CLG Fire and Rescue Service (FRS)

Incident Recording System

Web Services Guide
v1-0i

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1 Introduction

1.1 Background

CLG's Fire and Rescue Service Directorate (FRSD) is implementing a new web-enabled IT system which will modernise the collection and subsequent statistical handling and publication of incident data from the Fire and Rescue Service.

The project will provide the 60+ Fire and Rescue Services in the UK with a fully tested and piloted means of collecting, validating and transmitting data to CLG on all incidents 'attended' by the Fire and Rescue Service.

To support the new database the Fire Statistics and Research Division has developed associated XML Information Model and XML Schemas, which will be used in transferring incident data between FRS's and the CLG. In order to transfer data two data capture methods have been defined for the new system: Online Forms and XML Web Services.

1.2 Objectives

The aim of this report is to document the XML Web Services defined to support automated real time B2B integration capture of Fire and Rescue (FRS) Incidents from FRS systems directly.

The Web Services document describes the services provided along with the supporting operations and message exchanges. The document describes the relationships between the various service message exchanges and the XML document structures defined as XML schemas. These message definitions reuse data structures from the underlying XML Schemas.

The XML Information Model document and the XML Schemas themselves support this document. The XML Information Model document defines the detail of the Incident Schemas and their associated data structures. For full details of the supporting XML Information model refer to the 'FRS Incident Schema – XML Information Model' document. It is recommended that the XML Information Model document should be read after reading this document. The XML Schemas can be inspected with an XML tool such as XMLSpy, or by viewing the generated Schema documentation.

Note: It is assumed that the audience reading this document will have basic knowledge of XML, Web Services and relevant XML Standards.

1.3 Outstanding Issues

None.

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2 Services Overview

This section examines the Web Services that will be provided by the Incident Recording System (IRS). An overview is provided of the Services, the Service Interactions provided (Operations) and the supporting message exchanges.

Before describing the service interactions an overview is provided of an Incident.

2.1 Incident Overview

The Incident is the core business object at the top level and contains all the information that defines the Incident data. Each Incident contains a unique identifier structure, consisting of an 'IncidentId' (generated by the IRS system), 'FRSIncidentNumber' (expected to be defined by a FRS Command and Control system), and a 'NationalStatisticsNumber' (IRS system Published identifier). There are also supporting details such as: Audit details (who created and last updated) and ResponsibleParty details (who is responsible for recording the incident).

An Incident has a main Incident location and the ability to define different locations for situations where vehicles are 'deployed from' and 'deployed to'. This allows for incidents where vehicles are deployed from other incidents, their home station or another address location. Each location can define an addressable location (property) or geo-coordinates as appropriate.

It is possible for an Incident to appear to be one type from the initial mobilisation call e.g. Fire, when in fact it turns out to be another e.g. False Alarm, and so each Incident stores separate information about the 'Incident At Call' and the 'Incident On Attendance'. The first contains information that can typically be captured by the FRSs command and control system at the time of the call and until the incident is closed, such as: the mobilisation incident type, origin of call, time incident closed.

The majority of the detailed information about an Incident is only available once the command FireOfficer has recorded information at the scene, and so is stored within the IncidentOnAttendance structure. Each Incident will always be defined as a 'Fire', 'SpecialService' or 'FalseAlarm', and require particular data sections to be captured within the Incident document.

For Fires, a large amount of additional information is required within the Primary Fire details section, much of which is dependent on the category of property involved (e.g. 'Dwelling', 'NonResidential' building, 'RoadVehicle', etc.). These details are contained within a choice structure with only one of them present for a particular Incident.

The detailed Evacuation and Victim information is typically required for Fires and Special Services and is contained within the InvolvmentOfPersons structure within the IncidentOnAttendance structure, and records detailed information about each victim and their type: Fatality, Injury (Casualty) or Rescued (Uninjured).

The 'ResourceUsage' class contains details on all FRS vehicles (appliances) deployed, equipment used, and FireOfficers involved in the Incident. There can be any number of these associated with each Incident.

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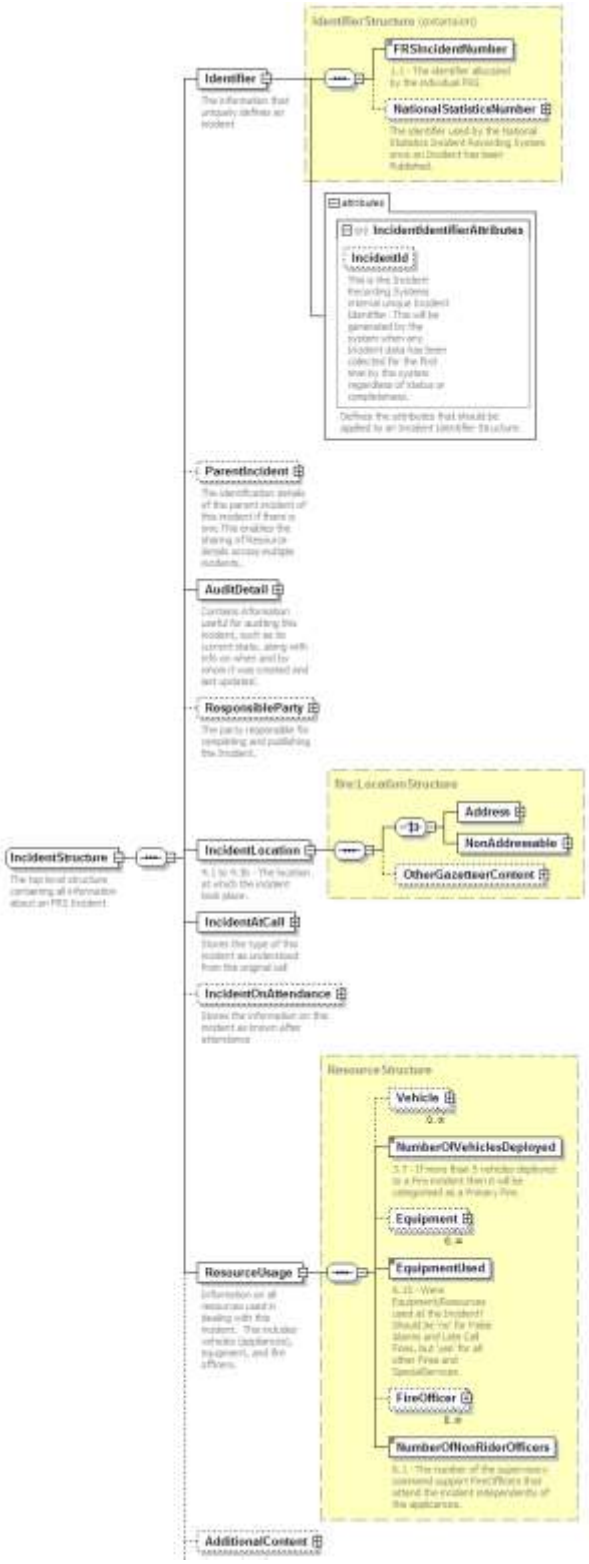
For full details of the actual data stored in each of the data structures refer to the 'FRS Incident Schema – XML Information Model v1-0' document. The following diagram highlights the main data structures within the primary Incident data structure.



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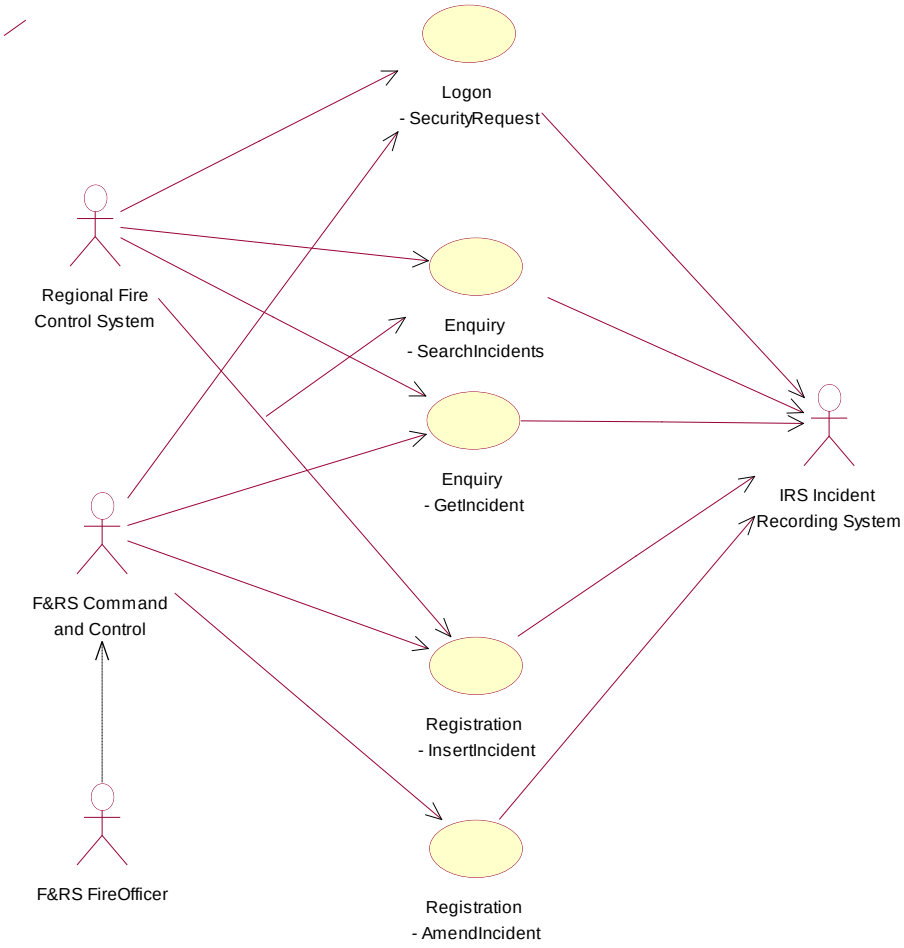
2.2 Service Interactions

This section provides a brief overview of the IRS Incident services provided for FRS organisations and the future Regional Fire Control System.



As there could be a number of people and systems accessing and maintaining an Incident during its existence, it becomes important to consider a real-time integration scenario. The IRS Online Forms feed valid XML documents into the Incident Recording System via the IRS Web Services.

It is important to ensure that when planning to process an Incident that the most recent instance is processed. It is anticipated that this would be recorded centrally within the IRS systems operational data store.

The following sub-sections define each of the services provided by the IRS system.

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2.2.1 Security Request

This service enables FRS to logon and logoff to the IRS system before using any of the specific services on offer.

- **SecurityRequest** — **Logon -** The FRS User ID and Password are used for authentication. If the service response is successful a Security Token will be returned. The Security Token would then be used to confirm identity for each of the subsequent service request.
- **SecurityRequest** — **Logoff -** As well as a logon capability a logoff request can be made. This requires the same authentication mechanism as all the other main service operations, i.e. by supplying a valid Security Token.

Note: FRS will need to identify that they wish to use the Web Service in advance, in order that the relevant details can be set-up with the relevant service authorisation details.

2.2.2 Enquiry

These service operations allow enquiries to be made against the IRS system. The FRS can perform the following operations:

- **SearchIncidents** — Allows the search and return of zero, one or more Incident summary details currently registered on the IRS database for a selected FRS.
- **GetIncident** — Allow the return of a single Incident with full detailed information currently registered on the IRS database. Note: This should be used prior to any amendment operation.

2.2.3 Registration

This is the core set of service operations provided for registering Incidents on the IRS database. It enables the insertion of and management of Incidents. The FRS can perform the following operations:

- **InsertIncident** — Insert an Incident with relevant details. It is possible that only a subset of information need be provided if recording an Incident just after it has been stopped/closed. Please refer to the Incident Status values later in this document, which explain the control of the major data structures.
- **AmendIncident** — Amend an Incident with all Incident details. For example, adding 'IncidentOnAttendance' information recorded by a FireOfficer, or altering the Incident Status to 'Published'.

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3 Web Services Architecture

This section's principal purpose is to provide an overview of the technical environment and various standards adopted for the Web Services implementation.

3.1 Connectivity Details

The IRS services are designed to enable FRS to extend their own enterprise systems, by connecting with the IRS system across the Internet based on industry standards. The IRS services will be connected via a Web Application Server with a secured Internet connection.

Note: A detailed 'Connection Test Pack' document is available to define the relevant URL's for testing and production along with recommended test scenarios for the FRS community.

3.1.1 Communication Protocols

The IRS service operations are XML SOAP based interactions using the secure HTTPS transport protocol. This is for two primary reasons: a) supplying user authentication details b) Personal information can be contained in the Incident that requires protection.

Note: The services are not planned to be connected via a secure extranet network infrastructure based on a Virtual Private Network (VPN).

3.1.2 Security Protocols

The HTTPS SSL 3.0 transport protocol will be adopted and uses server side digital certificates, but does not require the use of client-side certificates such as those required by PKI schemes.

3.2 XML Standards

3.2.1 WS-I Standard Profiles

The web services are designed to adhere to the Web Services Interoperability Standard body (WS-I) Basic Profile v1.1 and the Basic Security Profile v1.0. The following communication protocols are restrictions that have been applied to the basic profile:

HTTPS 1.1.	Hypertext Transfer Protocol -- HTTP/1.1
SSL	The SSL Protocol Version 3.0

3.2.2 XML Encoding and Namespace Standard

The XML documents exchanged are based on the 'UTF-8' standard and generally have whitespace removed, except where specifically required within the IRS schemas.

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The IRS services adopt a number of namespaces within a typical message instance. It is important to note that namespaces are important elements of document based XML message services. For further details on the usage of namespaces refer to the following standards:

- Namespaces W3C XML Namespaces
- XPath XML Path Language

The recommended namespace prefixes used throughout and their associated Uri's are listed below. Note that the choice of any namespace prefix is arbitrary and not semantically significant.

Category	Use	Namespace Prefix and URL
FRS Incident Recording System	Default Incident Namespace	xmlns="http://www.fire.gov.uk/schemas/Incident" xmlns:irs="http://www.fire.gov.uk/schemas/Incident" targetNamespace="http://www.fire.gov.uk/schemas/Incident"
	FRS Community wide content (Fire Control Conformance details)	xmlns:fire="http://www.fire.gov.uk/schemas"
e-GMS	Standard Metadata	xmlns:gms="http://www.govtalk.gov.uk/CM/gms"
	Standard Metadata for Schemas	xmlns:gms-xs="http://www.govtalk.gov.uk/CM/gms-xs"
GovTalk Schemas	Address and Personal Details	xmlns:apd="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
	People, Person Descriptions	xmlns:pdt="http://www.govtalk.gov.uk/people/PersonDescriptives"
	Bs7666 Address	xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666"
W3C	XML	xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
WS-I	Basic Profile	xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:http="http://schemas.xmlsoap.org/wsdl/http/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/" xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
WS-Security	Security Profile	xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wst="http://schemas.xmlsoap.org/ws/2005/02/trust"

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3.3 Schema Implementation Details

The full set of XML Artefacts (XSD's, XML Instances, WSDL's, etc.) is provided as a pack. The details below define the best practises and techniques applied to construct the artefacts.

3.3.1 E-Government Schema Guidelines

All the message definitions use root elements defined within the Incident Messages schema. These elements reuse data structures defined in the XML Information Model, which comply with version 3 of the UK GovTalk XML Schema Guidelines, and have been validated using the schemaQA.xslt stylesheet.

For further information on GovTalk standards refer to:

- http://www.govtalk.gov.uk/schemasstandards/developerguide.asp
- e-Government Schema Guidelines for XML
  http://www.govtalk.gov.uk/documents/schema-guidelines-3_1(1).pdf
- e-GIF Technical Standards Catalogue Version 6.1
  http://www.govtalk.gov.uk/schemasstandards/egif_document.asp?docnum=910

All schemas also contain a metadata section that is based on the Government Metadata Standard:
(http://www.govtalk.gov.uk/documents/eGovMetadataStandard%2020040429.pdf)

3.3.2 Fire and Rescue Schema Guidelines

All the schemas and XML artefacts used to represent the Web Services and XML Information Model comply with the Fire and Rescue e-Transformation XML Standards:

- e-Fire XML Information Model Guidelines and Best practices:
  http://www.e-fire.gov.uk/download/53
  http://www.e-fire.gov.uk/download/62

3.3.3 Message and Architectural Schemas

The FRS Incident schemas have been constructed using separate Message and Architectural schemas. For the IRS system the FRSIncidentMessages-v1-0.xsd schema is the only schema that contains root elements that will be used within SOAP-ENV:Body payloads for Service Operations within the WSDL definition. An additional schema is used to define the security / authentication details that are used within the SOAP-ENV:Header. These services use the WS-Security definition for basic user based authentication.

The rest of the schemas provide complex data structures and simple types that are used within the message schemas to create the required Incident structure. This has been designed to maximise the possible re-use of the data structures.

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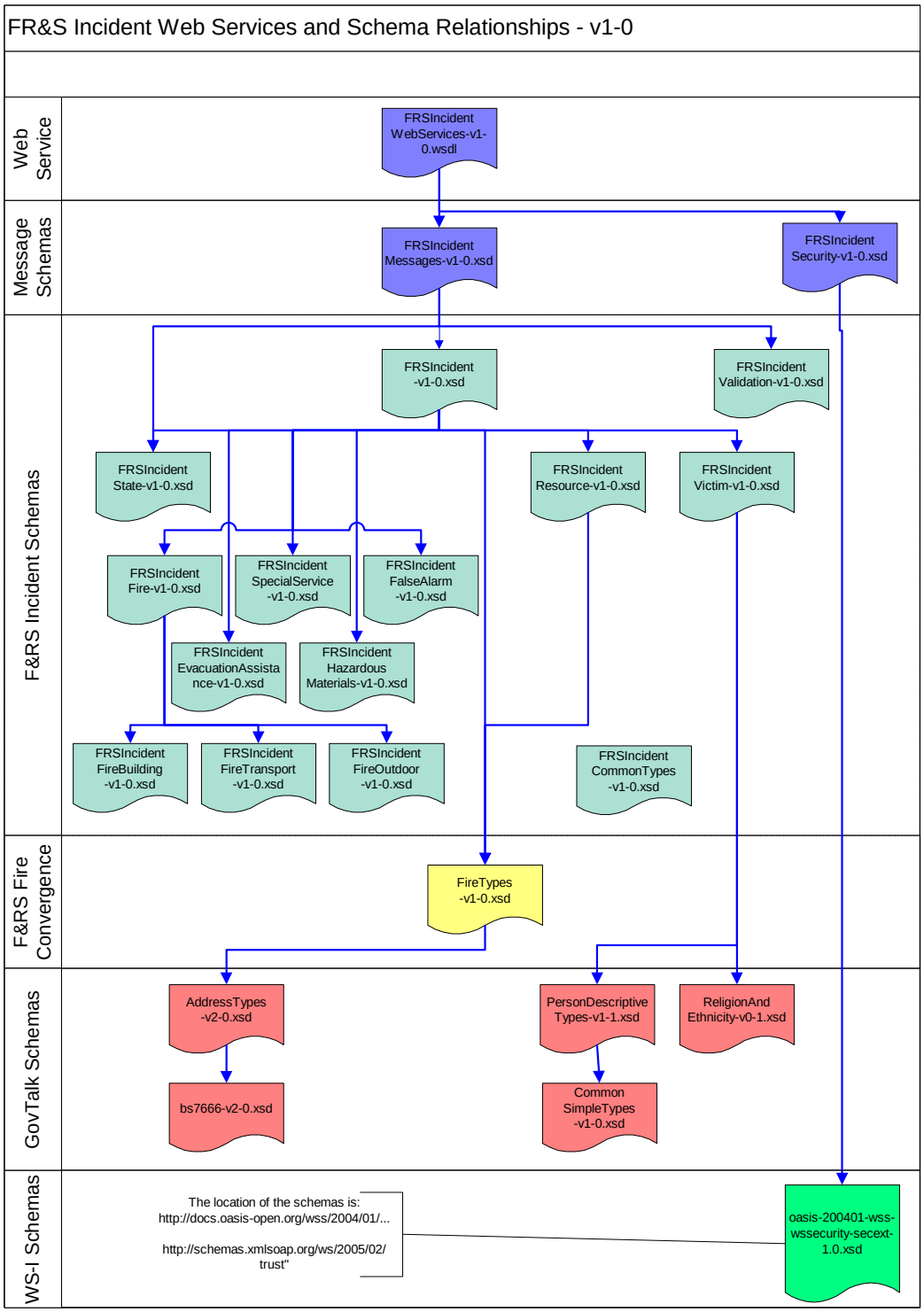
3.3.4 Schema Relationships

The diagram below illustrates the primary relationships of the XML Schemas that are consumed by the Web Services Definition (WSDL). Not all relationships have been applied for the Common Types XSDs as they are used in a large number of schemas and the diagram would lose value.



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3.3.5 Data Binding Considerations

It is known that some 'data binding' frameworks have problems with some of the GovTalk Schema structures, for example the bs7666 schema. These problems are largely due to the limited capabilities of the 'data binding' frameworks rather than the XML schemas themselves. Problems usually occur in the areas of: Same element repeated in choice structures, element constraints (validation, size, patterns, etc.). It is also known that some do not handle namespaces correctly.

The .NET 2.0 Framework is anticipated as the most common development environment for the FRS community. Due to limitations in the wsdl.exe tool in particular, two WSDLs are provided. A 'flexible' WSDL to avoid potential data-binding issues and a 'strict' WSDL that may require minor adjustments to the complete generated data binding code.

The current 'flexible' WSDL is: FRSIncidentWebServices-v1-0.wsdl

The current 'strict' WSDL is: FRSIncidentWebServices-v1-0-Strict.wsdl

The current WSDL and FRSIncidentMessages schema (FRSIncidentMessages-v1-0.xsd) are the core documents for a developers use. The WSDL defines the operations and request and response root elements for the SOAP payloads. The FRSIncidentMessages schema defines the content and structure of each of the root elements defined in the WSDL. The FRSIncidentMessages Schema should be used for validating content passed in the SOAP payload.

The .NET wsdl.exe provided with a "Strict" WSDL tightly-coupled to the FRSIncidentMessages Schema automatically generates full data binding code, which is not always required if a developer is adopting a "Document-Centric" approach.

The "Flexible" WSDL has the same definition as the "Strict", but doesn't have the full Schemas definition for each request and response messages linked into the WSDL by including the FRSIncidentMessages Schema directly. To get round the wsdl.exe generation option limitations a temporary FRSIncidentMessagesEmpty-v1-0.xsd Schema has been adopted. Once the wsdl.exe is enhanced in the future this schema will be removed and the WSDL will be superseded by the "Strict" WSDL currently used internally with the FRSIncidentMessages Schema.

This means the "Flexible" WSDL can be used to generate proxies only.

If a developer is applying a "document-centric" approach to the Incident Service Messages, then the "Flexible" WSDL can be used to reduce the code generated by WSDL based code generator.

If a developer is applying a "code-centric" approach to the Incident Service Messages, then the 'Strict' WSDL can be used to generate full class data bindings.

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3.3.6 Automatic Proxy Generation

The WSDL's and Schemas have been tested with what are believed to be the primary Web Service/SOAP Toolkits to be used by the FRS community.

Microsoft .NET - The software build tested was Microsoft .NET SDK v2.0 – 2.0.50727.42

The following is the command syntax:

wsdl.exe /v /sharetypes /edb /si /o:<output_filename> http://localhost:7070/IRS_Incident_v1-0i/xsd/FRSIncidentWebServices-v1-0-Strict.wsdl

Below is an example command:

wsdl.exe /v /sharetypes /edb /si /o:FRSIncidentWebServices -v1-0-Strict.cs <DirectoryLocation>/<wsdlFile>

Note: The wsdl.exe needs the WSDL and schemas to be located on a web server to enable the 'sharetypes' attribute to operate correctly.

J2EE Axis1 & Axis2

The WSDLs have been tested with the most common Java implementations – Axis 1.4 and Axis 2.

Axis 1.4 (Latest & Final version) - The following is the command syntax:

WSDL2Java <DirectoryLocation>/<wsdlFile> **-v -o** <output-location>\src\

An Example:

WSDL2Java C:\jprogramfiles\tomcat-design\webapps\IRS_Incident_v1-0i\xsd/FRSIncidentWebServices-v1-0-Strict.wsdl **-v -o** C:\jprograms\axis-bin-1_4\axis-1_4\src\

Axis 2.0 v1.0 has a new data-binding framework (ADB), which implements approximately 80% of the Schema specification. Axis 2.0 WSDL2Code.bat can only be used with the "Flexible" Schema to generate proxies at this time.

WSDL2Code -uri <DirectoryLocation>/<wsdlFile> **-g -ss –o** <output-location>\src\

An Example:

WSDL2Code –uri C:\jprogramfiles\tomcat-design\webapps\IRS_Incident_v1-0i\xsd/FRSIncidentWebServices-v1-0.wsdl **-g –ss -o** C:\jprograms\axis2-std-1.0-bin\bin\src\

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4 General Message Exchange Structures

This section provides details relevant to the general structure and usage of the XML messages exchanged for each of the Service Operations. The **SOAP-ENV:Header** will contain only W3C or OASIS based Web Services standards to control process interactions, while the **SOAP-ENV:Body** will contain application-oriented documents to be processed.

4.1 SOAP Envelope Structure

The structures of all request and response messages exchanged with the IRS system are based on a standard SOAP Envelope:

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
        …
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        …
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

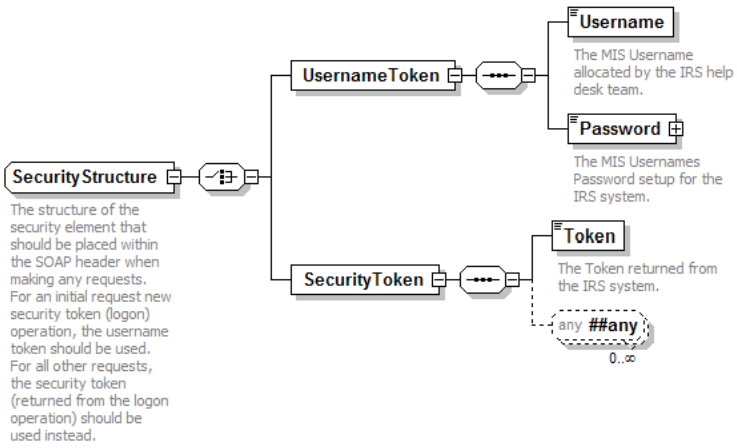
For the IRS system the **SOAP-ENV:Header** element is used to communicate information that is relevant to security authentication information only.

The **SOAP-ENV:Body** element is used to transport data relevant to the particular message interaction (e.g. InsertIncidentDetailsRequest).

4.2 SOAP Header Details

4.2.1 Security - Authentication Details

This section contains the security authentication details that are exchanged with each message within the **SOAP-ENV:Header**. The logon operation sends a 'UsernameToken' and receives a 'SecurityToken' that then needs to be used with each subsequent message exchange.



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The authentication schema details are defined in the FRSIncidentSecurity-v1-0.xsd.

The authentication details ensure that the accessing party is able to access the IRS system based on a uniquely allocated **SecurityToken** (possibly a Session identifier).

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <SecurityToken>ASecurityTokenString </SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        …
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

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4.3 SOAP Body Details

4.3.1 Main Payload Details

This section contains the payload (data) relevant for a particular Service Operation, for example: **InsertIncidentDetails**.

4.3.2 SOAP Fault Details

All critical (or 'fatal') system errors detected by the IRS service will be returned as SOAP faults as indicated by the WS-I profile definition. Faults detected in the incoming document will be described using the default **SOAP-ENV:Fault** mechanism. The WS-I Basic Profile 1.1 restricts **SOAP-ENV:Fault** children to unqualified **faultcode, faultstring, faultactor**, and **detail** elements as shown in the example below:

```
<SOAP-ENV:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Body>
        <SOAP-ENV:Fault>
                <faultcode>soap:Client</faultcode>
                <faultstring>User must have a valid Logon User and Password Combination</faultstring>
                <detail>
                <SoapExceptionDetail xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
                    <ErrorCode>1001</ErrorCode>
                    <Description>User must have a valid Logon User and Password Combination</Description>
                </SoapExceptionDetail>
                </detail>
        </SOAP-ENV:Fault>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

SOAP Fault details are returned for system errors that prevent the system from processing the request due to a major problem (see error categorisations in the following section). For example, if the error is related to an incorrect message request (see example above).

It should be noted that the IRS Service interactions could return many detailed Incident registration validation errors, warnings or information details. These specific details are returned within the context of the payload data, for example the InsertIncident operation errors will be located within the InsertIncidentDetailsResponse as **Validation/Errors**. This enables the errors to be considered in relation to the incident data in the payload.

For further details on the 'Validation' structure please refer to the following section. For further details on the categorisation of errors refer to the Appendix in the 'XML Information Model' document for the validation categorisation and the list of business logic rules and associated error numbers and categories.

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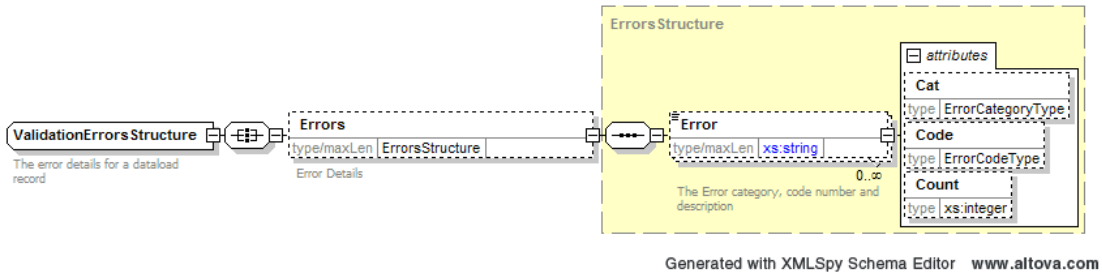
4.3.3 Validation Error Details

If there are non 'Fatal' errors returned form the web service there will be a Validation data structure returned. The Validation structure has the following schema definition:



When an Incident request is performed the IRS system validation engine will perform various validation checks depending on the action requested and whether the Validation engine has been activated. The system records zero, one or more "Validation Errors" within the GET, SEARCH, INSERT or AMEND Incident Details documents returned in the response. This allows the application errors to be reviewed against the request data that was processed by the IRS system.

The errors could consist of different categories (Cat) of errors – 'Fatal', 'Error', 'Warning' and 'Information'. 'Fatal' and 'Error' categories will prevent the Incident request from being applied successfully to the IRS database. In addition the INSERT and AMEND incident requests have a further ValidationStatus field. If the ValidationStatus is set to 'Full' (the default option) for the IRS then incident records can not be successfully set to an IncidentStatus of '60=Recorded' or higher if there are outstanding 'Warnings'. This scenario will be identifiable when a specific 'Error' 3949 is generated.

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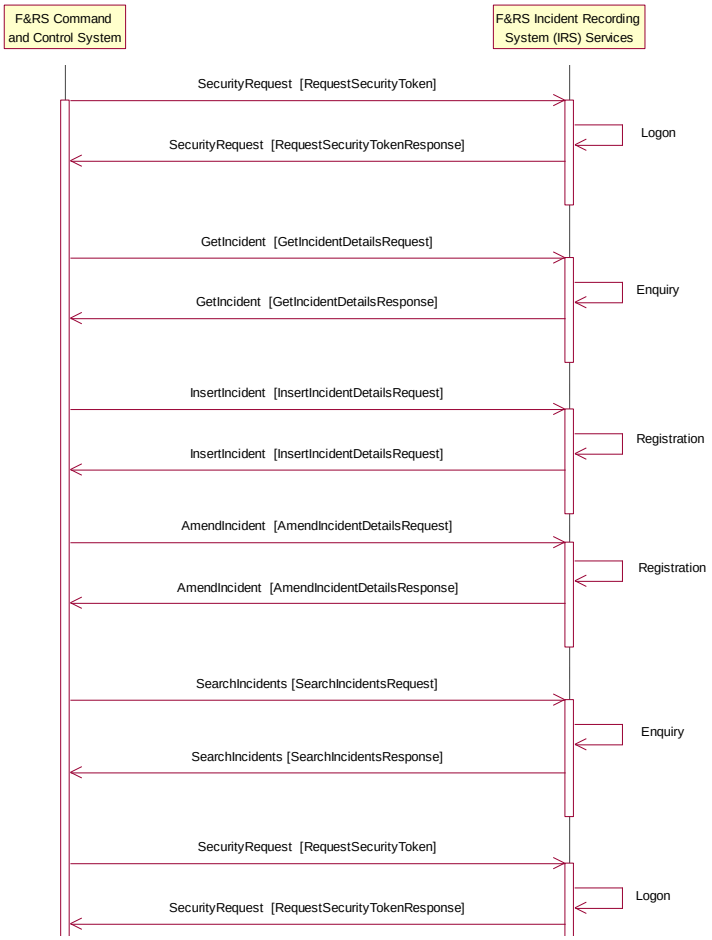
5 Service Interaction Details

The following diagram illustrates the Services that will be provided by the IRS system and the operations and input and output details (message schema parts exchanged).

The diagram defines the following elements:

- **Services** provided by the IRS system
- **Operations** supported within the Services (arrows)
- **Messages** [ ] = the data payloads elements from the Message and Security schemas

The diagram highlights the typical order of a series of logical service interactions to be processed. Firstly, a logon must occur to obtain a SecurityToken. Secondly, one or more requests for Search, Get, Insert or AmendIncident requests as appropriate. Finally, a logoff to close the Security Session.



The following sub-sections examine each Service and it's Operations.

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5.1 Logon : SecurityRequest (logon)

5.1.1 Security Request Details

This section contains the payload (data) relevant for the Security Token Request needed to logon to the IRS system. The Username and Password values used for authentication are placed in the Security section of the **SOAP-ENV:Header**. The RequestType value in the main payload should be set as shown below to indicate that a new SecurityToken should be issued.

Note: The user-id and password will need to be obtained from the IRS system administrators.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:UsernameToken>
                <wsse:Username>MyUsername</wsse:Username>
                <wsse:Password>MyPassword</wsse:Password>
            </wsse:UsernameToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <wst:RequestSecurityToken xmlns:m="http://schemas.xmlsoap.org/ws/2005/02/trust">
            <wst:RequestType>http://schemas.xmlsoap.org/ws/2005/02/trust/Issue</wst:RequestType>
        </wst:RequestSecurityToken>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

5.1.2 Security Response Details

This section contains the payload (data) relevant for the Security Token Response returned for a successful logon.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <wst:RequestSecurityTokenResponse xmlns:m="http://schemas.xmlsoap.org/ws/2005/02/trust">
            <wst:RequestedSecurityToken>
                <Token>YourSecurityToken</Token>
            </wst:RequestedSecurityToken>
        </wst:RequestSecurityTokenResponse>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The details returned (The contents of the RequestedSecurityToken element) will need to be retained for exchanging within the SOAP-ENV:Header for the subsequent service requests.

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5.2 Logon : SecurityRequest (logoff)

5.2.1 Security Request Details

This section contains the payload (data) relevant for the SecurityRequest to logoff from the IRS system. To be able to undertake a logoff operation (cancel a SecurityToken) a valid SecurityToken needs to be provided within the SOAP-ENV:Header, as with all other operations to authenticate the user. The main payload must contain the RequestType element with the value shown below to indicate that the Security Token should be cancelled. The CancelTarget element should contain the actual Security Token to cancel. This should be the same token as provided in the SOAP-ENV:Header Security section.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:SecurityToken>
                <Token>YourSecurityToken</Token>
            </wsse:SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <wst:RequestSecurityToken xmlns:m="http://schemas.xmlsoap.org/ws/2005/02/trust">
            <wst:RequestType>http://schemas.xmlsoap.org/ws/2005/02/trust/Cancel</wst:RequestType>
            <wst:CancelTarget>
                <Token>YourSecurityToken</Token>
            </wst:CancelTarget>
        </wst:RequestSecurityToken>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

5.2.2 Security Response Details

This section contains the payload (data) relevant for the Security Request Response for a logoff. This just indicates that the requested token has been cancelled correctly.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <wst:RequestSecurityTokenResponse xmlns:m="http://schemas.xmlsoap.org/ws/2005/02/trust">
            <wst:RequestedTokenCancelled/>
        </wst:RequestSecurityTokenResponse>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

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5.3 Registration : InsertIncident

5.3.1 Insert Incident Request

This section contains the payload (data) relevant for the Insert Incident Request. Most of the details of the data that must be captured for various types of Incidents are defined in the XML Information Model document. The details discussed below are those that are important to the workflow aspects of interacting with the IRS system.

5.3.1.1 Incident Status

The Incident status is contained within the Audit Details Structure. The various status values are defined below:

Status Code	Status Description	Notes
0	Cancelled	Allows for an Incident to be Cancelled. These will not be used for Statistics purposes.
20	Mobilised	The IncidentAtCall information can start to be captured at this stage. Note: It is possible that the first three status values will not be populated for an Incident.
30	Arrived at Scene	Note: Unlikely to be used.
40	Under Control	Note: Unlikely to be used.
50	**Closed (Mobilise data captured)**	**The Incident has been Closed/Completed.** **All the 'IncidentAtCall' information must be completed on the Incident for this status value to be set. It is anticipated that the Command and Control System should capture the Resource Usage details at this time.** **Note: The future Regional Command system will capture all the Resource details and IncidentAtCall data.**
55	Closed with Queries (Mobilise data captured)	The same as status 50, but it is already known that there are queries resulting from the Incident.
60	**Recorded**	**Incident fully recorded after the event by the FireOfficer.** **All the 'IncidentOnAttendance' information must be completed on the Incident for this status value to be set. This Includes: ResourceUsage, Victims, Fire/Special Service/False Alarm specific details, etc.** **Note: If any Incident has any errors then the status cannot be set to 'Published' and stored on the IRS Published Database for statistical use.**
65	Recorded with Queries	Incident recorded after the event by the FireOfficer, but there are some queries to be reviewed before it can be published to CLG.

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Status Code	Status Description	Notes
70	**Published**	**Incident quality assured and ready for Publication.** **It is possible that some FRS's will have a quality assurance team who review all Incidents before the Statistics Division can publish them for use.**
75	Published with Conditions	QA'd e.g. Awaiting coroners report
80	Queried by National Statistics	National Statistics Team has raised a query regarding the Incident published by the FRS.
90	Closed by National Statistics	National Statistics Team have audited & closed the Incident. The Incident is now part of the National Statistics.

Note: The appropriate usage of the status values may vary depending on the business process and procedures defined at each FRS. The Incident Status values that will be most often used by FRS's will be: 50, 60 and 70.

Note: It is not possible for FRS's to INSERT or AMEND a record to the IRS system with an IncidentStatus of 80 or 90. Only CLG staff can set these status values.

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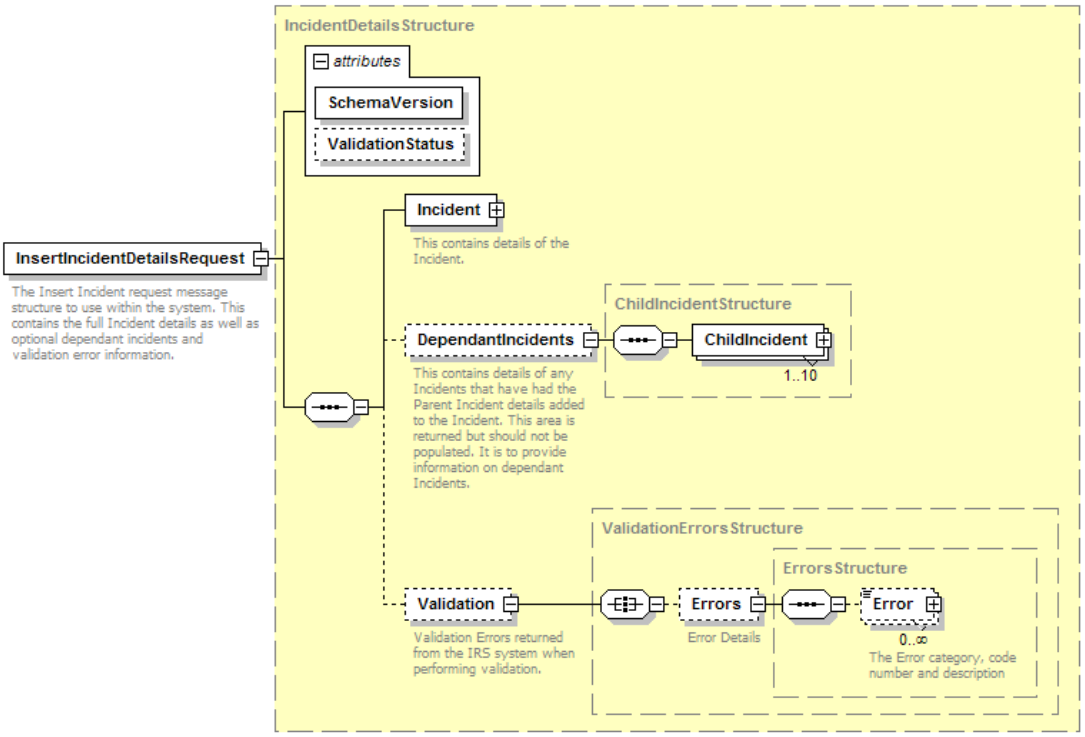
5.3.1.2 Common Incident Details Structure

The InsertIncidentDetailsRequest, InsertIncidentDetailsResponse, AmendIncidentDetailsRequest and AmendIncidentDetailsResponse messages use the same Message structure. The diagram below highlights the high-level data structures involved.



The 'Incident' details are the primary data to be populated by the user of the Web Service. Please refer to the 'XML Information Model' document for the full details of how to populate the Incident Schemas structure.

In order to control some of the web service processing of a request it is necessary to set two key attributes for the service request:

- **SchemaVersion** — Defines the version of the schemas to be used – In this case 'v1-0'. This value is currently defaulted.
- **ValidationStatus** — Defines the validation to be performed on the Incident. The 'ValidationStatus' can be set to 'Auto-Save / Basic / Full'. The value will be defaulted to 'Full' unless specifically set.

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The ValidationStatus values have the following meaning:

- **'Full'** – the Incident will undertake or has passed the full complex validation and business logic performed by the IRS systems validation engine. Please refer to the 'XML Information Model' document for further details. In particular the business rules applied in Appendix E.
- **'Basic'** – the Incident should meet the validation requirements of the XML Schemas defined by the 'XML Information Model' document and key data integrity checks.
- **'Auto Save'** - the Incident data is simply a well-formed XML document, but schema validation has not been applied. Note: The 'Auto-Save' will enable the Online Forms software to control the validation to be undertaken dependant on the buttons pressed – This is primarily to enable a temporary save capability for 'work in progress'.

Note: If a XML Data Channel request is made the 'ValidationStatus' cannot be 'Auto-Save' or 'Basic'. Of set to one of these values then a SOAP Fault Error will be returned.

Note: It will not be possible to set an Incident Status to '70=Published' or higher without the Validation Status being 'Full'.

Note: It is not possible to INSERT a record to the IRS system with an 'IncidentStatus' of '80=Queried by National Statistics' or '90=Closed by National Statistics'. Only CLG staff can set these status values.

When the response is returned for an Insert or Amend request the 'Validation' section will be populated within any 'Errors', 'Warnings' or 'Information' details based on the Validation Engines processing. For each error an Error Category, Number and Description will be returned.

Note: The response could also contain details of 'DependantIncidents' if the Incident has 'child' Incidents linked. This will not be populated at present as the Parent/Child links for Incidents are not currently supported.

5.3.1.3 Fire Incident Recording

The Message below shows a basic InsertIncidentDetailsRequest/Response for a Primary Fire Incident, which is the most complex data structure.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:m0="http://www.fire.gov.uk/schemas"
xmlns:m1="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
xmlns:m2="http://www.govtalk.gov.uk/people/bs7666"
xmlns:m3="http://www.govtalk.gov.uk/people/PersonDescriptives">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:SecurityToken>ASessionTokenString</wsse:SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
```

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```
<InsertIncidentDetailsRequest xmlns="http://www.fire.gov.uk/schemas/Incident"
xmlns:core="http://www.govtalk.gov.uk/core" xmlns:fire="http://www.fire.gov.uk/schemas"
xmlns:gms="http://www.govtalk.gov.uk/CM/gms" xmlns:gms-xs="http://www.govtalk.gov.uk/CM/gms-xs"
xmlns:apd="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
xmlns:pdt="http://www.govtalk.gov.uk/people/PersonDescriptives"
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
ValidationStatus="Full" SchemaVersion="v1-0">
    <Incident>
        <Identifier>
            <FRSIncidentNumber>2007-87630</FRSIncidentNumber>
        </Identifier>
        <AuditDetail>
            <IncidentStatus>50</IncidentStatus>
        </AuditDetail>
        <IncidentLocation>
            <fire:Address Validation="not-checked">
                <bs7666:PAON>
                    <bs7666:StartRange>
                        <bs7666:Number>2</bs7666:Number>
                    </bs7666:StartRange>
                </bs7666:PAON>
                <bs7666:StreetDescription>London Road</bs7666:StreetDescription>
                <bs7666:Locality>Knowle</bs7666:Locality>
                <bs7666:Town>Solihull</bs7666:Town>
                <bs7666:AdministrativeArea>West Midlands</bs7666:AdministrativeArea>
                <bs7666:PostTown>Solihull</bs7666:PostTown>
                <bs7666:PostCode>B93 8QT</bs7666:PostCode>
            </fire:Address>
        </IncidentLocation>
        <IncidentAtCall>
            <MobiliseIncidentType GenericType="F">36</MobiliseIncidentType>
            <PriorityAtCall>2</PriorityAtCall>
            <LateCall>no</LateCall>
            <TimeOfCall>2005-10-17T05:45:47.0Z</TimeOfCall>
            <OriginOfCall>3</OriginOfCall>
            <TimeStoppedMobilising>2005-10-17T06:15:47.0Z</TimeStoppedMobilising>
            <TimeIncidentClosed>2001-10-17T07:30:47.0Z</TimeIncidentClosed>
            <OverTheBorder>no</OverTheBorder>
        </IncidentAtCall>
        <IncidentOnAttendance>
            <IncidentCategory>Fire</IncidentCategory>
            <PriorityOnAttendance>2</PriorityOnAttendance>
            <PropertyType PropertyCategory="Dwelling" IsPropertyRegulated=”yes”>10</PropertyType>
            <Fire>
                <IsPrimaryFire>yes</IsPrimaryFire>
                <Cause>2</Cause>
                <IsDerelict>no</IsDerelict>
                <Building>
                    <NormalOccupationStatus>2</NormalOccupationStatus>
                    <IsOccupiedAtTimeOfIncident>yes</ IsOccupiedAtTimeOfIncident >
                    <IsChimneyFire>no</IsChimneyFire>
                </Building>
                <PrimaryFire>
                    <IsMultiSeated>no</IsMultiSeated>
                    <IsHeatSmokeDamageOnly>no</IsHeatSmokeDamageOnly>
                    <Discovery>
                        <IgnitionToDiscovery>2</IgnitionToDiscovery>
                        <DiscoveryToCall>3</DiscoveryToCall>
                        <HowDiscovered Other="">1</HowDiscovered>
                    </Discovery>
                    <CauseAndReason>
                        <MainCause Other="">5</MainCause>
                        <IgnitionSource Other="">51</IgnitionSource>
                        <IgnitionSourcePower Other="">3</IgnitionSourcePower>
                        <CausedBy>4</CausedBy>
                        <ItemFirstIgnited Other="Car crashed into Living Room">99</ItemFirstIgnited>
                        <ItemResponsibleForSpread>2</ItemResponsibleForSpread>
                        <RapidGrowth>3</RapidGrowth>
                        <DangerousSubstances>1</DangerousSubstances>
                        <ExplosionInvolved>no</ExplosionInvolved>
                    </CauseAndReason>
```

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```
                        <Action>
                            <StartingDelay>2</StartingDelay>
                            <MainActionNonFRS>1</MainActionNonFRS>
                            <MainActionFRS>2</MainActionFRS>
                            <ManualSystems>
                                <ManualSystemsUsed>no</ManualSystemsUsed>
                            </ManualSystems>
                            <BuildingFacilities>
                                <BuildingFacility>
                                    <Type>3</Type>
                                    <Used>yes</Used>
                                    <NotWorkingDueTo>3</NotWorkingDueTo>
                                </BuildingFacility>
                                <BuildingFacilitiesPresent>yes</BuildingFacilitiesPresent>
                            </BuildingFacilities>
                        </Action>
                        <Dwelling>
                            <SpecialConstruction>6</SpecialConstruction>
                            <EvacuationTime>2</EvacuationTime>
                            <EvacuationDelay>6</EvacuationDelay>
                            <SafetySystems>
                                <MeansOfEscape>1</MeansOfEscape>
                                <Compartmentation Other="Glass Walls">99</Compartmentation>
                                <AlarmSystemsPresent>
                                    <WereAlarmSystemsPresent>no</WereAlarmSystemsPresent>
                                </AlarmSystemsPresent>
                                <SafetySystemsPresent>
                                    <WereSafetySystemsPresent>no</WereSafetySystemsPresent>
                                </SafetySystemsPresent>
                            </SafetySystems>
                            <Damage>
                                <FireSizeOnArrival DistanceToAdjoiningProperty="1">3</FireSizeOnArrival>
                                <DamageRestrictedTo
DistanceToAdjoiningProperty="1">1</DamageRestrictedTo>
                                <FireDamageArea>3</FireDamageArea>
                                <TotalDamageArea>5</TotalDamageArea>
                                <OriginRoomSize>4</OriginRoomSize>
                                <OriginFloorSize>6</OriginFloorSize>
                            </Damage>
                            <FireLocation>
                                <FloorsAboveGround>3</FloorsAboveGround>
                                <FloorsBelowGround>1</FloorsBelowGround>
                                <FloorOfOrigin>1</FloorOfOrigin>
                            </FireLocation>
                            <FireStartLocation>59</FireStartLocation>
                            <CauseAndReason>
                                <OtherHumanFactor>7</OtherHumanFactor>
                                <SuspectedUnderInfluence>no</ SuspectedUnderInfluence>
                            </CauseAndReason>
                        </Dwelling>
                    </PrimaryFire>
                </Fire>
                <InvolvementOfPersons>
                    <EvacuationAssistanceInvolved>yes</EvacuationAssistanceInvolved>
                    <EvacuationAssistance>
                        <WithAssistance>0</WithAssistance>
                        <WithoutAssistance>0</WithoutAssistance>
                        <FRSAssistance>1</FRSAssistance>
                    </EvacuationAssistance>
                    <VictimsInvolved>yes</VictimsInvolved>
                    <Victims>
                        <Victim Id="1">
                            <Type>3</Type>
                            <LocationAtFireStart>4</LocationAtFireStart>
                            <WhereFound>1</WhereFound>
                            <Role>3</Role>
                            <PersonName>
                                <pdt:PersonNameTitle>Mr</pdt:PersonNameTitle>
                                <pdt:PersonGivenName>Alan</pdt:PersonGivenName>
                                <pdt:PersonFamilyName>Smith</pdt:PersonFamilyName>
                                <pdt:PersonNameSuffix/>
```

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```
                        </PersonName>
                        <Age>76</Age>
                        <Gender>1</Gender>
                        <Ethnicity>Irish</Ethnicity>
                        <WasRescued>yes</WasRescued>
                        <RescueDetails>
                            <Location>3</Location>
                            <By>2</By>
                            <Method>1</Method>
                        </RescueDetails>
                        <Fatality>
                            <Circumstances>2</Circumstances>
                            <CauseOfDeath Other="">4</CauseOfDeath>
                            <DeathCertificateMarker>3</DeathCertificateMarker>
                            <WasFireRelated>yes</ WasFireRelated >
                        </Fatality>
                    </Victim>
                </Victims>
                <AttackOnFirefightersInvolved>no</AttackOnFirefightersInvolved>
            </InvolvementOfPersons>
        </IncidentOnAttendance>
        <ResourceUsage>
            <Vehicle>
                <RCCcallsign>FFM02P1</RCCcallsign>
                <TimeMobilised>2001-12-17T09:30:47.0Z</TimeMobilised>
                <TimeMobile>2001-12-17T09:31:47.0Z</TimeMobile>
                <TimeAtScene>2001-12-17T09:32:47.0Z</TimeAtScene>
                <TimeAvailable>2001-12-17T09:33:47.0Z</TimeAvailable>
                <IsDemountable>no</IsDemountable>
                <NumberOfCrew>1</NumberOfCrew>
                <DeployedFrom>
                    <HomeStation>
                        <FRSId>FM</FRSId>
                        <StationId>FFM02</StationId>
                    </HomeStation >
                </DeployedFrom>
            </Vehicle>
            <NumberOfVehiclesDeployed>1</NumberOfVehiclesDeployed>
            <EquipmentsUsed>0</ EquipmentsUsed >
            <FireOfficer>
                <Callsign>FFMS006</Callsign>
            </FireOfficer>
            <NumberOfNonRiderOfficers>0</ NumberOfNonRiderOfficers>
        </ResourceUsage>
        <AdditionalInfo InfoType="Summary">Primary Fire - Residential Home</AdditionalInfo>
    </Incident>
    </ InsertIncidentDetailsRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The main sections of the Incident that will vary are in the area where the Fire data structure is populated above. This section is based on a structure defined by the 'IncidentCategory' for 'Fire', 'SpecialServices' and 'FalseAlarm' Incidents. For full details of the data that should be populated for each type of Incident refer to the 'XML Information Model' document.

The following two sub-sections highlight examples of a 'SpecialService' and a 'FalseAlarm' Incident.

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5.3.1.4 Special Service Incident Recording

The Message below shows a basic InsertIncidentDetailsRequest/Response for a Special Service Incident.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:m0="http://www.fire.gov.uk/schemas"
xmlns:core="http://www.govtalk.gov.uk/core"
xmlns:m1="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
xmlns:m2="http://www.govtalk.gov.uk/people/bs7666"
xmlns:m3="http://www.govtalk.gov.uk/people/PersonDescriptives">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:SecurityToken>ASessionTokenString</wsse:SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <InsertIncidentDetailsRequest xmlns="http://www.fire.gov.uk/schemas/Incident"
xmlns:fire="http://www.fire.gov.uk/schemas" xmlns:core="http://www.govtalk.gov.uk/core"
xmlns:gms="http://www.govtalk.gov.uk/CM/gms" xmlns:gms-xs="http://www.govtalk.gov.uk/CM/gms-xs"
xmlns:apd="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
xmlns:pdt="http://www.govtalk.gov.uk/people/PersonDescriptives"
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666" ValidationStatus="Full" SchemaVersion="v1-0">
            <Incident>
                <Identifier>
                    <FRSIncidentNumber>87630</FRSIncidentNumber>
                </Identifier>
                <AuditDetail>
                    <IncidentStatus>50</IncidentStatus>
                </AuditDetail>
                <IncidentLocation>
                    <fire:Address Validation="not-checked">
                        <apd:BS7666Address>
                            <bs7666:PAON>
                                <bs7666:Description>Another Cottage</bs7666:Description>
                            </bs7666:PAON>
                            <bs7666:StreetDescription>London Road</bs7666:StreetDescription>
                            <bs7666:Town>Solihull</bs7666:Town>
                            <bs7666:PostTown>Solihull</bs7666:PostTown>
                            <bs7666:PostCode>B93 8PP</bs7666:PostCode>
                        </apd:BS7666Address>
                    </fire:Address>
                </IncidentLocation>
                <IncidentAtCall>
                    <MobiliseIncidentType GenericType="HM">101</MobiliseIncidentType>
                    <PriorityAtCall>3</PriorityAtCall>
                    <LateCall>no</LateCall>
                    <TimeOfCall>2005-10-17T05:45:47.0Z</TimeOfCall>
                    <OriginOfCall Other="">2</OriginOfCall>
                    <TimeStoppedMobilising>2005-10-17T06:15:47.0Z</TimeStoppedMobilising>
                    <TimeIncidentClosed>2001-10-17T07:30:47.0Z</TimeIncidentClosed>
                    <OverTheBorder>no</OverTheBorder>
                </IncidentAtCall>
                <IncidentOnAttendance>
                    <IncidentCategory>SpecialService</IncidentCategory>
                    <PriorityOnAttendance>3</PriorityOnAttendance>
                    <PropertyType PropertyCategory="RoadVehicle"
IsPropertyRegulated=”no”>345</PropertyType>
                    <SpecialService>
                        <SpecialServiceType>131</SpecialServiceType>
                        <HazardousMaterialsInvolved>yes<HazardousMaterialsInvolved>
                        <HazardousMaterials>
                            <HazardousMaterial>
```

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```
                        <UNNumber>1045</UNNumber>
                        <ActionCode>1PE</ActionCode>
                        <IdentificationNumber>122</IdentificationNumber>
                    </HazardousMaterial>
                    <HazardousMaterial>
                        <UNNumber>1128</UNNumber>
                        <ActionCode>4X</ActionCode>
                        <IdentificationNumber>X12</IdentificationNumber>
                    </HazardousMaterial>
                </HazardousMaterials>
            </SpecialService>
        </IncidentOnAttendance>
        <ResourceUsage>
            <Vehicle>
                <Callsign>FFM01P2</Callsign>
                <TimeMobilised>2005-10-17T05:48:03.0Z</TimeMobilised>
                <TimeMobile>2005-10-17T05:49:47.0Z</TimeMobile>
                <TimeAtScene>2005-10-17T06:01:22.0Z</TimeAtScene>
                <TimeAvailable>2005-10-17T07:30:47.0Z</TimeAvailable>
                <IsDemountable>no</ IsDemountable >
                <NumberOfCrew>1</NumberOfCrew>
                <DeployedFrom>
                    <Location>
                        <fire:Address Validation="NLPG-check-valid">
                            <bs7666:PAON>
                                <bs7666:StartRange>
                                    <bs7666:Number>2</bs7666:Number>
                                </bs7666:StartRange>
                            </bs7666:PAON>
                            <bs7666:StreetDescription>String</bs7666:StreetDescription>
                            <bs7666:Town>String</bs7666:Town>
                            <bs7666:PostTown>String</bs7666:PostTown>
                            <bs7666:PostCode>A00 0AA</bs7666:PostCode>

    <bs7666:UniquePropertyReferenceNumber>1233</bs7666:UniquePropertyReferenceNumber>
                            <fire:Coordinates>
                                <bs7666:X>42945</bs7666:X>
                                <bs7666:Y>42995</bs7666:Y>
                            </fire:Coordinates>
                        </fire:Address>
                    </Location>
                </DeployedFrom>
            </Vehicle>
            <NumberOfVehiclesDeployed>1</ NumberOfVehiclesDeployed >
            <EquipmentUsed>no</EquipmentUsed>
            <NumberOfNonRiderOfficers>0</NumberOfNonRiderOfficers>
        </ResourceUsage>
        <AdditionalInfo InfoType="Summary">Special Service</AdditionalInfo>
    </Incident>
  </InsertIncidentDetailsRequest>
 </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

5.3.1.5 False Alarm Incident Recording

The Message below shows a basic InsertIncidentDetailsRequest/Response for a False Alarm Incident.

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```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:m0="http://www.fire.gov.uk/schemas"
xmlns:m1="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
xmlns:m2="http://www.govtalk.gov.uk/people/bs7666"
xmlns:m3="http://www.govtalk.gov.uk/people/PersonDescriptives" xmlns:core="http://www.govtalk.gov.uk/core">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:SecurityToken>ASessionTokenString</wsse:SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <InsertIncidentDetailsRequest xmlns="http://www.fire.gov.uk/schemas/Incident"
xmlns:fire="http://www.fire.gov.uk/schemas" xmlns:core="http://www.govtalk.gov.uk/core"
xmlns:gms="http://www.govtalk.gov.uk/CM/gms" xmlns:gms-xs="http://www.govtalk.gov.uk/CM/gms-xs"
xmlns:apd="http://www.govtalk.gov.uk/people/AddressAndPersonalDetails"
xmlns:pdt="http://www.govtalk.gov.uk/people/PersonDescriptives"
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
ValidationStatus="Full" SchemaVersion="v1-0">
            <Incident>
                <Identifier>
                    <FRSIncidentNumber>87630</FRSIncidentNumber>
                    <NationalStatisticsNumber>
                        <FRSId>FM</FRSId>
                    </NationalStatisticsNumber>
                </Identifier>
                <AuditDetail>
                    <IncidentStatus>70</IncidentStatus>
                    </AuditDetail>
                <IncidentLocation>
                    <fire:NonAddressable>
                        <fire:Coordinates>
                            <bs7666:X>100456</bs7666:X>
                            <bs7666:Y>655002</bs7666:Y>
                        </fire:Coordinates>
                    </fire:NonAddressable>
                </IncidentLocation>
                <IncidentAtCall>
                    <MobiliseIncidentType GenericType="CD">162</MobiliseIncidentType>
                    <PriorityAtCall>5</PriorityAtCall>
                    <LateCall>no</LateCall>
                    <TimeOfCall>2005-10-17T05:45:47.0Z</TimeOfCall>
                    <OriginOfCall Other="">1</OriginOfCall>
                    <TimeStoppedMobilising>2005-10-17T06:15:47.0Z</TimeStoppedMobilising>
                    <TimeIncidentClosed>2001-10-17T07:30:47.0Z</TimeIncidentClosed>
                    <OverTheBorder>no</OverTheBorder>
                </IncidentAtCall>
                <IncidentOnAttendance>
                    <IncidentCategory>FalseAlarm</IncidentCategory>
                    <PriorityOnAttendance>5</PriorityOnAttendance>
                    <PropertyType PropertyCategory="RoadVehicle"
IsPropertyRegulated=”no”>340</PropertyType>
                    <FalseAlarm>
                        <FalseAlarmReason>10</FalseAlarmReason>
                    </FalseAlarm>
                </IncidentOnAttendance>
                <ResourceUsage>
                    <NumberOfVehiclesDeployed>0</ NumberOfVehiclesDeployed >
                    <EquipmentUsed>no</EquipmentUsed>
                    <NumberOfNonRiderOfficers>0</NumberOfNonRiderOfficers>
                </ResourceUsage>
                <AdditionalInfo InfoType="Summary">False Alarm from Fire Call</AdditionalInfo>
                </Incident>
        </InsertIncidentDetailsRequest>
    </SOAP-ENV:Body>
```

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```
</SOAP-ENV:Envelope>
```

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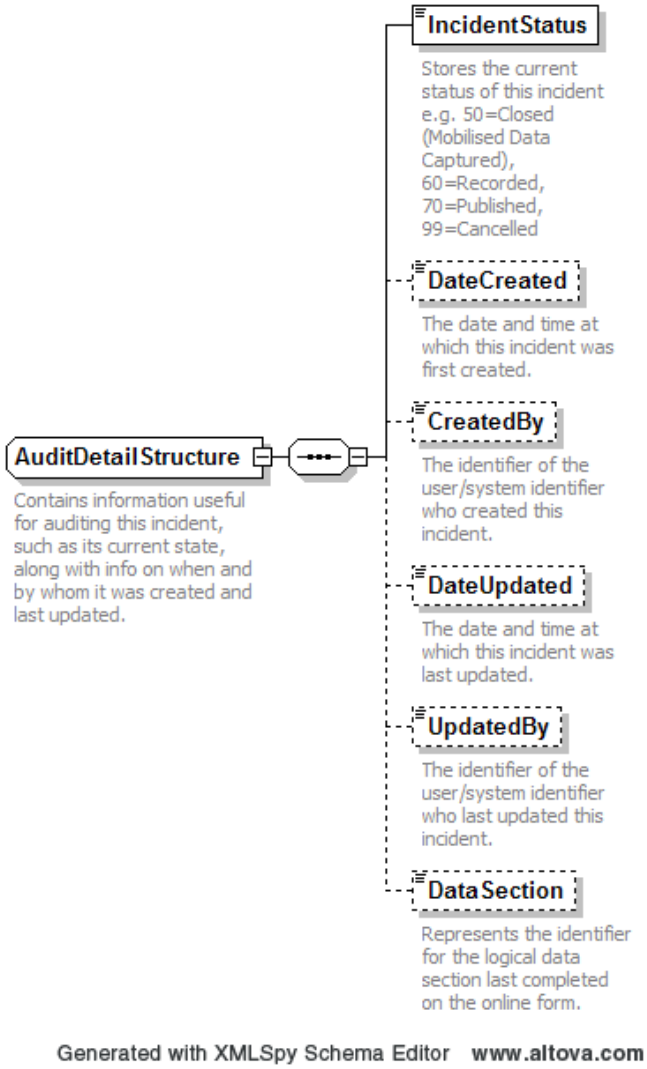
5.3.2 Insert Incident Response

This section contains the payload (data) relevant for the Insert Incident Response.

The response message is based on the same core IncidentDetails structure as the InsertIncidentDetailsRequest. The key difference is that various sections of data will be populated by the IRS system based on the success or failure of the Request.

5.3.2.1 Audit Details

If the Request was successful then most of the details will be populated within the Audit Details Structure of the response. The primary details that will be populated by the IRS system are the Created, Last Updated and Data Section details.



The Audit Details are very important as the 'DateUpdated' (Timestamp) is used by the IRS system to check when an Amendment is sent to the IRS system. The primary check is that the sender is updating the Incident with the same Update details. If they

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are not then the Amendment would be rejected with an 'Error' 2009. This is because the Incident could have been updated via an alternate access channel (web service or online form).

The IRS system will populate the Update details for any successful response (Insert or Amendment). The GetIncident operation will also return the most up-to-date details.

Note: The IRS system will store an entire copy of the Incident record for each Insert or Amendment within an Audit log record. Those details (or versions) are not recorded in the Incident, as they are not relevant for the primary business processes covered in this document. By storing an entire copy of the Incident document processed by the IRS system, comparisons can be made against the audit log versions. The Incident returned via the web service will always be the current version.

Note: The IRS system will create all the elements of the NationalStatisticsNumber when an Incident has been 'Published' and exported to the 'Published' Database for statistics purposes. At this point future retrieval requests for the Incident would return the fully populated NationalStatisticsNumber.

Note: The IRS system will create the FRSId within the ResponsibleParty if the user does not populate the value directly. The FRSId will be defaulted from the user authentication details obtained after a successful SecurityRequest (Logon) operation.

5.4 Registration : AmendIncident

5.4.1 Amend Incident Request

This section contains the payload (data) relevant for the AmendIncidentDetails Request. The details are exactly the same as an InsertIncidentDetailsRequest.

The Amend will generally be used to add further details captured after the Incident has closed, addressing validation errors or changing the status of the Incident as it has been completed by the FRS and is then 'Published' as available for use within National Statistics Published Database.

Note: An Amendment will be an entire copy of the Incident with full details supplied. As more than one system or person can Amend an Incident independently, it is recommended that a 'GetIncident' is performed and then the necessary Amendment details overlaid on the Incident returned. This will allow the Web Service to check the Audit Details when an Amendment is requested.

5.4.2 Amend Incident Response

This section contains the payload (data) relevant for the Amend Incident Response.

The response message is based on the same common IncidentDetails structure as the InsertIncidentDetailsRequest and Response.

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5.5 Enquiry : GetIncident

5.5.1 Get Incident Request

This section contains the payload (data) relevant for the GetIncidentDetailsRequest. The only details required are the Incident Identification. The requester must provide either the IncidentId, FRSIncidentNumber and/or the NationalStatsticsNumber details. One of the following elements must be supplied:

- The FRSIncidentNumber is the FRS specific identifier (most likely to be the FRS Command and Control system identifier)
- IncidentId – The IRS systems internal unique identifier.
- The NationalStatisticsNumber - The FRSId identifies the appropriate FRS. This value is checked against the Incident being retrieved and the authentication details from the logon to ensure the FRS has the necessary permissions to retrieve the data. The Nominal Year and Sequence Number are only populated by the IRS system if the Incident has completed the 'Publication' process. The FRSId values are based on the Regional Fire Control Convergence definitions and can be found in the Appendix defining the IRS system drop-down lists of the 'XML Information Model' Document.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:SecurityToken>ASecurityTokenString</wsse:SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <GetIncidentDetailsRequest xmlns="http://www.fire.gov.uk/schemas/Incident" SchemaVersion="v1-0">
            <FRSIncidentNumber>5485837245</FRSIncidentNumber>
        </GetIncidentDetailsRequest>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

5.5.2 Get Incident Response

This section contains the payload (data) relevant for the GetIncidentDetailsResponse.

The response message is based on the same IncidentDetails structure as the InsertIncident and AmendIncident Request and Response, with the exception that the various sections are optional as an Incident my not be matched and returned.

Note: The GetIncident always returns the current version of the Incident on the IRS system. It is assumed that the IRS system will always hold the current version as the central master data store. This technique has been adopted to avoid considerations of specifying and requesting various versions of an Incident.

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5.6 Enquiry : SearchIncidents

5.6.1 Search Incidents Request

This section contains the payload (data) relevant for the Search Incidents Request.

Search Criteria - The SearchIncidentsRequest has the following search request criteria:

- **IncidentDateRange** – StartDateTime and EndDateTime. Both values will be mandatory and include Date and/or Time values. The Time values will be optional. The StartDateTime must be less than the EndDateTime. The DateRange will be applied to selecting Incidents based on the DateRangeType. The DateRangeType will have the following values: "TimeOfCall" or "LastUpdated". The default will be "TimeOfCall".
- **IncidentStatus (From To Range)** – The Incident Status range required. The schema default values select all Status values '0' to '90'.
- **ByFRS** – Allows all Incidents either in an FRS Territory or recorded by an FRS over the border. The user can optionally filter by StationId if required.
- **ByTerritoryCategory** – Allows Incidents to be selected by territory and whether over the border or not. The user can use the Territory identifiers, Recording (ResponsibleParty) identifers and optionally the over the border indicators.
    - **Identifiers** – At least one of the following fields must be entered: Identifier – SearchIdentifierStructure (IncidentId, FRSIncidentNumber, NationalStatisticsNumber – FRSId) or ResponsibleParty structure.
    - **ResponsibleParty** – FRSId, StationId and/or FireOfficer User Id that the incident has been allocated for recording and completion.
    - **OverTheBorder** – OverTheBorder indicator and optional OverTheBorderFRSIncidentNumber.

Search Filters – Any number of the following filters can be applied in order to restrict the data returned based on the SearchCriteria above:

- **Postcode** (Postcode of Incident Location)
- **IncidentCategory** (Fire, Special Service or False Alarm)

Note: The SearchFilters are all optional.

Search Control - Control information with respect to the sequence of matching records to be returned.

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- **PageSize** – This will be used to define how many Incident records should be returned by the search per page. This field will be mandatory field that cannot exceed 500. The default value will be 50.

- **PageNumber** – This will be used to define which page of records should be returned for a page. If left empty then the first page of the search criteria results will be returned. If set to a number the search service will bring back that particular page of data within the matching search criteria. This field will need to be incremented if paging through a large set of matching records.

- **OrderSearchBy** – Allows a field to be selected that defines the sorting field for the results set returned.

- **OrderingType** – Allows the field above to be ordered 'Ascending' or 'Descending'.

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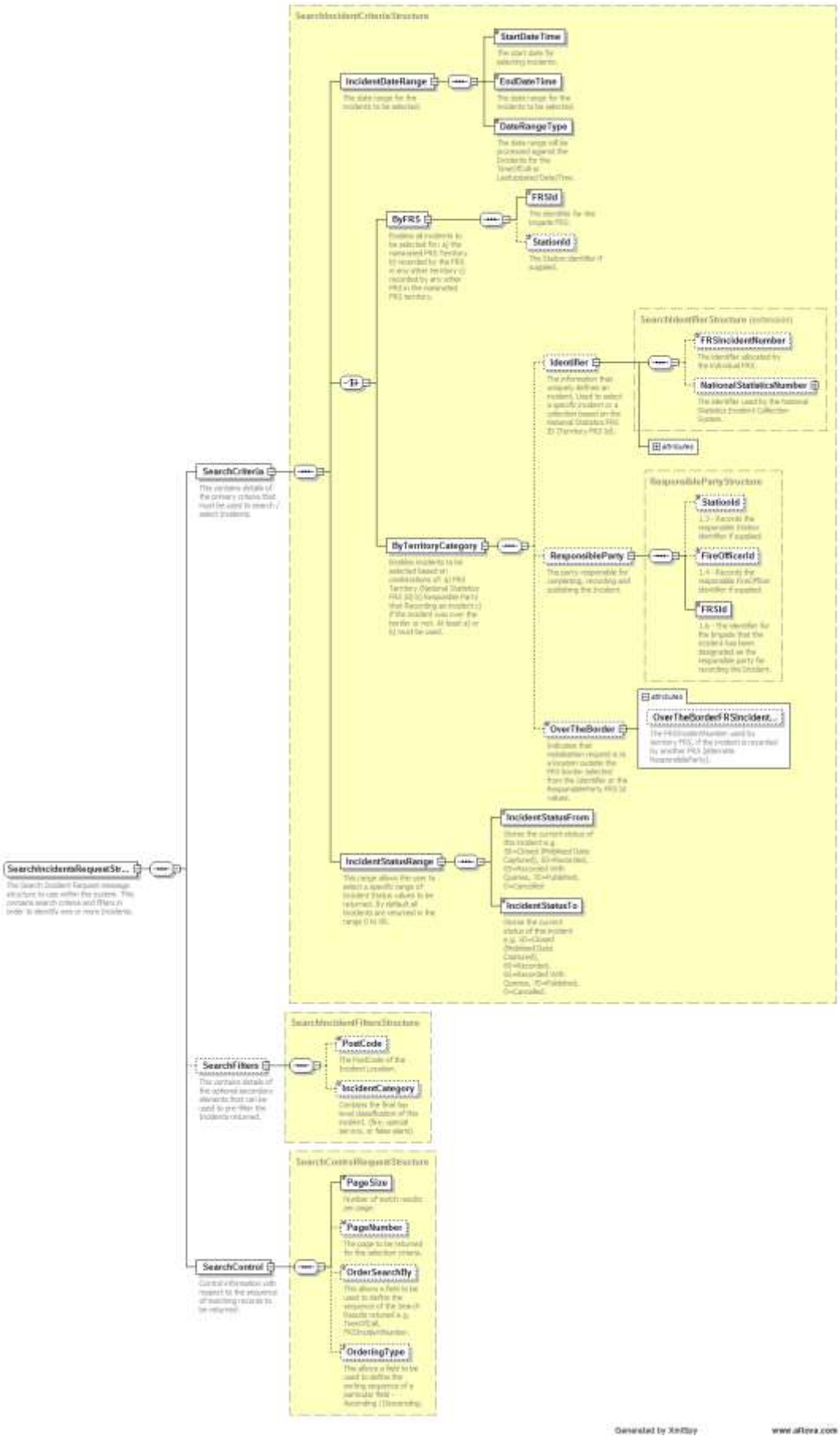

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```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Header>
        <wsse:Security xmlns:m="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
            <wsse:SecurityToken>YourSecurityToken</wsse:SecurityToken>
        </wsse:Security>
    </SOAP-ENV:Header>
    <SOAP-ENV:Body>
        <SearchIncidentsRequest xmlns="http://www.fire.gov.uk/schemas/Incident" SchemaVersion="v1-0">
            <SearchCriteria>
                <IncidentDateRange>
                    <StartDateTime>2005-12-01T00:00:00.0Z</StartDateTime>
                    <EndDateTime>2005-12-01T23:59:59.9Z</EndDateTime>
                    <DateRangeType>TimeOfCall</DateRangeType>
                </IncidentDateRange>
                <ByFRS>
                    <FRSId>FM</FRSId>
                </ByFRS>
                <IncidentStatusRange>
                    <IncidentStatusFrom>0</IncidentStatusFrom>
                    <IncidentStatusTo>90</IncidentStatusTo>
                </IncidentStatusRange>
            </SearchCriteria>
            <SearchFilters>
                <IncidentCategory>Fire</IncidentCategory>
            </SearchFilters>
            <SearchControl>
                <PageSize>20</IPageSize>
                <OrderSearchBy>TimeOfCall</ OrderSearchBy >
                <OrderingType>Ascending</ OrderingType >
            </SearchControl>
        </SearchIncidentsRequest>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

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5.6.2 Search Incidents Response

This section contains the payload (data) relevant for the SearchIncidentsResponse. There may be zero, one or more records returned that match the Search Criteria and Filters.

The response message has many of the same fields as the Request structure, but with a number of additional fields:

- **Identifiers** - SearchIdentifierStructure – IncidentId, FRSincidentNumber and NationalStatisticsNumber – FRSId, NominalYear, SequenceNumber.
- **ParentIncident** - IdentifierStructure – as above.
- **AuditDetails (Basic)** - DateUpdated, UpdatedBy, DataSection, IncidentStatus only.
- **ResponsibleParty** - ResponsiblePartyStructure – FRSId, StationId and FireOfficerId.
- **TimeOfCall**
- **Incident Location** - LocationStructure - Addressable and NonAddressable.
- **IncidentCategory** - Fire, Special Service or False Alarm.
- **OverTheBorder** - yes/no indicator and optional FRSOverTheBorderFRSIncidentIdentifier.
- **ValidationStatus** - Whether the Incident is fully validated or not.

There are then a number of optional elements that are populated depending on the type of Incident. These elements should enable a user to identify 95% plus of incidents from these characteristics. The specific details are not described in detail as they are simply key fields within the Incident Structure.

The search control results define details of the incident matches returned for the search.

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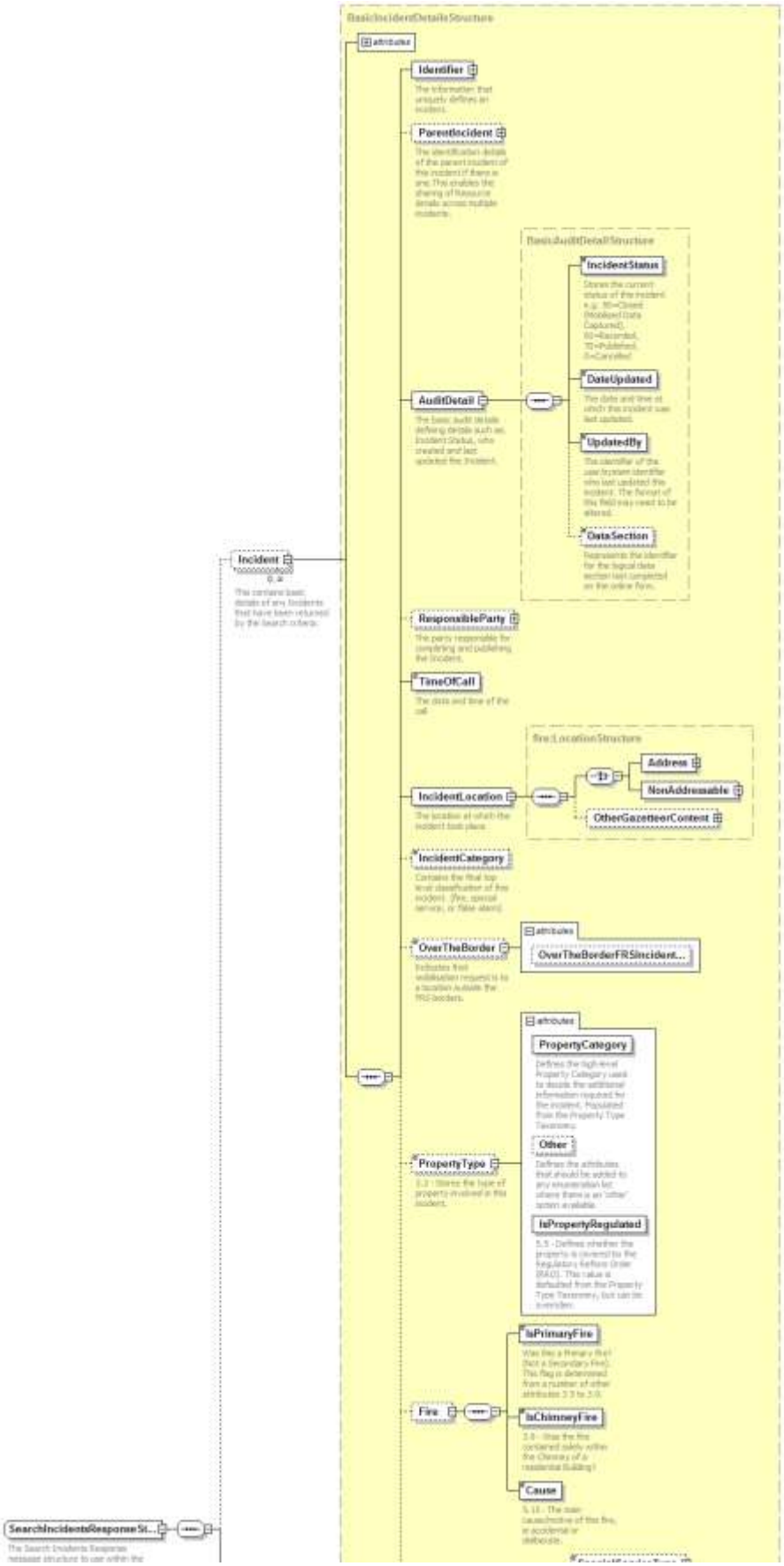

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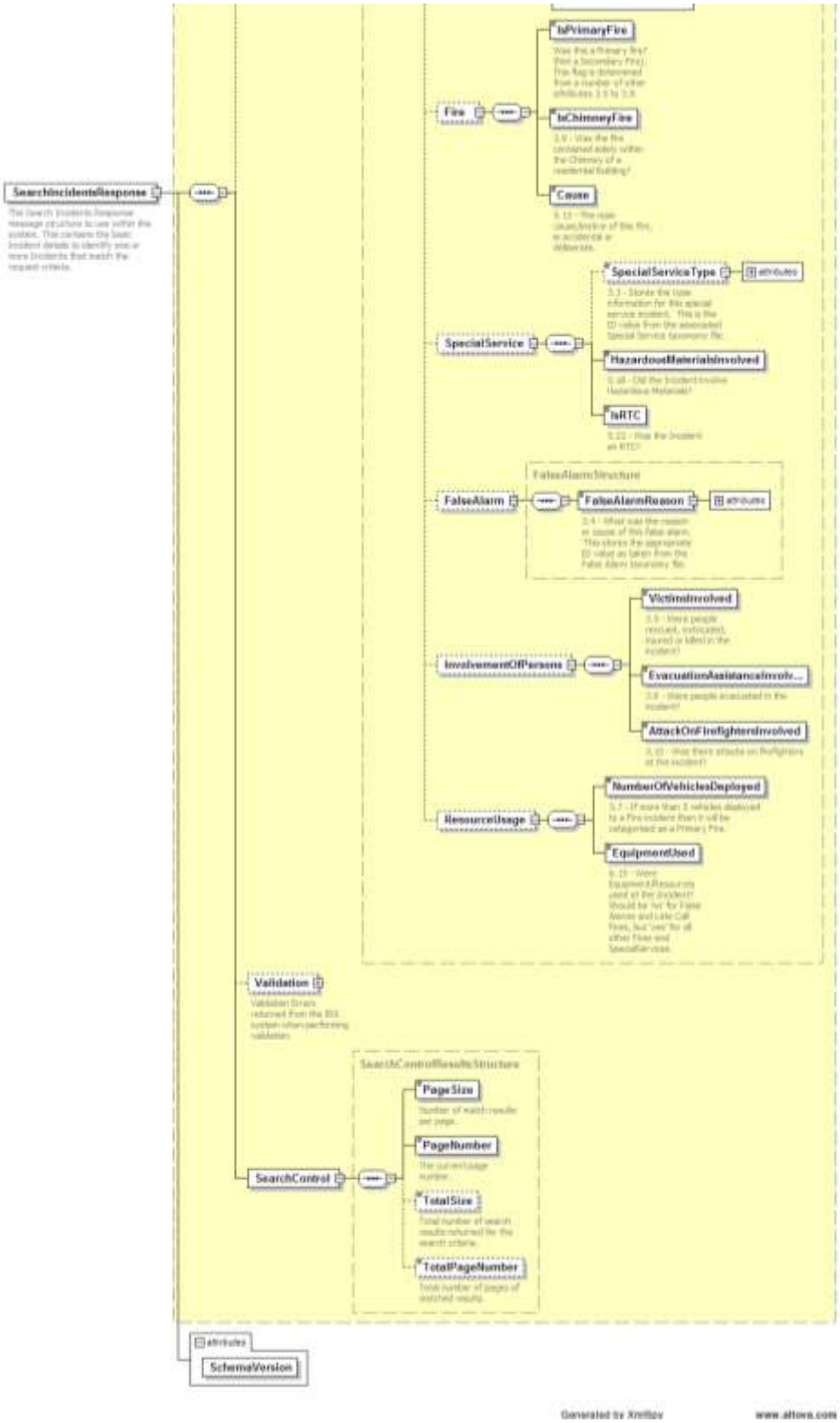

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```
<SearchIncidentsResponse xmlns="http://www.fire.gov.uk/schemas/Incident" SchemaVersion="v1-0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.fire.gov.uk/schemas/Incident ../xsd/FRSIncidentMessages-v1-0.xsd">
    <Incident ValidationStatus="Full">
        <Identifier IncidentId="33445954">
            <FRSIncidentNumber>String</FRSIncidentNumber>
            <NationalStatisticsNumber>
                <FRSId>FM</FRSId>
            </NationalStatisticsNumber>
        </Identifier>
        <AuditDetail>
            <IncidentStatus>50</IncidentStatus>
            <DateUpdated>2001-12-17T09:30:47.0Z</DateUpdated>
            <UpdatedBy>String</UpdatedBy>
        </AuditDetail>
        <TimeOfCall>2001-12-17T09:30:47.0Z</TimeOfCall>
        <IncidentLocation>
            <fire:Address Validation="NLPG-check-valid" xmlns:fire="http://www.fire.gov.uk/schemas">
                <bs7666:PAON xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">
                    <bs7666:Description>Another Cottage</bs7666:Description>
                </bs7666:PAON>
                <bs7666:StreetDescription xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">London
Road</bs7666:StreetDescription>
                <bs7666:Town xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">Solihull</bs7666:Town>
                <bs7666:PostTown
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">Solihull</bs7666:PostTown>
                <bs7666:PostCode xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">B93
8PP</bs7666:PostCode>
                <bs7666:UniquePropertyReferenceNumber
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">3848569534</bs7666:UniquePropertyReferenceNumber>
            </fire:Address>
        </IncidentLocation>
        <IncidentCategory>Fire</IncidentCategory>
        <Fire>
            <IsPrimaryFire>yes</IsPrimaryFire>
            <IsChimneyFire>no</IsChimneyFire>
            <Cause>1</Cause>
        </Fire>
        <InvolvementOfPersons>
            <VictimsInvolved>yes</VictimsInvolved>
            <EvacuationAssistanceInvolved>no</EvacuationAssistanceInvolved>
            <AttackOnFirefightersInvolved>no</AttackOnFirefightersInvolved>
        </InvolvementOfPersons>
        <ResourceUsage>
            <NumberOfVehiclesDeployed>2</NumberOfVehiclesDeployed>
            <EquipmentUsed>yes</EquipmentUsed>
        </ResourceUsage>
    </Incident>
    <Incident ValidationStatus="Full">
        <Identifier IncidentId="34845869">
            <FRSIncidentNumber>String</FRSIncidentNumber>
            <NationalStatisticsNumber>
                <FRSId>FM</FRSId>
            </NationalStatisticsNumber>
        </Identifier>
        <AuditDetail>
            <IncidentStatus>50</IncidentStatus>
            <DateUpdated>2001-12-17T09:30:47.0Z</DateUpdated>
            <UpdatedBy>String</UpdatedBy>
        </AuditDetail>
        <TimeOfCall>2001-12-17T09:30:47.0Z</TimeOfCall>
        <IncidentLocation>
            <fire:Address Validation="NLPG-check-valid" xmlns:fire="http://www.fire.gov.uk/schemas">
                <bs7666:PAON xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">
                    <bs7666:Description>Another Cottage 2</bs7666:Description>
                </bs7666:PAON>
                <bs7666:StreetDescription xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">London
Road</bs7666:StreetDescription>
```

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```
                <bs7666:Town xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">Solihull</bs7666:Town>
                <bs7666:PostTown
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">Solihull</bs7666:PostTown>
                <bs7666:PostCode xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">B94
8PL</bs7666:PostCode>
            </fire:Address>
        </IncidentLocation>
        <IncidentCategory>SpecialService</IncidentCategory>
        <SpecialService>
            <SpecialServiceType>1</SpecialServiceType>
            <HazardousMaterialsInvolved>no</HazardousMaterialsInvolved>
            <IsRTC>yes</IsRTC>
        </SpecialService>
        <ResourceUsage>
            <NumberOfVehiclesDeployed>1</NumberOfVehiclesDeployed>
            <EquipmentUsed>no</EquipmentUsed>
        </ResourceUsage>
    </Incident>
    <Incident ValidationStatus="Full">
        <Identifier IncidentId="24586965">
            <FRSIncidentNumber>String</FRSIncidentNumber>
            <NationalStatisticsNumber>
                <FRSId>FM</FRSId>
            </NationalStatisticsNumber>
        </Identifier>
        <AuditDetail>
            <IncidentStatus>50</IncidentStatus>
            <DateUpdated>2001-12-17T09:30:47.0Z</DateUpdated>
            <UpdatedBy>String</UpdatedBy>
        </AuditDetail>
        <TimeOfCall>2001-12-17T09:30:47.0Z</TimeOfCall>
        <IncidentLocation>
            <fire:Address Validation="NLPG-check-valid" xmlns:fire="http://www.fire.gov.uk/schemas">
                <bs7666:PAON xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">
                    <bs7666:Description>A Building</bs7666:Description>
                </bs7666:PAON>
                <bs7666:StreetDescription xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">A
Street</bs7666:StreetDescription>
                <bs7666:Town xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">Solihull</bs7666:Town>
                <bs7666:PostCode xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">B90
8AP</bs7666:PostCode>
                <bs7666:UniquePropertyReferenceNumber
xmlns:bs7666="http://www.govtalk.gov.uk/people/bs7666">3848569534</bs7666:UniquePropertyReferenceNumber>
            </fire:Address>
        </IncidentLocation>
        <IncidentCategory>FalseAlarm</IncidentCategory>
        <FalseAlarm>
            <FalseAlarmReason>12</FalseAlarmReason>
        </FalseAlarm>
    </Incident>
    <SearchControl>
        <PageSize>20</PageSize>
        <PageNumber>1</PageNumber>
        <TotalSize>3</TotalSize>
        <TotalPageNumber>1</TotalPageNumber>
        <OrderSearchBy>TimeOfCall</ OrderSearchBy >
        <OrderingType>Ascending</ OrderingType >
    </SearchControl>
</SearchIncidentsResponse>
```


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6 Appendix A – Frequently Asked Questions

1. When you Insert on an XML record, can you send multiple inserts within one message?

The XML Web Services method allows the FRS to register individual Incidents one at a time. Each registration request is a single conversational business transaction. This method operates in the same manner as the online Forms method.
A number of Inserts can be applied with the Web Services method by repeatedly calling the "InsertIncident" operation for each Incident registration.

2. If you insert a new Incident do you have to wait for a response for each message or can you insert several at once and then receive a batch response against all of the entries? If a batch response is provided how do we identify the results against each record?

Each Incident registration request is a single business transaction. An "InsertIncident" request is sent to IRS, and then the IRS returns a response to the request which will contain validation details defining whether the request was successful or not. It is also important to take some details from the response for future processing – In particular the IncidentId and NationalStatisticsNumber allocated by the IRS system.

3. When performing an Incident registration and it encounters errors (non-fatal), do we get the error message(s) and the data back or just the error message?

When an Incident registration is performed the IRS system will perform various validation steps depending on the action requested. The system records zero, one or more "Validation Errors" within the Incident Details document structure returned in the response. This allows the errors to be reviewed against the data that was processed by IRS system.

The errors could consist of different categories of errors – 'Fatals', 'Errors' and 'Warnings'. 'Fatals' and 'Errors' will prevent the Incident registration from being applied successfully to the database. 'Warnings' allow the Incident registration to be added as a 'Pending' record, unless the ValidationStatus is 'Full' and the IncidentStatus is greater than or equal to '60=Recorded'.

The data sent in the request will be returned in the response along with the validation error details.

4. How does Pending work for XML and how do we/can we update the pended item using the XML interface?

If an "InsertIncident" Web Service request failed as a result of validation errors, the FRS will need to review the errors before proceeding. An Insert Incident will return the Incident Details along with the associated validation error details. If the validation failed because the document was not well formed then the Incident will not be inserted into the IRS database. If the ValidationStatus is returned as 'Basic' then the Incident was stored, but only passed basic Schema validation. If the ValidationStatus is returned as 'Full' then the Incident was stored, and passed the full business logic rules performed by the IRS validation engine.

It is most likely that the FRS Users will use the Web Browser method to review the "Pending" incident to ascertain the reason for the error. There are then two choices to resolve the errors:

- Correct the Incident details and then apply the Amendment online, which will remove the pending details
- Correct the Incident via Web Services by submitting an "AmendIncident" with the appropriately corrected details.

5. When an XML response is received, what is the maximum size of data returned for all fields?
The Web Services will return all data that exists for an Incident, which is based on the XML schemas used by the Web Service. The data returned depends on the type of Incident. The largest Incidents will be Primary Fire scenarios. There are a number of repeating structures, which could affect the size of the Incident: Vehicles, Equipment used, FireOfficers, VictimDetails, HazardousMaterials.
The typical size of Incidents will be 5 to 20K as text documents. Please refer to the XML schemas for further details.

Note: That the SearchIncidentsResponse could return up to 500 records matching the Search Criteria. Each record would be approximately 3K. There may need to be further restrictions on the number of records returned. It is recommended that the developer restricts the selection to less than 100.

6. When you receive an Incident Details message, will you always get all details?

No - For all the Incident registration services a common "IncidentDetails" structure is used. The structure always contains the Incident identification details, state information and IncidentAtCall details. In addition there are various optional structures based on specific data values entered. Please refer to the XML schema documents for further details.

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Note: The SearchIncidentsResponse returns summary information for each incident. The GetIncident returns all the data for an Incident.

7. Is it necessary to logon to the IRS system before performing Incident registrations (insertions, amendments, enquries) via the Web Services method?

Yes - You are required to logon to the IRS system in order to perform an authentication process with the User ID and password to ensure they are valid.

The logon process allocates a 'Session Token' if the authentication details are valid. The security session details should be returned with each subsequent Incident registration that is performed. This avoids the system having to perform repeated checks to ensure that the FRS User is valid, authenticated and authorised to use the IRS services.

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