NZTA integration guidance for the EVRoam Consumer API

Thank you for your interest in consuming the EVRoam data from NZTA.

The below information is a brief overview of some of the key concepts from a development perspective to help you or your company consume the information from EVRoam. This document should not be the only source of information that you use. For more information about the API from a pure code perspective, please see the information in the EVRoam Developer Portal.

NOTE: Only data that meets the NZ Government PCI (Public Charging infrastructure) standard will be available via the Consumer API. If you know of a physical charger that is not appearing in the list, it is highly likely that it doesn't meet the criteria for safe, reliable and interoperable infrastructure and is therefore supressed. You can see the full guidelines or check out our FAQ page for further information.

Types/method of integration

There is currently only one recommended method of integration, which is to create a local cache of the charging infrastructure and perform a sync process to keep the data up to date.

Realtime/just-in-time integration is not recommended as there is currently only one mechanism of calling a specific charger, site, or connector – by using its unique ID. A geospatial search has currently not been developed.

There are a few things to remember when using a local cache of EVRoam information:

1. Deleted Records

Records are typically marked or flagged as 'deleted' in the EVRoam database. This gives you the opportunity to match the record(s) against your cache and deal with them as appropriate in your application.

There is an ability to do a hard delete against the record which will mean it will not show through the Consumer API ever again – this process will not happen before the record is marked as deleted to ensure you have adequate time to deal with the records.

2. If-Modified-Since Header

The If-Modified-Since header attribute can be populated which will return all records that have changed since the date provided. This is handy to use on a scheduled base sync process. This is available in the GET Site and GET ChargingStation operations.

NOTE: All dates are UTC

3. Push Notifications

Push notifications will be sent every 5 mins with a JSON payload of the records that have changed in that time window.

NOTE: This is only a snapshot of the changes, and will not have a history of changes for a record during that time.

The JSON payload will have the full information stored in a downloadable file.

The file will have a lifetime of ~approx. 1 hour, after which it will be deleted.

Integration Expectation

At this early stage of the EVRoam database, it is critical that good integration patterns are used that will be scalable for you or your company in the future – as well as being sustainable from the NZTA perspective.

The recommended integration method from NZTA is that consumers create a local cache of the EVRoam data, and then use either the Push Notifications, or If-Modified-Since header on a periodic timer, to keep the local cache in sync via delta changes.

NZTA would not expect or recommend that you call the Consumer API for all the data, and then perform a mass sync process. Although this may be fine for the current levels of the EVRoam data, it is not scalable nor sustainable in the future, especially if we consider things like rate limiting, quotas, etc.