI system is being replaced because of the current system's outdated functionality and inability to convey disruption information as quickly as required for our customers' information. The new RTI solution will allow us to change the look and feel of signage across the network. We will be able to manage our network disruptions within minutes of them occurring, including notifying the bus driver of new routes to travel as well as updating the website, apps, and third parties.

Furthermore, there will be several other features such as buttons on every sign that will read out the timetable for passengers with accessibility needs. Our bus prediction accuracy will be refined, and count both up and down, rather than using the current 'sticky' DUE display. We intend to have the new RTI system fully embedded and live for the benefit of our commuters by the end of 2025 to early 2026.

2. *An addition to my request. Can I also have documentation about the real time info signs used for the bus network. I note they say "SCHED" when real time info is unavailable which would be exactly what I am suggesting could happen for these train disruptions.*

We include as **Attachment 1** a flow-chart that demonstrates how the RTI system operates for both bus and rail. Under the current RTI system, scheduled information will be displayed instead of predicted time arrival of the next service under the following conditions:

- Faulty vehicle equipment

- Non-fitted vehicle (without Snapper and RTI tracking)

- Faulty antenna on sign

- Failure of communications system

- Driver error input into Snapper device/Electronic Ticketing Machine (ETM)

Under these conditions, scheduled information would typically be displayed in such a way for both the bus and rail network. However, as discussed in the response to your follow-up question below, unexpected disruptions may complicate our ability to display scheduled information if timetable information is anticipated to change with more frequency than what our current RTI system can facilitate.

3. *Just noting that todays train "real time info" sign says SCHED so I have absolutely no idea why that was not possible to program it to show that earlier this week. Perhaps someone could help me understand why it wasn't done if it was possible?*

With the temporary speed restrictions on the Kāpiti, Hutt Valley, and Johnsonville Lines effective 1 May 2023, we were not able to present the reduced timetable schedules overnight onto our RTI signs, due to the need to remain responsive to further timetable changes amidst the speed restrictions. Greater Wellington received notification from KiwiRail that there were going to be speed restrictions imposed on the Kāpiti Line on the afternoon of 27 April 2023, which (due to the integration of the rail network and rail staff) would have a run-on effect requiring speed restrictions on the Hutt Valley and Johnsonville Lines. At that point, we were informed that the speed restrictions would need to be in place for four weeks until KiwiRail repaired its Track Evaluation Car (TEC) and conducted necessary evaluations of the rail line.

On Friday 28 April 2023, Metlink agreed with our rail operator, Transdev, to implement a reduced timetable (based on the Saturday timetable) starting on the following Monday, 1 May 2023, with the intent to continue adding services to the timetable as the week went on. This plan meant there would possibly be changes to the timetable every day, requiring system updates to the RTI displays on the platform every time we made the change and therefore risking delays on when that information would be visible to the customer. Therefore, Metlink decided to not continually update RTI and to replace the tracking information with a static message directing customers to the website or call centre. Even with this decision, some RTI platform boards remained locked in the scheduled status, requiring Metlink to raise tickets with our vendors and send them to repair the RTI displays. The regular rail timetable resumed on Thursday, 4 May 2023, and Metlink resumed our business-as-usual approach to RTI.

If you have any concerns with the decision(s) referred to in this letter, you have the right to request an investigation and review by the Ombudsman under section 27(3) of the Local Government Official Information and Meetings Act 1987.

Please note that it is our policy to proactively release our responses to official information requests where possible. Our response to your request will be published shortly on Greater Wellington's website with your personal information removed.
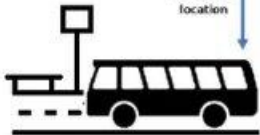
Nāku iti noa, nā

Fiona Abbott
Kaiwhakahaere Matua Waka-ā-atea | Acting Group Manager Metlink
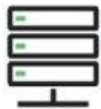
How our Realtime Information Works

GPS

Real time location

Updated location is sent to our Realtime system

Realtime Location

We use GPS to track the realtime location of our buses.

Realtime System

Using the location information received, the Realtime system calculates where the buses are on their route

Realtime Information

The Realtime System displays the results of its calculations on our Website, Commuter App, and Onstreet signs

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Realtime Sign

7	Kingston	Due ♿
7	Kingston	SCHED
25	Highbury	10min♿
7	Kingston	18min♿
25	Highbury	SCHED
7	Kingston	28min♿

Due — Service is due to arrive within 90 seconds

SCHED — This scheduled service is not currently tracking on GPS

CAN — This service has been cancelled

10min — This service is predicted to arrive in 10min

♿ — Wheelchair access available on this service

******IMPORTANT******

Traffic conditions (i.e traffic lights, congestion) and technical limitations can impact the accuracy of the Realtime information. Buses running more than 10 mins late can cause services to countdown on the sign then drop off without warning

Can't see your bus?

If your service isn't tracking on realtime it's likely not running.

You can track your service on:
• Metlink Commuter App
• Metlink.org.nz/#realtime

Alternatively call: 0800 801 700