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**Urgent Care Acknowledgement Response**

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| Dave Barnet |  |  |  |  |
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Glossary of Terms

|  |  |
| --- | --- |
| Term / Abbreviation | What it stands for |
| FHIR | Fast Health Interoperability Resource |
| ITK | Interoperability Tool Kit |
|  |  |

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# Introduction

## Purpose of Document

This document provides details on how the business acknowledgement framework is structured using the FHIR standard. The document defines the FHIR resources, extensions and valuesets required to meet the requirements for an ITK style distribution envelope.

## Audience

The primary audience are any stakeholders who are involved in producing the response message from the receiving system for the Urgent Care programme.

# Business Acknowledgement

ITK business acknowledgments operate at the business application layer and provide reports on application processing success or failure in the form of report codes. ITK can use coding systems to establish the outcome of any ITK message transaction at the business layer.

# ITK FHIR

Following analysis of an ITK distribution envelope, the following design approach has been determined, using the FHIR standard to deliver the solution.

FHIR is based on modular components called “resources,” and these resources can be combined together to solve clinical and administrative problems in a practical way. The resources can be extended and adapted to provide a more manageable solution to the healthcare demand.

MessageHeader

Bundle

OperationOutcome

Figure 1 – ITK FHIR Message with Business Acknowledgement

## Bundle

The bundle resource collates a series of resources together in preparation for transportation via an external delivery mechanism.

## MessageHeader

The MessageHeader resource is used as a header for a message exchange to respond or request an action. When used with a FHIR bundle, this resource must always be the first resource within the bundle. The ITK solution will use the MessageHeader for originating ITK bundle and the ITK infrastructure and business acknowledgements.

This resource has been extended to include the data item ‘**senderReference**’. This element can be used to hold any local reference data to send to the recipient.

## OperationOutcome

A collection of error, warning or information messages that result from a system action. The OperationOutcome resource has been identified as being suitable for providing ITK FHIR infrastructure and business acknowledgement messages.

# Example

<Bundle>

<id value="1727d702-6c9a-4bb9-91a2-4f8034655635"/> 🡸This is a system generated id

<meta>

<profile value="http://fhir.nhs.net/StructureDefinition/itk-bundle-1"/>

</meta>

<type value="message"/> 🡸 Bundle type fixed to ‘message’

<entry>

<resource>

<MessageHeader>

<id value="ea7221b8-3cc0-4b11-bc95-585b056b5427"/> 🡸This is the system generated id

<meta>

<profile value="http://fhir.nhs.net/StructureDefinition/itk-messageheader-1"/>

</meta>

<extension url="http://fhir.nhs.net/StructureDefinition/extension-senderreference-1"> 🡸 extended element to allow local reference

<valueString value="cad456"/>

</extension>

<timestamp value=”2012-01-04T09:10:14Z”/>

<event> 🡸the event that represents this message

<system value="https://fhir.nhs.uk/ValueSet/itk-message-event-1"/> 🡸 Fixed to the valueset where the code will be derived from

<code value="ITK002"/> 🡸Code defined in the valueset

<display value="Business layer validation check"/> 🡸 Display name represented in the system

</event>

<response>

<identifier value="A709A442-3CF4-476E-8377-376500E829C9"/> 🡸 Contains the messageheader.id UUID value originally sent to the

recipient to provide a reference back to the source application.

<code value="ok"/> 🡸 code derived from the FHIR valueset <http://hl7.org/fhir/response-code>

<details>

<reference value="OperationOutcome/f19e4165-b379-4377-ad43-df65f609eba5"/>

</details>

</response>

<source>

🡸 Message source address

<endpoint value="urn:nhs-uk:addressing:ods:EM396"/>

</source>

<destination>

<endpoint value="urn:nhs-uk:addressing:ods:5L399:445510770"/>

</destination>

</MessageHeader>

</resource>

</entry>

<entry>

<resource>

<OperationOutcome>

<id value="f19e4165-b379-4377-ad43-df65f609eba5"/>

<meta>

<profile value="http://fhir.nhs.net/StructureDefinition/itk-businessack-operationoutcome-1"/>

</meta>

<issue>

<severity value="information"/>

<code value="informational"/>

<details>

<coding>

<system value="http://fhir.nhs.net/ValueSet/itk-business-acknowledgement-1"/>

<code value="41001"/>

<display value="Patient known here. (e.g. Patient is registered here)"/>

</coding>

</details>

</issue>

</OperationOutcome>

</resource>

</entry>

</Bundle>