



National Service Indicator XML Feed

Developer's Guide

Version 1.4

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1 Introduction

1.1 Overview

This document has been prepared to provide users with a documented schema of the National Service Indicator XML feed which will be distributed to existing and prospective users of the XML feeds.

This document contains the following information:

- High level description of XML feed contents
- Information about the XML feed (i.e. how it is accessed and how long it is cached)
- Outline schema (how the feed is structured and what XML tags it contains)
- Description of the XML tags
- High level user guide (how to interpret the XML tags)

1.2 Audience

This document is to be used by National Rail Enquiries and existing and prospective users of XML feed. This document will be updated and distributed following any future update of the XML schema.

2 Outline Schema

2.1 Overview

This chapter defines the structure, and provides a high level description, of the NSI XML tags. The information contained in each XML tag is described.

Where a tag is marked mandatory, consumers can rely upon the presence of this tag. Tags not marked mandatory are optional, i.e. consumers should not rely on these elements existing. Sub-tags marked as mandatory are only mandatory if their parent tag exists.

Where a tag is marked multiple, this means that this tag can be repeated, tags not marked as multiple will not be repeated (albeit that the legacy schema may define that they can).

Within each table of tags and sub-tags, each grouped set of tags (i.e. the root tag and its children) is marked in the same background colour (which alternate).

Please note that this document does not fully define all data types.

NB: No XML Schema (XSD) exists for this feed.

2.2 <NSI>

Tags	Sub tags/Values
<TOC> (multiple)	See 2.3

2.3 <TOC >

Contains the tags that describe the service indicator for each Train Operating Company (TOC).

Tags	Sub tags/Values
<Code>	2 character TOC code
<Name>	Shows the TOC descriptive name
<Status>	Shows the status of the TOC's NSI
<StatusImage>	Shows the name of the status icon (not full url)
<StatusDescription>	Contains the description of the status
<ServiceGroup> (multiple)	<GroupName>, <CurrentDisruption>, <CustomDetail>, <CustomUrl>
<GroupName>	The service group descriptive name
<CurrentDisruption>	The unique ID of the service disruption associated to the group
<CustomDetail>	Details of the service group
<CustomUrl>	URL to the service disruption
<TwitterAccount>	Name of the twitter account specified in the CMS
<AdditionalInfo>	Top level additional information regarding the service status.
<CustomAdditionalInfo>	More detailed additional information.

2.4 Sample XML Feed File

Appendix A shows a sample National Service Indicator XML File

3 XML Feed Configuration

3.1 Overview

This chapter describes how the XML feeds are configured and the process for changing this configuration.

3.2 Configuration

The XML feeds are configured using REST web services utilising Microsoft WCF. The web services are responsible for managing incoming requests for XML Feeds, and replying with the correct response.

WCF configuration determines the URL patterns that can be used to request a particular XML feed. For example the following URLs can be used to request the National Service Indicator (NSI) XML feeds.

All Service Indicators:

```
/xml/30/serviceIndicators.xml
```

Service Indicator by TOC code:

```
/xml/30/serviceIndicators-???.xml
```

Changes to configuration will need to be authorised by National Rail Enquires and the consumers of the XML feeds will need to be notified of any changes that may affect their current systems.

3.3 Restricting Access to the XML Feeds

Access to the XML feeds is controlled by the National Rail Enquires firewalls which are located at the hosting provider's two sites. If a new client requires access to the XML feeds they must request that their server's IP addresses are added to the firewalls. This request should be made to National Rail Enquires.

3.4 Pulling the XML Feed Data

The XML feed is configured to stay in the server cache for 1 minute, after which it is refreshed.

It's entirely up to the site taking the feed to define how often it's polled. Rather than re-querying the entire feed, the Last-Modified response header can be queried to determine if the feed data has been updated.

4 Using the XML Feed

4.1 Accessing the XML Feeds

The Service indicators XML feeds can be accessed by requesting the following URLs;

4.1.1 All Service Indicators

The all service indicators XML feeds contain the full list of service indicators for all Train Operating Companies;

<http://internal.nationalrail.co.uk/xml/30/serviceIndicators.xml> - Production

<http://int.web.kb.awsre.co.uk/xml/30/serviceIndicators.xml> - Staging

4.1.2 Service indicator by Train Operating Company (TOC) Code

The TOC service indicator XML feeds contain the service indicator for the specified TOC code. The “??” in the following URLs should be replaced by the required TOC two letter code;

<http://internal.nationalrail.co.uk/xml/30/serviceIndicators-??.xml> - Production

<http://int.web.kb.awsre.co.uk/xml/30/serviceIndicators-??.xml> - Staging

5 Documentation Details

5.1 Document Version

Version	Date	Modified by
1.0	03/06/2013	Maria Mlynarska
1.1	07/06/2013	Neil Fursey
1.2	22/07/2013	Neil Fursey
1.3	23/07/2013	Neil Fursey
1.4	05/05/2015	Lindsay Bleakley

Appendix A. Sample NSI XML File

A.1 Sample NSI XML File

```
<?xml version="1.0" encoding="utf-8"?>
<NSI xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://nationalrail.co.uk/xml/serviceindicator">
  <TOC>
    <Code>AW</Code>
    <Name>Arriva Trains Wales</Name>
    <Status>Good service</Status>
    <StatusImage>icon-tick2.png</StatusImage>
    <TwitterAccount>NRE_ArrivaWales</TwitterAccount>
    <AdditionalInfo>
      <![CDATA[ Follow us on Twitter ]]>
    </AdditionalInfo>
  </TOC>
</NSI>
```

```
</TOC>
<TOC>
  <Code>FC</Code>
  <Name>First Capital Connect</Name>
  <Status>Minor delays on some routes</Status>
  <StatusImage>icon-note-noshadow.png</StatusImage>
  <ServiceGroup>
    <GroupName>Watton-at-Stone</GroupName>
    <CurrentDisruption>
      9E39F387F54549988F1A72E49B2C4387
    </CurrentDisruption>
    <CustomDetail>
      <![CDATA[ Read about this disruption ]]>
    </CustomDetail>
  </ServiceGroup>
  <ServiceGroup>
    <GroupName>Moorgate</GroupName>
    <CurrentDisruption>
      5466E300A4B847B28D0213C88236D844
    </CurrentDisruption>
    <CustomDetail>
      <![CDATA[ Read about this disruption ]]>
    </CustomDetail>
  </ServiceGroup>
  <TwitterAccount>NRE_FirstCC</TwitterAccount>
  <AdditionalInfo>
    <![CDATA[ Latest travel news ]]>
  </AdditionalInfo>
</TOC>
</NSI>
```