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NICC B2B USER STORY APPROACH

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Network Interoperability Consultative Committee
Ofcom
Riverside House,
2a Southwark Bridge Road,
London SE1 9HA
UK
http://www.nicc.org.uk

Normative Information

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Document history

Revision	Date	Notes
Draft 1	29/12/2006	First draft for submission to NICC B2B working group
Draft 2	02/02/2007	Update as a result of review by NICC B2B: • edit the document to concentrate on the use case aspects rather than the wider subject of Agile working. • put it into NICC format • Rather than review it further we would try it out on the next stage of the process work.
Draft 2c	5/3/2007	Added Annex 2 Template
Draft 2d	8/3/2007	Use Case renamed to User Story (inc file name) Template for User Stories added
Draft 2e	9/3/2007	Made some minor changes to text including adding links to user story web site
Draft 2f	9/3/2007	Section 3 changed to align to the Development Hierarchy Annex 2 template modified to reflect section 3
Draft 2g	9/3/2007	Added in User Story template in Annex 2
Issue V1.0.0	26th Sept 2007	Updated ready for publication including ND & version number and NICC B2B document structure

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1.   Introduction & Purpose

This document contains a description of the approach the NICC B2B proposes for developing business-to-business "User Stories" as a means of defining standards for B2B gateways in the UK telecoms industry.

It is one a number of techniques designed to facilitate the rapid development of systems, processes and products to meet user and customer requirements.

2.   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 .
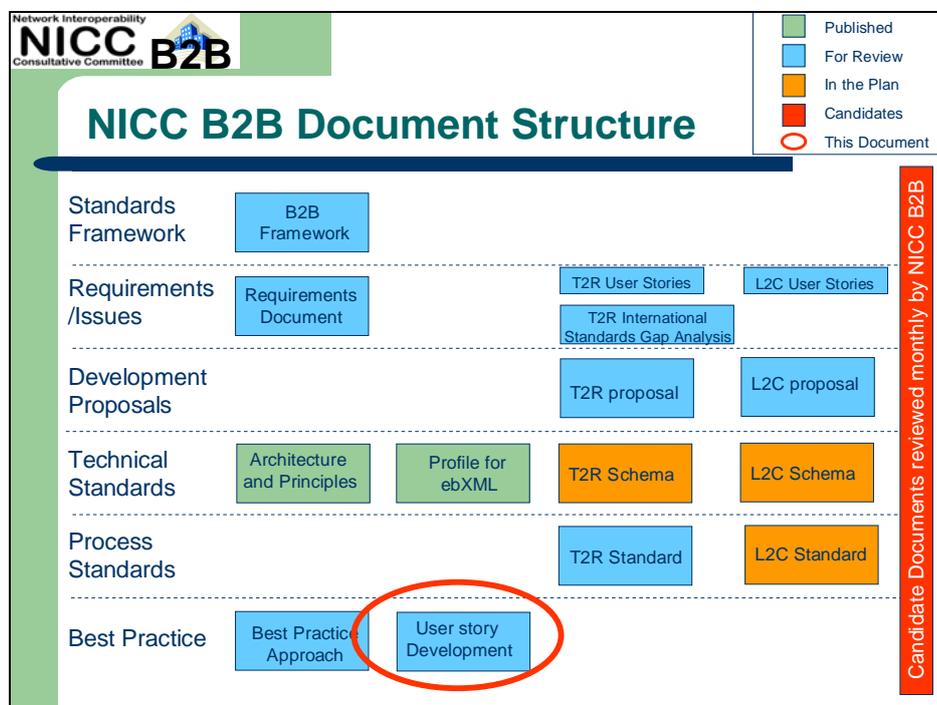
3.   Benefits

User Stories are requirements from a customer's or user's perspective that can be easily understood by business people and systems and process development teams. Existing requirements can be aligned to business scenarios, to identify possible gaps in the requirements, which can then be filled. They enable the work to be divided up into work stream activities that can be taken forward by development teams. The scenarios can be prioritised to give a clear direction to development teams for the order of work.

4.   Components & Methods

This section describes the components used in developing uses cases starting with vision and market requirements

4.1   From vision to specification

The vision and market requirements are generic and high level. The vision for our programme is already set out in the charter which created the NICC B2B working group. The design needs more specific user stories that break down the vision and market requirements into the various elements that are required to deliver against it.

4.2   Development Hierarchy

```
                    Market
                    Vision

                   Market
                 requirements

          Customer/User Personas
                User Goals
                User Stories

            Business Scenarios/
                Use Cases

            Processes/Systems
         (people, process, IT, Network)
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4.3   Market Vision & Requirements

The business customer is responsible for establishing and communicating, from the outset, a clear shared understanding of the business value that is going to be delivered by a product/service. The better that vision is 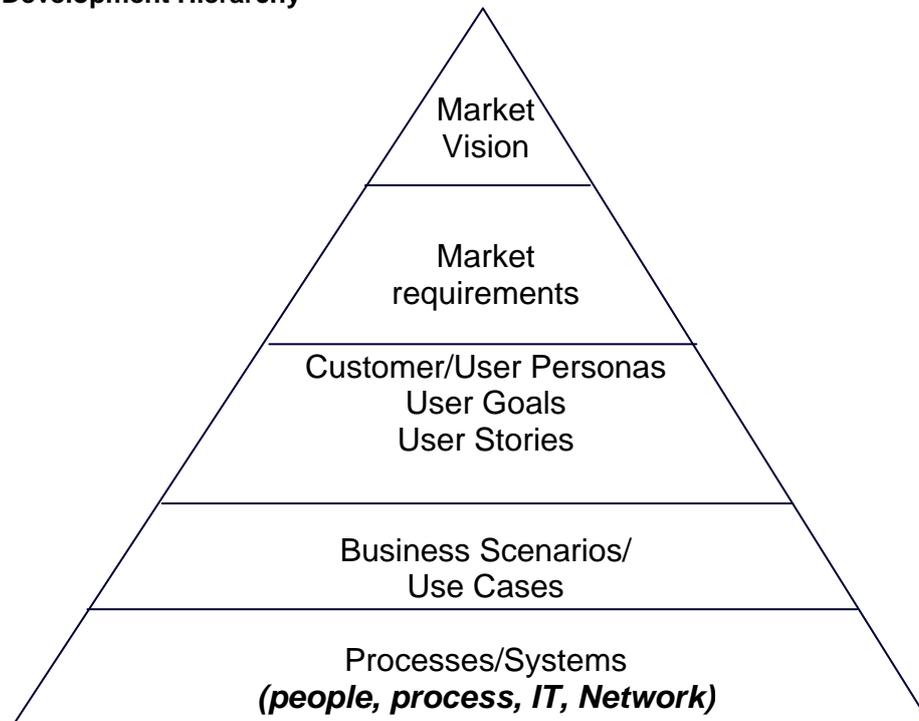understood, the better stakeholders will be able to help the organisation achieve it.   The business customer will work in collaboration with other stakeholders to establish the shared vision.

The Minimum Marketable Feature Set is the minimum set of essential (i.e. won't work without it) and higher value (i.e. that makes it different) features that make the proposition viable. The objective should be to identify these essential and higher value features and prioritise them appropriately to minimise development time and costs and achieve market delivery sooner.

A proposal will generally also include other potentially desirable requirements. These other requirements may be desirable but they are not essential, offer lower value benefits or raise greater costs. These should be considered for future progressive enhancement of the product/service if they are seen to offer additional value.

4.4   Customer/User Personas & Goals

A persona is a user archetype. As the target role, the persona helps to identify how the broader group of people represented by that archetype will interact with the solution. Users/Personas can be for both customers of the product/solution, and internal users, e.g. operational users who deliver the business processes.

They (the personas) exist to address questions such as why are they using this product, what information is important to them, when do they want it, what performance they expect and how do they feel about using the product/service. These 'wants' can be described as Goals.

Personas encourage discussion and role play to explore user needs, and avoid the designer's view influencing the requirements.

4.5 User Stories

User Stories are requirements derived from the perspective of the customer/user of a product/service. They focus on the Goal of the user, and the value the user expects from the use.

User Stories have Success Criteria which define what the product/service must deliver, and additionally what Customer Experience it delivers through the business processes which form part of the solution.

4.6 Business Scenarios or Use Cases

Scenarios are created for each Persona and each Story. The scenarios will be delivered through business processes. These processes are broken down (decomposed) into a series of steps and sub steps, until they map to system components or capabilities.

The scenarios are prioritised according to the value they add to the business.

4.7 Processes/Systems

The business processes in the context of the NICC will typically cover for telecommunications products/services:
• Supply/fulfilment of service
• Resolution of service problems
• Infrastructure management
• Service performance management
• Billing and payments
• Sales and bid management

The business processes will be supported by network infrastructure and IT systems, together with the organisation and people who operate the processes. Processes usually operate as a Supply Chain where the end-product/service is comprised of components delivered by different suppliers. These suppliers can sit within the same organisation, or be external companies.

Where the business process/supply chain involves interaction across organisations or company boundaries, it is vital that the nature of these interactions operate in a way that delivers an excellent Customer Experience. This is the essence of applying the User Story Approach to B2B trading.

5. Development of User Stories

5.1 Developing the Personas

The Personas will be derived from the Business Scenarios. There should be a small set of personas - the minimum number required to illustrate key goals and behaviour patterns appropriate to each specific product. Examples might include: Customer groups represented by one or more personas; Sales; Operational groups providing and maintaining the product.
The key personas to be assessed should be those that represent behaviours having the biggest impact on design.

5.2 Defining Goals

We then need to find out what drives them – i.e. their Goals. Goals should focus on describing the experience the persona wants to feel when using a product and on what the persona could get out of using a well-designed product.

This can be done as follows:

- Find out how they achieve these goals - Scenarios
- Ensure the design allows the personas to complete their tasks (scenarios) to meet their goals in the smoothest way
- Once the personas and goals are defined, each goal can then be considered to assess its impact on the design.

5.3 Defining User Stories

A User Story is a type of requirement used by the Agile Delivery Methodology. A User Story is, as it says, written from a User's perspective. A User could be an end-Customer, or an internal User of a solution. It expresses the requirement in terms of who the user is, what they want to achieve (i.e. their Goal), and what is the value realised. A user story is written in the format:

As a …………I want to ………….so that………….

A key element of a User Story is the **Success Criteria**. These define what the solution needs to deliver in order to fulfil the Users Story and Goal. Success Criteria should be thought of in two forms:

- Functional
- Non-functional

Functional criteria are usually easier to define and translate into Business Process or System capabilities. Non-functional are equally important from a User's perspective and can cover aspects such as availability of a service or facility, cycle time, and right-first-time.

Cycle Time and Right First Time can be defined as follows:

- **Cycle Time:** How long did it take us to deliver the customer requested product or service?
- **Right First Time:** Do we deliver service to customer expectations (i.e. on time, first time and in life, as agreed with the customer)?

It is essential that the Success Criteria a testable. We need to ensure that if we design and develop a solution to meet the User Story requirements, we must test compliance of the solution against the Criteria defined.

5.4 Decomposing the Business Scenarios

We use business scenarios to break down a higher level business need into smaller elements that enable a better understanding of that need and enable a solution to be developed – the user stories.

To give a business scenario context we consider its characteristics (customer experience, business value, priority, timeline etc) and non-functional aspects (how many, when?).

Each user story then has an associated set of Acceptance Criteria that identify what must be achieved in order to fulfil the Business Scenario.

6. Examples

For a simple example see Annex 1. For more detailed examples being contributed by UK communication providers or to contribute your own user story please go to
http://193.113.58.84/twiki/bin/view/Work/UserStoryT2R

Annex 1: Worked Example

Market Vision

To establish a successful tea shop in Ipswich.

- Rationale:
  The environment and demographics indicate that this business will generate lot of revenue and profit in a reasonably quick time.

Market Requirement Definition

- Customer segmentation
- Must be in the centre of Ipswich
- Easily accessible
- Range of flavours
- Enough space outside
- Not next to McDonalds
- Traditional feel
- Should be near shops
- Near offices
- Organic milk
- Differentiation
- Customer service

Persona

Roger – a busy executive working in the centre of Ipswich who wants to be able to buy hot drinks and associated goods. Roger is often dashing in and out of the office between meetings, and wants to obtain good quality refreshments with the minimum of delay and hassle. These factors are more important to Roger than the price.

User Goals

Top level Goal: "I want to grab a cup of tea with a minimum of delay and hassle"

This can have lower level goals, or Tasks:
- Be able to place my order quickly
- Be able to pay my bill promptly
- Be served quickly
- Be served politely
- Nice cup of tea

User Story

AS A busy executive (Roger)
I WANT TO be able to quickly grab a cup of tea and leave
SO THAT I can be refreshed without much delay

Success Criteria:
The following criteria could be applied:
Functional:
- Can order tea
- Tea is produced
- Tea has correct mix/strength of tea/water
- Milk/sugar available as options

- Can pay for tea using cash, card, cheque
- Receipt produced

Non-functional:
- Can order within 2 mins of entering shop
- Tea is delivered within 3 mins of order
- Tea is hot
- Tea has milk and sugar as requested
- Cup does not leak

Subjective Criteria:
- Be served politely
  – this is a worthy goal, but we need to be careful with subjective criteria. It isn't useful if it can't be tested. We would have to introduce criteria for judging 'politely'

Note above:
– There is a clear objective, there is a value associated with it and there are criteria to measure the achievement of business value.
– In addition, this scenario may be significant because it generates high value - so we are also interested in the volume of Rogers

Business Scenarios for Consideration

- Consumer driven user story
  – Roger buys his tea
- Operational Plan and Build
  – Source organic milk
- Operational Service
  – Clean tables
- Commercial
  – Review Roger revenue

Business Scenario Elaboration

• Scenarios are created for each persona and story

• The scenarios are broken down into a series of steps (decomposed) and sub steps until they map to business processes and system components or capabilities

• Non functional requirements and acceptance criteria are assigned to each scenario

• The scenarios are prioritised according to the value they add to the business

• The scenarios are then delivered in priority order

• Note. We don't need to know all the scenarios to start design and development.

Working Model
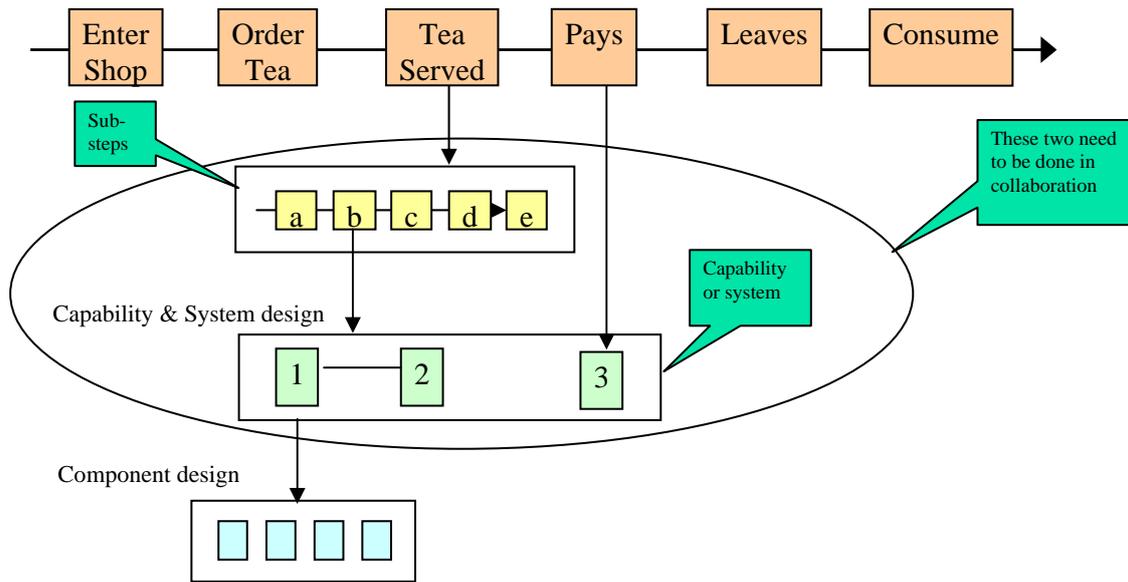
Annex 2: User Story Approach Template

1	Title
2	Objective
3	Market Vision
4	Market Requirements Definition
5	CP Personas
6	User Goals
7	User Stories & Success Criteria[1]
8	Business Scenarios/Use Cases
9	Business Scenario Elaboration
10	Working Model Diagram

User Story
xamples.xls (223 K.

Note 1: The attached template should be used to capture the user stories

- End -