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*Testbed Specification***Contractual Date of Delivery to the CEC: 31-03-2004****Actual Date of Delivery to the CEC: 13-04-2004****Editor: Filipe Cabral Pinto (on the behalf of the PTIN team)****Author(s): see list****Participant(s): UPC, KCL, PTIN, TI, TID, TEL****Workpackage: WP4****Est. person months: 12****Security: PU****Nature: Report****Version: 001****Total number of pages: 96****Abstract:**

This deliverable includes the definition of the general architecture of the EVEREST testbed. In the deliverable are clearly specified all the relevant functional and performance requirements, as well as the interfaces between different modules. The methodology to be used during the integration phase is also specified

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EXECUTIVE SUMMARY

This deliverable aims at providing a global description of the selected architecture for the EVEREST Demonstrator.

Starting from a general overview of the EVEREST reference architecture, the main interfaces and functionalities to be retained of the UTRAN, GERAN and WLAN access networks are reviewed. Moreover, the different approaches for the Core Network assumed in releases 5 and 6 of the 3GPP specs are also taken into account, to be well aligned with the standardization for a work.

Next, the proposed EVEREST end to end QoS Management is presented, paying special attention to the main issues related with common radio resource management strategies and end-to-end QoS.

Once the testbed goals have been described and fixed, the deliverable addresses the general EVEREST testbed architecture, which takes into consideration the capabilities of the legacy testbeds coming from the previous IST projects.

Later on, the EVEREST testbed architecture is explained in detail. Both hardware and software issues and generally implementation aspects are addressed and, specifically, the generic description of the envisaged plans for the emulation both radio-dependent (UTRAN, GERAN and WLAN access technologies) and radio independent parts (Core Network and QoS managers: Bandwidth Broker and Wireless QoS Broker) is presented. Moreover, a first approach of the applications that will be used, allowing quantitative and qualitative measurements of the performances of the CRRM/QoS management algorithms developed in the EVEREST project, is also addressed in the document.

Finally, the deliverable also describes the integration methodology assumed, and concludes with a section, devoted to summarise the EVEREST Demonstrator capabilities.

Table of Contents

1	INTRODUCTION	1
1.1	PURPOSE OF THE DOCUMENT	1
1.2	DOCUMENT STRUCTURE.....	1
2	EVEREST REFERENCE ARCHITECTURE	2
2.1	OVERVIEW	2
2.2	UTRAN.....	2
2.2.1	Node B.....	3
2.2.2	Radio Network Controller.....	3
2.2.3	UTRAN Interfaces	5
2.3	GERAN	12
2.3.1	BTS.....	13
2.3.2	BSC.....	13
2.3.3	Interfaces	15
2.4	WLAN	22
2.4.1	Access Point.....	23
2.4.2	Access Point Controller.....	23
2.4.3	Interfaces	30
2.5	CORE NETWORK.....	37
2.5.1	CN in release 5 and 6.....	37
2.5.2	DiffServ data plane.....	38
2.5.3	Release 6 and mobility management.....	38
2.6	EVEREST END-TO-END QOS MANAGEMENT	39
2.6.1	Motivation.....	39
2.6.2	Bandwidth broker.....	40
2.6.3	Wireless QoS Broker and CRRM	44
3	EVEREST TESTBED GOALS	52
3.1	PROOF OF CONCEPTS	52
3.2	TESTBED FACILITIES	53
3.2.1	Centralised Management.....	53
3.2.2	Remote Operation.....	53
4	GENERAL TESTBED ARCHITECTURE.....	55
4.1	ARROWS INHERITANCE.....	55
4.1.1	Description of the ARROWS testbed.....	55
4.1.2	Elements inherited from the ARROWS testbed	59
4.2	EVEREST	60
4.2.1	Hardware Architecture.....	61
4.2.2	Software Architecture.....	61
4.2.3	General Implementation Aspects	65
5	MODULES AND INTERFACES.....	72
5.1	UTRAN.....	72
5.1.1	Emulation Model Description	72
5.1.2	Interfaces	73
5.2	GERAN	74
5.2.1	Emulation Model Description	74
5.2.2	Interfaces	75
5.3	WLAN	75
5.3.1	Emulation Model Description	75
5.3.2	Interfaces	77
5.4	CORE NETWORK	77
5.4.1	Edge router	77
5.4.2	Core router	78
5.5	QOS MANAGERS (BB, WIRELESS QOS BROKER)	79
5.5.1	BB module.....	79
5.5.2	Wireless QoS Module.....	80
5.5.3	Master PDP	82
5.6	INTEGRATION METHODOLOGY	83

5.7 TEST AND VALIDATION PLAN 88

6 APPLICATIONS 90

7 CONCLUSIONS 91

8 REFERENCES 92

9 ACRONYMS 94