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NICC B2B

TROUBLE-TO-RESOLVE

(T2R)

INTERFACE STANDARD

Version V1.0.1

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Normative Information

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Document history

Revision	Date	Notes
V 0.1	June 2007	Outline first Draft for T2R Process
D1	30th July 2007	Drafted document from outline included adding introduction sections and annexes for review
V 0.2.1	13 th September 2007	Updated with responses from paper review in Aug 2007 for meeting review – see comments & responses document for full details
V0.2.2	17 th September 2007	Updated with responses from 13 th September 2007 review meeting – see comments & responses document for full details
V1.0.0	24 th September	Added NICC B2B document structure section & updated document title and file name to include NICC ND publication number
V1.0.1	13 th November	Made minor amendments to correct typos identified during formal review

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1.0 Introduction

The “NICC B2B Interface Framework document” provides the introduction and framework for all NICC B2B standards. It is important to read the Framework in conjunction with this document.

1.1 Purpose

In support of need to standardise interfaces as described in the overall framework document, the main purpose of this document is to provide a standard for the development of Trouble-to-Resolve (T2R) processes for B2B.

The second purpose of the document is to enable UK CPs to identify gaps between current B2B T2R processes and this standard. This will in turn enable CPs to agree a roadmap that takes us from the numerous stovepipe gateways supporting a variety of processes we operate today, to a smaller set of gateways using the same technology and the standard processes.

Once agreed the T2R standard can be developed as reusable capabilities and ultimately as a schema that can be shared across the industry to create quicker, cheaper and better interfaces. NICC B2B can be used to review the roadmap, its implementation and resolve any issues.

1.2 Scope

The scope is automated business transactions between UK Communications Providers (CPs) using Business-to-Business (B2B) interfaces. The T2R standard is designed to be product independent at the same time as allowing flexibility where product T2R processes need to be different.

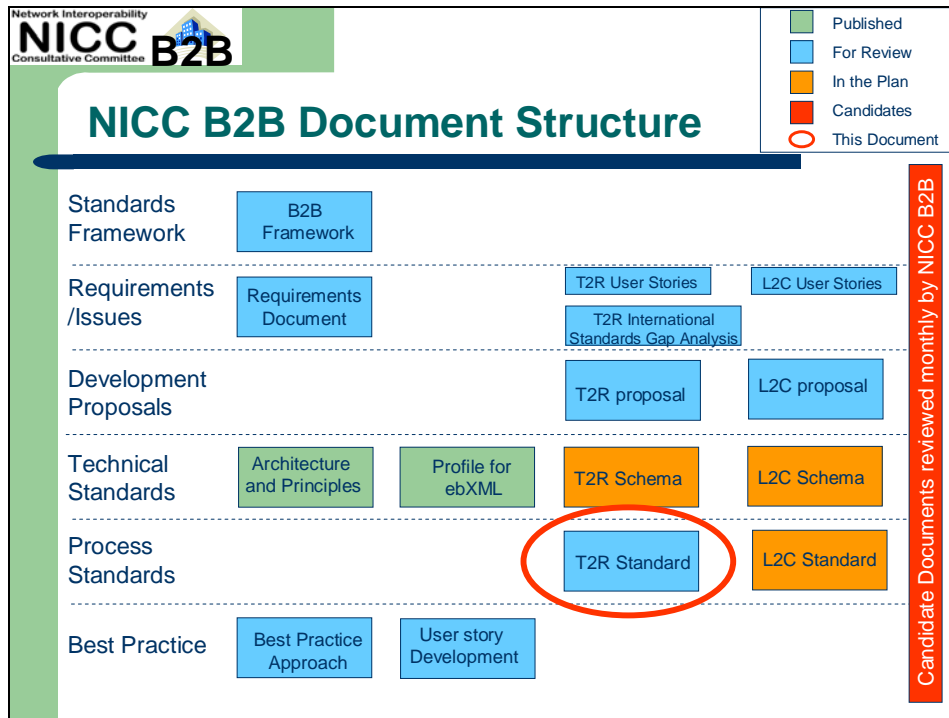
1.3 Trouble-To-Resolve (T2R) definition

The Trouble to Resolve (T2R) process is defined as starting with problem identification to resolution. T2R starts when a customer problem is identified either by the customer or proactively by the supplier, and ends when that problem has been resolved to the customer's satisfaction.

It includes “assurance”, “ticket/fault management “ in the NICC B2B requirements document and “trouble administration” by the ITU, and covers other sub-processes that are related to the T2R process, but which are not core to it.

1.4 NICC B2B Document Structure & Further Information

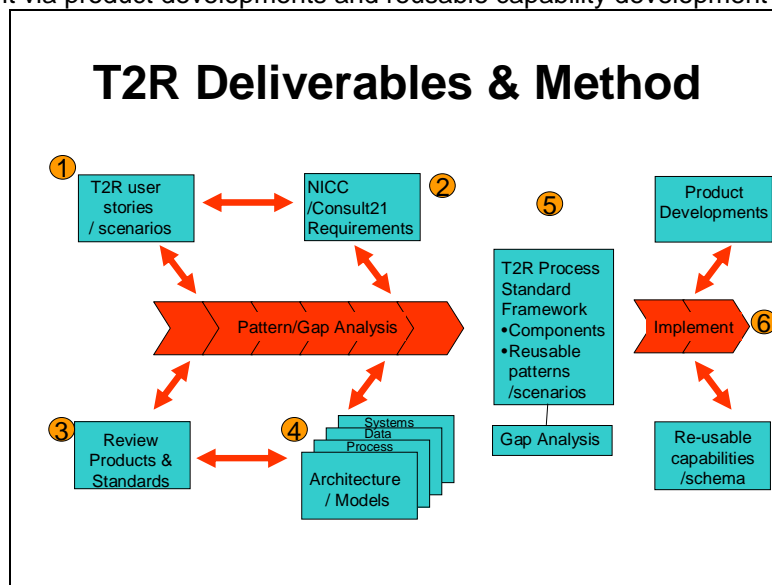
This document forms part of a suite of documentation developed and maintained by NICC B2B as shown below. They can be accessed from the NICC publication web site @ <http://www.nicc.org.uk/nicc-public/publication.htm>, and if they are in development from <http://niccb2b.org.uk/> . For access and further details please contact niccb2b@niccb2b.org.uk



2. Method & Deliverables

The method used to develop this standard was initially described in Trouble-To-Resolve (T2R) White Paper Proposal and later supplemented by the User Story Approach document. The following notes and diagram provides a summary:

1. Create or validate User stories/scenarios (US) for T2R
2. Review USs against NICC B2B requirements
3. Review existing and proposed relevant process standards work & initiatives, eg ITU Trouble ticketing
4. Review / Develop Architectures/Models.
5. Agree T2R Process Standard & identify any gaps with International standards and existing and planned products^(see note1).
6. Implement via product developments and reusable capability development

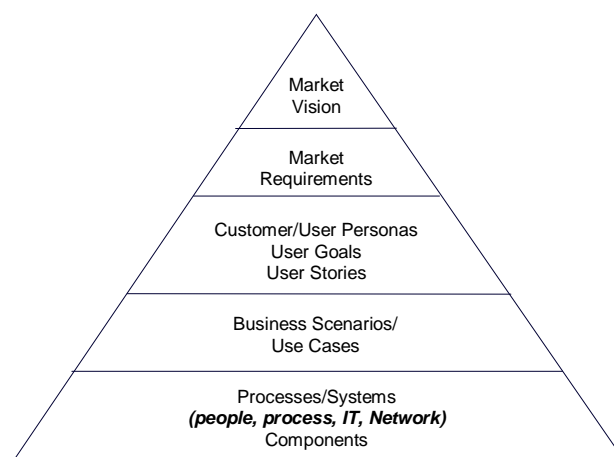


Note 1: As part of the Standard development, a gap analysis was undertaken against key BT Wholesale and Openreach products including: Wholesale Line Retail (WLR) 3 PSTN, WLR3

ISDN2; WLR3 ISDN30; Local Loop Unbundling (LLU) SMPF/ MPF; ONBS B1, B2, B3, B4; Wholesale Broadband Connect (WBC); and Wholesale Harmonised Ethernet. This analysis spanned both the Components and Patterns. For completeness other communication providers would need to do this as well.

2.1 Development Hierarchy

The key strength of the method used is that it starts with the market and customer requirements and works its way down the hierarchy shown in the pyramid below.



2.2 Key Deliverables:

The key deliverables include:

2.2.1 User Stories and Requirements

The T2R User Stories and updated NICC B2B Requirements are available from the NICC B2B web site . These were developed with UK CPs represented at NICC B2B. These have been used to drive the Standard development, and will be used as a reference for future changes. Please note a number of additional User Stories were identified during the analysis phase, and will be added to the work stack for future development.

2.2.2 Standards gap analysis

A key principle of NICC and NICC B2B is to reuse international standards where appropriate, and equally to ensure NICC B2B agreed standards are included in the relevant international standards where there are gaps. This included eTOM B2B BOM, ITU X790/M.3343, ITIL, but excludes RosettaNet & ebXML as these are technical protocol standards at different a level from this document. See Annex 3 for a summary of the analysis and the NICC document publication web site @ <http://www.nicc.org.uk/nicc-public/publication.htm> for the full analysis.

2.2.3 T2R Process Standard

The Standard includes:

- Key terms and Relationships (section 3.1)
- High-level “macro” process description (Section 3.2)
- Touchpoint Components model (Section 3.3 & Annex 1)
- Reusable Business Scenario and process Patterns models (Section 3.4 & Annex 2)

3. T2R Standard

3.1 Key Terms & Relationships

Buyer & Supplier

In the context of T2R, the Buyer is the party who owns the service instance provided by a Supplier. The Buyer/their End User is experiencing a problem with the service, where they believe that problem lies within the Supplier's domain.

Macro Process

The end-to-end process for T2R. Each Buyer/Supplier within the business model will have their own T2R macro process. Where the Buyer's T2R process identifies/suspects the problem is in a Supplier's domain, then this process will initiate the Supplier's T2R process. This in turn could initiate the T2R process within their Suppliers' or Agents' domains.

Sub-Process

For the purpose of developing this standard, a number of functional areas have been identified within T2R, which also apply to other key processes, namely Lead-to-Cash (L2C). The Sub-Processes are not, in themselves, end-to-end processes, but merely functional groupings. To maximise the benefits of standardisation, it is worth defining the capabilities in these Sub-Processes in a generic way, such that they can be used by multiple macro processes like L2C. Examples are: Appointing; KCI; Testing; etc.

Component

The Components defined in this standards are the "Touchpoints" or Business Transactions between Buyer and Supplier within the T2R macro process. The Components defined in this standard are the "Touch-points" or Business Transactions between Buyer and Supplier within the T2R macro process. The Components are defined in detail within the set of tables in Annex 1. The intention is that all CPs should adopt the interface standard and "reuse" these Components when implementing solutions to support the T2R processes.

Pattern

A Pattern is a description of the process for a particular Business Scenario within T2R. The T2R process can run end-to-end taking the "success" path. There can also be numerous variations in this flow to cater for no-standard or exceptional conditions, e.g.: delays; costs attributable to the Buyer; need to obtain more information; etc. These scenarios tend to occur in many service solutions, so again there is benefit in orchestrating the Components within the process flows in a standardised way. For the purposes of this Standard, a Business Scenario/Use Case and corresponding process flow will be referred to as a "Pattern".

State Diagram & Activity Diagrams

The Standard development methodology has used a UML toolset to model some of the detailed elements of the Standard. There are two UML views used:

State Model

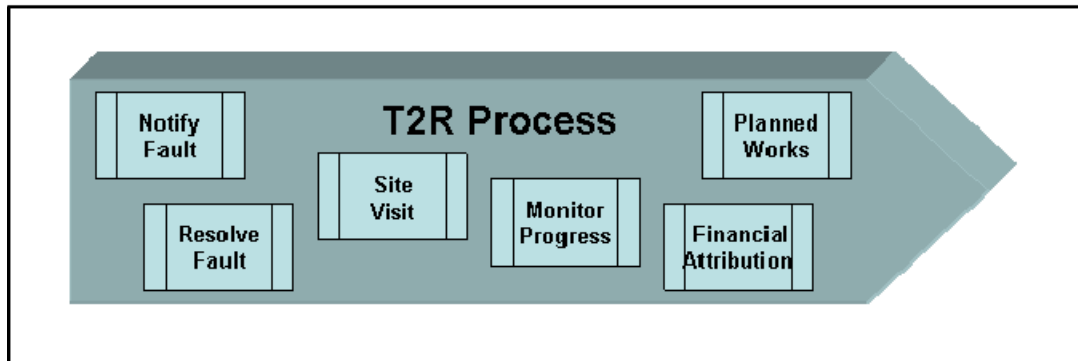
Defines the main States that a Problem Report can transition through. The Patterns illustrate how the orchestration of Components can invoke State changes.

Activity Diagrams

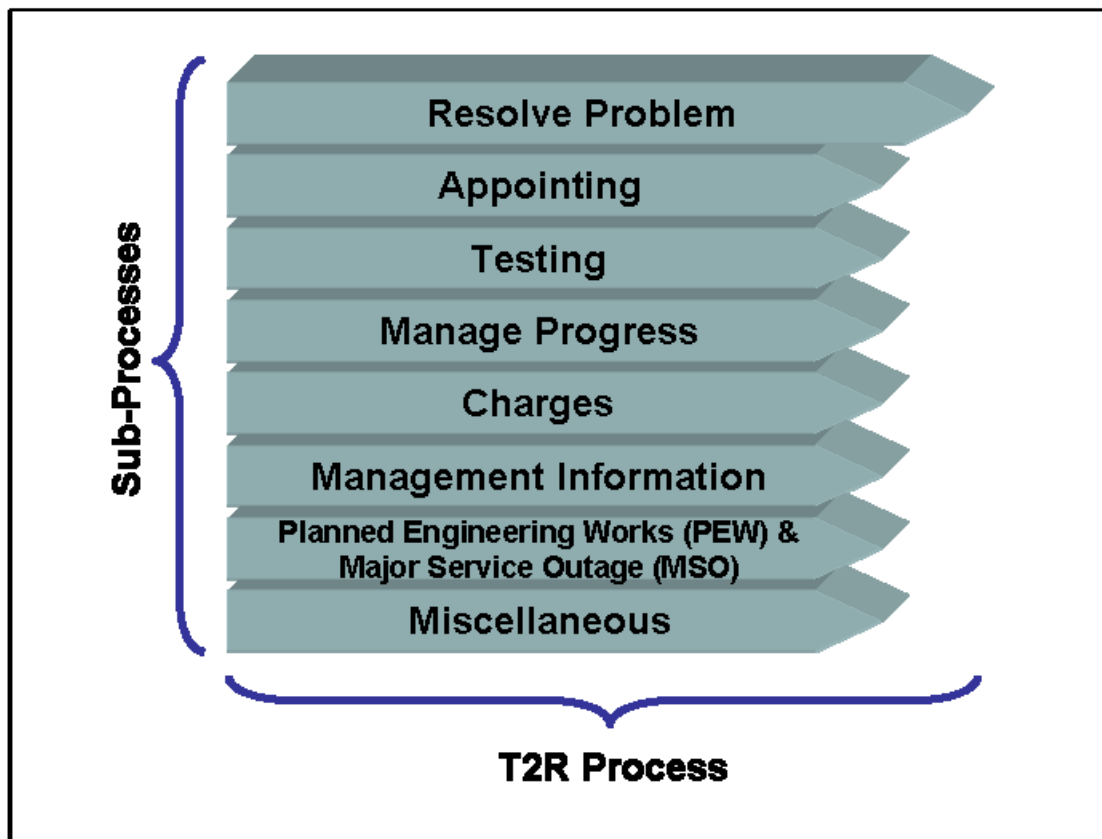
The Activity Diagrams define the process flow Patterns and how these orchestrate the Components. The diagrams show a swim-lane view of processes within both Buyer and Supplier domains. The flows are not intended to be prescriptive in the way the internal processes work, but define the orchestration sequences which should be adopted.

3.2 Macro Process

This section describes the high level macro process for the standard. The parts of the “high level process model” in NICC B2B Interface Framework document, impacted by T2R are shown in the following diagram.

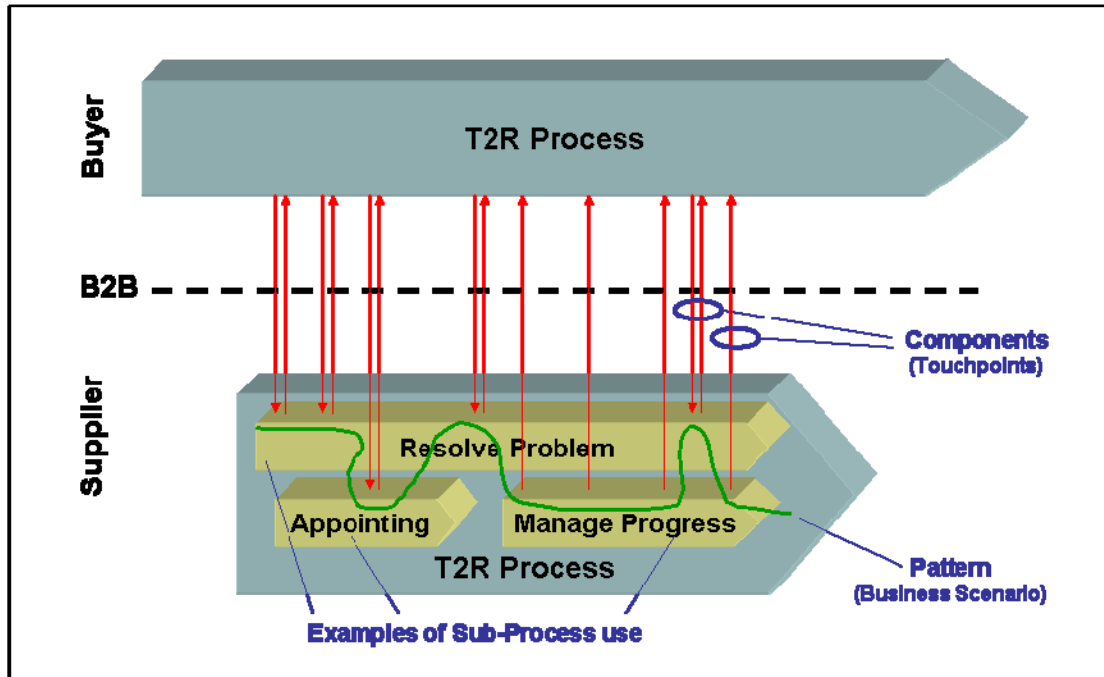


For the purposes of developing the B2B standards, the process has been re-expressed in the diagram below. The parts identified above are covered by this view.



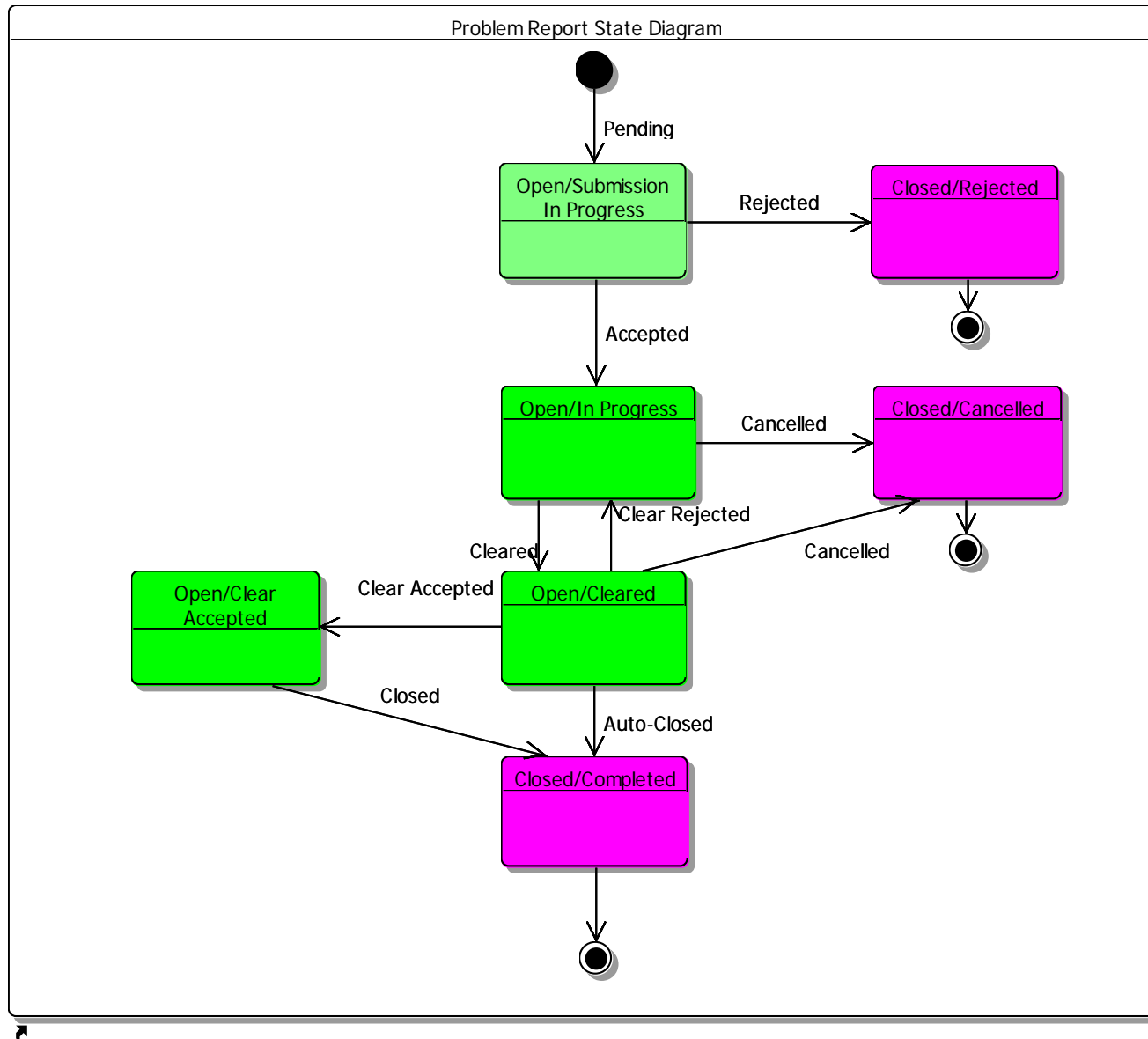
This approach enables a number of “sub-processes” to be identified. The intention is that these can potentially be generic sub-processes, reusable across T2R and L2C (Lead to Cash). Further work will be necessary to fully define the L2C requirements and incorporate them in the process components.

The following diagram illustrates how the T2R process orchestrates a Pattern of Components at the B2B interface.

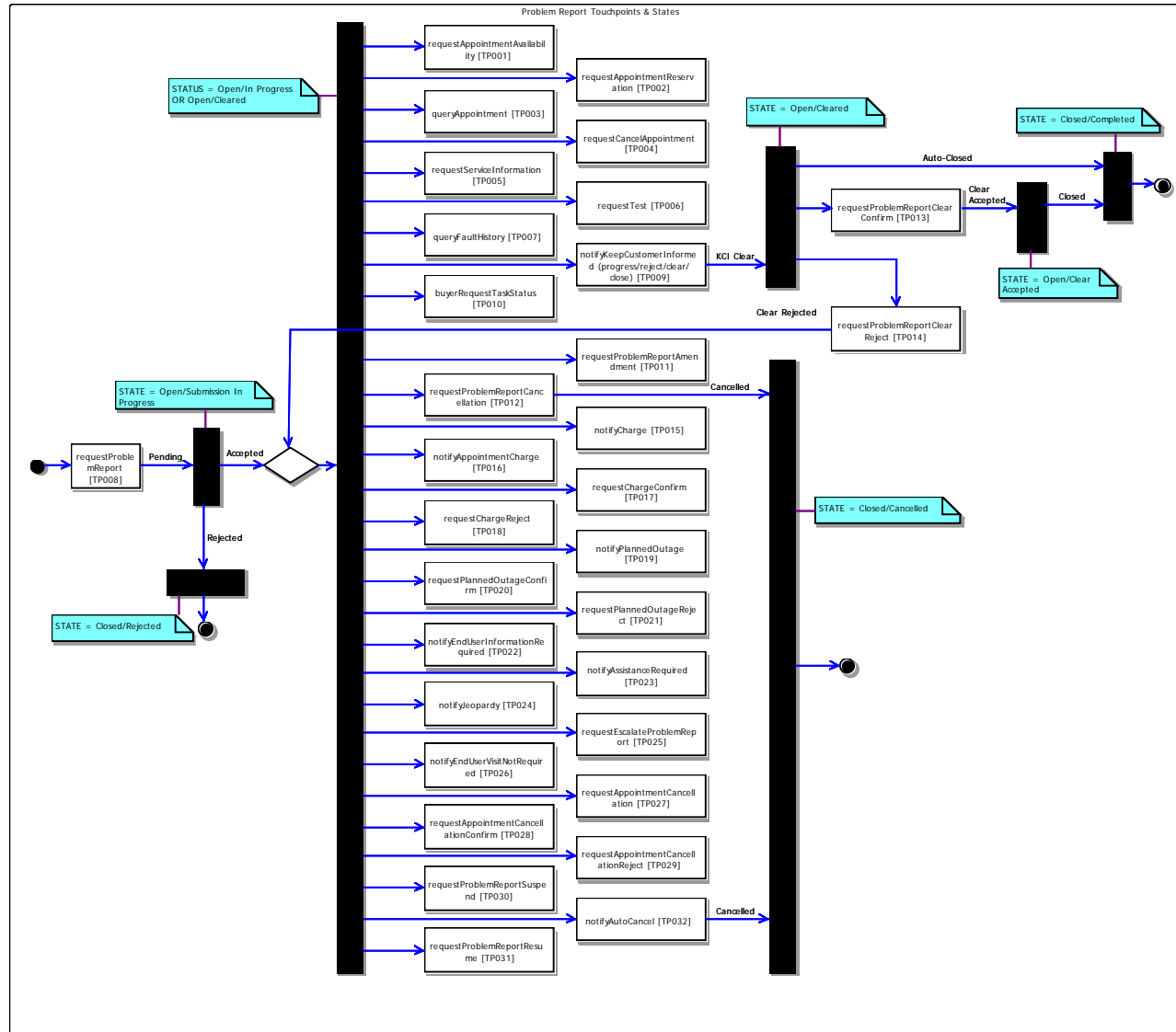


3.3 Components & States

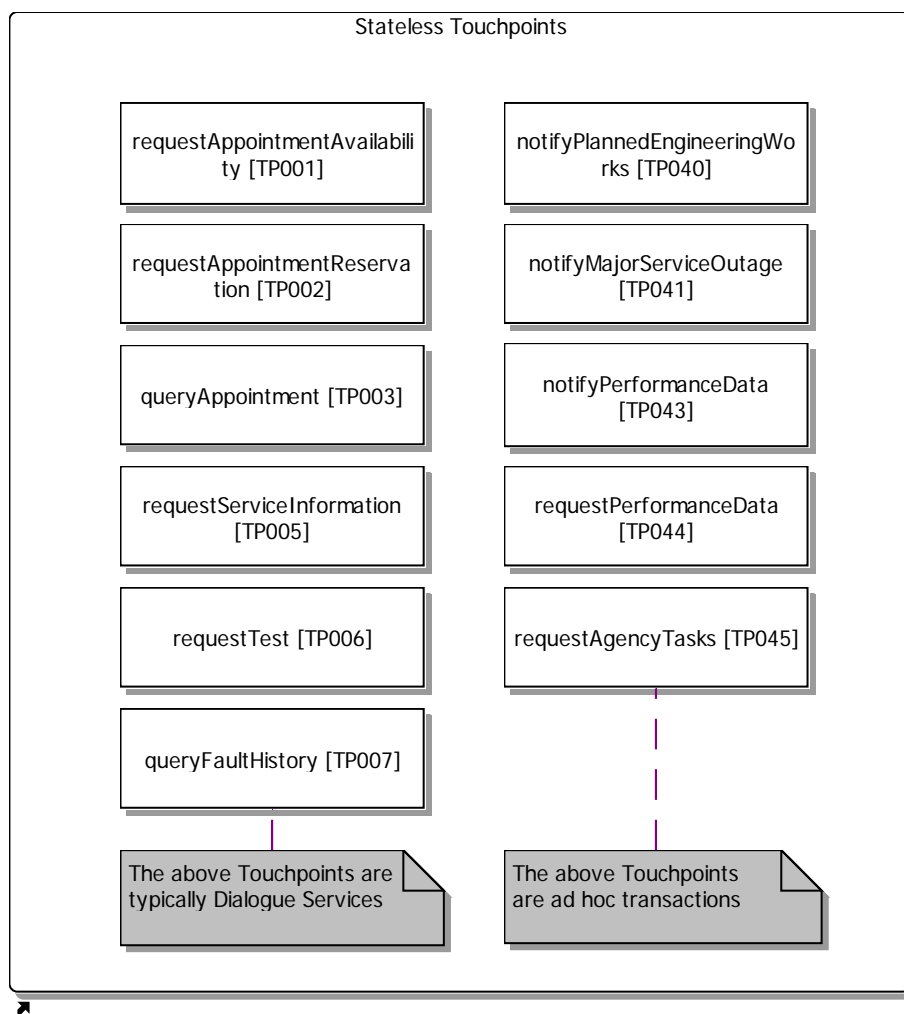
The Problem Report state diagram is show below. This forms part of this standard.



An initial set of forty-five Components, or “Touchpoints”, have been defined in support of the T2R Process. A template for each component with further details is available in Annex 1. The diagram below shows which Components drive the Problem Report state transitions, and which can be used (invoked/consumed) from within each specific state (without causing a state change).



The following diagram shows further Components which are stateless. This means that they can be invoked at any time, and do not have a relationship with a specific Problem Report.



3.4 Business Scenarios & Patterns

A set of Business Scenarios have been defined to capture a set of typical scenarios within the T2R process, covering both expected or “success path”, and exceptional conditions. In Annex 2, these Business Scenarios are expanded in a set of tables which define the process “Patterns”, Components (Touchpoints) used, and information used by each Component. Thirty patterns have been identified.

The Pattern defines the orchestration pattern for the Components, which forms part of this standard.

4. Glossary

One of the key issues identified is language and use of terms. Annex 4 provides an initial draft of this.

5. Next Steps, Issues and Requirements

This document is the culmination of an enormous amount of work by CPs represented at the NICC B2B working group. It is therefore inevitable that there will be outstanding issues and requirements. A separate document will be maintained to list these, the next steps and any issues, proposals and requirements that arise from implementation. NICC B2B regularly review the standard against the issues and requirements list, and will agree which need to be resolved before publication and which can be added to the work stack for future resolution.

Annex 1: Components /Touchpoints

This Annex includes the Component definition tables. The “data” sections are a high-level view of key data items, but do not define full data sets or formats.

Index of Components

Touchpoint Component ID	Touchpoint Component
TP001	requestAppointmentAvailability
TP002	requestAppointmentReservation
TP003	queryAppointment
TP004	requestCancelAppointment
TP005	requestServiceInformation
TP006	requestTest
TP007	queryFaultHistory
TP008	requestProblemReport
TP009	notifyKeepCustomerInformed
TP010	requestSupplierTaskStatus
TP011	requestProblemReportAmendment
TP012	requestProblemReportCancellation
TP013	requestProblemReportClearConfirm
TP014	requestProblemReportClearReject
TP015	notifyCharge
TP016	notifyAppointmentCharge
TP017	requestChargeConfirm
TP018	requestChargeReject
TP019	notifyPlannedOutage
TP020	requestPlannedOutageConfirm
TP021	requestPlannedOutageReject
TP022	notifyInformationRequired
TP023	notifyAssistanceRequired
TP024	notifyJeopardy
TP025	requestEscalateProblemReport
TP026	notifyEndUserVisitNotRequired
TP027	requestAppointmentCancellation
TP028	requestAppointmentCancellationConfirm
TP029	requestAppointmentCancellationReject
TP030	requestProblemReportSuspend
TP031	requestProblemReportResume
TP032	notifyAutoCancel
TP033	notifyBuyerProblemReport
TP034	notifyBuyerTaskStatus
TP035	requestBuyerTaskStatus
TP036	requestThirdPartyReport
TP037	notifyThirdPartyReport
TP038	requestDamageReport
TP039	notifyPlannedEngineeringWorks
TP040	notifyMajorServiceOutage
TP041	notifyPewOrMsoStatus
TP042	notifyPerformanceData
TP043	requestPerformanceData
TP044	requestAgencyTasks
TP045	requestSupplierInput

TP001: requestAppointmentAvailability

Component Ref		TP001							
Component Name		requestAppointmentAvailability							
Description		A request from the Buyer to check the availability of engineering appointments in the Supplier domain							
User Story		T2R27							
Business Transaction Type		Query/Response							
Direction		Buyer-Supplier			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
Appointment availability details received the first time Resources with correct skills/equipment are available to perform resolution within SLA (e.g. access to correct appointment book for product/technology) CP has appointment slot choice within SLA timescale Appointment slot duration is appropriate for necessary work CP is advised of appointment slot duration when selecting slot %times manual exceptions occur in obtaining the Appointment details					Transaction response time <x seconds (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Query									
Technical Standards			Conditional: Appointment slot can be conditional on SLA (i.e. within SLA or outside SLA if required by Buyer) Site security requires cleared personnel Optional: None						
Data Standards			Required: Customer; Account; Location; Work Type; Product/Service Conditional: Required Date/Time earlier than SLA; Required Date/Time later than SLA; Personnel Qualification/Authentication Optional: Date/Time Required						
Response									
Technical Standards			Conditional: Requested date/time Requested personnel qualification/authentication Optional: None						
Data Standards			Required: Customer; Account; Location; Work Type; Product/Service Conditional: Can/Cannot Meet Requested Date/Time; Specific Personnel Qualified/Authenticated Optional: None						

TP002: requestAppointmentReservation

Component Ref		TP002							
Component Name		requestAppointmentReservation							
Description		A request from the Buyer to confirm an engineering appointment reservation							
User Story		T2R36, T2R45							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
<p>The resources booked first time</p> <p>Resources with correct skills/equipment are booked (e.g. access to correct appointment book for product/technology)</p> <p>Appointment slot booked is within SLA timescale (default)</p> <p>CP can request a date/time beyond SLA if required by their EU</p> <p>Appointment slot duration is appropriate for necessary work</p> <p>%times Manual fallback needed to book Appointment</p>					<p>Response time <x secs for reservation transaction (expectation is transaction is real-time)</p> <p>The reservation period is temporary and operates on a time-out if not Booked. Expiry time for temporary reservation is sufficient to meet CP process needs (i.e. time delay to raise a PR and confirm appt)</p>				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Query									
Technical Standards			<p>Conditional:</p> <p>Appointment slot can be conditional on SLA (i.e. within SLA or outside SLA if required by Buyer)</p> <p>Site security requires cleared personnel</p> <p>Optional:</p> <p>None</p>						
Data Standards			<p>Required:</p> <p>Customer; Account; Location; Work Type; Product/Service</p> <p>Conditional:</p> <p>Required Date/Time earlier than SLA; Required Date/Time later than SLA; Personnel Qualification/Authentication</p> <p>Optional:</p> <p>Date/Time Required</p>						
Response									
Technical Standards			<p>Conditional:</p> <p>Requested date/time</p> <p>Requested personnel qualification/authentication</p> <p>Optional:</p> <p>None</p>						
Data Standards			<p>Required:</p> <p>Customer; Account; Location; Work Type; Service Identifier; Appointment Slot Identifier; Appointment Slot Date/Time</p> <p>Conditional:</p> <p>Can/Cannot Meet Requested Date/Time</p> <p>Specific Personnel Qualified/Authenticated</p> <p>Optional:</p> <p>None</p>						

TP003:queryAppointment

Component Ref		TP003							
Component Name		queryAppointment							
Description		A request from the Buyer to provide the details of a specified engineering appointment							
User Story		T2R26							
Business Transaction Type		Request/Confirm							
Direction		Buyer-Supplier			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
Correct Appointment details received the first time %times manual exceptions occur in obtaining the Appointment details					Transaction response time <x seconds (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Problem Report identifier Conditional: None Optional: Appointment Slot Identifier						
Confirm									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Problem Report Identifier; Location; Work Type; Service Identifier; Appointment Slot Identifier, Appointment Slot Date/Time Conditional: None Optional: None						

TP004: requestCancelAppointment

Component Ref		TP004							
Component Name		requestCancelAppointment							
Description		A request from the Buyer to cancel an existing engineering appointment							
User Story		T2R2							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
Resources reservation cancelled first time Cancellation can occur at any time up to 'point of no return' (PONR) within the process Cancellations requested after the PONR are rejected with reason text/code There is a manual process available beyond the PONR (although the Supplier may levy charges) %times Manual fallback needed					Cancellation acknowledgement within <x seconds (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Problem Report identifier Conditional: None Optional: Appointment Slot Identifier						
Confirm									
Technical Standards			Conditional: Reappoint can fail if beyond PONR PR may still require and appointment Optional: None						
Data Standards			Required: Customer; Account; Problem Report Identifier; Location; Work Type; Service Identifier; Appointment Slot Identifier; Appointment Slot Date/Time Conditional: Failure if beyond Point of No Return Reappoint Required Optional: None						

TP005: requestServiceInformation

Component Ref		TP005							
Component Name		requestServiceInformation							
Description		A request from the Buyer to provide the details of a specified Supplier service instance (owned by that Buyer)							
User Story		T2R9							
Business Transaction Type		Request/Confirm							
Direction		Buyer-Supplier			Sub-Process		Miscellaneous		
Non-functional Criteria									
Right First Time					Cycle Time				
All necessary service information received first time %times manual exceptions occur					Time taken for the Supplier to gather all the relevant information for identifying the problem Response time <x sec (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier Conditional: None Optional: Problem Report Identifier						
Confirm									
Technical Standards			Conditional: Check if PR already exists Check if existing PR needs reappointing Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Service Status; Service Configuration; Dynamic status (e.g. service affected by PEW; alarm conditions etc) Conditional: Problem Report Identifier (if PR exists) Reappoint Required Optional: None						

TP006: requestTest

Component Ref		TP006							
Component Name		requestTest							
Description		A request from the Buyer to test a specified service instance							
User Story		T2R10							
Business Transaction Type		Request/Response							
Direction		Buyer-Supplier			Sub-Process		Testing		
Non-functional Criteria									
Right First Time					Cycle Time				
CP updated with test results first time %times manual exceptions occur					Response time <x seconds (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Request									
Technical Standards			<p>Conditional: Type of Test(s) depends on Service Type</p> <p>Optional: Different variants of Test (e.g. basic, full parametric, intrusive, non-intrusive etc) depending on Service Type A number of Test Variants to be performed in a prioritised order</p>						
Data Standards			<p>Required: Customer; Account; Service Identifier</p> <p>Conditional: Test Type</p> <p>Optional: Test Variant Tests Priority</p>						
Response									
Technical Standards			<p>Conditional: Test Type</p> <p>Optional: Test Variant</p>						
Data Standards			<p>Required: Customer; Account; Service Identifier; Test Result(s)</p> <p>Conditional: Test Type Test Failure Code/Description</p> <p>Optional: Result(s) for Test Variant Priority of Test Variant</p>						

TP007: queryFaultHistory

Component Ref		TP007							
Component Name		queryFaultHistory							
Description		A request from the Buyer to provide the fault history for a specified service instance (owned by that Buyer)							
User Story		T2R28							
Business Transaction Type		Query/Response							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Accurate fault history received the first time The default history period is 90 days (plus see Optional below) Rules are applied where the History is not available (e.g. on renumbered services) %times manual exceptions occur in obtaining the Fault History					Transaction response time <x seconds (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: History from/to dates (with maximum age (in months) and maximum window rules applied)						
Data Standards			Required: Customer; Account; Service Identifier Conditional: None Optional: From/To Dates						
Response									
Technical Standards			Conditional: None Optional: From/To Dates						
Data Standards			Required: Customer; Account; Service Identifier; Fault History details (default period 90 days unless option specified) Conditional: None Optional: From/To Dates						

TP008: requestProblemReport

Component Ref		TP008							
Component Name		requestProblemReport							
Description		A request from the Buyer to raise a Problem Report for a specified Supplier service instance (owned by that Buyer)							
User Story		T2R1, T2R11							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
<p>The problem report is raised successfully first time</p> <p>The PR contains all mandatory data to meet minimum quality standard</p> <p>If an Appointment has been reserved, this is booked against the PR</p> <p>%times manual exceptions occur in raising the report</p> <p>Expectation is the Supplier confirms their own diagnosis to the CP shortly after the report is acknowledged</p>					<p>Response time to accept a problem and confirm predicted repair time (Supplier->CP) dependent on specific processes</p> <p>This will start the SLA clock</p>				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			<p>Conditional:</p> <p>SLA will define priority of PR</p> <p>PR will require test results if the type of problem requires a test</p> <p>PR will require a reserved Appointment id if the test results indicate an End User premises problem</p> <p>Requested engineer visit window (applies to e.g. enhanced SLAs)</p> <p>Structured questions/answers to assist diagnosis</p> <p>Warning/Hazard notes relating to the End User premises</p> <p>Optional:</p> <p>Descriptive notes</p>						
Data Standards			<p>Required:</p> <p>Customer; Account; Service Identifier; Problem Type</p> <p>Conditional:</p> <p>Test Results; Appointment Identifier; Requested Appointment Window; Warning/Hazard Notes</p> <p>Optional:</p> <p>Notes (free format)</p>						
Response									
Technical Standards			<p>Conditional:</p> <p>Engineer visit window is confirmed (enhanced SLAs)</p> <p>Optional:</p> <p>None</p>						
Data Standards			<p>Required:</p> <p>Customer; Account; Service Identifier; Problem Report Identifier</p> <p>Conditional:</p> <p>Visit Window</p> <p>Optional:</p> <p>None</p>						

TP009: notifyKeepCustomerInformed

Component Ref		TP009							
Component Name		notifyKeepCustomerInformed							
Description		<p>A notification from the Supplier of change of state (see PR State Diagram), progress milestone, attribute, action required, or information on a Problem Report.</p> <p>Attribute can be e.g. appointment date/time.</p> <p>Action can be e.g. reappoint required.</p> <p>Information can be e.g. textual notes.</p>							
User Story		T2R4, T2R12							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Manage Progress		
Non-functional Criteria									
Right First Time					Cycle Time				
<p>CP receives KCI first time</p> <p>KCI includes component and/or e2e test results as applicable (see T2R6)</p> <p>KCI includes key milestones including Clear-confirm and Close</p> <p>KCI includes other instructions e.g.: reappoint required; TRC authorisation required; etc</p> <p>Includes advice that service has been demonstrated to End User if applicable</p> <p>%times manual exceptions occur</p> <p>%times the KCI milestones or SLA timescales breached</p>					<p>KCI updates based on process milestones/task completions to be agreed by CP and Supplier</p> <p>KCI message sent to CP >x seconds of process milestone being met, or could be sent as bulk update if agreed with CP</p> <p>This can stop the SLA clock if appropriate (this will be conveyed in the message)</p> <p>Service demonstrated notification will normally be sent as part of Clear of Supplier problem report</p>				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards		<p>Conditional:</p> <p>KCI will convey PR change of state, progress, attribute, action request, information</p> <p>Optional:</p> <p>None</p>							
Data Standards		<p>Required:</p> <p>Customer; Account; Service Identifier, Problem Report Identifier</p> <p>Conditional:</p> <p>PR State; Milestone (name); Appointment Slot Identifier; Appointment Slot Date/Time; Action Identifier; Information Notes (free format)</p> <p>Optional:</p> <p>None</p>							

TP010: requestSupplierTaskStatus

Component Ref		TP010							
Component Name		requestSupplierTaskStatus							
Description		A request from the Buyer to provide PR progress information							
User Story		T2R5							
Business Transaction Type		Request/Confirm							
Direction		Buyer-Supplier			Sub-Process		Manage Progress		
Non-functional Criteria									
Right First Time					Cycle Time				
Supplier receives request from CP first time CP receives correct update first time %times manual exceptions occur					Response time <x sec (expectation is transaction is real-time)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Descriptive notes can be added						
Data Standards			Required: Customer; Account; Service Identifier, Problem Report Identifier Conditional: None Optional: Notes (free format)						
Confirm									
Technical Standards			Conditional: Engineer visit window is confirmed (enhanced SLAs) Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; PR State; Last Milestone Identifier/Name Conditional: Visit Window Start/Stop Date/Time Optional: Notes (free format)						

TP011: requestProblemReportAmendment

Component Ref		TP011							
Component Name		requestProblemReportAmendment							
Description		<p>A request from the Buyer to amend the PR with an attribute or information.</p> <p>Attribute can be e.g. new appointment id.</p> <p>Information can be e.g. textual notes</p>							
User Story		T2R1, T2R17, T2R41							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
<p>The Amendment is received successfully first time</p> <p>%times manual exceptions occur in amending the report</p> <p>Amendment can convey information such as: new appt details, Time Related Charges authorisation; updated information from the EU; etc</p> <p>If an Appointment has been reserved, this is booked against the PR, and replaces any existing Appointment cancelling the resource reservation</p>					<p>Response time for confirmation of amendment <x mins</p> <p>This can adjust the SLA clock if appropriate (this will be conveyed in the message)(e.g. appt chosen beyond SLA date)</p> <p>Where amendment is to convey updated information, information sent within <x sec/min of it being available.</p> <p>This can adjust the SLA clock if appropriate (this will be conveyed in the message)</p>				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			<p>Conditional:</p> <p>Amendment can be an attribute of the PR e.g. Appointment id, authorisation of new charges</p> <p>Amendment can be providing additional information on the PR</p> <p>Optional:</p> <p>None</p>						
Data Standards			<p>Required:</p> <p>Customer; Account; Service Identifier, Problem Report Identifier</p> <p>Conditional:</p> <p>Appointment Slot Identifier; Charge Authorisation/Charge Band Identifier; Amendment Notes (free format)</p> <p>Optional:</p> <p>None</p>						
Response									
Technical Standards			<p>Conditional:</p> <p>None</p> <p>Optional:</p> <p>None</p>						
Data Standards			<p>Required:</p> <p>Customer; Account; Service Identifier; Problem Report Identifier; Amendment Confirm</p> <p>Conditional:</p> <p>None</p> <p>Optional:</p> <p>None</p>						

TP012: requestProblemReportCancellation

Component Ref		TP012							
Component Name		requestProblemReportCancellation							
Description		A request from the Buyer to cancel a Problem Report							
User Story		T2R18							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Problem Report cancellation received successfully first time					Response time for acknowledgement of receipt of cancellation <x secs				
%times manual exceptions occur in cancelling the report					Response time for confirmation of cancellation <x mins				
					This will stop the SLA clock				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier, Problem Report Identifier; Cancel reason Conditional: None Optional: None						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Cancel Confirm Conditional: None Optional: None						

TP013: requestProblemReportClearConfirm

Component Ref		TP013							
Component Name		requestProblemReportClearConfirm							
Description		A request from the Buyer, accepting the PR is Cleared, and that it can now be Closed							
User Story		T2R19							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Manage Progress		
Non-functional Criteria									
Right First Time					Cycle Time				
The Clear Confirm is received successfully first time %times manual exceptions occur in obtaining the Clear Confirm					Response time for confirmation of Clear Confirm <x mins				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Clear Confirm Conditional: None Optional: None						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Clear Confirm Acknowledge Conditional: None Optional: None						

TP014: requestProblemReportClearReject

Component Ref		TP014							
Component Name		requestProblemReportClearReject							
Description		A request from the Buyer, rejecting the PR is Cleared, and requesting further investigation and action							
User Story		T2R20							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Manage Progress		
Non-functional Criteria									
Right First Time					Cycle Time				
The Clear Reject is received successfully first time %times manual exceptions occur in obtaining the Clear Reject					Response time to complete unfinished problem resolution and send further Clear Confirm <x hours/mins (to be agreed by CP and Supplier) This will restart the SLA clock				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Clear Reject Conditional: None Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Clear Reject Acknowledge Conditional: None Optional: None						

TP015: notifyCharge

Component Ref		TP015							
Component Name		notifyCharge							
Description		A notification from the Supplier that a new or additional charge (e.g. Time Related Charges) will be levied, and requesting authorisation from the Buyer							
User Story		T2R30							
Business Transaction Type		Notification Commercial							
Direction		Supplier-Buyer			Sub-Process		Charges		
Non-functional Criteria									
Right First Time					Cycle Time				
Charge notification received the first time %times manual exceptions occur in obtaining the Charge notification					Transaction response time <x seconds This can stop the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Charge Amount/Charge Band; Reason Conditional: None Optional: Notes						

TP016: notifyAppointmentCharge

Component Ref		TP016							
Component Name		notifyAppointmentCharge							
Description		A notification from the Supplier that new or additional Time Related Charges related to the engineering appointment will be levied, and requesting authorisation from the Buyer							
User Story		T2R46							
Business Transaction Type		Notification Commercial							
Direction		Supplier-Buyer			Sub-Process		Charges		
Non-functional Criteria									
Right First Time					Cycle Time				
The Notification to the CP is received first time The Notification identifies the reason (i.e. appt abandoned) The Notification details the new charges (e.g. charge band) %times Manual fallback needed to send Notification					A time-out will apply to the wait period whereby the PR must be reappointed or cancelled by the CP (by product, to be agreed by CP and Supplier) This can stop the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards		Conditional: None Optional: None							
Data Standards		Required: Customer; Account; Service Identifier; Problem Report Identifier; Charge Amount/Charge Band; Reason Conditional: None Optional: Notes							

TP017: requestChargeConfirm

Component Ref		TP017							
Component Name		requestChargeConfirm							
Description		A request from the Buyer notifying that the new or additional charge is accepted							
User Story		T2R31							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Charges		
Non-functional Criteria									
Right First Time					Cycle Time				
Charge Confirm received the first time %times manual exceptions occur in obtaining the Charge Confirm					Transaction response time <x seconds This can start the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Charge Confirm Conditional: None Optional: None						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Charge Confirm Acknowledge Conditional: None Optional: None						

TP018: requestChargeReject

Component Ref		TP018							
Component Name		requestChargeReject							
Description		A request from the Buyer notifying that the new or additional charge is rejected							
User Story		T2R31							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Charges		
Non-functional Criteria									
Right First Time					Cycle Time				
Charge Reject received the first time %times manual exceptions occur in obtaining the Charge Reject					Transaction response time <x seconds This can start the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Charge Reject Conditional: None Optional: Notes						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Charge Reject Acknowledge Conditional: None Optional: Notes						

TP019: notifyPlannedOutage

Component Ref		TP019							
Component Name		notifyPlannedOutage							
Description		A notification from the Supplier that a service outage on a number of services owned by the Buyer is necessary to resolve the PR (e.g. change-out of a piece of common equipment), and requesting authorisation from the Buyer							
User Story		T2R32							
Business Transaction Type		Information Distribution							
Direction		Supplier-Buyer			Sub-Process		PEW & MSO		
Non-functional Criteria									
Right First Time					Cycle Time				
Planned Outage notification received the first time Planned Outage identifies all CP services that will be affected If other CPs are affected, the process follows the PEW process using TP039 %times manual exceptions occur in obtaining the Planned Outage notification					Transaction response time <x seconds This can stop the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Information Distribution									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Planned Outage Start Date/Time; Estimated Complete Date/Time; Affected Service Identifiers Conditional: None Optional: Notes (free format)						

TP020: requestPlannedOutageConfirm

Component Ref		TP020							
Component Name		requestPlannedOutageConfirm							
Description		A request from the Buyer notifying that the Planned Outage is accepted							
User Story		T2R33							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Planned Outage Confirm received the first time %times manual exceptions occur in obtaining the Planned Outage Confirm					Transaction response time <x seconds This can start the SLA clock if appropriate (this will be conveyed in the message)				
								Document Security	
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Planned Outage Start Date/Time; Estimated Complete Date/Time; Affected Service Identifiers; Planned Outage Accept Conditional: None Optional: Notes can be added						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Planned Outage Confirm Acknowledge Conditional: None Optional: Notes (free format)						

TP021: requestPlannedOutageReject

Component Ref		TP021							
Component Name		requestPlannedOutageReject							
Description		A request from the Buyer notifying that the Planned Outage is rejected							
User Story		T2R33							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Planned Outage Reject received the first time %times manual exceptions occur in obtaining the Planned Outage Reject					Transaction response time <x seconds This can start the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non- repudiation Receipt	Non- repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Planned Outage Reject Conditional: None Optional: Notes can be added						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier, Planned Outage Reject Acknowledge Conditional: None Optional: Notes (free format)						

TP022: notifyInformationRequired

Component Ref		TP022							
Component Name		notifyInformationRequired							
Description		A notification from the Supplier, requesting that additional information is required from the Buyer/End User in order to progress the PR							
User Story		T2R14							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Information request received successfully first time Accurate information obtained the first time					Response time <x sec (expectation is transaction is real-time) This can stop the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards		Conditional: None Optional: None							
Data Standards		Required: Customer; Account; Service Identifier; Problem Report Identifier; Notes (free format) Conditional: None Optional: None							

TP023: notifyAssistanceRequired

Component Ref		TP023							
Component Name		notifyAssistanceRequired							
Description		A notification from the Supplier, requesting assistance from the Buyer, End User or other party in order to progress the PR (e.g. End User to disconnect CPE)							
User Story		T2R15							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
The Assistance notification received successfully on time The Assistance is obtained within SLA					Response time of manual response <x mins/hours This can stop the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			Conditional: A preferred assistance time window can be requested Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Assistance Notes (free format) Conditional: Requested Assistance Time Window Start/Stop Date/Time Optional: None						

TP024: notifyJeopardy

Component Ref		TP024							
Component Name		notifyJeopardy							
Description		A notification from the Supplier that the SLA will not be met due to a reason(s)							
User Story		T2R16							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Manage Progress		
Non-functional Criteria									
Right First Time					Cycle Time				
CP receives jeopardy notification first time Notification details reason and impact description (could be a reason code if agreed with CPs) Notification could include requested action by CP %times exceptions occur					Jeopardy message sent to CP <x seconds of jeopardy condition occurring				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			Conditional: Estimated resolution date/time Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Jeopardy Reason Conditional: Estimate Resolution Date/Time Optional: Notes (free format)						

TP025: requestEscalateProblemReport

Component Ref		TP025							
Component Name		requestEscalateProblemReport							
Description		A request from the Buyer to raise the priority of a PR, or chase lack of resolution beyond SLA							
User Story		T2R29							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Manage Progress		
Non-functional Criteria									
Right First Time					Cycle Time				
Problem Escalation request received the first time %times manual exceptions occur in obtaining the Problem Escalation request					Transaction response time <x minutes This can adjust the SLA clock (e.g. a higher level SLA applied)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: Escalation reason Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Escalation Conditional: Escalation Reason Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Escalation Confirm Conditional: None Optional: Notes (free format)						

TP026: notifyEndUserVisitNotRequired

Component Ref		TP026							
Component Name		notifyEndUserVisitNotRequired							
Description		A notification from the Supplier that it will not be necessary for the engineer to visit the End User's premises (e.g. because the problem can be resolved in the external network)							
User Story		T2R35							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Visit Not Required notification received the first time %times manual exceptions occur in obtaining the Notification					Visit Not Required notification sent within x mins of engineer identifying the need				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Visit Not Required Reason Conditional: None Optional: Notes (free format)						

TP027: requestAppointmentCancellation

Component Ref		TP027							
Component Name		requestAppointmentCancellation							
Description		A request from the Supplier to cancel an existing engineering appointment for the PR, as it is identified as no longer necessary to resolve the problem							
User Story		T2R37							
Business Transaction Type		Commercial Transaction Notification							
Direction		Supplier-Buyer			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
Appt Cancellation received first time %times Manual fallback needed Cancellation request can occur at any time up to 'point of no return' (PONR) within the process There is a manual process available beyond the PONR					Transaction response time <x seconds This can stop the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Appointment Cancellation Reason Conditional: Escalation Reason Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Appointment Cancellation Confirm Conditional: None Optional: Notes (free format)						

TP028: requestAppointmentCancellationConfirm

Component Ref		TP028							
Component Name		requestAppointmentCancellationConfirm							
Description		A request from the Buyer notifying that the appointment cancellation is accepted							
User Story		T2R38							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
Appt Cancellation Confirm received the first time %times manual fallback needed in sending the notification					Transaction response time <x seconds This can start the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier Conditional: None Optional: None						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Appointment Cancellation Confirm Conditional: None Optional: None						

TP029: requestAppointmentCancellationReject

Component Ref		TP029							
Component Name		requestAppointmentCancellationReject							
Description		A request from the Buyer notifying that the appointment cancellation is rejected							
User Story		T2R39							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Appointing		
Non-functional Criteria									
Right First Time					Cycle Time				
Appt Cancellation Reject received the first time %times manual fallback needed in sending the notification					Transaction response time <x seconds This can start the SLA clock if appropriate (this will be conveyed in the message)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Appointment Cancellation Reject Conditional: None Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier Conditional: None Optional: None						

TP030: requestProblemReportSuspend

Component Ref		TP030							
Component Name		requestProblemReportSuspend							
Description		A request from the Buyer to suspend progression of the PR, stopping the SLA clock							
User Story		T2R42							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Supplier receives request from CP first time %times manual exceptions occur					Response time <x sec (expectation is transaction is real-time) Supplier stops their SLA clock on receipt of Suspend, and restarts clock on receipt of Resume Supplier applies a time-out if no Resume is received within x hours/days (to be agreed by CP and Supplier)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Suspend; Suspend Reason Conditional: None Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Suspend Confirm Conditional: None Optional: None						

TP031: requestProblemReportResume

Component Ref		TP031							
Component Name		requestProblemReportResume							
Description		A request from the Buyer to resume progression of the PR, restarting the SLA clock							
User Story		T2R42							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Supplier receives request from CP first time %times manual exceptions occur					Response time <x sec (expectation is transaction is real-time) Supplier stops their SLA clock on receipt of Suspend, and restarts clock on receipt of Resume Supplier applies a time-out if no Resume is received within x hours/days (to be agreed by CP and Supplier)				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Resume Conditional: None Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: None						
Data Standards			Required: Customer; Account; Service Identifier; Problem Report Identifier; Resume Confirm Conditional: None Optional: None						

TP032: notifyAutoCancel

Component Ref		TP032							
Component Name		notifyAutoCancel							
Description		A notification from the Supplier that the PR has been automatically cancelled							
User Story		T2R47							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
<p>The Notification to the CP is received first time</p> <p>The Notification identifies the reason (e.g. auto cancel of a Suspended PR where no Resume received)</p> <p>The auto cancel is invoked according to business rules applied by the process</p> <p>%times Manual fallback needed to send Notification</p>					<p>Time-out applied to Suspended PRs before reminder KCI sent</p> <p>Further time-out applied between KCI and auto-cancel</p> <p>Time-out periods will be agreed between CP and Supplier</p>				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			<p>Conditional: None</p> <p>Optional: Notes can be added</p>						
Data Standards			<p>Required: Customer; Account; Service Identifier; Problem Report Identifier; Auto-cancelled; Reason for Cancel</p> <p>Conditional: None</p> <p>Optional: Notes (free format)</p>						

TP033: notifyBuyerProblemReport

Component Ref		TP033							
Component Name		notifyBuyerProblemReport							
Description		A notification from the Supplier requesting a PR is raised in the Buyer's domain							
User Story		T2R25							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
The Problem Report is received successfully first time %times manual exceptions occur in obtaining the Problem Report					Response time for acknowledgement of receipt of the Problem Report <x secs This starts an SLA clock in the CP's domain				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non- repudiation Receipt	Non- repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards		Conditional: Hazard/Warning notes if applicable Optional: Notes can be added							
Data Standards		Required: Customer; Account; Service Identifier; Problem Type Conditional: Hazard/Warning Notes Optional: Notes (free format)							

TP034: notifyBuyerTaskStatus

Component Ref		TP034							
Component Name		notifyBuyerTaskStatus							
Description		A notification from the Buyer of change of state, progress milestone, attribute, action required, or information on a PR							
User Story		T2R39							
Business Transaction Type		Notification							
Direction		Buyer-Supplier			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
Supplier receives notification first time %times manual exceptions occur					Updates based on process milestones/task completions to be agreed by CP and Supplier SLA clock stopped within Supplier domain whilst waiting on task completion from CP Notify message sent to Supplier within <x seconds of process milestone being met				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			<p>Conditional: Keep Supplier Informed will convey PR change of state, progress, attribute, action request, information</p> <p>Optional: Notes can be added</p>						
Data Standards			<p>Required: Customer; Supplier; Account; Service Identifier, Problem Report Identifier</p> <p>Conditional: State; Milestone (name); Appointment Slot Identifier; Action Identifier; Information Notes (free format)</p> <p>Optional: Notes (free format)</p>						

TP035: requestBuyerTaskStatus

Component Ref		TP035							
Component Name		requestBuyerTaskStatus							
Description		A request from the Supplier for the Buyer to provide PR progress information on a PR							
User Story		T2R40							
Business Transaction Type		Request/Response							
Direction		Supplier-Buyer			Sub-Process		Resolve Problem		
Non-functional Criteria									
Right First Time					Cycle Time				
CP receives request from Supplier first time Supplier receives correct update first time %times manual exceptions occur					Response time <x sec (expectation is transaction is real-time) If Supplier receives a completion status update the Supplier restarts the SLA clock on their PR				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Supplier; Account; Service Identifier, Problem Report Identifier Conditional: State; Milestone (name); Appointment Slot Identifier; Action Identifier; Information Notes (free format) Optional: Notes (free format)						
Response									
Technical Standards			Conditional: Keep Supplier Informed will convey PR change of state, progress, attribute, action request, information Optional: Notes can be added						
Data Standards			Required: Customer; Supplier; Account; Service Identifier, Problem Report ; PR State; Last Milestone Identifier/Name Conditional: None Optional: Notes (free format)						

TP036: requestThirdPartyReport

Component Ref		TP036							
Component Name		requestThirdPartyReport							
Description		A request from the Buyer to accept a PR notified to them by a third party, for a problem which likely exists in the Supplier's domain (e.g. member of the public has reported to their CP (Buyer), a problem existing in the Supplier's domain)							
User Story		T2R21							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Miscellaneous		
Non-functional Criteria									
Right First Time					Cycle Time				
The Third Party report is received successfully first time %times manual exceptions occur in obtaining the Third Party report					Response time for acknowledgement of receipt of Third Party report <x secs				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: Service(s) affected Optional: Notes can be added						
Data Standards			Required: Customer; Supplier; Account; Report Description (free format); Geographic Location Conditional: Affected Service Identifier(s) Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Third Party Report Acknowledge Conditional: None Optional: Notes (free format)						

TP037: notifyThirdPartyReport

Component Ref		TP037							
Component Name		notifyThirdPartyReport							
Description		A notification from the Supplier of a PR notified to them by a third party for a problem which likely exists in the Buyer's domain							
User Story		T2R22							
Business Transaction Type		Notification							
Direction		Supplier-Buyer			Sub-Process		Miscellaneous		
Non-functional Criteria									
Right First Time					Cycle Time				
The Third Party report is received successfully first time %times manual exceptions occur in obtaining the Third Party report					Response time for acknowledgement of receipt of Third Party report <x secs				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Notification									
Technical Standards			Conditional: Service(s) affected Optional: Notes can be added						
Data Standards			Required: Customer; Supplier; Account; Report Description (free format); Geographic Location Conditional: Affected Service Identifier(s) Optional: Notes (free format)						

TP038: requestDamageReport

Component Ref		TP038							
Component Name		requestDamageReport							
Description		A request from the Buyer to accept a PR relating to damage to infrastructure in the Supplier's domain (e.g. overhead cable is down)							
User Story		T2R23							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Miscellaneous		
Non-functional Criteria									
Right First Time					Cycle Time				
The Damage report is received successfully first time %times manual exceptions occur in obtaining the Damage report					Response time for acknowledgement of receipt of Damage report <x secs				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: Service(s) affected Optional: Notes can be added						
Data Standards			Required: Customer; Supplier; Account; Report Description (free format); Geographic Location Conditional: Affected Service Identifier(s) Optional: Notes (free format)						
Response									
Technical Standards			Conditional: None Optional: Notes can be added						
Data Standards			Required: Customer; Damage Report Acknowledge Conditional: None Optional: Notes (free format)						

TP039: notifyPlannedEngineeringWorks

Component Ref		TP039							
Component Name		notifyPlannedEngineeringWorks							
Description		A notification from the Supplier to one or more Buyer's, pre-warning of necessary engineering work which will disrupt certain services owned by the Buyer(s)							
User Story		T2R34							
Business Transaction Type		Information Distribution							
Direction		Supplier-Buyer			Sub-Process		PEW & MSO		
Non-functional Criteria									
Right First Time					Cycle Time				
PEW notification received the first time PEW identifies all CP services that will be affected Planned PEW timing conforms to any business rules (e.g. non-working hours) PEW information (location/timing/affected services etc) is available to the Supplier's Resolve Problem and Monitor & Assure processes %times manual exceptions occur in obtaining the PEW notification					Notification should be a minimum of x hours prior to the PEW				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	No	No	No	No	Transient	Transient	Transient
Notification									
Technical Standards		Conditional: Service(s) affected Optional: Notes can be added							
Data Standards		Required: PEW Identifier; PEW Description (free format); Geographic Location (e.g. Exchange Code; Telephony Number Ranges); Planned Outage Start Date/Time; Estimated Complete Date/Time Conditional: Affected Service Identifier(s) Optional: Notes (free format)							

TP040: notifyMajorServiceOutage

Component Ref		TP040							
Component Name		notifyMajorServiceOutage							
Description		A notification from the Supplier of a problem affecting the services of one or more Buyers (e.g. a telecommunications cable has been severed)							
User Story		T2R24, T2R43							
Business Transaction Type		Information Distribution							
Direction		Supplier-Buyer			Sub-Process		PEW & MSO		
Non-functional Criteria									
Right First Time					Cycle Time				
<p>MSO (Reportable Incident) notification received the first time</p> <p>MSO identifies all CP services that will be affected</p> <p>MSO notification includes likely service outage time</p> <p>MSO information (location/timing/affected services etc) is available to the Supplier's Resolve Problem and Monitor & Assure processes</p> <p>%times manual exceptions occur in obtaining the MSO notification</p>					<p>Notification should happen within x mins of the MSO being identified</p>				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	No	No	No	No	Transient	Transient	Transient
Notification									
Technical Standards		<p>Conditional: Service(s) affected</p> <p>Optional: Notes can be added</p>							
Data Standards		<p>Required: MSO Identifier; MSO Description (free format); Geographic Location (e.g. Exchange Code; Telephony Number Ranges)</p> <p>Conditional: Affected Service Identifier(s)</p> <p>Optional: Notes (free format)</p>							

TP041: notifyPewOrMsoStatus

Component Ref		TP041							
Component Name		notifyPewOrMsoStatus							
Description		A notification from the Supplier of status/progress with a PEW or MSO (e.g. progress update or completion)							
User Story		T2R44							
Business Transaction Type		Information Distribution							
Direction		Supplier-Buyer			Sub-Process		PEW & MSO		
Non-functional Criteria									
Right First Time					Cycle Time				
PEW/MSO status notification received the first time PEWMSO start notification includes predicted finish time PEWMSO notification can convey cause or resolution progress notes PEW/MSO status information (location/timing/affected services etc) is available to the Supplier's Resolve Problem and Monitor & Assure processes %times manual exceptions occur in obtaining the PEW/MSO notification					Notification should happen within x mins of the PEWMSO being started or finished				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	No	No	No	No	Transient	Transient	Transient
Notification									
Technical Standards		Conditional: Service(s) affected Estimated completion date/time Notes can be added Optional: None							
Data Standards		Required: PEW or MSO Identifier; PEW or MSO Description (free format); Status Conditional: Affected Service Identifier(s) Optional: Estimated Completion Date/Time Notes (free format)							

TP042: notifyPerformanceData

Component Ref		TP042							
Component Name		notifyPerformanceData							
Description		A notification from the Supplier including a periodic service performance report							
User Story		T2R7							
Business Transaction Type		Information Distribution							
Direction		Supplier-Buyer			Sub-Process		Management Information		
Non-functional Criteria									
Right First Time					Cycle Time				
The performance data provided correctly the first time %times exceptions occur %times manual fallback required					The regularity of reports sent to the CP to be agreed between CP and Supplier				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
No		No	No	No	No	No	Transient	Transient	Transient
Notification									
Technical Standards			<p>Conditional: Different types of service Performance Report can be produced – the Supplier should agree these with their Buyers</p> <p>Optional: Notes can be added</p>						
Data Standards			<p>Required: Customer; Supplier; Report Start/End Date/Time</p> <p>Conditional: Report Type; Performance Data</p> <p>Optional: Notes (free format)</p>						

TP043: requestPerformanceData

Component Ref		TP043							
Component Name		requestPerformanceData							
Description		A request from the Buyer to provide a service performance report							
User Story		T2R8							
Business Transaction Type		Request/Response							
Direction		Buyer-Supplier			Sub-Process		Management Information		
Non-functional Criteria									
Right First Time					Cycle Time				
The performance data provided correctly the first time The performance data provided on time %times exceptions occur %times manual fallback required %times information requested					Response time to receive report is x sec/min from request				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	No	No	No	No	Transient	Transient	Transient
Request									
Technical Standards			<p>Conditional: Different types of service Performance Report can be produced – the Supplier should agree these with their Buyers</p> <p>Optional: The period of the Report Notes can be added</p>						
Data Standards			<p>Required: Customer; Supplier</p> <p>Conditional: Report Type</p> <p>Optional: Report Start/End Date/Time Notes (free format)</p>						
Response									
Technical Standards			<p>Conditional: Report of requested type</p> <p>Optional: Notes can be added</p>						
Data Standards			<p>Required: Customer; Supplier; Report Start/End Date/Time</p> <p>Conditional: Report Type; Performance Data</p> <p>Optional: Notes (free format)</p>						

TP044: requestAgencyTasks

Component Ref		TP044							
Component Name		requestAgencyTasks							
Description		A request from the Buyer to undertake specified tasks on an agency basis, as part of the Buyer's T2R business process							
User Story		T2R3							
Business Transaction Type		Commercial Transaction							
Direction		Buyer-Supplier			Sub-Process		Miscellaneous		
Non-functional Criteria									
Right First Time					Cycle Time				
The task request is sent to the Supplier correctly the first time %times manual exceptions occur					Response time for transaction <x sec (expectation is transaction is real-time) This will start the SLA clock				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			Conditional: Different types Task can exist Required start and completion dates Optional: Notes can be added						
Data Standards			Required: Customer; Request Identifier Conditional: Task Type Task Start/Complete Date/Time Optional: Notes (free format)						
Response									
Technical Standards			Conditional: Task Type Optional: Notes can be added						
Data Standards			Required: Customer; Supplier; Request Identifier; Task Confirm Conditional: Task Type; Planned Start Date/Time; Planned Complete Date/Time Optional: Notes (free format)						

TP045: requestSupplierInput

Component Ref		TP045							
Component Name		requestSupplierInput							
Description		A request from the Supplier to set up a schedule of activities requiring Buyer/End User/other Supplier input (e.g. scheduled maintenance activities)							
User Story		T2R13							
Business Transaction Type		Commercial Transaction							
Direction		Supplier-Buyer			Sub-Process		Miscellaneous		
Non-functional Criteria									
Right First Time					Cycle Time				
Co-operation request received successfully first time %times exceptions occur					Response time to be agreed by CP and Supplier				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Yes		No	Yes	Yes	Yes	No	Transient	Transient	Transient
Request									
Technical Standards			<p>Conditional: Type of input/collaboration required Regularity of input Start date/time of first input and stop date/time of last Authorised charging value or levels</p> <p>Optional: Notes can be added</p>						
Data Standards			<p>Required: Customer; Request Identifier</p> <p>Conditional: Input Type; Input Start Date/Time, Input Stop Date/Time; Input Regularity Period; Authorised Charge Value/Level</p> <p>Optional: Notes (free format)</p>						
Response									
Technical Standards			<p>Conditional: Task Type</p> <p>Optional: Notes can be added</p>						
Data Standards			<p>Required: Customer; Supplier; Request Identifier; Input Confirm</p> <p>Conditional: Input Type; Planned Start Date/Time; Planned Complete Date/Time; Planned Regularity Period; Authorised Charge Value/Level</p> <p>Optional: Notes (free format)</p>						

TPxxx: Touchpoint Template

Component Ref		TPxxx							
Component Name									
Description									
User Story									
Business Transaction Type									
Direction					Sub-Process				
Non-functional Criteria									
Right First Time					Cycle Time				
							Document Security		
Response Required	Time To Perform	Legal Intent	Guaranteed Message Delivery Required	Non-repudiation Receipt	Non-repudiation of Origin & Content	Authorisation Required	Confidential	Tamper Detectable	Authenticated
Request									
Technical Standards			Conditional: Optional:						
Data Standards			Required: Conditional: Optional:						
Response									
Technical Standards			Conditional: Optional:						
Data Standards			Required: Conditional: Optional:						

Annex 2: Patterns

This Annex includes the Pattern definition tables. The “data” sections are a high-level view of key data items, but do not define full data sets or formats.

The following table details the index of Patterns, and shows which Sub-Processes are used within each Pattern.

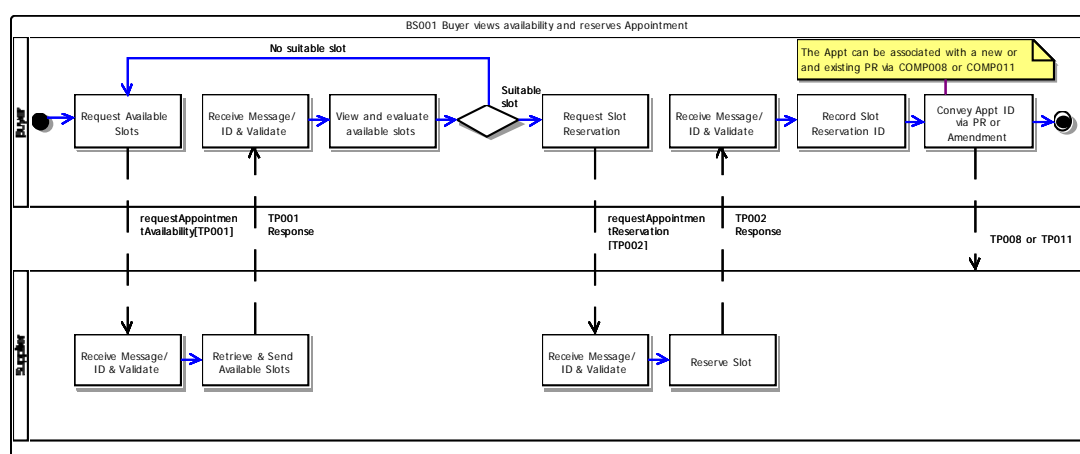
Pattern Index

No.	Pattern	Sub-Processes used
BS001	Buyer views availability and reserves Appointment	Appointing
BS002	Buyer queries service information	Resolve Problem
BS003	Buyer tests service	Testing
BS004	Buyer queries fault history for a service	Resolve Problem
BS005	T2R Problem Report success path	Resolve Problem Manage Progress
BS006	Supplier rejects Problem Report RWT	Resolve Problem Manage Progress
BS007	Buyer cancels Problem Report	Resolve Problem
BS008	Buyer cancels existing Appointment	Appointing
BS009	Buyer changes Appointment date/slot	Appointing
BS010	Buyer queries Appointment details for PR	Appointing
BS011	Supplier requests Appointment cancellation	Appointing
BS012	Supplier informs Appointment cost exceeded	Resolve Problem Charges
BS013	No-Access Appointment	Manage Progress
BS014	Supplier informs End User visit not required	Resolve Problem
BS015	Supplier notifies charge	Charges Manage Progress
BS016	Supplier jeopardy - SLA not met	Manage Progress
BS017	Supplier jeopardy - reappoint required	Manage Progress Appointing
BS018	Buyer escalates Problem Report	Manage Progress
BS019	Supplier requires further information	Resolve Problem
BS020	Supplier requests assistance	Resolve Problem
BS021	Supplier requests Planned Outage	PEW & MSO
BS022	Buyer requests KCI	Manage Progress
BS023	Buyer suspends then resumes Problem Report	Resolve Problem
BS024	Supplier auto-cancels Problem Report with stopped SLA Clock	Manage Progress
BS025	Buyer rejects Clear	Manage Progress
BS026	Supplier auto-closes Problem Report	Manage Progress
BS027	Supplier notifies and progresses Planned Engineering Works (PEW)	PEW & MSO
BS028	Supplier notifies and progresses Major Service Outage (MSO)	PEW & MSO
BS029	Supplier provides Performance Report	Management Information
BS030	Buyer requests Performance Report	Management Information

BS001: Buyer views availability and reserves Appointment

Pattern Ref	BS001
Pattern Name	Buyer views availability and reserves Appointment
Description	The Buyer checks the availability of Appointment slots to meet the needs of the Problem Report, and reserves a slot
Components Used	TP001; TP002; TP008; TP011

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR not yet created, or created but no Appt exists 2. Information from End User or diagnostics requires an Appt	1. Appt booked within SLA or to meet EU requirement 2. CAD/CCD extended to Appt date if EU has requested date beyond SLA	1. No slots available within CAD/CCD 2. Back-end Appt function not available 3. Appt already exists for PR

Technical Hand-offs

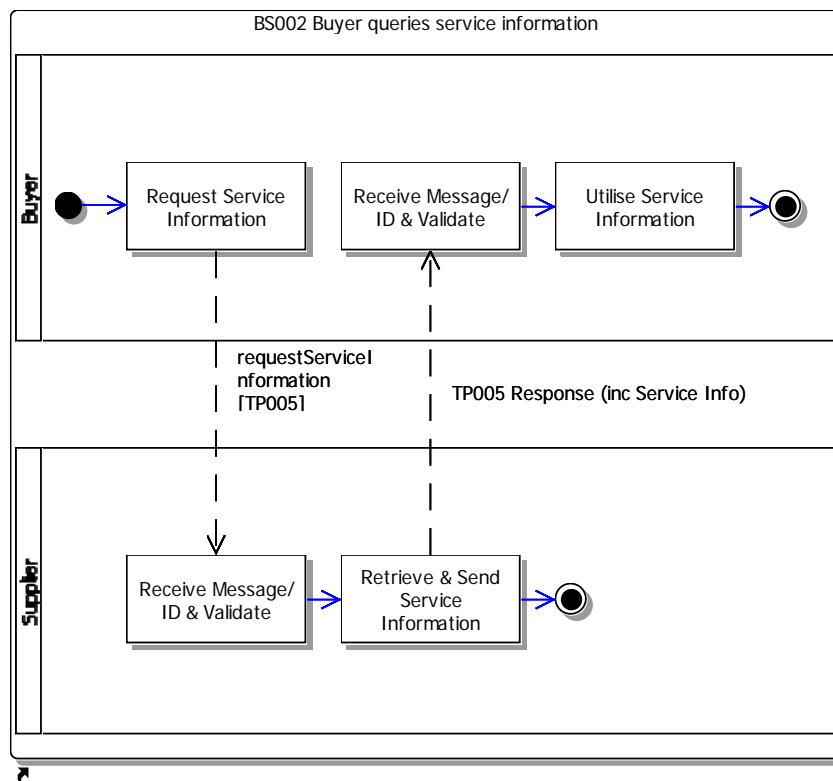
- Buyer initiates TP001
- Supplier checks conditional/optional parameters and responds with available slots, closing TP001
- The Buyer process checks if the available slots meet their conditions. If:
 - Conditions are met, an automated process can initiate TP002
 - Conditions are not met, a manual process can either accept a slot that does not meet the conditions and initiate TP002, or can re-initiate TP001
- Buyer initiates TP002 to reserve the chosen slot
- Supplier attempts to reserve the slot:
 - If successful, Supplier responds with the Appointment slot id, closing TP002
 - If unsuccessful, a Business Failure message is returned to the Buyer, closing TP002. The Buyer will have to try to reserve another slot using TP002, or re-check availability first via TP001, and repeat the reservation process
- Buyer then books the Appointment:
 - By raising a new Problem Report, including the Appointment slot id using TP008. This could be an automated process
 - An automated process can amend an existing (open) Problem Report, adding the Appointment

slot id using TP011			
Data Flows			
Component	Input/Output	CRUD	Data
TP001	Input	C C C	Work type Date/Time Personnel requirement
TP001	Output	C	Available slots
Buyer Internal			No change
TP002	Input	U	Available slot to reserve
TP002	Output – Success	U C	Reservation Appointment slot id
TP002	Output - Failure	C D	Rejection notification Reservation
Buyer Internal			No change
TP008	Input	C	Problem Report inc Appointment slot id
TP011	Input	U	Problem Report with Appointment slot id

BS002: Buyer queries service information

Pattern Ref	BS002
Pattern Name	Buyer queries service information
Description	The Buyer requests the static and dynamic information relating to the service instance experiencing a problem
Components Used	TP005

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. Service instance for the Buyer exists	1. Service information provided	1. Back-end Service Info function not available

Technical Hand-offs

- Buyer initiates TP005
- Supplier collates the service static and dynamic information and responds, closing TP005

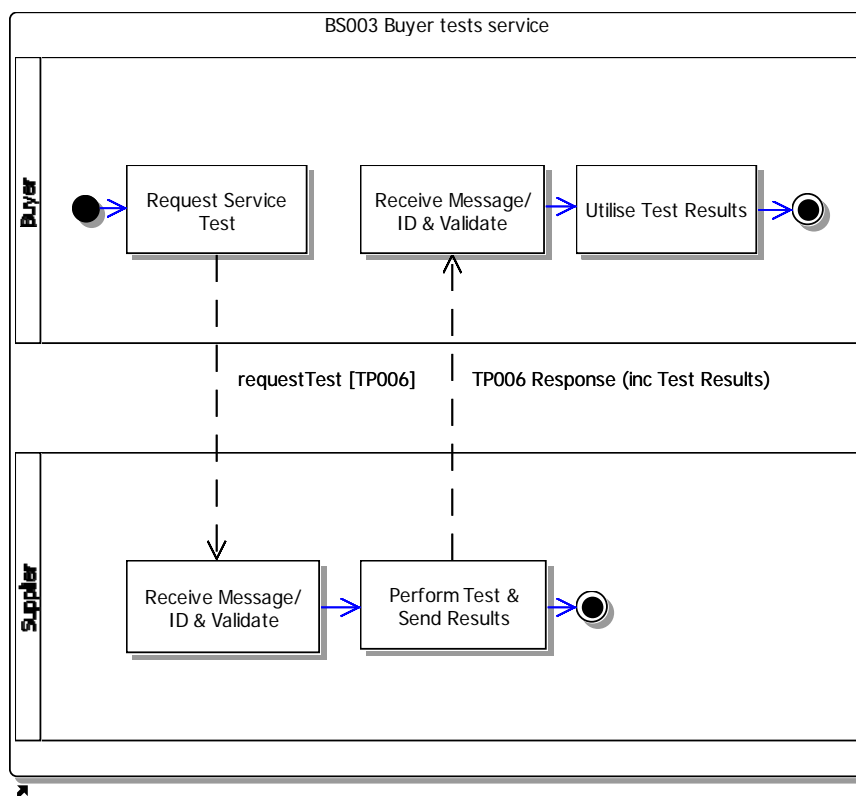
Data Flows

Component	Input/Output	CRUD	Data
TP005	Input	C	Information request
TP005	Output – Success	C	Service Information
TP005	Output – Failure	C	Rejection

BS003: Buyer tests service

Pattern Ref	BS003
Pattern Name	Buyer tests service
Description	The Buyer requests an on-demand test of the service experiencing a problem
Components Used	TP006

Process Pattern

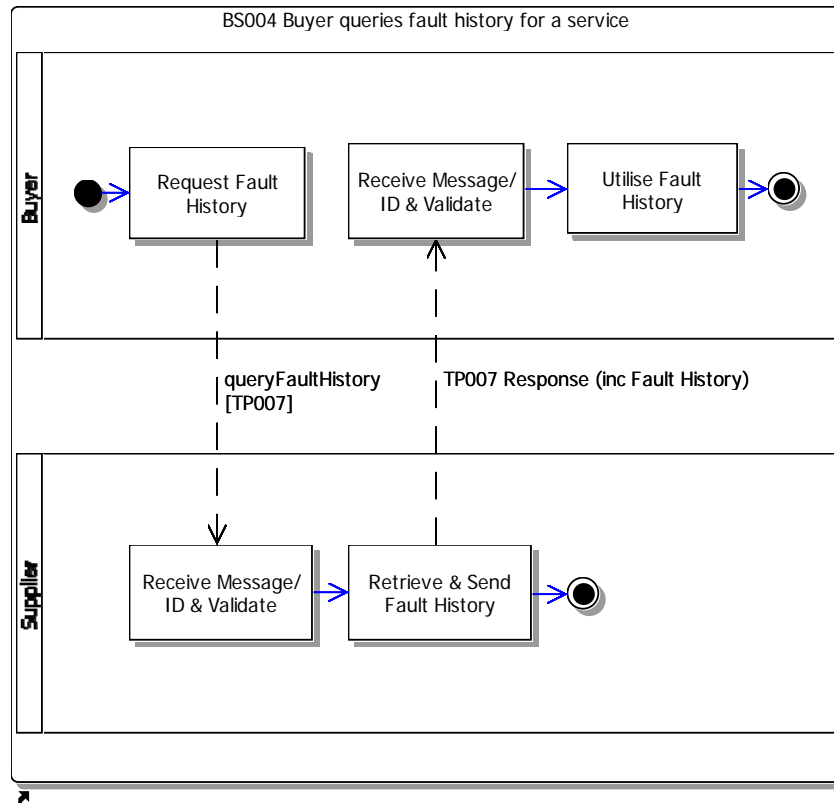


Success Path		Alternative Outcomes	
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)	
1. Service instance for the Buyer exists 2. Required test type is known (e.g. for particular product)	1. Test results provided	1. Back-end Test function not available	
Technical Hand-offs			
1. Buyer initiates TP006 for the relevant test(s) for the service type 2. Supplier invokes the service test(s). If: <ul style="list-style-type: none"> The test conditions allow (e.g. test head free) it tests the service and responds with the test results, closing TP006 The test conditions do not allow, a Business Failure message is returned to the Buyer, closing TP006 			
Data Flows			
Component	Input/Output	CRUD	Data
TP006	Input	C	Test request
TP006	Output – Success	C	Test results
TP006	Output – Failure	C	Test failure response

BS004: Buyer queries fault history for a service

Pattern Ref	BS004
Pattern Name	Buyer queries fault history for a service
Description	Buyer queries the historic fault information for a service instance
Components Used	TP007

Process Pattern



Success Path

Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	Alternative Outcomes (note: these do not cover messaging failures)
---	------------------------	--

1. Service instance for the Buyer exists	1. Fault history provided	1. Back-end Service History function not available
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Technical Hand-offs

- Buyer initiates TP007, specifying the history period if default period not appropriate
- Supplier collates fault history for the period and responds, closing TP007

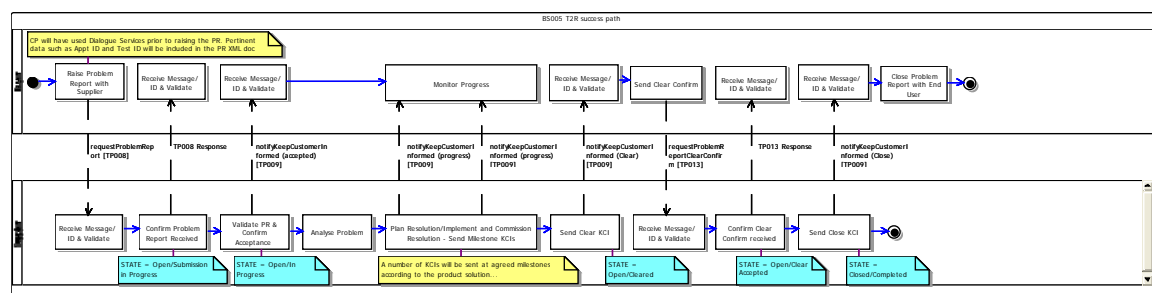
Data Flows

Component	Input/Output	CRUD	Data
TP007	Input	C	Fault History request
TP007	Output	C	Fault History log

BS005: T2R Problem Report success path

Pattern Ref	BS005
Pattern Name	T2R Problem Report success path
Description	Buyer has already performed necessary pre-Problem Report checks and actions (e.g. test, appoint). Buyer raises a problem Report with the Supplier. The Supplier validates the PR and accepts it, then progresses the resolution, reporting progress updates. Supplier reports the problem is cleared. Buyer accepts it is cleared and the PR is closed by the Supplier.
Components Used	

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> Service instance for the Buyer exists Buyer believes there is a problem in the Supplier's domain Buyer has gathered necessary data via Dialogue Services e.g. test results and has IDs available to include in the PR data 	<ol style="list-style-type: none"> Problem resolved to End User/Buyer satisfaction PR record within Supplier domain closed pending any records update and billing actions 	Multiple - covered by other detailed scenarios

Technical Hand-offs

- Buyer initiates TP008
- Supplier validates the Problem Report XML document
 - Validation successful, the PR is acknowledged, closing TP008
 - Validation unsuccessful, the PR is rejected, closing TP008
- Supplier performs further validation checks to confirm the service status and necessary test id, appointment id etc
 - Validation successful, the PR is accepted and an automated process initiates TP009 (accept)
 - Validation unsuccessful, the PR is rejected and an automated process initiates TP009 (reject)
- The problem is diagnosed and the resolution progressed, with relevant milestones initiating TP009 (progress), potentially a number of times depending on the service type
- Supplier believes the problem is resolved, and initiates TP009 (Clear)
- Buyer evaluates the Clear
 - If accepted the Buyer initiates TP013 (Confirm)
 - If not accepted the Buyer initiates TP014 (Reject) (see BS025)
- Supplier responds to TP013 acknowledging the Clear Confirm
- Supplier initiates TP009 (Close) via an automated process

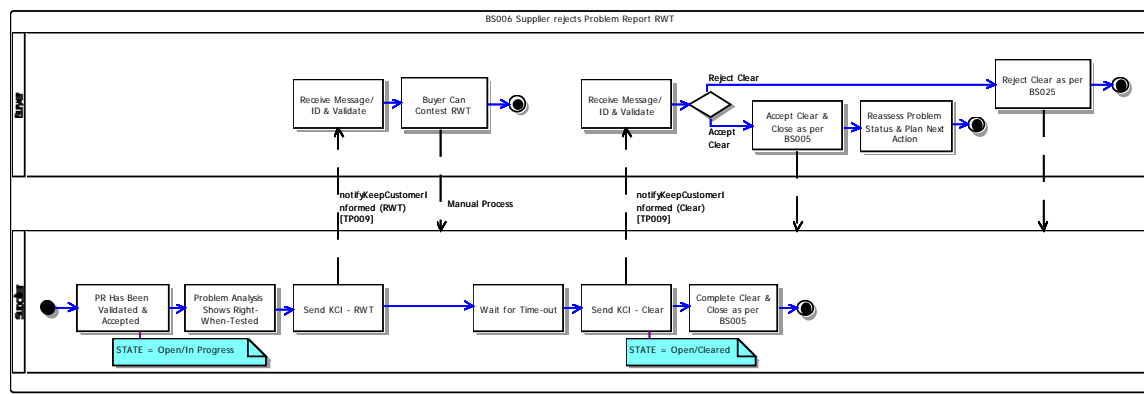
Data Flows			
Component	Input/Output	CRUD	Data

TP008	Input	C C C	Problem Report Test id (if necessary) Appointment Slot id (if necessary)
TP008	Output - Success	C	Confirmation
TP008	Output – Failure	C	Rejection
Supplier Internal			No change
TP009 (accept)	Input – Success	C	KCI PR Acceptance
TP009 (reject)	Input – Failure	C	KCI PR Rejection Rejection reason
Supplier Internal			No change
TP009 (progress)	Input	C	KCI progress milestone
Supplier Internal and TP009 (progress) can be repeated			
TP009 (Clear)	Input	C C	KCI Clear Problem type cleared
TP013	Input – Accepted	C	Clear confirmation
TP014 (see BS025)	Input - Rejected	C C	Clear rejection Rejection reason
TP013	Output	C	Confirmation acknowledgement
TP009	Input	C	KCI Close

BS006: Supplier rejects Problem Report RWT

Pattern Ref	BS006
Pattern Name	Supplier rejects Problem Report RWT
Description	The Supplier has accepted a PR from the Buyer. During diagnosis the Supplier cannot find a problem with the service, and rejects the PR as Right When Tested
Components Used	TP009

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR received and validated	1. Test(s) has given RWT result and result stored 2. Buyer informed via KCI (RWT) 3. PR has been auto-cancelled by Supplier 4. If an Appt exists then this is cancelled as a result of PR cancellation	1. Buyer insists problem lies within Supplier domain

Technical Hand-offs

1. Supplier finds service to be working and initiates TP009 (RWT), and starts a time-out
2. Buyer can contest the RWT via a manual process
3. Supplier time-out expires, Supplier initiates TP009 (Clear)
4. Buyer evaluates Clear
 - If accepted Buyer initiates TP013 and process follows the Clear/Close as per BS005
 - If rejected Buyer initiates TP014 and process follows the Clear Reject as per BS025

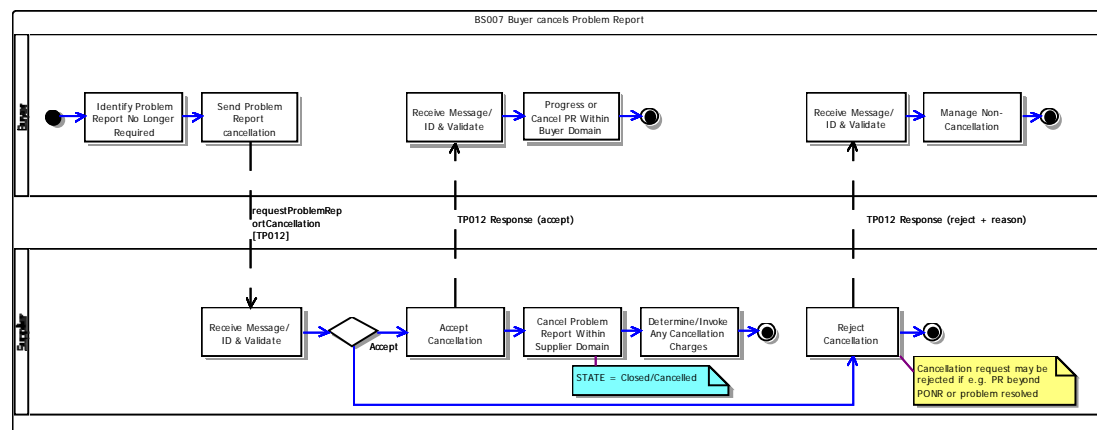
Data Flows

Component	Input/Output	CRUD	Data
TP009 (RWT)	Input	C	KCI RWT
Supplier Internal (time-out)			No change
TP009 (Clear)	Input	C	KCI Clear
Buyer Internal			No change
(Buyer accepts clear as per BS005, or rejects as per BS025)			

BS007: Buyer cancels Problem Report

Pattern Ref	BS007
Pattern Name	Buyer cancels Problem Report
Description	Buyer decides to cancel an open Problem Report as it is no longer required
Components Used	TP012

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR received and validated by Supplier	1. PR cancelled within Supplier domain 2. Any penalty charges raised via Buyer billing	1. PR not yet received or validated 2. PR progress has gone beyond point-of-no-return (PONR) in process - Buyer informed via cancel reject response

Technical Hand-offs

- Buyer initiates TP012
- Supplier checks the status of the Problem Report. If:
 - If status allows the Supplier responds to confirm the PR will be cancelled, closing TP012
 - If status does not allow (e.g. PR already in a Closed state), a Business Failure message is returned to the Buyer, closing TP012
- Buyer progresses or cancels the Problem within their domain
- Supplier cancels the PR within their domain. Any charges for work performed are raised manually via the billing process

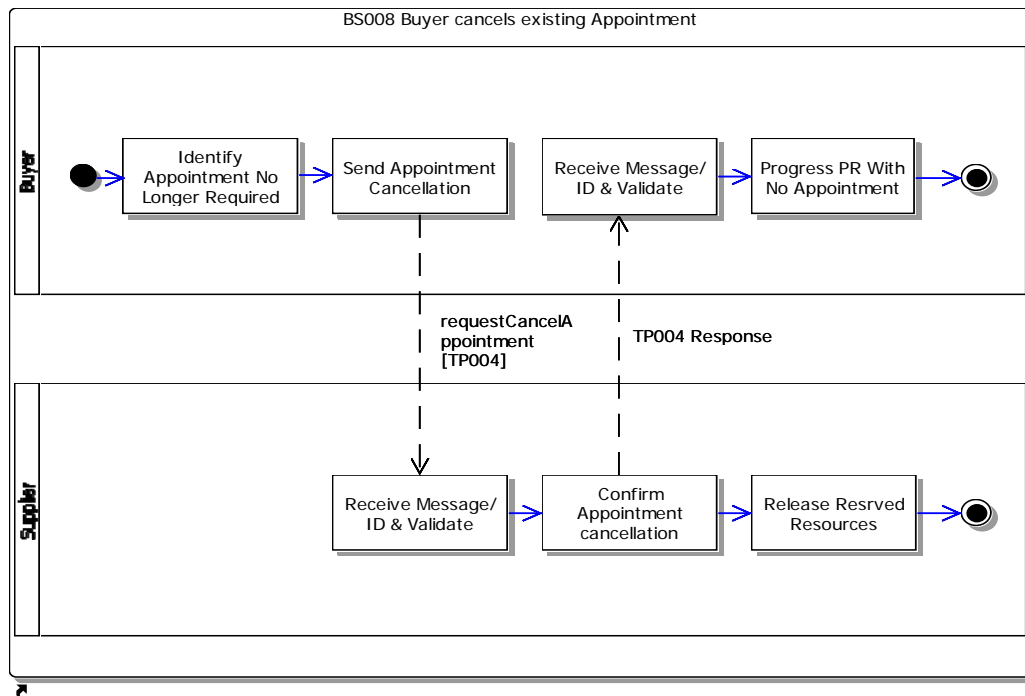
Data Flows

Component	Input/Output	CRUD	Data
TP012	Input	C	Cancel request
Supplier Internal			No change
TP012	Output – Success	C	Confirmation
TP012	Output – Failure	C	Rejection notification

BS008: Buyer cancels existing Appointment

Pattern Ref	BS008
Pattern Name	Buyer cancels existing Appointment
Description	The Buyer cancels an existing Appointment Slot booking
Components Used	TP004

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> PR received and validated by Supplier Appt exists for the PR 	<ol style="list-style-type: none"> Appt cancelled If Appt necessary for this PR, Buyer informed to make new appt with KCI sent after a time-out? 	<ol style="list-style-type: none"> PR not yet received or validated PR progress has gone beyond point-of-no-return (PONR) in process - Buyer informed via cancel reject response

Technical Hand-offs

- Buyer has identified the Appointment is no longer required and initiates TP004
- Supplier checks if the Appointment can be cancelled
 - If status allows the Supplier responds to confirm the Appointment will be cancelled
 - If status does not allow (e.g. no Appointment exists), a Business Failure message is returned, closing TP004
- Supplier cancels the Appointment and releases associated resources

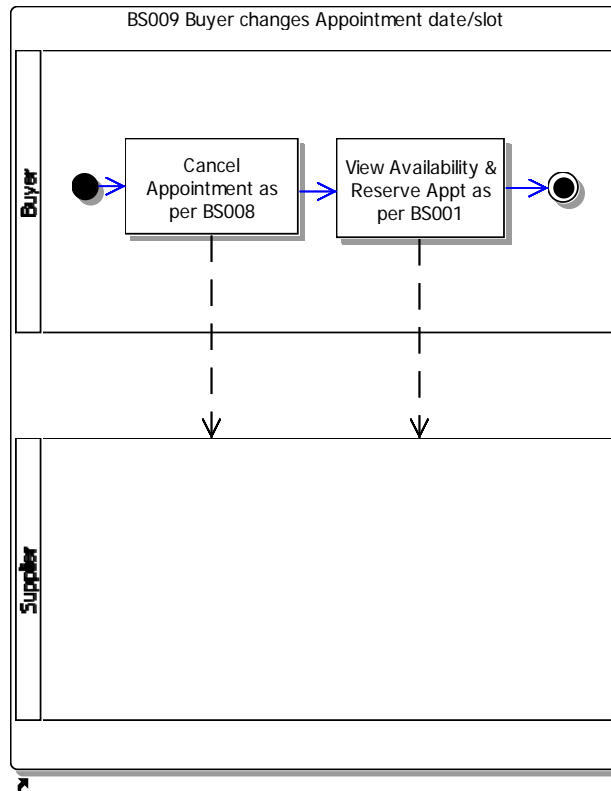
Data Flows

Component	Input/Output	CRUD	Data
TP004	Input	C	Appointment cancellation
TP004	Output – Success	C	Appt cancellation confirmation
TP004	Output – Failure	C	Appt cancellation rejection

BS009: Buyer changes Appointment date/slot

Pattern Ref	BS009
Pattern Name	Buyer changes Appointment date/slot
Description	Buyer wishes to change the Appointment date/slot
Components Used	As per BS008 & BS001

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR received and validated by Supplier 2. Appt exists for the PR	1. Buyer has changed Appt	1. PR not yet received or validated 2. PR progress has gone beyond point-of-no-return (PONR) in process - Buyer informed via cancel reject response

Technical Hand-offs

- Buyer initiates Appointment cancellation as per BS008
- Buyer initiates Appointment booking as per BS001

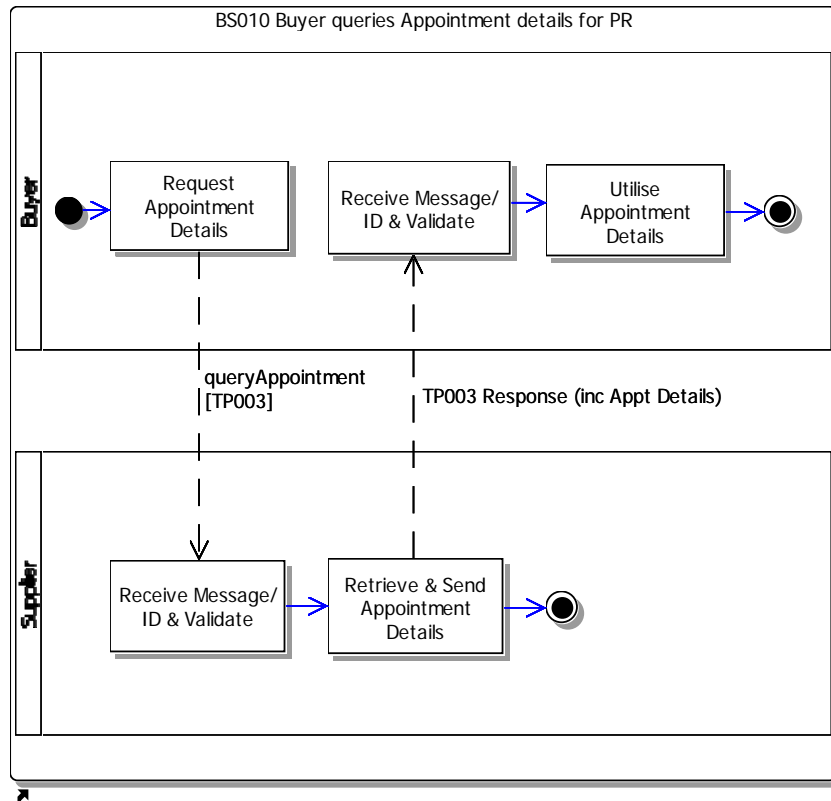
Data Flows

Component	Input/Output	CRUD	Data
(see BS008 & BS001)			

BS010: Buyer queries Appointment details for PR

Pattern Ref	BS010
Pattern Name	Buyer queries Appointment details for PR
Description	The Buyer queries the details of the existing Appointment
Components Used	TP003

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR received and validated by Supplier 2. Appt exists for the PR	1. Appt details returned	1. Back-end Appt function not available

Technical Hand-offs

1. Buyer initiates TP003
2. Supplier retrieves the Appointment details for the PR
 - If valid the Supplier responds with the details closing TP003
 - If not valid (e.g. Appt does not exist) then the Supplier responds with null details, closing TP003

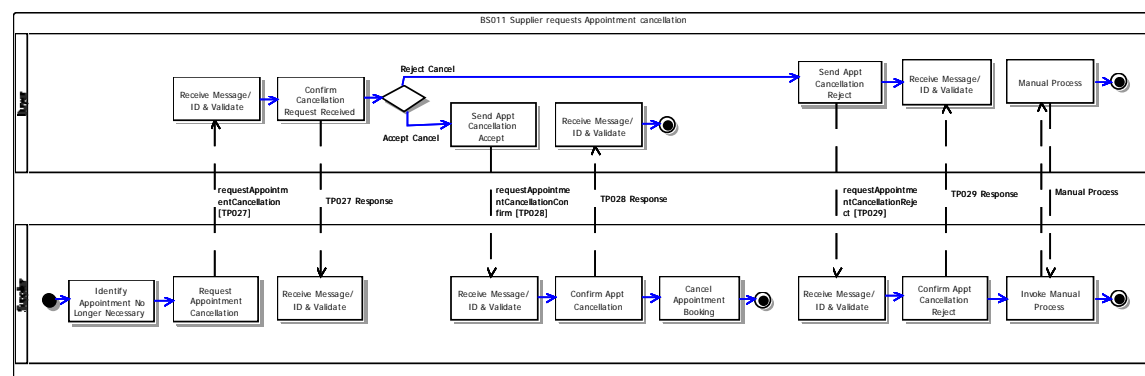
Data Flows

Component	Input/Output	CRUD	Data
TP003	Input	C C	Appt query PR id or Appt Slot id
TP003	Output – Success	C C	Appt date Appt slot
TP003	Output – Failure	C	Appt details = null

BS011: Supplier requests Appointment cancellation

Pattern Ref	BS011
Pattern Name	Supplier requests Appointment cancellation
Description	The Supplier, having identified the Appt is not required, requests agreement from the Buyer for the Supplier to cancel it
Components Used	TP027, TP028, TP029

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> PR received and validated by Supplier Appt exists for the PR Supplier has identified an Appt is not necessary 	<ol style="list-style-type: none"> Buyer has cancelled Appt 	<ol style="list-style-type: none"> PR not yet received or validated PR progress has gone beyond point-of-no-return (PONR) in process - Buyer informed via cancel reject response Back-end Appt function not available

Technical Hand-offs

- Supplier identifies Appt not required and initiates TP027
- Buyer acknowledges the request closing TP027
- Buyer decides if request is valid
 - If valid Buyer initiates TP028 to accept the request
 - If invalid Buyer initiates TP029 to reject the request
- Supplier receives TP028 and responds with confirmation, closing TP028
- Supplier cancels the Appointment booking. End
- Supplier receives TP029 and responds with confirmation, closing TP029
- Supplier initiates a manual process to resolve the impasse

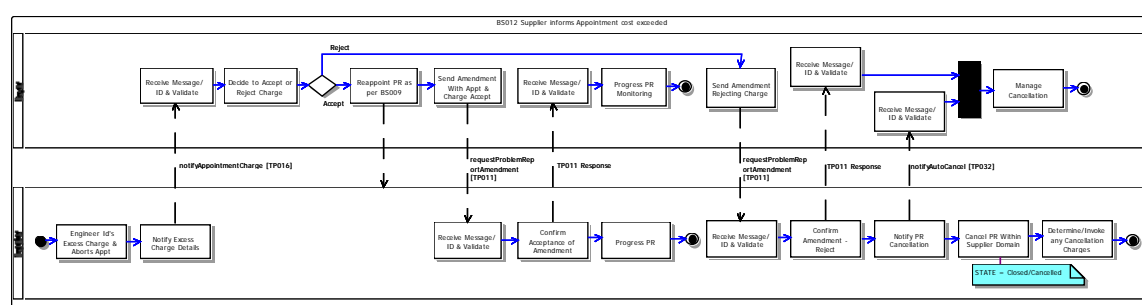
Data Flows

Component	Input/Output	RUD	Data
TP027	Input	C	Appt cancellation request
TP027	Output	C	Request receipt confirmation
Buyer Internal			No change
TP028	Input	C	Appt cancellation acceptance
TP028	Output	C D	Acceptance confirmation Appt Slot id (on the PR)
TP029	Input	C C	Appt cancellation rejection Rejection reason
TP029	Output	C	Rejection confirmation
(Supplier initiates manual process)			

BS012: Supplier informs Appointment cost exceeded

Pattern Ref	BS012
Pattern Name	Supplier informs Appointment cost exceeded
Description	The Supplier identifies the cost of Time Related Charges will exceed that authorised for the PR., and the Appt is abandoned. The Buyer is requested to authorise further charges or otherwise the PR is cancelled
Components Used	TP016, TP011, TP032

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. Supplier engineer has attended Appt and estimated work beyond agreed costs	1. Appt is abandoned by engineer 2. Buyer informed of excess charge and need to reappoint if charge authorised 3. SLA clock is stopped pending new Appt being made. If new Appt is beyond SLA then clock not started until Appt slot starts	1. Buyer does not believe charge is justified

Technical Hand-offs

- Supplier identifies excess charges, abandons the Appt, and initiates TP016
- Buyer decides whether to authorise further charges
 - If accepted, Buyer reappoints the PR as per BS009. Buyer initiates TP011 to amend the PR with new charge authorisation and new Appt Slot id
 - If rejected, Buyer initiates TP011 to send rejection amendment
- Accepted – Supplier responds to the amendment closing TP011, and progresses the PR which has a new Appt. End
- Rejected – Supplier responds to the amendment closing TP011
- Supplier automatically initiates TP032, and then cancels the PR in their domain
- Supplier raises any cancellation charges

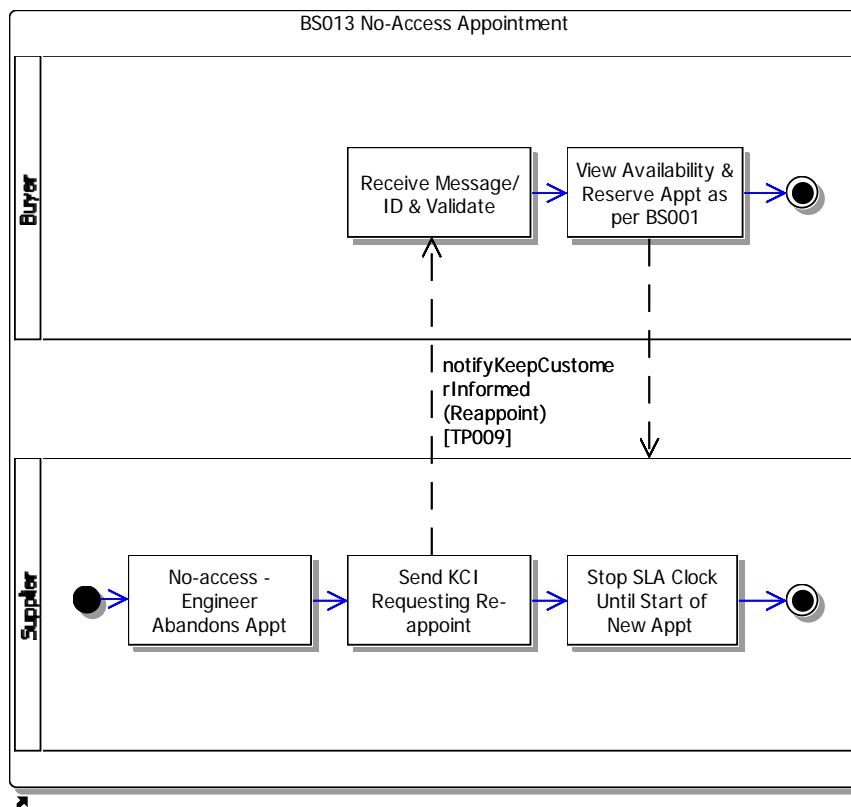
Data Flows

Component	Input/Output	CRUD	Data
TP016	Input	C	Charge/Charge Band requested
Buyer Internal			No change
(if accepted Buyer reappoints as per BS001)			
TP011	Input – Accept	C U U	PR Amendment Charge/Charge Band authorised Appt Slot id
TP011	Output - Accept	C	Amendment confirmation
TP011	Input – Reject	C C	PR Amendment Charge rejection
TP011	Output – Reject	C	Amendment confirmation
TP032	Input	C C	PR Cancellation Reason for cancellation

BS013: No-Access Appointment

Pattern Ref	BS013
Pattern Name	No-Access Appointment
Description	The Supplier engineer has failed to get access to the End User's premises, requiring another Appointment to be made
Components Used	TP009

Process Pattern

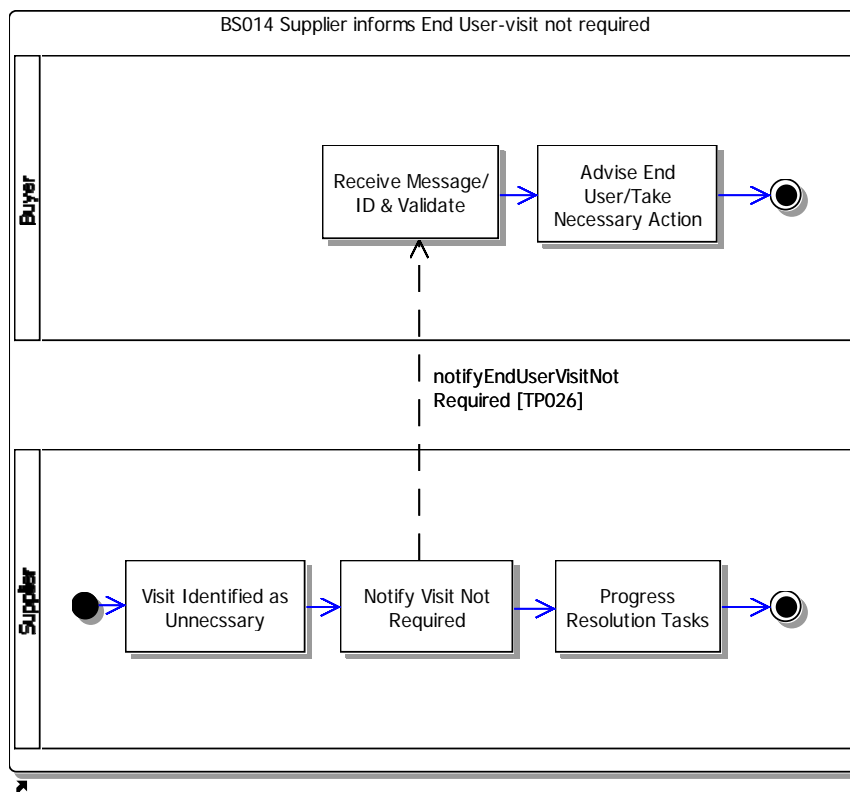


Success Path		Alternative Outcomes	
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)	
1. Supplier engineer has attended Appt but cannot gain access to the End User's site	1. Appt is abandoned by engineer 2. Buyer informed of no-access and requested to reappoint 3. SLA clock is stopped pending new Appt being made. If new Appt is beyond SLA then clock not started until Appt slot starts	1. Buyer does not agree End User was not available	
Technical Hand-offs			
1. Supplier engineer has failed to gain access to the premises, and initiates TP009 identifying the 'no-access' and reappoint required 2. Buyer reappoints the PR as per BS001			
Data Flows			
Component	Input/Output	CRUD	Data
TP009 (reappoint)	Input	C C	KCI reappoint Reason = no access
(Buyer reappoints as per BS001)			

BS014:Supplier informs End User visit not required

Pattern Ref	BS014
Pattern Name	Supplier informs End User visit not required
Description	The Supplier informs the Buyer it is not necessary to visit the End User's premises on the Appointment (e.g. problem can be resolved in the external network)
Components Used	TP026

Process Pattern

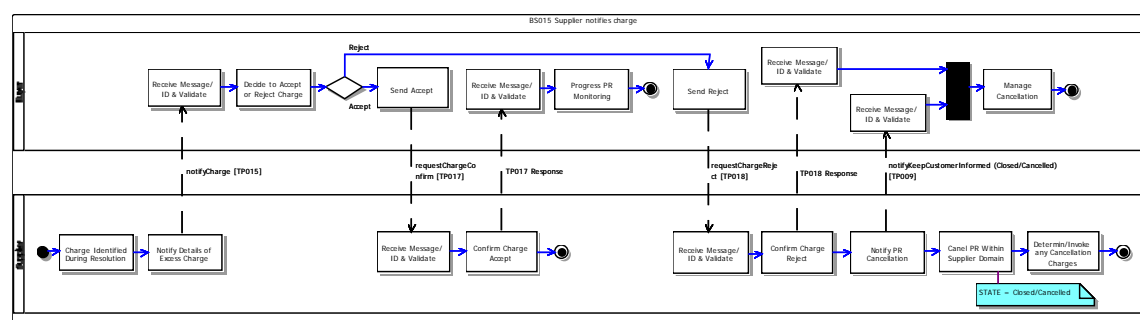


Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. Appt exists for the PR 2. Supplier has identified the Appt is no longer required (e.g. repair is in Access Network outside EU site)	1. Buyer has cancelled Appt 2. Problem can be resolved without access to EU site	1. When on site, Supplier identified EU access is required
Technical Hand-offs		
1. Supplier engineer does not need to visit the premises, and initiates TP026 2. Buyer can take necessary action to inform their End User		
Data Flows		
Component	Input/Output	CRUD
TP026	Input	C C
Buyer Internal		No change

BS015: Supplier notifies charge

Pattern Ref	BS015
Pattern Name	Supplier notifies charge
Description	The Supplier has identified a new or increased charge and requires the Buyer to authorise or reject it
Components Used	TP009, TP015, TP017, TP018

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR received and validated by Supplier 2. Supplier has identified chargeable work e.g. replace items damaged by EU	1. Buyer accepts charge	1. Buyer rejects charge - Supplier cancels PR and raises any penalty charges

Technical Hand-offs

- Supplier identifies a charge and initiates TP015
- Buyer decides whether to authorise
 - If accepted Buyer initiates TP017
 - If rejected Buyer initiates TP018
- Accepted – Supplier responds to confirm closing TP017, and progresses the PR. End
- Rejected – Supplier responds to confirm the rejection closing TP018
- Supplier automatically initiates TP009 (cancel) and cancels the PR
- Supplier raises any cancellation charges

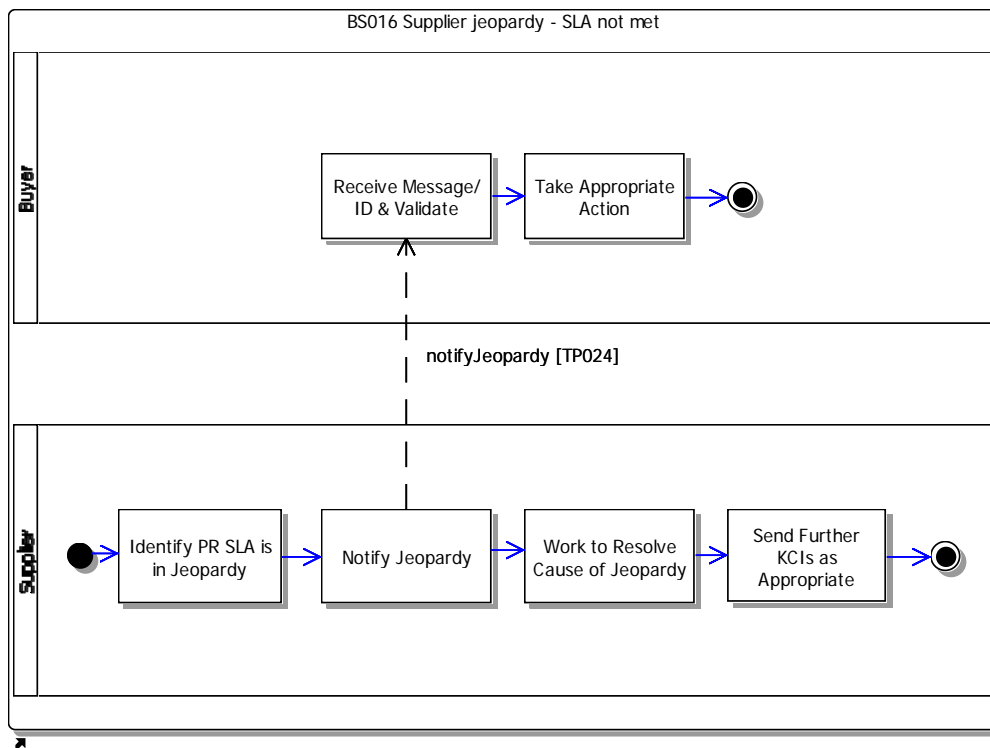
Data Flows

Component	Input/Output	CRUD	Data
TP015	Input	C C	Charge notification Charge value/charge band
Buyer Internal			No change
TP017	Input	C	Charge authorisation
TP017	Output	C	Authorisation confirmation
TP018	Input	C	Charge rejection
TP018	Output	C	Rejection confirmation
TP009 (cancelled)	Input	C	KCI cancelled

BS016: Supplier jeopardy - SLA not met

Pattern Ref	BS016
Pattern Name	Supplier jeopardy - SLA not met
Description	The Supplier has identified that the PR is in jeopardy and will miss its SLA resolution target
Components Used	TP024

Process Pattern

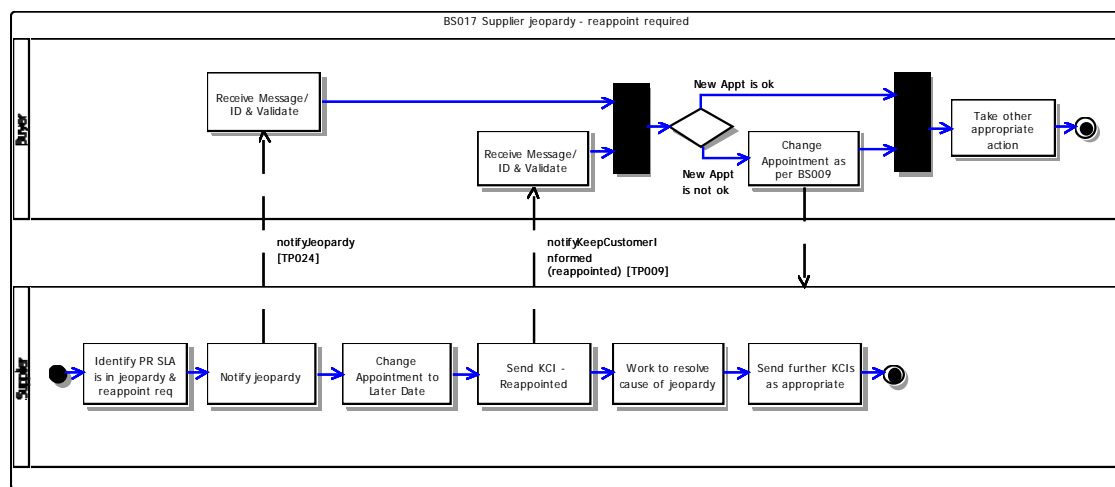


Success Path		Alternative Outcomes	
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)	
1. PR in progress with Supplier 2. Supplier has identified a jeopardy in progressing the PR, but the issue cannot be resolved within SLA	1. Problem is resolved exceeding SLA following a jeopardy 2. SLA violation is logged and appropriate SLGs payments made by Supplier via Buyer billing	none identified	
Technical Hand-offs			
1. Supplier identifies SLA will not be met and initiates TP024 2. Buyer takes necessary action to inform their End User 3. Supplier works to minimise the delay			
Data Flows			
Component	Input/Output	CRUD	Data
TP024	Input	C C	Jeopardy notification Jeopardy reason
Buyer Internal			No change

BS017: Supplier jeopardy - reappoint required

Pattern Ref	BS017
Pattern Name	Supplier jeopardy - reappoint required
Description	The Supplier has identified that the PR is in jeopardy and they will not be able to meet the Appointment. The Supplier reappoints the PR and informs the Buyer who will accept the Appointment or reappoint
Components Used	TP009, TP024

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> PR in progress with Supplier Supplier has identified a jeopardy in progressing the PR which requires the Buyer to reappoint 	<ol style="list-style-type: none"> Jeopardy is flagged to Buyer requesting reappoint Supplier cancels existing Appt Buyer reappoints 	<ol style="list-style-type: none"> Back-end Appt function not available Jeopardy flagged but Appt not cancelled - therefore abortive

Technical Hand-offs

- Supplier identifies SLA will not be met and initiates TP024
- Supplier changes the Appt to a later date/time and initiates TP009 (reappointed)
- Buyer decides with their End User if new Appt meets their needs
 - If Appt is ok the Buyer ensures the End User is aware
 - If Appt is not ok, Buyer reappoints as per BS009

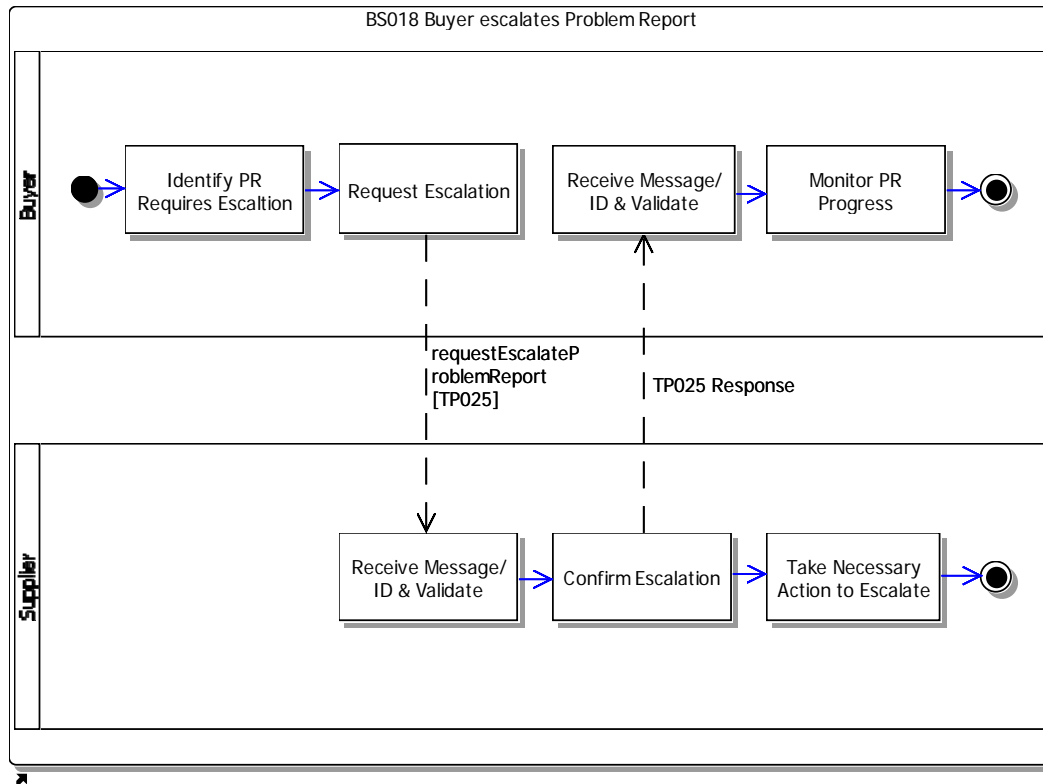
Data Flows

Component	Input/Output	CRUD	Data
TP024	Input	C C	Jeopardy notification Jeopardy reason
Supplier Internal			No change
TP009 (reappointed)	Input	C C	KCI reappointed Appt date/slot
Buyer Internal			No change
(Buyer reappoints as per BS009 if slot not suitable)			

BS018: Buyer escalates Problem Report

Pattern Ref	BS018
Pattern Name	Buyer escalates Problem Report
Description	The Buyer requests the Supplier to escalate the priority of the PR
Components Used	TP025

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR is at risk of exceeding SLA, or Buyer want to increase priority, or flag failed resolution	1. Supplier has reviewed PR progress and raised the priority if necessary 2. New SLA applied if requested (Supplier may initiate charging)	1. PR priority cannot be raised

Technical Hand-offs

1. Buyer has identified need to escalate and initiates TP025
2. Supplier responds to confirm the escalation, closing TP025
3. Supplier takes necessary action

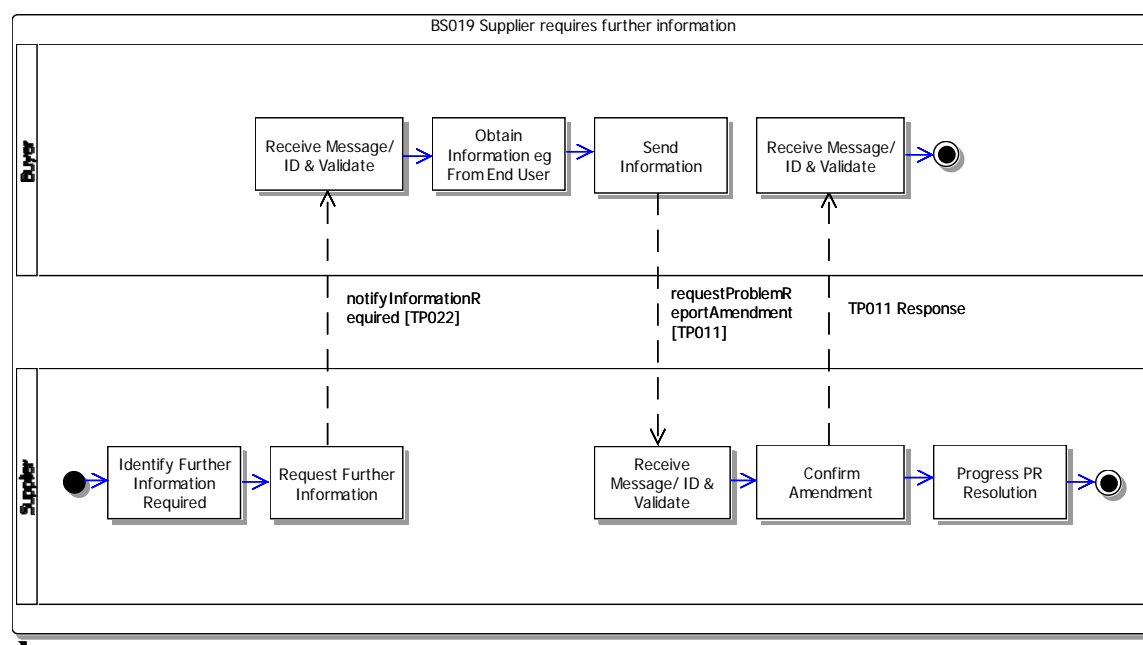
Data Flows

Component	Input/Output	CRUD	Data
TP025	Input	C C	Escalation request Reason
TP025	Output	C	Escalation confirmation

BS019: Supplier requires further information

Pattern Ref	BS019
Pattern Name	Supplier requires further information
Description	The Supplier requests further information about the PR from the Buyer (End User). The Buyer responds with the information
Components Used	TP011, TP022

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR in progress with Supplier 2. Supplier cannot progress as more information needed	1. Buyer has provided required information	1. Information is not available or does not satisfy Supplier

Technical Hand-offs

- Supplier identifies that further information is required and initiates TP022
- Buyer obtains the information, and initiates TP011
- Supplier responds confirming the amendment closing TP011
- Supplier progresses the PR

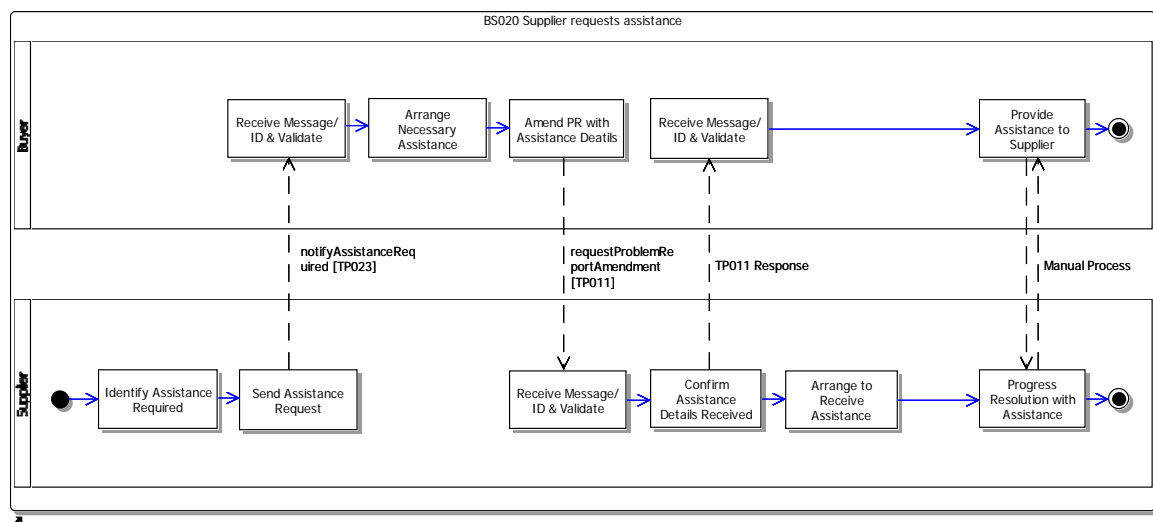
Data Flows

Component	Input/Output	CRUD	Data
TP022	Input	C	Information request
Buyer Internal			No change
TP011	Input	C C	Amendment request New information
TP011	Output	C U	Amendment confirmation Information in PR

BS020: Supplier requests assistance

Pattern Ref	BS020
Pattern Name	Supplier requests assistance
Description	The Supplier requests assistance from the Buyer or End User. The Buyer arranges the necessary assistance and responds with the details
Components Used	TP011, TP023

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR in progress with Supplier 2. Supplier requires interaction with Buyer engineer and/or End User in order to progress resolution	1. Buyer and/or End User has provided assistance on-site	none identified

Technical Hand-offs

- Supplier has identified assistance is required and initiates TP023
- Buyer arranges for necessary assistance and initiates TP011 to update the PR with details
- Supplier confirms receipt of the details
- Assistance is achieved at the specified time via a manual co-operation process

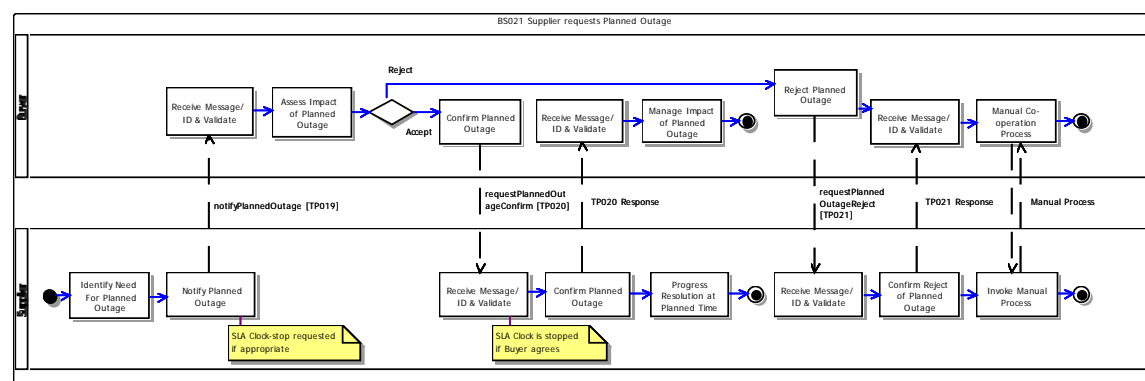
Data Flows

Component	Input/Output	CRUD	Data
TP023	Input	C	Assistance request
Buyer Internal			No change
TP011	Input	C C	Amendment request Assistance details
TP011	Output	C U	Amendment confirmation Details in PR
(Supplier/Buyer initiates manual process)			

BS021: Supplier requests Planned Outage

Pattern Ref	BS021
Pattern Name	Supplier requests Planned Outage
Description	The Supplier has identified that the PR resolution will require disruption to common infrastructure/equipment serving other services owned by that Buyer. Other Buyers' services are not affected. The Supplier requests permission to disrupt those services at a specified date/time, which the Buyer authorises or rejects (Note this is not Planned Engineering Works – see BS027)
Components Used	TP019, TP020, TP021

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR in progress with Supplier 2. Supplier has identified the need to interrupt service on a number of the Buyer's services in order to resolve the original problem	1. Buyer accepts the Planned Outage	1. Buyer rejects Planned Outage request 2. Buyer requires Planned Outage at a different date/time

Technical Hand-offs

- Supplier has identify the need for a Planned Outage and initiates TP019
- Buyer assesses the impact of the outage
 - If accepted the Buyer initiates TP020
 - If rejected the Buyer initiates TP021
- Accepted – Supplier confirms the authorisation closing TP020. End
- Rejected – Supplier confirms the rejection closing TP021
- Supplier initiates a manual process to resolve the issue

Data Flows

Component	Input/Output	CRUD	Data
TP019	Input	C	Planned Outage request Planned date/time/duration
Buyer Internal			No change
TP020	Input	C	Planned Outage authorisation
TP020	Output	C	Authorisation confirmation
TP021	Input	C	Planned Outage rejection Reason
TP021	Output	C	Rejection confirmation
(Supplier initiates manual process)			

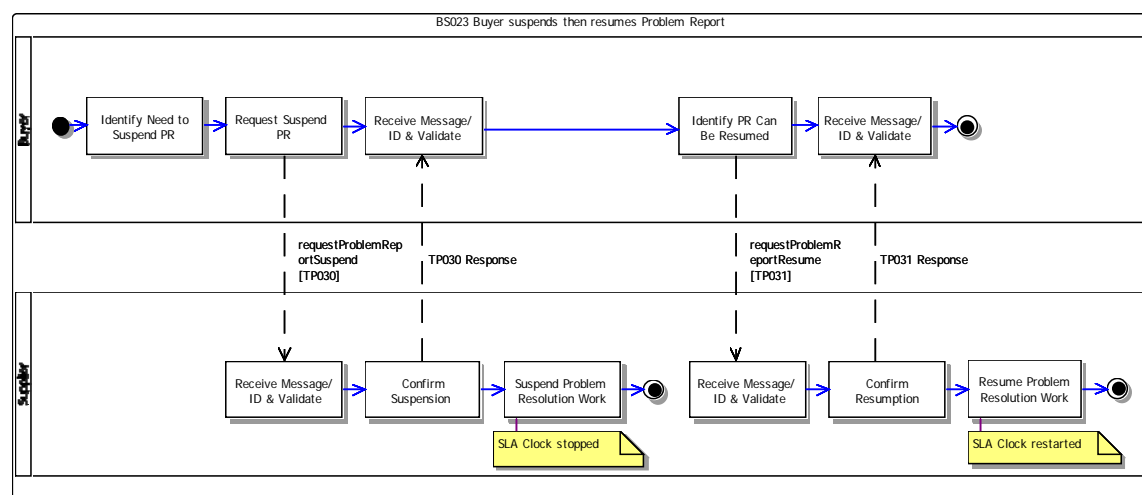
BS022: Buyer requests KCI

Pattern Ref	BS022		
Pattern Name	Buyer requests KCI		
Description	The Buyer requests a progress update on the PR from the Supplier. This may be required during long duration PRs, or critical problems, where the standard KCIs are insufficient.		
Components Used	TP009, TP010		
Process Pattern			
<pre> graph LR subgraph Buyer B1[Identify Need for Progress Update] --> B2[Request Progress Update] B2 --> B3[Receive Message/ ID & Validate] B4[Receive Message/ ID & Validate] --> B5[Utilise KCI Information] end subgraph Supplier S1[Receive Message/ ID & Validate] --> S2[Confirm Request] S2 --> S3[Obtain Progress/Status Information] S3 --> S4[Notify KCI Information] end B2 -- "requestSupplierTaskStatus [TP010]" --> S1 S2 -- "TP010 Response" --> B3 S4 -- "notifyKeepCustomerInformed (progress) [TP009]" --> B4 </pre>			
Success Path		Alternative Outcomes	
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)	
1. PR in progress with Supplier 2. Buyer identifies need to seek progress information from Supplier	1. Supplier has provided the KCI	1. PR not yet received or validated	
Technical Hand-offs			
<ol style="list-style-type: none"> The Buyer requires a progress update and initiates TP010 The Supplier acknowledges receipt of the request, closing TP010 The Supplier obtains the latest progress information and initiates TP009, including the information in notes The Buyer receives the information 			
Data Flows			
Component	Input/Output	CRUD	Data
TP010	Input	C	Progress request
TP010	Output	C	Request confirmation
Supplier Internal			No change
TP009	Input	C C	KCI (progress) Progress update notes

BS023: Buyer suspends then resumes Problem Report

Pattern Ref	BS023
Pattern Name	Buyer suspends then resumes Problem Report
Description	The Buyer wishes to suspend (stop SLA clock) progression of the PR by the Supplier. After a period the Buyer resumes (restart SLA clock) progression.
Components Used	TP030, TP031

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> PR in progress with Supplier Buyer identifies need to suspend the PR 	<ol style="list-style-type: none"> Supplier has resumed the PR and Supplier restarts resolution work 	<ol style="list-style-type: none"> PR not yet received or validated PR progress has gone beyond point-of-no-return (PONR) in process – Buyer informed via suspend reject response

Technical Hand-offs

- The Buyer wishes to suspend the PR and initiates TP030. Note that 'suspend' is not a State, but has the effect of stopping the SLA clock
- The Supplier confirms suspension closing TP010, and halts any work in progress
- The Buyer wishes to resume progression and initiates TP031
- The Supplier confirms resumption closing TP031, and restarts the SLA clock and resolution work

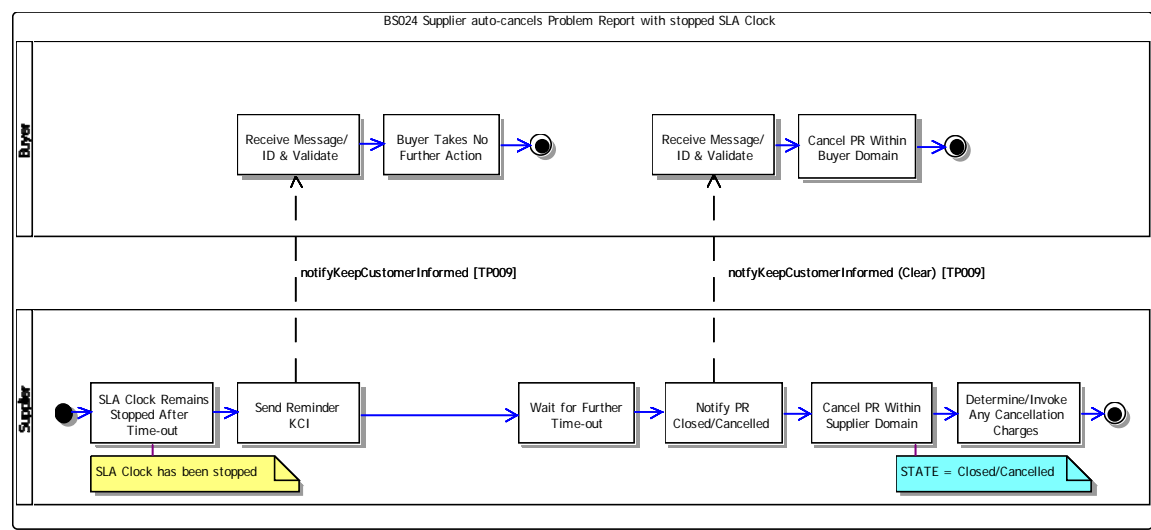
Data Flows

Component	Input/Output	CRUD	Data
TP030	Input	C C	Suspend request Reason
TP030	Output	C	Suspend confirmation
Supplier Internal			No change
TP031	Input	C	Resume request
TP031	Output	C	Resume confirmation

BS024:Supplier auto-cancels Problem Report with stopped SLA Clock

Pattern Ref	BS024
Pattern Name	Supplier auto-cancels Problem Report with stopped SLA Clock
Description	A PR which has its SLA clock stopped (e.g. Buyer has suspended, or pending action by Buyer) has remained in this state for a set time-out period. When timed-out the Buyer is reminded to take action, and a further time-out is initiated. After this expires the PR is cancelled by the Supplier and the Buyer notified.
Components Used	TP009

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> PR is Suspend state Suspend state has timed-out Supplier has prompted action by Buyer via a KCI Further time-out following KCI has expired 	<ol style="list-style-type: none"> Supplier has cancelled the PR Buyer notified of cancellation 	none identified

Technical Hand-offs

- A PR has had its SLA clock stopped for a set time-out, and the Supplier initiates TP009 (reminder), and starts a further time-out
- The Buyer can take appropriate action to progress the PR
- If no action is taken by the Buyer before the second time-out expires, the Supplier initiates TP009 (cancelled)
- The Supplier invokes any cancellation charges

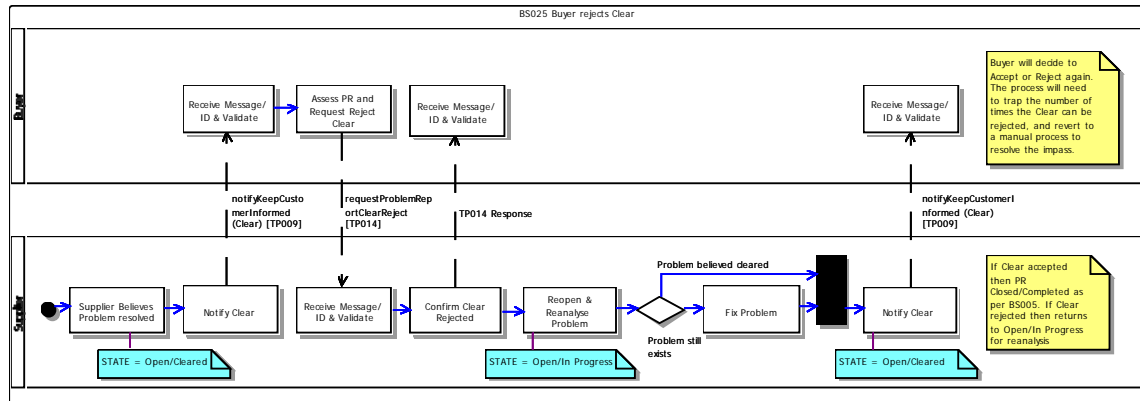
Data Flows

Component	Input/Output	CRUD	Data
TP009	Input	C C	KCI (reminder) Notes
Supplier Internal (time-out)			No change
TP009	Input	C C	KCI (cancelled) Reason

BS025: Buyer rejects Clear

Pattern Ref	BS025
Pattern Name	Buyer rejects Clear
Description	The Supplier has notified a Clear, but the Buyer does not agree the problem is resolved and rejects the Clear
Components Used	TP009, TP014

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR Clear KCI has been sent by Supplier	1. Buyer has rejected the Clear 2. Supplier returns the PR to the Open/In Progress state for further investigation	1. Buyer has rejected the Clear a set number of times requiring a manual, collaborative resolution process to be invoked

Technical Hand-offs

- Supplier believes the problem is resolved and initiates TP009 (Clear)
- Buyer does not agree and initiates TP014 to reject the Clear
- Supplier acknowledges the rejection closing TP014
- Supplier reassess the PR and
 - Believes the problem is resolved the initiates TP009 (Clear) again
 - Identifies a problem, resolves it, and initiates TP009 (Clear) again
- Buyer will either accept the Clear or reject it again
 - If accepted the PR will be closed as per BS005
 - If rejected, the process should limit the number of times it cycles through the Clear -> Clear-Reject loop, and force the PR to a manual co-operation/resolution process

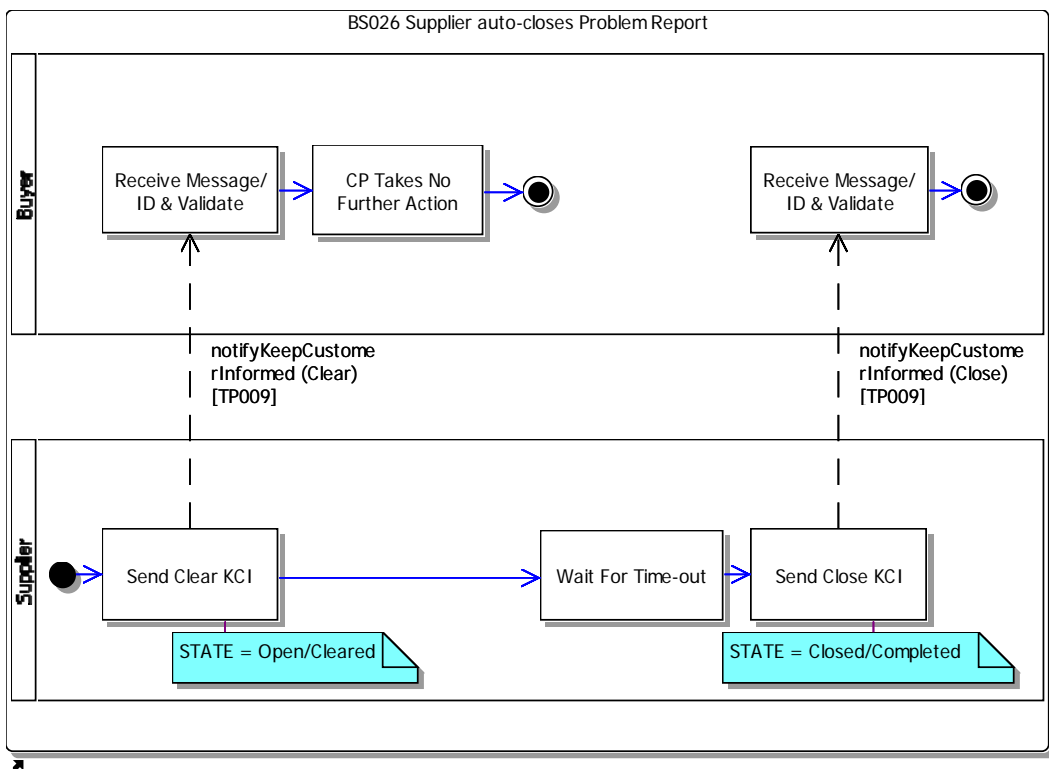
Data Flows

Component	Input/Output	CRUD	Data
TP009	Input	C C	KCI Clear Problem type cleared
Buyer Internal			No change
TP014	Input	C C	Clear reject Reason
TP014	Output	C	Reject confirmation
Supplier Internal			No change
TP009	Input	C C	KCI Clear Problem type cleared
Buyer Internal			No change

BS026: Supplier auto-closes Problem Report

Pattern Ref	BS026
Pattern Name	Supplier auto-closes Problem Report
Description	The Supplier has notified a PR Clear, but receives no response from the Buyer (accept/reject). The Supplier applies a time-out for receiving the response, and when this expires the Supplier automatically Closes the PR
Components Used	TP009

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. PR Clear KCI has been sent by Supplier 2. No response received after a set time-out	1. Supplier has closed the PR 2. Closed KCI sent to Buyer	none identified

Technical Hand-offs

- Supplier has resolved the problem and initiates TP009 (Clear)
- Buyer does not respond. Supplier waits for a set time-out before initiating TP009 (Close)

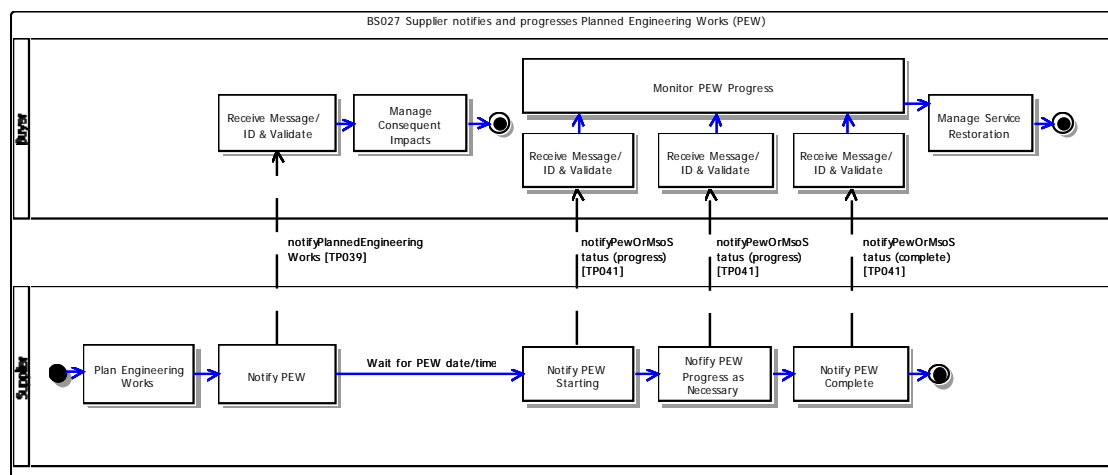
Data Flows

Component	Input/Output	CRUD	Data
TP009	Input	C C	KCI Clear Problem type cleared
Supplier Internal (time-out)			No change
TP009	Input	C	KCI Close

BS027: Supplier notifies and progresses Planned Engineering Works (PEW)

Pattern Ref	BS027
Pattern Name	Supplier notifies and progresses Planned Engineering Works (PEW)
Description	The Supplier notifies all affected Buyers of a PEW. The Supplier starts, progresses and completes the PEW
Components Used	TP039, TP041

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> Supplier has identified the need to perform engineering work which will disrupt number of services owned by one or more Buyers Ideally the PEW would have been identified early enough in advance to give Buyers reasonable warning of the disruption 	<ol style="list-style-type: none"> Supplier has notified all Buyers that PEW status is complete Service is restored on all affected services 	<ol style="list-style-type: none"> PEW goes beyond scheduled completion One or more affected services is not restored as planned

Technical Hand-offs

- Supplier identifies need for a PEW and initiates TP039
- Buyers take appropriate action to warn End Users of PEW disruption
- Supplier starts PEW and initiates TP041
- Supplier progressed PEW initiating TP041 at agreed reporting periods
- Supplier completes PEW and initiates TP041
- Buyers can inform End Users of service restoration

Data Flows

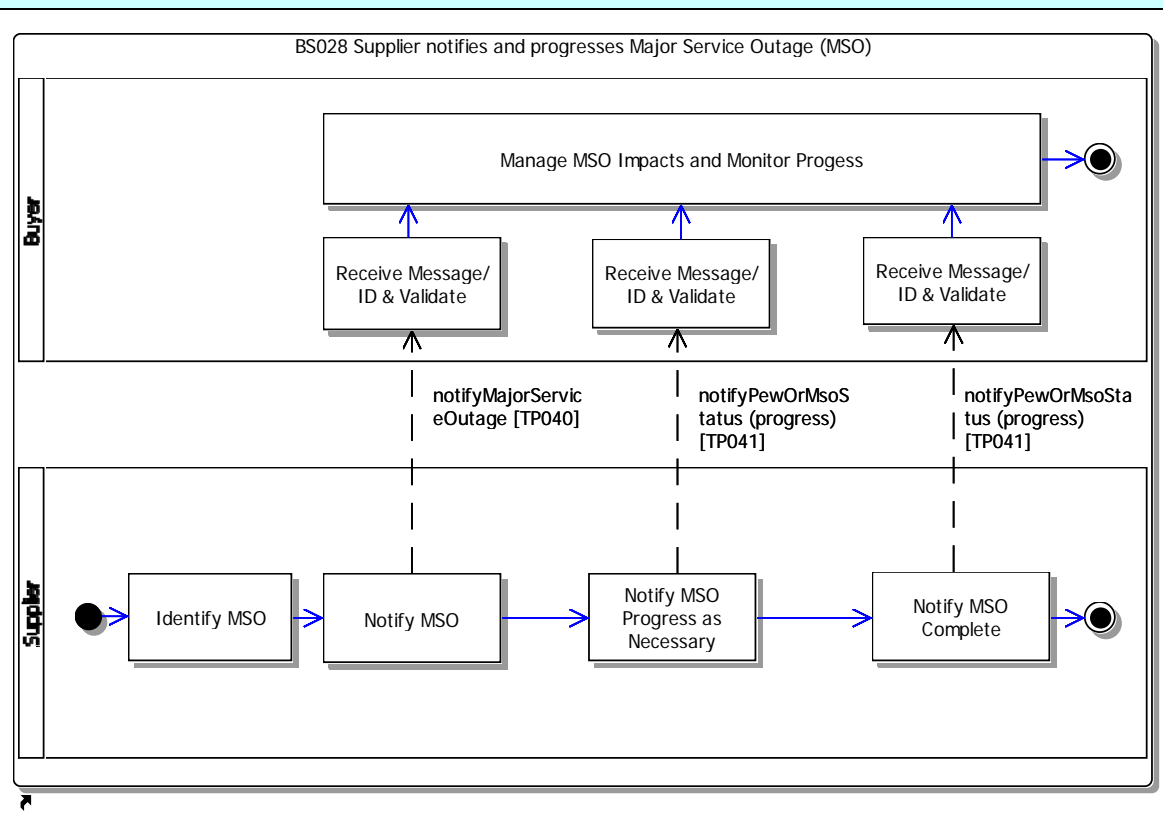
Component	Input/Output	CRUD	Data
TP039	Input	C C C C C C C	PEW notification PEW id PEW description notes Geographic location Services affected Planned start date/time Estimated completion date/time

Buyers Internal			No change
TP041	Input	C	PEW id PEW started
Supplier Internal			No change
TP041	Input	C C C	PEW id PEW progress notes Estimated completion date/time
Supplier Internal			No change
TP041	Input	C C	PEW id PEW complete

BS028: Supplier notifies and progresses Major Service Outage (MSO)

Pattern Ref	BS028
Pattern Name	Supplier notifies and progresses Major Service Outage (MSO)
Description	The Supplier notifies all affected Buyers of an MSO. The Supplier progresses and completes resolution of the MSO
Components Used	TP040, TP041

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. Supplier has identified an MSO which is affecting a number of services owned by one or more Buyers	1. Supplier has notified all Buyers that MSO is cleared 2. Service is restored on all affected services	1. MSO goes beyond expected completion 2. One or more affected services is not restored as planned

Technical Hand-offs

- Supplier has identified an MSO and initiates TP040
- Buyers manage the impacts of the MSO with their End Users
- Supplier progresses resolution of the MSO, initiating TP041 at appropriate progress reporting points
- Supplier resolves the MSO and initiates TP041

Data Flows

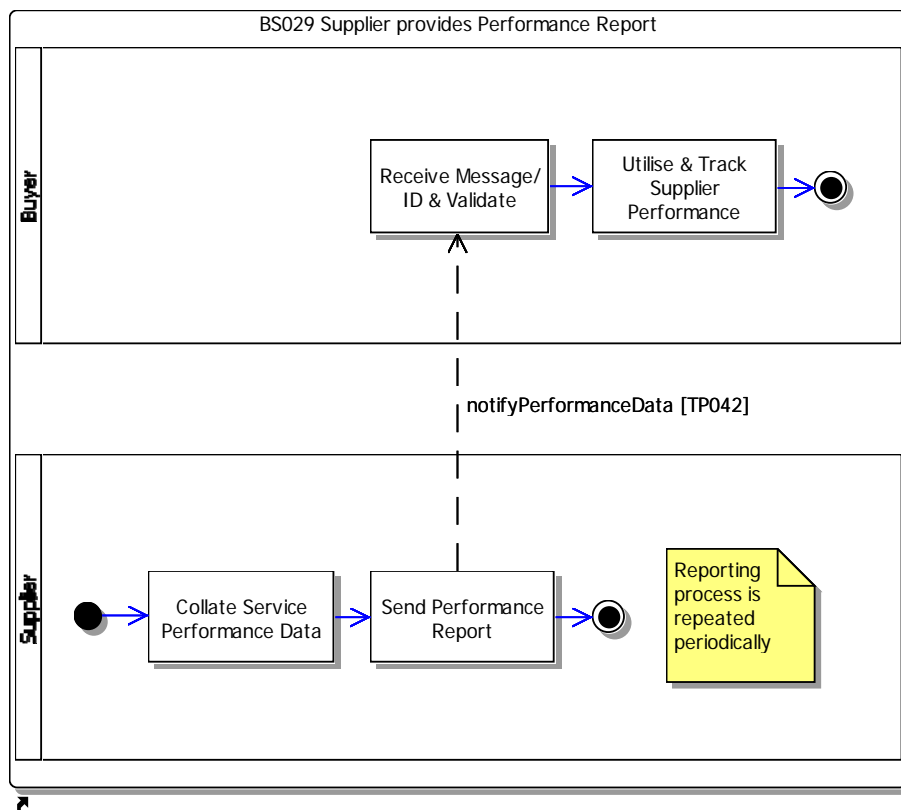
Component	Input/Output	CRUD	Data
TP040	Input	C	MSO notification

		C	MSO id
		C	MSO description notes
		C	Geographic location
		C	Affected service id ranges
Buyer Internal			No change
Supplier Internal			No change
TP041	Input	C	MSO id
		C	MSO progress notes
		C	Estimated completion date/time
Supplier Internal			No change
TP041	Input	C	MSO id
		C	MSO complete

BS029: Supplier provides Performance Report

Pattern Ref	BS029
Pattern Name	Supplier provides Performance Report
Description	The Supplier sends a periodic service Performance Report to the Buyer
Components Used	TP042

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
1. Buyer has a number of services with the Supplier 2. Supplier has collected service performance data for the Buyer's services	1. Supplier has sent the Performance reports at regular intervals	none identified

Technical Hand-offs

- Supplier gathers and collates service performance data for the Buyer's services
- Supplier, at regular intervals initiates TP042
- Buyer receives the report and analyses performance

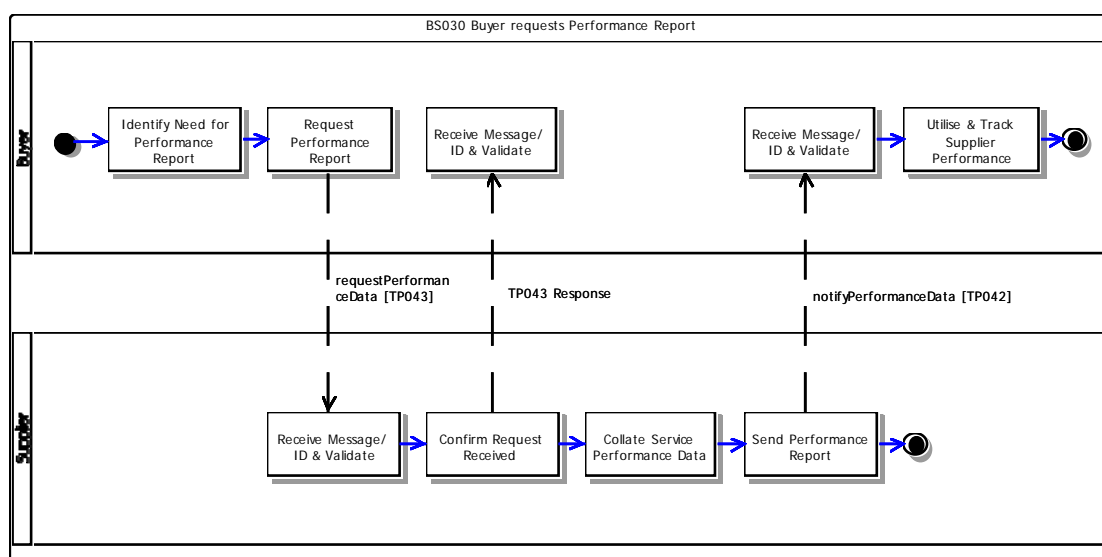
Data Flows

Component	Input/Output	CRUD	Data
Supplier Internal			No change
TP042	Input	C C	Performance data (TBD) Report start/end date/time
Buyer Internal			No change

BS030: Buyer requests Performance Report

Pattern Ref	BS030
Pattern Name	Buyer requests Performance Report
Description	The Buyer requests the Supplier to provide a service Performance Report for a default or specified period
Components Used	TP042, TP043

Process Pattern



Success Path		Alternative Outcomes
Pre-conditions (assumes Buyer registered as a customer)	Post-conditions	(note: these do not cover messaging failures)
<ol style="list-style-type: none"> Buyer has a number of services with the Supplier Supplier has collected service performance data for the Buyer's services Buyer requires performance data outside of regular reporting schedule 	<ol style="list-style-type: none"> Supplier has sent the Performance report 	none identified

Technical Hand-offs

- Buyer requires a Performance Report and initiates TP043
- Supplier confirms receipt of the request, closing TP043
- Supplier gathers/collates performance data for required period
- Supplier initiates TP042
- Buyer receives the report and analyses performance

Data Flows

Component	Input/Output	CRUD	Data
TP043	Input	C C	Performance Report request Report start/stop date/time
TP043	Output	C	Request confirmation
Supplier Internal			No change
TP042	Input	C C	Performance data (TBD) Report start/end date/time
Buyer Internal			No change

Annex 3: International Standards Gap Analysis

The following summarises the findings from the International Standards gap analysis. The full gap analysis is available on the NICC publication web site @ <http://www.nicc.org.uk/nicc-public/publication.htm>

TMF (TeleManagement Forum): eTOM (Enhanced Telecom Operations Map) B2B Business Operations Map (BOM)

Ref: eTOM_B2B_BOM_V4.0-J-v2.doc. Review of Buyer and Supplier initiated interactions. The following conclusions and recommendations are made:

Sub-Process	Components Aligned	Component Gaps	Gap Details
Buyer-Supplier			
Resolve Problem	6	0	none
Manage Progress	2	0	none
Testing	1	4	Scheduled testing
Appointing	3	1	Change Appt
Supplier-Buyer			
Resolve Problem	0	2	Refer & Transfer PR
Manage Progress	6	1	KCI on all PR attribute changes
Testing	0	1	Scheduled testing
Appointing	0	0	none

- A gap was identified around Scheduled Testing. It was agreed by the NICC B2B to be a probable area of new requirements and has been added to the workstack.
- A gap was identified around Change of Appointment. This scenario is covered by the standard through the reservation of a new Appt, and amendment of the PR with the new Appt, and is therefore not required.
- A gap was identified around the Refer and Transfer of PRs. It was agreed by the NICC B2B to be a probable area of new requirements and has been added to the workstack.
- A gap was identified around sending a KCI on every change of state or attribute in the PR. Other KCI components adequately cover the requirements, and therefore this specific component is not required.
- The NICC B2B standard identifies 18 Buyer-Supplier Components not specified in the eTOM B2B BOM, and 17 Supplier-Buyer. These relate to Sub-Processes: Charges, PEW & MSO; Management Information; Miscellaneous which are not covered by the eTOM BOM. These are to be considered for further updates to the eTOM standard.

ITU (International Telecommunication Union) X790/M.3343

Ref: ITU-T M.3343 Requirements and Analysis for NGN Trouble Administration across B2B and C2B interface. Review of Business Level Requirements - Interactions - Sections 2 & 3. The following conclusions and recommendations are made:

Sub-Process	Components Aligned	Component Gaps	Gap Details
Buyer-Supplier			
Resolve Problem	4	5	Grouping of PRs Querying PRs Managing 'Trouble Types'
Manage Progress	2	0	none
Supplier-Buyer			
Resolve Problem	2	4	Grouping of PRs

			Managing 'Trouble Types'
Manage Progress	5	0	none

- A gap was identified around Grouping PRs. Although M.3343 implies these grouping functions are internal to either Buyer or Supplier domains, it was agreed by the NICC B2B to be a probable area of new requirements and has been added to the workstack.
- The querying of PRs based on searchable parameters was also agreed to be a gap. This was agreed as a probable area of new requirements and has been added to the workstack
- A gap was identified around the management of Trouble Types. A Trouble Type is a category of problem, against which the PR can be attributed. The Clear would normally identify the Trouble Type as a 'clear code'. The NICC B2B agreed this is a potential future enhancement to the standard, but is currently out-of-scope.
- The NICC B2B standard identifies 22 Buyer-Supplier Components not specified in M.3343, and 15 Supplier-Buyer. These relate to Sub-Processes: Appointing; Testing; Charges, PEW & MSO; Management Information; Miscellaneous which are not covered by M.3343. These are to be considered for further updates to the ITU standard

ITIL V2

ITIL deals with T2R in the context of IT Service Management. The ITIL processes applicable here are Incident Management, Problem Management and Change Management. ITIL is in the process of being up-issued to version 3 – therefore a further item has been added to the workstack to review any information relevant to this standard in that version.

The following conclusions and recommendations are made:

- NICC B2B to consider expanding the market segment scope (as with Mobile, Broadcast etc – see Section 1.1) to include IT Service Management B2B requirements.
- NICC B2B to consider the adoption of ITIL terminology (Incident/Problem etc) to reduce the diversity of terms (e.g. Problem, Trouble, Fault etc).
- Review ITIL version 3 with respect to influence on this standard.

Annex 4: Glossary

Please note this is just a start and more items will be added before final issue

21CN	21st Century Network
B2B	Business to Business (electronic transactions via a gateway)
BOM	Business Operations Map
CP	Communications Provider
ebXML	eBusiness XML
eTOM	enhanced Telecom Operations Model [TMF]
ITIL	Information Technology Infrastructure Library
ITU	International Telecommunications Union
L2C	Lead to Cash
LLU	Local Loop Unbundling
NGN	Next Generation Networks
NICC	Network Interoperability Consultative Committee
T2R	Trouble to Resolve
TMF	TeleManagement Forum
WBC	Wholesale Broadband Connect
WLR	Wholesale Line Rental
XML	eXtensible Mark-up Language

--- END ---