

# SSDF Segment Manager APIs

For reference

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*Please note this is an archive of the NZTA InfoConnect webpage available for existing users' reference. This API is no longer available for new account requests.*

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## Getting Started: What is the SSDF Segment Manager API?

Version: 3.0.0  
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The NZTA SSDF Segment Manager (SM) is a component of SSDF which uses traffic flow measurements from SSDF to estimate the time required for vehicles to travel along sections of major transport routes within the Auckland region. It:

- calculates the total time required to travel along a group of sections (known as a journey); and
- provides facilities for maintaining the application data it uses.

The Segment Manager is accessible through a web interface (known as the Segment Manager 'web application').

Traffic flow information can be accessed by other applications through Segment Manager's webservice API (or feed).

**The routes available include:**

State Highway Routes
• SH1
• SH16
• SH18
• S20
• SH20A
• SH20B

Sign Posted Arterial Routes	
• R04 Dominion Road	• R28 Coatesville-Riverhead Highway
• R05 Ellerslie Panmure Highway	• R29 Oteha Valley Road
• R06 Eastern route (CBD to Otahuhu)	• R30 Te Irirangi and Cavendish drives
• R07 Tamaki Drive	• R31 Dairy Flat Highway
• R08 Ti Rakau Drive-Harris Rd-East Tamaki Rd	• R32 Hobsonville Road
• R09 Great North Road	• R33 Whangaparaoa Road
• R10 Mt Albert to South Eastern Arterial (SEART)	• R34 Ormiston and Sandstone roads
• R11 Blockhouse Bay Road	• R35 Maoro-Tiverton-Wolverton-Clark-Great North
• R12 CBD – Auckland Airport	• R37 Wiri Station-Mill-Cosgrave roads

- R13 Te Atatu – Edmonton - Henderson Valley
- R14 Mangere and Massey roads
- R15 Godley and Hillsborough roads
- R17 Roscommon and Weymouth roads
- R19 Lincoln Road
- R21 East Coast Road-Wairau Road
- R25 Greville Rd-East Coast Road
- R26 Wairau Rd-Devonport
- R27 Onewa Road
- R80 Great North Road
- R81 Great North Road
- R82 Highbrook Drive
- R83 Neilson Street
- R84 SH1 to Neilson St
- R85 Onehunga Wharf Rd
- R86 Wairau Road
- R87 Queen Street
- R99 SW interchange-Sandringham Road-Bond St

## Accessing and using the data

On 16 May 2012, SSDF 6 was added. This is a new request format that developers should be familiar with.

### SSDF 2 SOAP

<https://infoconnect1.highwayinfo.govt.nz/ic/jbi/SsdfJourney2/SOAP/FeedService/main.wsdl>

To successfully call the external SOAP feeds, a ws-security token containing the users' credentials must be included in the SOAP header. A ws-security token looks like:

```
<wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
```

```
  <wsse:UsernameToken>
```

```
    <wsse:Username>...</wsse:Username>
```

```
    <wsse:Password Type="PasswordText">...</wsse:Password>
```

```
  </wsse:UsernameToken>
```

```
</wsse:Security>
```

There will now be 7 SOAP operations in total, but only 4 operations require some form of parameter to be included in the request. Here are example values:

findJourneyByReference:

```
<ssd:findJourneyByReference>
```

```
  <ssd:reference>AKL-SH1-NB-RNM</ssd:reference>
```

```
</ssd:findJourneyByReference>
```

findJourneysByType:

```
<ssd:findJourneysByType>
```

```
  <!--Zero or more repetitions:-->
```

```
    <ssd:typelds>3</ssd:typelds>
```

```
  <ssd:typelds>4</ssd:typelds>
```

```
  <ssd:typelds>5</ssd:typelds>
```

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```
</ssd:findJourneysByType>
```

findSegmentByReference:

```
<ssd:findSegmentByReference>  
  <ssd:reference>0492</ssd:reference>  
</ssd:findSegmentByReference>
```

findSegmentsByType:

```
<ssd:findSegmentsByType>  
  <!--Zero or more repetitions:-->  
  <ssd:type>3</ssd:type>  
  <ssd:type>2</ssd:type>  
</ssd:findSegmentsByType>
```

The SSDF REST URLs have changed to comply with standards for accessing RESTful web services. Please refer to the **SSDF REST URL changes** document provided for usage instructions. Note that authentication credentials should still be added as request HEADERS as before.

## SSDF 2 REST

<https://infoconnect1.highwayinfo.govt.nz/ic/jbi/SsdfJourney2/REST/FeedService/> (old way)

The addition of the 6 new methods for SSDF v2 comes with changes to how the REST feeds URL should be accessed. This is in following with industry standards and best practices for providing resources via RESTful web services.

## SSDF Resources

The old way of accessing SSDF2 rest was via this URL form:

**http://<server\_name>:<port>/<context>/jbi/SsdfJourney2/REST/FeedService/**

The new URLs will now include resource names and optional parameters following the **/FeedService/** portion of the resource path.

### Journey By Reference

**.../FeedService/journey/xxxx** (where *xxxx* is a journey reference value)

### All Journeys

**.../FeedService/journeys**

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### **Journeys By Type**

**.../FeedService/journeys?type=xxxx&type=yyyy&type=zzzz** (where **type** is a query parameter which can have multiple values (array). If no type is provided, this URL becomes a call to **All Journeys.**)

### **All Links**

**.../FeedService/links**

### **All Segment Types**

**.../FeedService/segmentTypes**

### **Segments By Type**

**.../FeedService/segments?type=xxxx&type=yyyy&type=zzzz** (where **type** is a query parameter which can have multiple values (array))

### **Segment By Reference**

**.../FeedService/segments/xxxxx** (where **xxxxx** is a segment carriageway segment id value eg.

**.../FeedService/segments/134**)

User-friendly error messages have been added for guidance on correct usage for cases such as invalid URL or missing parameters.

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