

## D4.4 – Phase II Component Interfaces

### Executive Summary

<b>Deliverable Type *</b>	: PU
<b>Nature of Deliverable **</b>	: S
<b>Version***</b>	: <b>Released</b>
<b>Created</b>	: 28 September 2009
<b>Contributing Workpackages</b>	: WP3, WP4
<b>Editor</b>	: <b>IBBT, Prologue</b>
<b>Contributors/Author(s)</b>	: IBBT, Prologue, NTUK, IMEC, GET, DT-Labs
<b>File Name</b>	: [D4.4 - Phase II Component Interfaces.doc]

#### Abstract:

The goal of this deliverable is to define the whole interfaces that are going to be provided by the MobiThin service management components. For each component in the service management framework, descriptions of its internal architecture, its roles, its functionality and its interfaces are detailed. Sequence diagrams corresponding to the most significant use cases are also included.

The current deliverable takes into account the remarks of D2.4 – System Review and contains the updated WP4 architecture for phase II. It replaces completely D4.1 – Phase I Components and comes across to the D3.3 which describes the WP3 system components and their interfaces.

*“The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 216946”*

The **MOBITHIN Project Consortium** groups the following Organizations:

Interdisciplinary Institute for BroadBand Technology vzw	IBBT vzw	BE
Deutsche Telekom Laboratories	DT-Labs	DE
Prologue Software	Prologue	FR
Interuniversitair Micro-Electronica Centrum vzw	IMEC vzw	BE
NEC Technologies (UK) Ltd	NTUK	UK
Groupe des Ecoles des Télécommunications	GET	FR
JCP-Consult SAS	JCP	FR

---

## Contents

1. Executive Summary
2. Introduction
  - 2.1 Project Context
  - 2.2 Relation with deliverable
  - 2.3 Deliverable scope
3. System Architecture
  - 3.1 Overall Architecture
  - 3.2 WP3 and WP4 components
  - 3.3 Service Management Framework components
  - 3.4 components architecture
    - 3.4.1 Connection, Authentication and Authorization
    - 3.4.2 Monitoring subsystem
    - 3.4.3 Administration Subsystem
    - 3.4.4 User data storage server
    - 3.4.5 Self Data Management
    - 3.4.6 Self logistics management
    - 3.4.7 User Session Management
    - 3.4.8 Profiling management
  - 3.5 MobiThin integration with IMS
4. Functionality of WP4 components
  - 4.1 WP4 components on Management Server
  - 4.2 WP4 components on Thin Client Server
    - 4.2.1 Host Level
    - 4.2.2 User Session Level
  - 4.3 WP4 components on Thin Client Device
5. Sequence Diagrams
  - 5.1 Start MobiThin Session
  - 5.2 Proactively Start MobiThin Session
  - 5.3 Stop MobiThin Session
  - 5.4 Session Migration
6. Interface definition
  - 6.1 Introduction
  - 6.2 Generic interfaces
    - 6.2.1 Administration Interfaces
    - 6.2.2 Monitoring interfaces
    - 6.2.3 Authorization component
    - 6.2.4 Entity subscription component
    - 6.2.5 Network interfaces
    - 6.2.6 Business subsystem interfaces
  - 6.3 Management Server Interfaces
    - 6.3.1 MTS\_DSS@MS
    - 6.3.2 MTS\_SDM@MS
    - 6.3.3 MTS\_SLM@MS
    - 6.3.4 TCSC\_E2ECONN@MS
    - 6.3.5 TCSC\_E2EAUTHN@MS
    - 6.3.6 TSC\_E2ELOGISTICS\_SESMAN@MS
    - 6.3.7 MTS\_AIS@MS
    - 6.3.8 TCSC\_E2ELOGISTICS\_RSVMAN@MS
    - 6.3.9 TCSC\_E2ELOGISTICS\_PROFMAN@MS
  - 6.4 Thin Client Server interfaces
    - 6.4.1 Components at host level (@TCS)
    - 6.4.2 Components at user session level (@US)
  - 6.5 MobiThin Client interface
    - 6.5.1 MTC\_SDM
    - 6.5.2 TCSC\_E2ELOGISTICS\_RSVMAN@MTC
7. Reference
8. ANNEX
  - 8.1 Inter Management Server communication

## 1. EXECUTIVE SUMMARY

This deliverable defines the interfaces between the WP4 components. Deliberately, it has been written as an incremental update to previous WP4 deliverables, in which the Phase I components are detailed.

All remarks formulated by the System Review (WP2 – D2.4) are included, as well as the new WP4 components that were already introduced in previous deliverables. Consequently, this deliverable is the single reference point for the WP4 architecture, providing a complete overview of the definition of all interfaces between WP4 components.

The deliverable should be read in parallel with D3.3, defining the interfaces of the other components of the MobiThin architecture.

This deliverable comprises three main parts. In the first part, the architectural description of D2.2 is extended in two ways, by clarifying the component deployment on the hosting infrastructure, and by detailing the architecture of the main WP4 subsystems. The second part of the deliverable contains a detailed description of each WP4 component. In the last part, the actual interfaces in-between WP4 components are defined.

The MobiThin architecture is defined in terms of building blocks on the MobiThin Client and the MobiThin Server.

In the first part of this deliverable, which is in common with D3.3, the deployment of these building blocks over a network-wide system infrastructure is detailed. The Mobithin Server can be split in two parts: Management Servers and Thin Client Servers. Management Servers comprise the architectural components for system management, such as user authentication, billing and session management. The Thin Client Servers offer the required resources to run User Sessions. A User Session is defined as the whole of the system resources allocated to a user, in which his desktop, applications (and possibly his own operating system) are executed. In the context of MobiThin, a User Session will be synonym for a Virtual Machine.

The second part of the deliverable contains an in-depth functionality description of every WP4 component on the management server, on the Thin Client Server and on the MobiThin Client. For every component, its task is detailed and with which other components it interfaces. Some sequence diagrams were added to clarify the interworking and interfacing between MobiThin components. These sequence diagrams cover almost all WP4 tasks.

The third and last part of this deliverable is the main part, as it contains the definition of the interfaces between WP4 components. As for the system architecture part, a two step approach is followed. First, the generic interfaces provided by some MobiThin sub-systems are detailed. Namely, the administration interfaces, the monitoring interfaces, the authorization interfaces and the entity subscription interfaces. The second part of the interface definition contains an overview of all interfaces of the WP4 components.

Lastly, an appendix includes an initial proposal for helping to support the scalability of the MobiThin management servers.

- End of document -

