

# SAPHE

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# Table of Contents

Table of Contents .....	1
1 Introduction .....	2
1.1 Document Status.....	2
1.2 Document Overview.....	2
2 Scenario analysis and development .....	3
2.1 Needs: .....	3
2.2 Narratives: .....	3
2.3 Approach: .....	3
I. Sourcing of existing scenarios.....	3
II. Annotation of existing narratives.....	3
III. Consolidation of event tables.....	4
IV. Development of SAPHE scenarios.....	4
V. Agree scenarios.....	5
VI. Develop use cases. (TBC) .....	5
VII. Validate use cases. (TBC).....	6
3 Document History.....	7

# 1 Introduction

## 1.1 Document Status

*This document, based on contents within the internal SAPHE Deliverable D03: Service Usage Scenarios, has been approved by SAPHE project management for public release.*

## 1.2 Document Overview

This document has been prepared by the SAPHE Project Partners to provide an overview of the methodology for scenario development used within the Service Usage Scenarios work package. Accompanying public documents outline the analysis of events taken from existing scenarios (*D03b\_pub*) and the resultant SAPHE scenario narratives (*D03a\_pub*).

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## 2 Scenario analysis and development

### 2.1 Needs:

- To provide a visualisation of what SAPHE is about.
- To establish use cases to develop service specification and operation.
- To provide input to the gap analysis.

### 2.2 Narratives:

There seem to be two types of narrative approach:

1. Narratives describing existing care processes.
2. Narratives describing SAPHE (new technology) enabled care processes.

Both approaches can show the benefits SAPHE could offer but in different ways:

1 – Shows benefits of SAPHE through contrast with the limitations of existing processes. Further comment is required following the narrative to achieve this.

2 – Shows benefits of SAPHE through its operation which may then be contrasted with existing processes. Further comment is only required if a comparison is made.

Existing care process narratives exist and can directly show limitations with existing processes. These should be useful to highlight areas where SAPHE can add value and hence provides input to the gap analysis. Such existing narratives may then be adapted to develop SAPHE based ones.

SAPHE based narratives will provide the simple visualisation of what SAPHE is about and should then be able to be developed further into more detailed use cases.

### 2.3 Approach:

#### I. Sourcing of existing scenarios.

Existing scenario narratives have been collected from a number of sources into a single repository.

#### II. Annotation of existing narratives.

Key points within the scenario narratives have been numbered (e.g. [1]). These points highlight where there could be a role to be played by either existing Telecare solutions and/or a pervasive

healthcare (SAPHE) system to change the care process/outcome. Each of these points have then been documented using the following table format:

Event	
Role for existing Telecare	
Improvement in outcome	
Involvement of stakeholders	
Limitations	
Role for SAPHE	
Sensors	
Collection (input) of information from user	
Data analysis	
Provision (output) of information to stakeholders	
Improvement in outcome	
Involvement of stakeholders	
Limitations	
Comment (assumptions, issues etc.)	

### III. Consolidation of event tables.

As common events occur across the different scenarios these have been consolidated into a base set of the above event tables. These form the fundamental situations for SAPHE scenarios.

### IV. Development of SAPHE scenarios.

Brief SAPHE based narratives from the consolidated event tables have been created.

Ideally narratives should be developed for each of the target client groups identified by the PCT.

Additional background material should be gathered for each scenario to give contextual information, justification, and current state of the art etc.

The narratives may be separately presented as visualisations.

## V. Agree scenarios.

The developed scenarios and analysis need to be agreed amongst the project partners and particularly with Liverpool PCT.

Additional validation may be sought from other sources such as:

- Imperial College – School of Medicine
- BT – clinicians within the BT Health Executive
- Philips – Philips Medical System

## VI. Develop use cases. (TBC)

**Note:** Use case development is beyond the scope of the scenarios workpackage (A2) and is a suggested approach to be encompassed within the technical workpackages and potentially A3, User HCI and engagement.

The development of use cases assists with the detailed understanding of individual processes, interactions and data flows within a complex system such as SAPHE. The SAPHE scenarios above should be broken down into individual processes such as: monitor SpO2, issue reminder to service user, raise alert to carer, etc. Use cases should then be developed for each of these processes. The following framework may be followed to document each use case:

Identifier		UC1.1
Description		- one liner
Narrative		
Actors / stakeholders		
Assumptions	Preconditions	
	Postconditions	
Detailed steps (inc. functional requirements)		1. 2.
Variations		
Analysis		<ul style="list-style-type: none"> <li>• Data sources</li> <li>• Data provision</li> <li>• Issues</li> <li>• Non-functional requirements</li> </ul>
History		•

## **VII. Validate use cases. (TBC)**

The developed use cases should be validated to ensure that they are both medically correct and that existing care processes are shown correctly. The Liverpool PCT should validate all use cases. Additional validation may be sought from:

- Imperial College – School of Medicine
- BT – clinicians within the BT Health Executive
- Philips – Philips Medical System

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## 3 Document History

<b>Issue</b>	<b>Date</b>	<b>Prime author(s)</b>	<b>Comments</b>
1.0	02/01/2007	Nigel Barnes	Internal Deliverable D03.
Public Release 1.0	21/08/2007	Nigel Barnes	Created from D03 for public release.
Public Release 1.1	02/10/2007	Nigel Barnes	Removal of chapter references to full document.

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