Open Software
Application Scenarios @ Siemens Mobile Networks

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Outline

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- **Motivation**

- **Examples**

- **Lessons learned**

Outline

Motivation

Examples

Lessons learned

Motivation

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- **Open Software is a major success factor also for large Telecom Projects**
  - Save development effort for standard components like Operating System, Middleware, Protocols, …
  - Save run-time and development License costs
  - Early time-to-market with new technologies and standards
  - Flexible adaptation to own Product roadmap
  - Fast bug-fix cycle in Open source community
  - High quality due to large number of world-wide testers
  - Follow main stream of IT industry standards

Examples (1)

■ **Example Open source components used in current UMTS projects @ Siemens Mobile Networks**
- Operating System
  - Linux
- Middleware
  - Database
  - Corba ORB
  - XML Browser
  - Java JDK
- Protocols / Applications
  - SS7 Stack
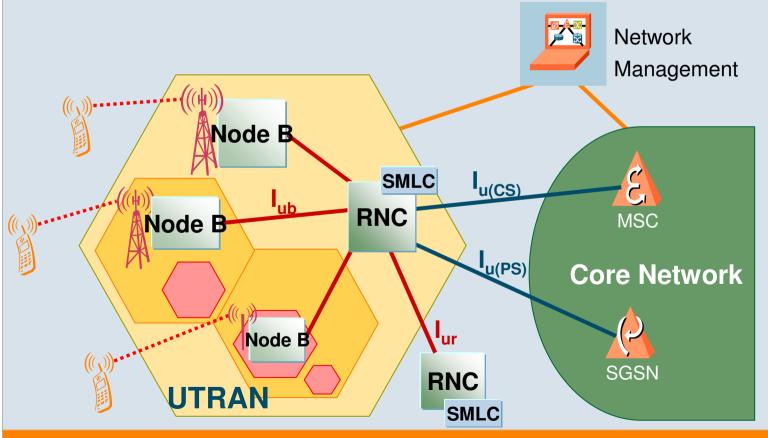 - .....
- Testing / Tracing utilities
  - Etherreal

Examples (2)

- **Example UMTS Projects using major Open Source components**
  - Base Station
  - Radio Network Controller

Network Management

Node B

SMLC

I_{ub}

Node B

RNC

$I_{u(CS)}$

MSC

$I_{u(PS)}$

Core Network

Node B

I_{ur}

RNC

SMLC

SGSN

UTRAN

Lessons learned

- **Overall positive experience with current Key Projects in UMTS development @ Siemens Mobile Networks**

- **Needs Paradigm shift for Development and Management**
  - Adaptation & integration instead of self-development
  - Observation of standards & trends of relevant Open source communities
  - Management of Copyright (GPL), Liabilities, IPRs, …
  - Using Open Software is not for "free", in most cases project-specific customisation and maintenance needed
  - Support / liaison with important Standardisation bodies

- **Needs adaptation of Development & Integration Process**
  - Incremental Development Process to incorporate add-ons
  - Flexible Roadmap adaptation to fast Open source projects
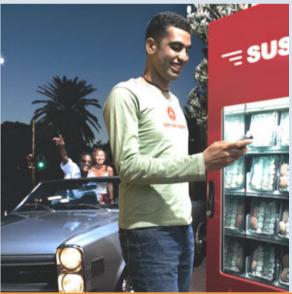 - Management of project-specific tailoring (e.g. BSP)

Thank you!

Questions?