



How to use the Saving Gateway techpack

This document gives an overview of the artefacts published in this techpack.

NB: This techpack presumes knowledge of XML and XML based protocols; it is beyond the scope of this techpack to explain these technologies. However here are some links that you may find useful if you are unfamiliar with XML and SOAP:

W3C XML specification: <http://www.w3.org/TR/REC-xml/>

W3C XML tutorial: <http://www.w3schools.com/xml/default.asp>

W3C XML Schema page: <http://www.w3.org/XML/Schema>

W3C XML Schema tutorial: <http://www.w3schools.com/Schema/default.asp>

W3C SOAP page: <http://www.w3.org/TR/soap/>

W3C SOAP tutorial: <http://www.w3schools.com/soap/default.asp>

W3C WSDL page: <http://www.w3.org/TR/wsdl>

W3C WSDL tutorial: <http://www.w3schools.com/WSDL/default.asp>

The Saving Gateway techpack is split into three categories:

- **Provider Returns** – The technical documentation needed for a developer to produce an application that can submit a provider return.
- **Schedule Retrieval** – The technical documentation needed for a developer to produce an application that retrieves and acknowledges schedules
- **Generic Documents**

Provider Returns

Protocol used: Gateway Document Submission Protocol

Gateway Document Submission Protocol: This document explains the protocol used by the Government Gateway for receiving and responding to XML submissions. Here is a summary of the protocol, for full details please read the document:

The Government Gateway uses an asynchronous protocol, in which a software application submits an XML file (Provider Return in this case) using HTTP 1.1 to the Gateway URL which responds with an XML “acknowledgement” (not to be confused with Provider acknowledgements) containing a unique identifier for that transaction (Correlation ID). The submitting application must then make a separate “Poll” submission using the unique identifier given and repeat this “Poll” process until they receive either a response accepting the return or an error rejecting the return.

envelope-v2-0-HMRC.xsd: The Government Gateway GovTalk Envelope schema. Every submission made to the Government Gateway must be wrapped in the GovTalk Envelope. Your Provider Return will be placed into the <Body> element of the GovTalk Envelope.

NFVRGovTalkEnvelopeIRheaderGuidancevN-N.pdf: Guidance on what data to provide in the GovTalk Envelope elements and a list of the Non Form Validation Rules - rules that cannot be handled by the schema or schematron, typically things like state validation.

ProviderReturn-vN-N.xsd: Schema for the Provider Return message

ProviderReturn-vN-N.sch: The schematron for the Provider Return message, the schematron is essentially a machine readable business rules document. A parser that

understands schematron would be needed to use this document. All the rules implemented by the schematron are listed in **SavingGateway-specDoc-vN-N.pdf**, it is possible to code our business rules into your software without use of the schematron.

ProviderReturn-vN-N.xslt: This document performs the same function as the schematron, except that it is in the format of a validating stylesheet and so can be used with a stylesheet processor that understands exslt stylesheets, negating the need for a schematron compliant parser.

IRmark technical pack link: link to the generic IRmark techpack, in which you will find a step by step guide to producing an IR Mark and other useful documents and code samples. An IR Mark must be supplied with all Provider Returns to the live service so it is important that you understand what is needed to produce one.

Schedule Retrieval

Protocol used: SOAP (<http://www.w3.org/TR/soap/>)

SOAP-v1-2.xsd: All Schedule transactions use the SOAP protocol, thus all messages sent must use the SOAP envelope, and this schema defines the SOAP envelope.

SGSchedule-vN-N.xsd: This schema defines the structure of the schedules HMRC will provide in response to the GetNextSchedule and GetSpecificSchedule messages.

GetNextSchedule-vN-N.xsd: The structure of the GetNextSchedule message

GetSpecificSchedule-vN-N.xsd: The structure of the GetSpecificSchedule message

GetSpecificSchedule-vN-N.sch: The Schematron for the GetSpecificSchedule message

GetSpecificSchedule-vN-N.xslt: The validating stylesheet for GetSpecificSchedule message

Acknowledgement-vN-N.xsd: The structure of the Provider acknowledgement message

HMRC-wsHeader-v1-1.xsd: This schema defines what must be included in the <Header> of all SOAP transactions performed for Saving Gateway (this does not include the security policy which will have to also be provided in the <Header>, this will be provided closer to the release of the test service)

NB: **WSDL files** for the SOAP Web Service will be included within the LTS release. WSDL files for the live service will be provided in due course.

Generic

Schema Error Messages (PDF): HMRC's validation engine uses an Industry standard parser to perform schema validation on incoming XML submissions. Therefore we have a set of generic schema errors that are returned for all services. These schema errors are documented here.

SavingGateway-specDoc-vN-N.pdf: This is the "spec doc". It is the human readable version of the Schema and Schematron for all transactions in Saving Gateway (Returns and Schedules). It details every data item that can be used in all of the transactions, including all restrictions and rules attached to those data items. More information on how to read this document is contained within it. This is a very important document and we encourage you to familiarise yourself with it.

LTS (Local Test Service): The LTS is the testing solution for Saving Gateway, there is no online test service so any testing you wish to do must go through the LTS, there is an

installation guide bundled with the LTS, we recommend that you read this in full once you have downloaded the LTS archive.