

Source: Motorola (Michael.Truss@motorola.com)

Title: CO-OP Overview Presentation

Agenda Item: Other X-SWG issues

Document for:

Late submission	
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Decision	
Discussion	
Information	X

Work Item: Rel-7 (e.g. OAM-NIM)

WT addressed 35046 OAM7-NIM-COOP

Specs involved: None

1 Decision/action requested

No action is required by 3GPP SA5 on this contribution; This contribution is made to fulfil the commitment made at SA5#42 to bring further information to SA5 on the TMF CO-OP project. At SA5#42 work task 35046 (OAM7-NIM-COOP) was agreed on the understanding that this contribution would be provided to SA5#42bis.

2 References

3 Rationale

The objective of this contribution is to provide further information on the TMF CO-OP project which it is envisaged will be the main driver of input to Work Task 35046.

4 Detailed proposal

CO~OP Summary

May 2005

V3.0

Co-Operative OSS Project (CO~OP)

- CO~OP is an industry effort led by mobile Network Equipment Providers (NEP) within the TMF.
- The main objective is to help mobile Service Providers (SP) and the OSS industry reduce the high cost of systems integration and ease of operations by improving network-management systems interoperability.
- CO~OP leverages existing industry agreements (e.g. 3GPP, OSS/J, NGOSS) to deliver practical solutions to real and pressing operational issues.

Co-operation for ease of operation and integration.

Pain Points for Service Providers

- Systems integration “tax” (CAPEX)
 - ❖ 80 % of available resources (opex & capex) is spent on bespoke projects
 - ❖ lost opportunities
- Resource pressures (OPEX)
 - ❖ Increasing complexity of mobile networks with the need to maintain quality and agility
- Sub-optimal use of existing assets (CAPEX & OPEX)
 - ❖ Element managers
 - ❖ OSSs
 - ❖ Limited OSS interoperability
 - ❖ Limited re-use of interfaces

Current members of CO~OP

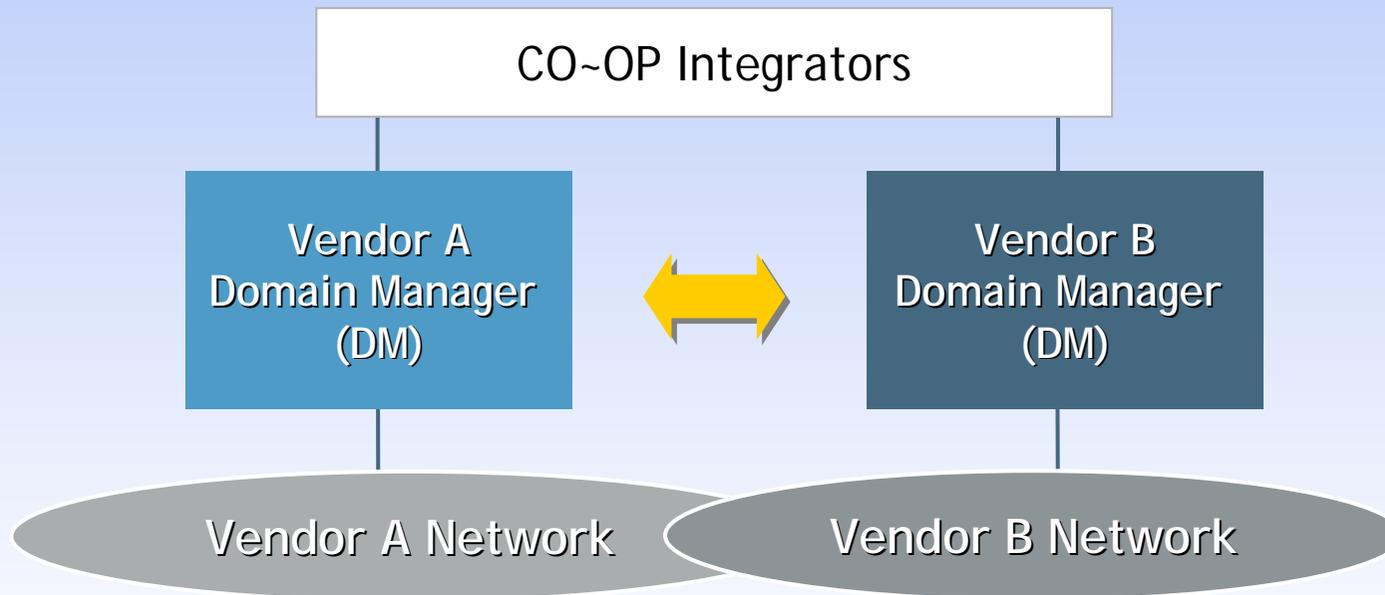
- Alcatel
- Ericsson
- Huawei
- Lucent Technologies
- Motorola
- NEC
- Nokia
- Nortel
- Siemens

With a growing number of service providers endorsing the work

CO~OP Operations

- Project within TMF
- Committed resourcing from members
- Full-time project manager
- Aggressive schedule and practical deliverables
- Dialogue with Service Providers to capture operational requirements; pain points
- Multi-year and multi-phased project

Scope of CO~OP



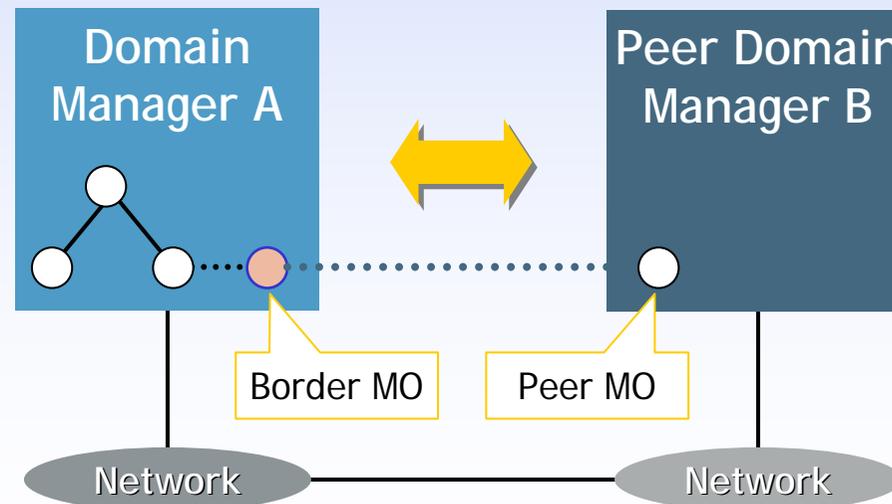
CO~OP Phase I Focus Areas

- CO~OP Phase I is focusing on:
 - ❖ Reference architecture
 - ❖ Configuration management
 - ❖ Performance management
 - ❖ Testing scenarios
- First agreement is available: High Level Architecture (TMF058)
- Two demonstrations are being shown in Catalyst area

Configuration Management Use Case

Multi-vendor cell adjacency management in radio networks

- Single interface for making change verifications and cell updates across domains
 - ❖ Faster execution
 - ❖ Simpler procedure, even when concurrent changes are made
 - ❖ Improved security



CM Use Case Examples:

- UTRAN/GERAN
 - GERAN/UTRAN
 - ❖ Inter-cell relations
 - handover / reselection
 - ❖ Iur links (UTRAN only)
- CN - UTRAN/GERAN
 - ❖ Iu-Ps / Iu-Cs links
 - ❖ Gb / A links (GERAN only)
- UTRAN - Transport
 - ❖ RNC<->RNC / RNC<->NodeB ATM connections
 - ❖ RNC->SGSN / RNC->MSC ATM connections
- UTRAN-UTRAN handover relation parameters
 - ❖ Identifiers
 - ◆ Mobile-Country-Code
 - ◆ Mobile-Network-Code
 - ◆ Rnc-Id
 - ◆ Cell-Id
 - ❖ Other parameters
 - ◆ Location-Area-Code
 - ◆ Uarfcn-Uplink
 - ◆ Uarfcn-Downlink
 - ◆ Primary-Scrambling-Code
 - ◆ Primary-Cpich-Power
 - ◆ ...

Catalyst Demo1: Cell Border Management Alignment

- Operator wants to change the configuration of a cell, but the cell is adjacent to other cells managed by one or more other Domain Managers's then
- Without co-op
 - ❖ The user has to identify the borders cells and which management system manages them
 - ❖ The user has to access the other management systems noting the data for the border cells
 - ❖ Access the cell management system and make the appropriate changes
- With Co-Op
 - ❖ All the border cell information is readily available on the same GUI including status (fault) information
- Value
 - ❖ Less time to carry out an operation. Access to a single user interface
 - ❖ Less complex in managing the operation, especially if other users are making concurrent changes on the other cells.
 - ❖ More secure. The user does not need access to multiple management systems
 - ❖ Less risk of mistakes being made

Performance Management Use Case

Multi-vendor performance reporting

- Comparable and consistent Key Performance Indicator (KPI) reports from a multi-vendor network
 - ❖ Improved network knowledge
 - ❖ Faster fault resolution -> better customer service
 - ❖ Reliable and easy comparison of network and service data in a multi-vendor environment

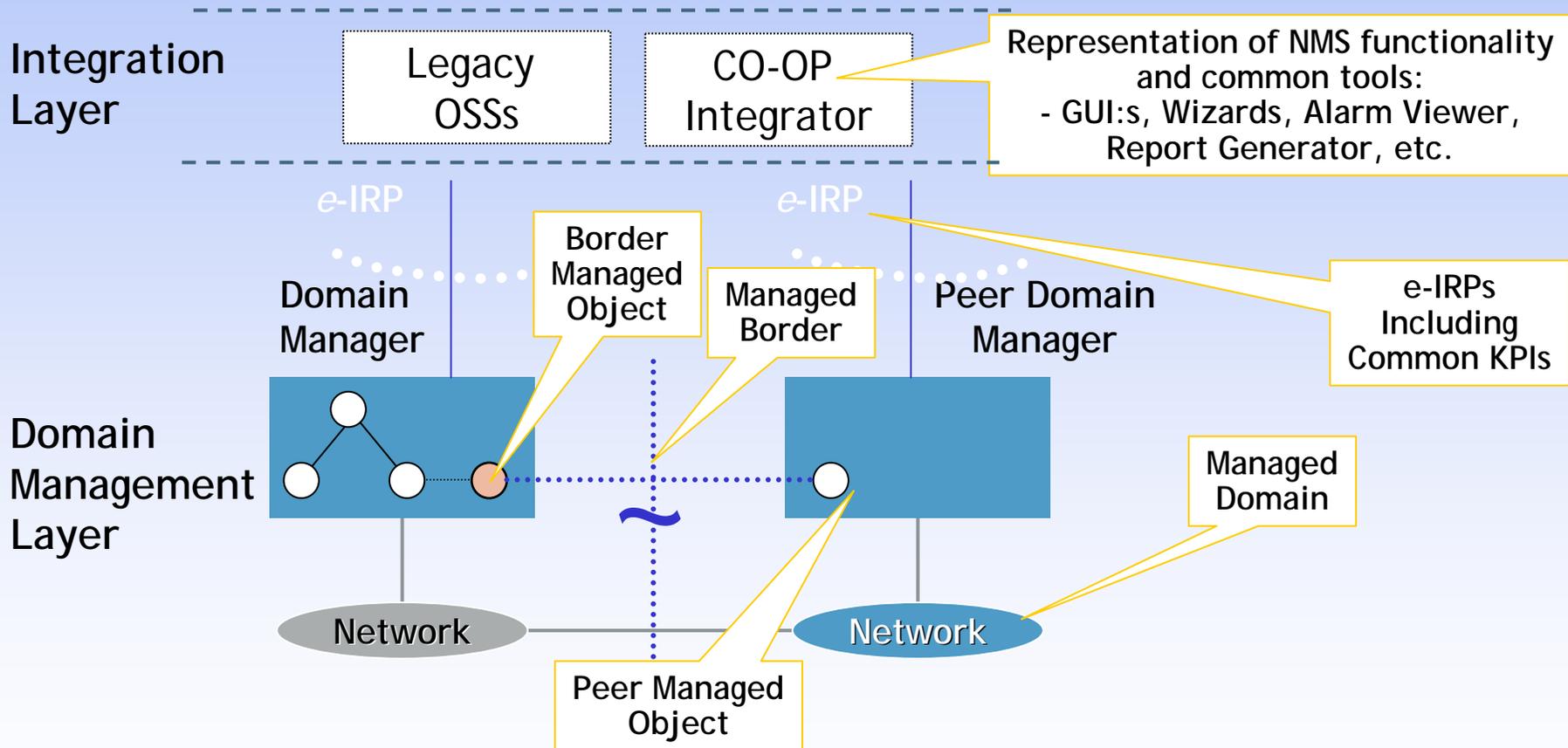
PM Use Case Examples:

- Cross-vendor UTRAN performance reporting
- GERAN-UTRAN performance reporting
- Core-Ran performance audit
- Domain border performance audit
- UTRAN-Transport performance audit

Catalyst Demo2: KPI Harmonization

- Scenario. The DM generates PM data as measured by the network elements and forwards them to the NMS
- Without CO~OP
 - ❖ The performance data is just counter metrics as per 3GPP/3GPP2 standards
- With CO~OP
 - ❖ The performance data includes KPI measurements that are consistent across all the DMs
- Value
 - ❖ Eliminating the need for mapping between vendors' different input
 - ❖ Increasing time to market for gathering and reporting on KPIs
 - ❖ Enhanced value provided by the DM

Technical Summary of CO~OP



Summary

- Innovative and pragmatic way of addressing industry pain points.
- Leveraging on existing industry standards and agreements.
- Committed team working in pre-competitive environment.
- Delivery of agile solutions to meet new market requirements.

Conclusions

- Co-op is a new way of working
 - ❖ An improvement in traditional wireless management architectures
 - ❖ Greater co-operation between vendors in increasingly complex networks
 - ❖ Bringing vendor interoperability to the OSS level
- Co-op adds value to the network
 - ❖ Reduced operational costs
 - ❖ Reduced risks and cost in integration of multi-vendor equipment
 - ❖ Greater flexibility in selecting the solution that meets the operators needs

Co-operation for ease of operation and integration.

More Detail

Cooperative OSS Project (CO-OP) High Level Architecture - TMF058 v1.0 r1.0 now available for review to TMF members at:

<http://www.tmforum.org/browse.asp?catID=2032&linkID=30491>

CO~OP: Co-operation for ease of operation and integration.

Thank you. Questions?