3GPP TSG SA WG5 #3
Helsinki, 4 - 7 May, 1999

Tdoc S5-99074

Source: Telia AB

Title: Automatic conversion / TMN Gateways / Mediation solutions

Document for: Information and discussion

1. Introduction

The approach for the standardisation of the telecom management interfaces for UMTS has been to concentrate on information models, allowing the mapping to several protocol suites (with the intention to a least recommend one mapping for each interface)

The reason behind this has been

- UMTS will meet the blurring of Information and Telecommunication technologies. A lot of new IP equipment must be managed as well as more traditional telecom equipment. Increased focus on service management and efficient IT systems supporting the telecom processes will imply more and more need for interoperability between different vendors equipment and telecom management systems.

- The IT industry has introduced many successful new technologies as distributed processing and widely accepted open protocols and standards which can be incorporated and be of great importance to fulfil the challenging managing requirements of UMTS. The technology is advancing rapidly and it must be a fundamental part also for the telecom management systems – to be able to easily adopt new important technologies.

- The life-cycle of information flows is 10 to 20 years, while the protocols is 5 to 10 years

- The developments on automatic conversion allows for a more pragmatic and open approach

2. Automatic conversion

This contribution will add more information for study into the last bullet point area – automatic conversion.

There will just not be “the one and only interface for everything”. A UMTS TMN will include element with great difference in complexity. Firewalls, Exchange-Element Managers, billingsystems, workflow systems, DNS etc will have different requirements on the interfaces. We will as today se a variety of interfaces and the nature of a mobile operator will basically be heterogeneous. In order to have interoperability the interfaces will require an underlying mechanism to mediate - interpret, translate, and handle data – between the various data representations and protocols.

This issue has been brought up in Telecom Management Forum and at their webb page at least the following documents and information in this area can be found

Interworking Components Sets:

NMF CS341: CMIP/SNMP Interworking

NMF CS 342: CORBA/CMIP/SNMP Interworking

Special Team:

Team project ”TMN C++ API”

Key Milestones (All approved march 1998):

ASN.1/C++ API TMF040

CMIS/C++ API TMF041

GDMO/C++ API TMF042

TMN/C++ API TMF043

Products on the open market can be found for automatic conversion under names as software components for automatic conversion, gateways or mediation applications.

The following to companies has products in this area and have a lot of white papers and information under the following webb pages:

http://www.netmansys.com

http://www.opencon.com

Included in this zip file are two white papers valuable to study and for evaluation of the potential of such products in the interest of Telecom Management in 3GPP WG5.

Netmansys:

FastBench for Open Mediation Solutions (Includes a UML to GDMO translator)

OpenCon Systems,Inc :

White Paper on the TMN Gateway