

# MCCM

## MCCM (Mobile Common Configuration Management)

### Introduction

When configuring 3G networks in a multi vendor / multi technology environment with a multiplying number of neighbor relationships between cells, Mobile operators are facing a rapidly escalating problem. This is due to the huge amount of cell attributes and the need of an assured handover consistency within the 3G network as well as with existing 2G infrastructure. The TMF (TeleManagement Forum) MCCM Catalyst project's results showed how to address these challenges through the design of a solution architecture and the design of the Bulk CM interface, standardized by the 3GPP.

A key requirement on 3G is to support handover to existing 2G cellular networks. This handover allows customers with a dual-mode wireless terminal to roam between an initially limited UMTS coverage in a "sea" of coverage provided by a GSM system. Mobile network operators face a multitude of neighbor relationships between cells supported by different manufacturer's equipment, hence the need for consistent parameter management.

### Why MCCM

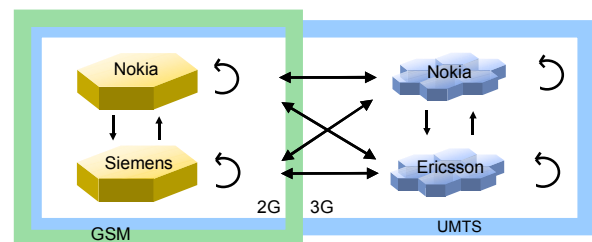
The main drivers for a RAN (Radio Access Network) Configuration Management system are:

- **Time consuming** configuration process
  - huge number of attributes
  - inhomogeneous addressing schemes
  - demand for mass operations
- **Inconsistencies** may result from
  - split of information/processing
  - manual operations
  - inefficient support of operator's processes
- **Expensive** handling of new releases
  - changes in the object model
  - changes in interfaces/protocols
  - or in syntax/semantics/procedures

At many operators, the number of hand-over relations to be managed are increasing rapidly, due to the introduction of 3G, e.g. from 2 to 8 categories as indicated in the figure below:

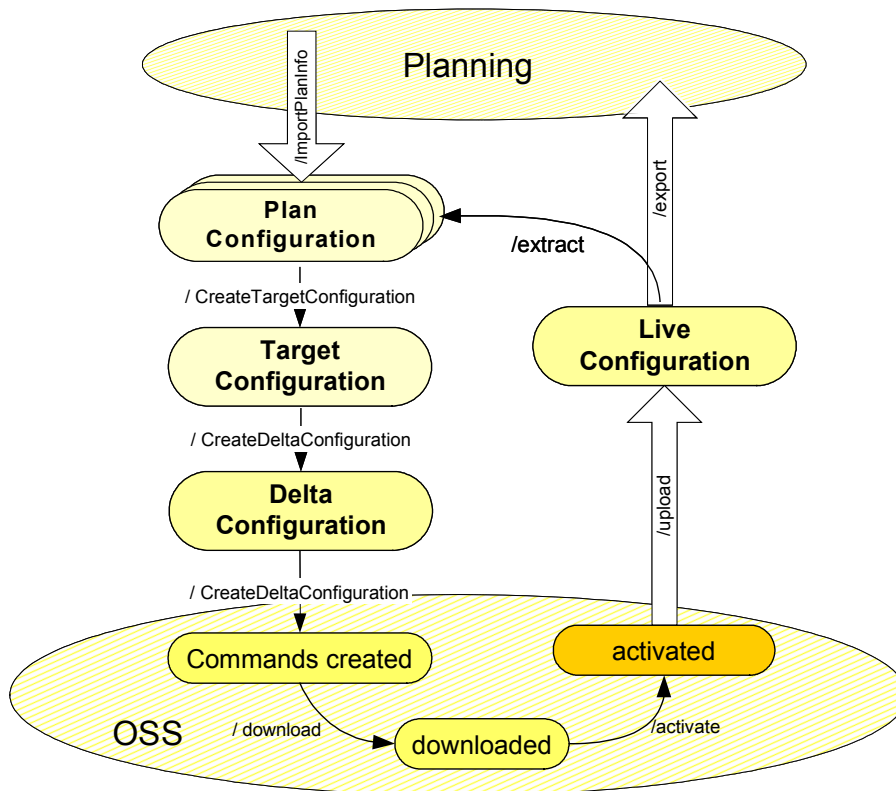
- With 2G Nokia and Siemens cell adjacencies are handled.
- With 3G added Nokia 2G, Siemens 2G, Nokia 3G and Ericsson 3G cell adjacencies have to be handled.

### The solution from Teleca



Teleca OSS is offering a MCCM solution to the mobile operators facing the hand-over configuration problems described above. It provides the following features:

- Interfaces to the leading 2G and 3G RAN equipment Element and Sub-Network Management systems from Ericsson, Nokia and Siemens.
- Open interfaces to enable integration with legacy, planning and performance management systems.
- Flexible customization to allow for adaptation to the operator's processes and operations procedures.



Our solution provides support for the complete Configuration Management process as visualized in the figure above.

A typical deployment project includes:

- Integration of the PSImccm product to surrounding systems, like Equipment Vendor Element Managers (like Ranos), to planning systems (like Aircom), to Performance Management systems (like WatchMark and Metrica) and to legacy systems.
- Customization of the core product to the information model and configuration management processes of the operator.
- Migration and testing and efforts, project management, training, etc.
- We also undertake support and maintenance of our deployed solutions.

A MCCM solution from Teleca will be an integral part of the ever ongoing cycle involving network performance monitoring, network (re-) planning, provisioning of updated radio access and transmission network resources, etc. It is part of our OSSIAN concept covering an overall

OSS architecture, our set of dedicated Service Offerings and our approach to Systems Integration.

Teleca is cooperating with the German company PSI AG in offering the PSImccm product to the market.

#### *The PSImccm product*

PSI AG was one of the participating companies in the MCCM catalyst project acting as integrator and being responsible for the GUI and the command generation module. The PSImccm product is based on the 3GPP standard for the N-Interface and worldwide accepted technologies like XML and CORBA. It has a specific focus on performance and bulk data transfer.

The PSImccm product has now (Spring 2003) been sold and deployed to Vodafone D2 and E-Plus in Germany. It is actively marketed throughout Europe.

*For more information, please contact [info@oss.teleca.se](mailto:info@oss.teleca.se)*