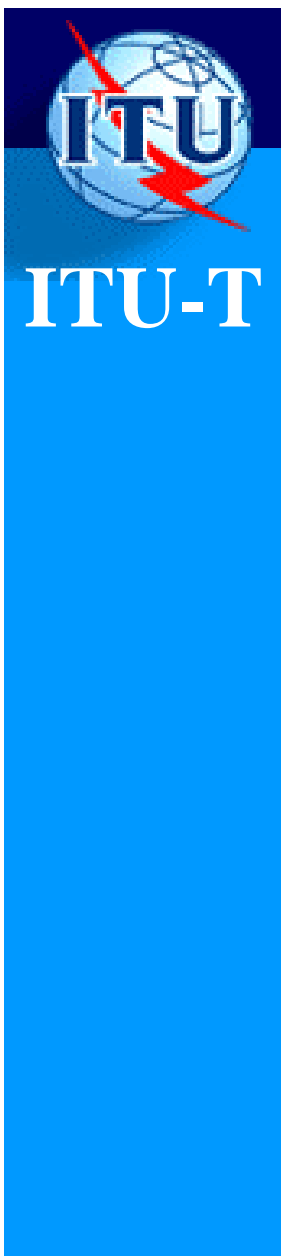# NGN Management - En Route to Convergence

Leen Mak

Chairman, ITU-T WP 1/4

Vice Chairman, NGNMFG

Vice Chairman, ETSI TISPAN WG8

Lucent Technologies

ITU-T Workshop on NGN (jointly organized with IETF)
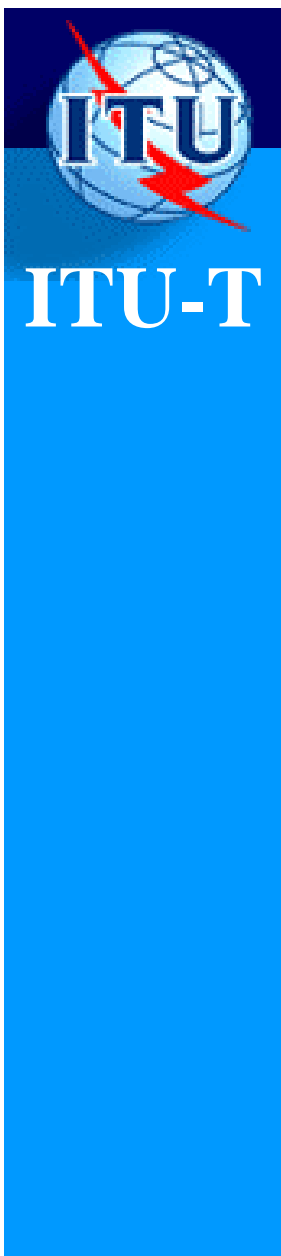Geneva, 1-2 May 2005

Contents

o Changes & Consequences

o Existing Work
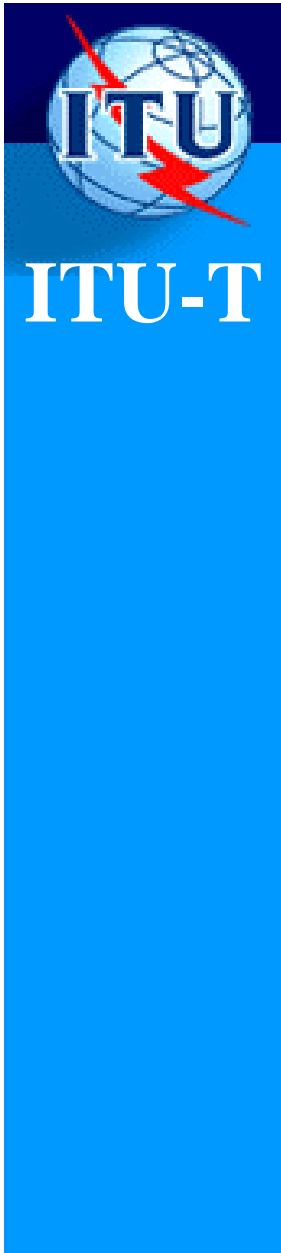
o Emerging Architectures

o Next Steps

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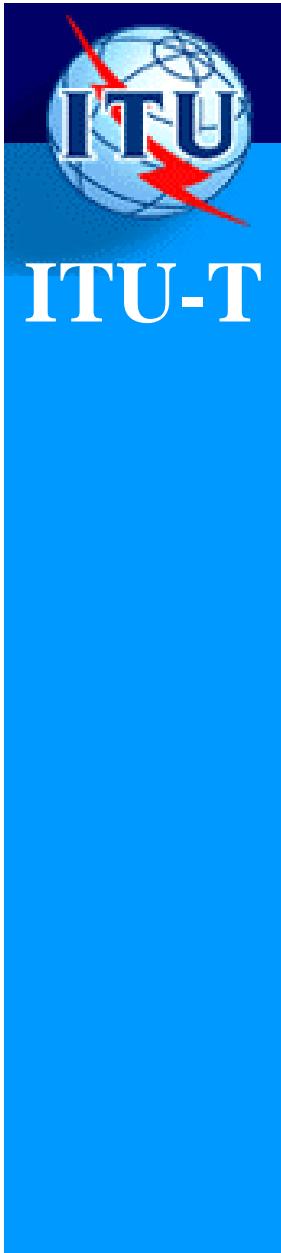
NGN Brings Changes ...

o Convergence of Wireline and Wireless networks

o NGN has more "run time variables" than current telecom networks

- Services (products): more diverse, richer, with compressed life cycles, unforeseen
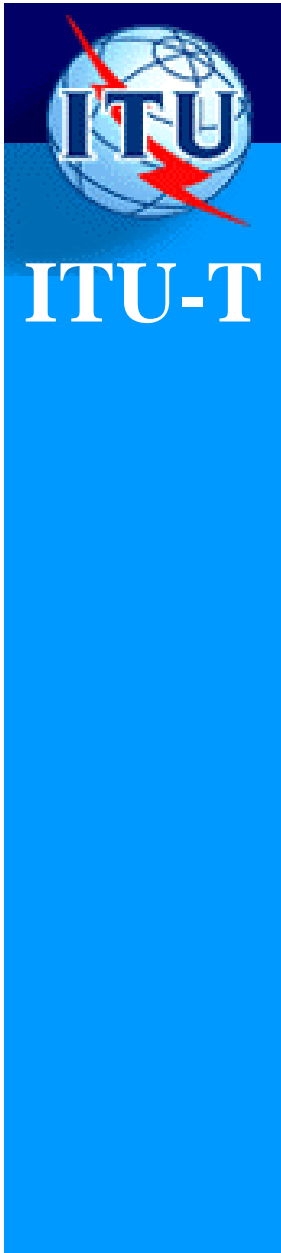
- More complex value chains

Consequences for Management

o Convergence of Wireline and Wireless Management

- Collaboration, also between SDOs

o Rethinking of Management Principles

- Integration of until now independent developments

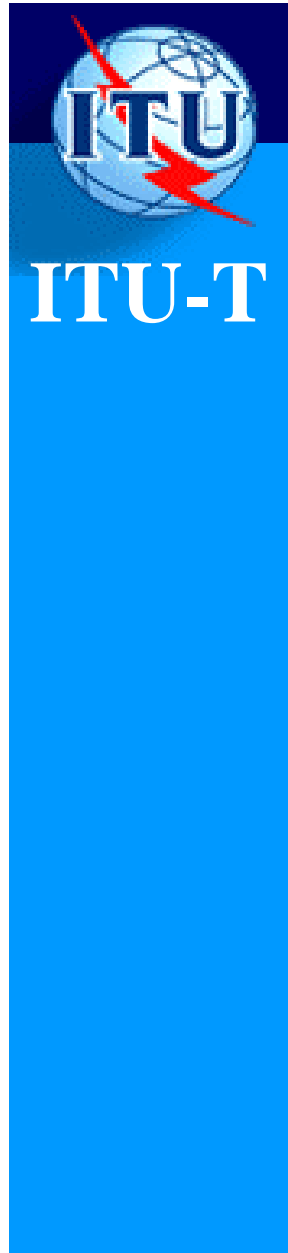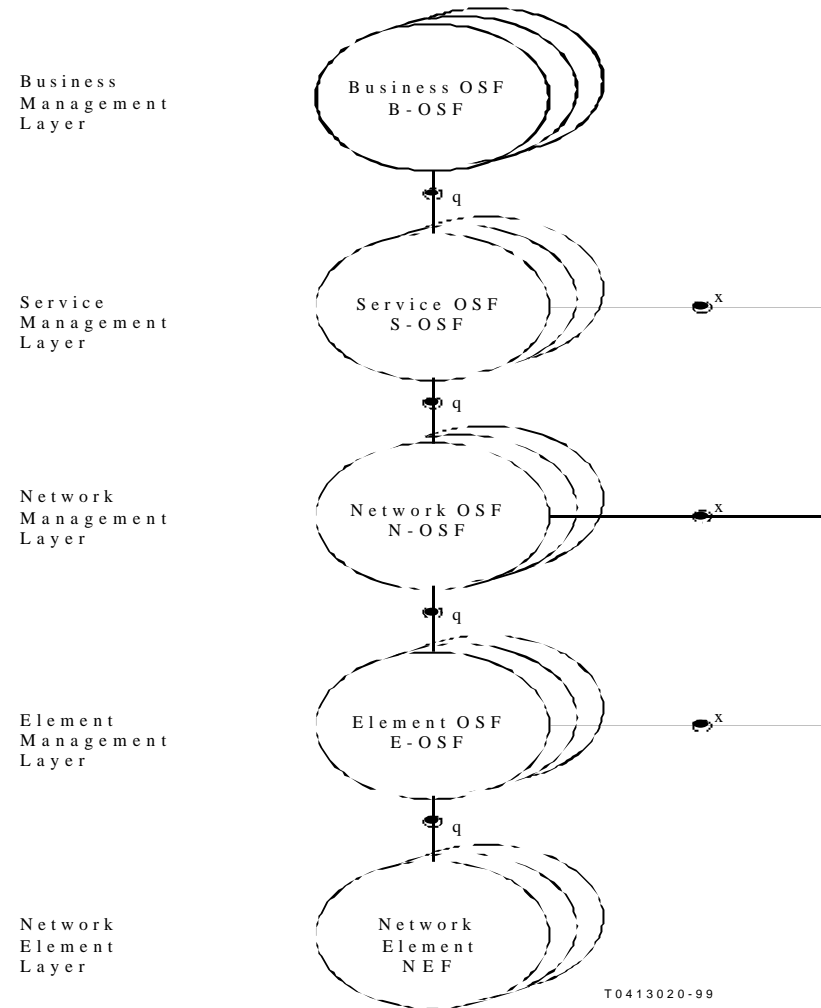o ⇒ NGN Management specification is work in progress, en route to convergence

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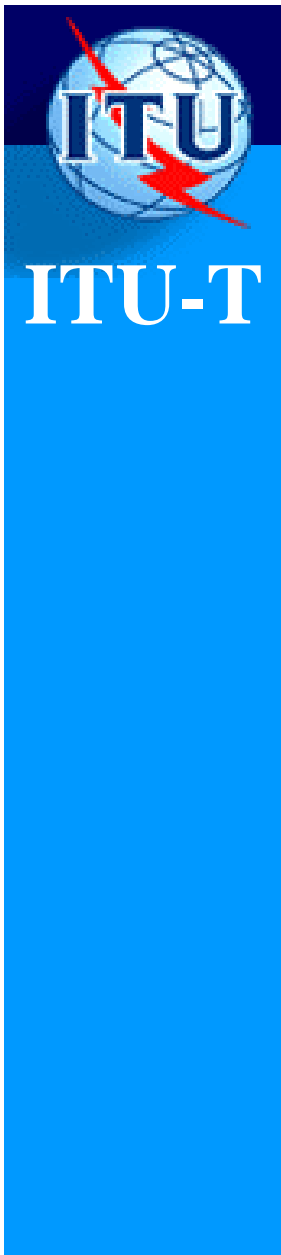
o Emerging Architectures

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TMN Model (M.3010)

Business
Management
Layer — Business OSF B-OSF

q

Service
Management
Layer — Service OSF S-OSF — x

q

Network
Management
Layer — Network OSF N-OSF — x

q

Element
Management
Layer — Element OSF E-OSF — x

q

Network
Element
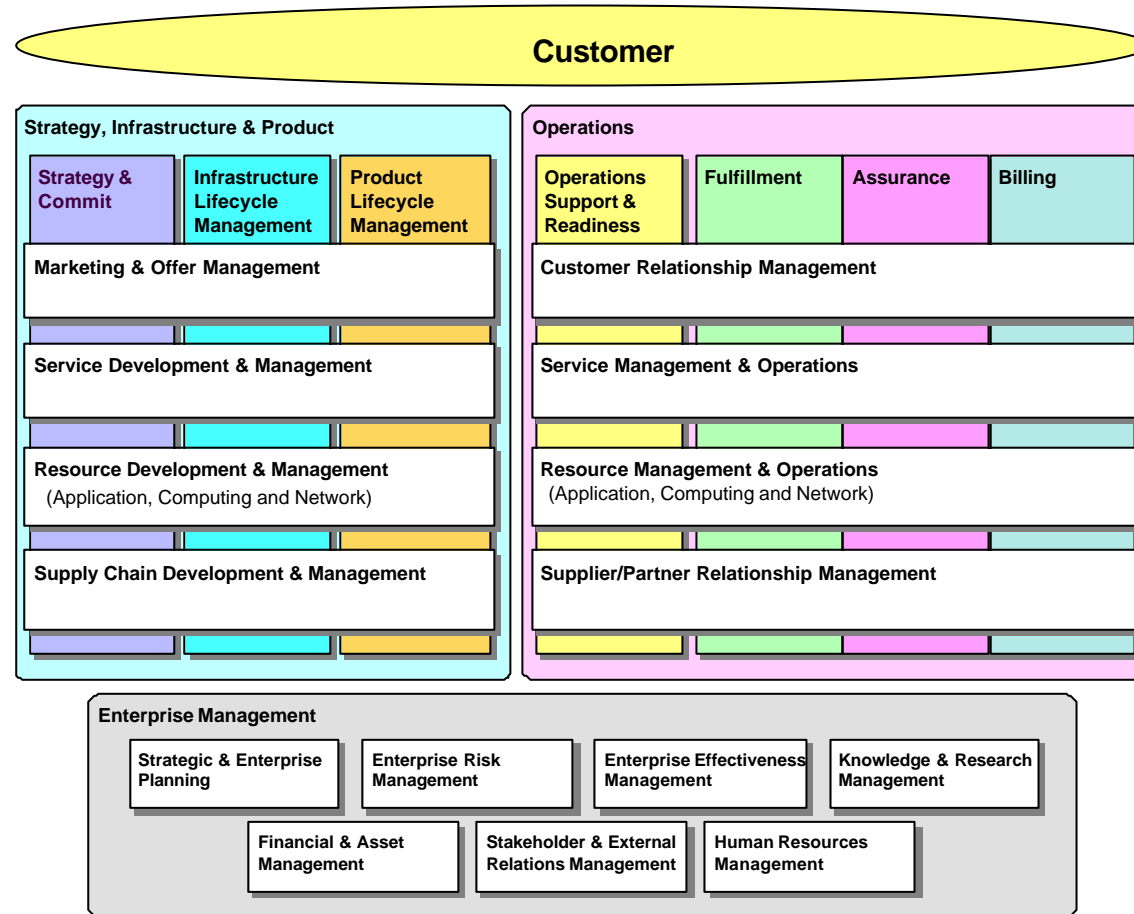Layer — Network Element NEF

T0413020-99

NOTE 1 – Additional or alternative layers are permitted.
NOTE 2 – Other interactions may also occur between non-adjacent layers.

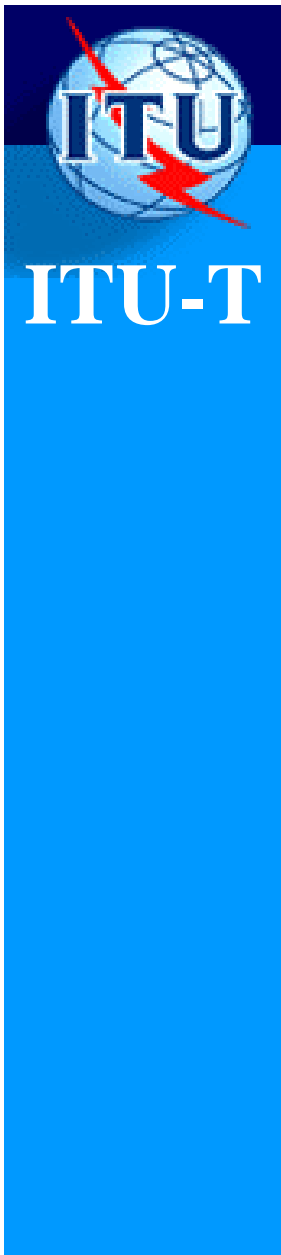**ITU-T Workshop on NGN (jointly organized with IETF)**
Geneva, 1-2 May 2005
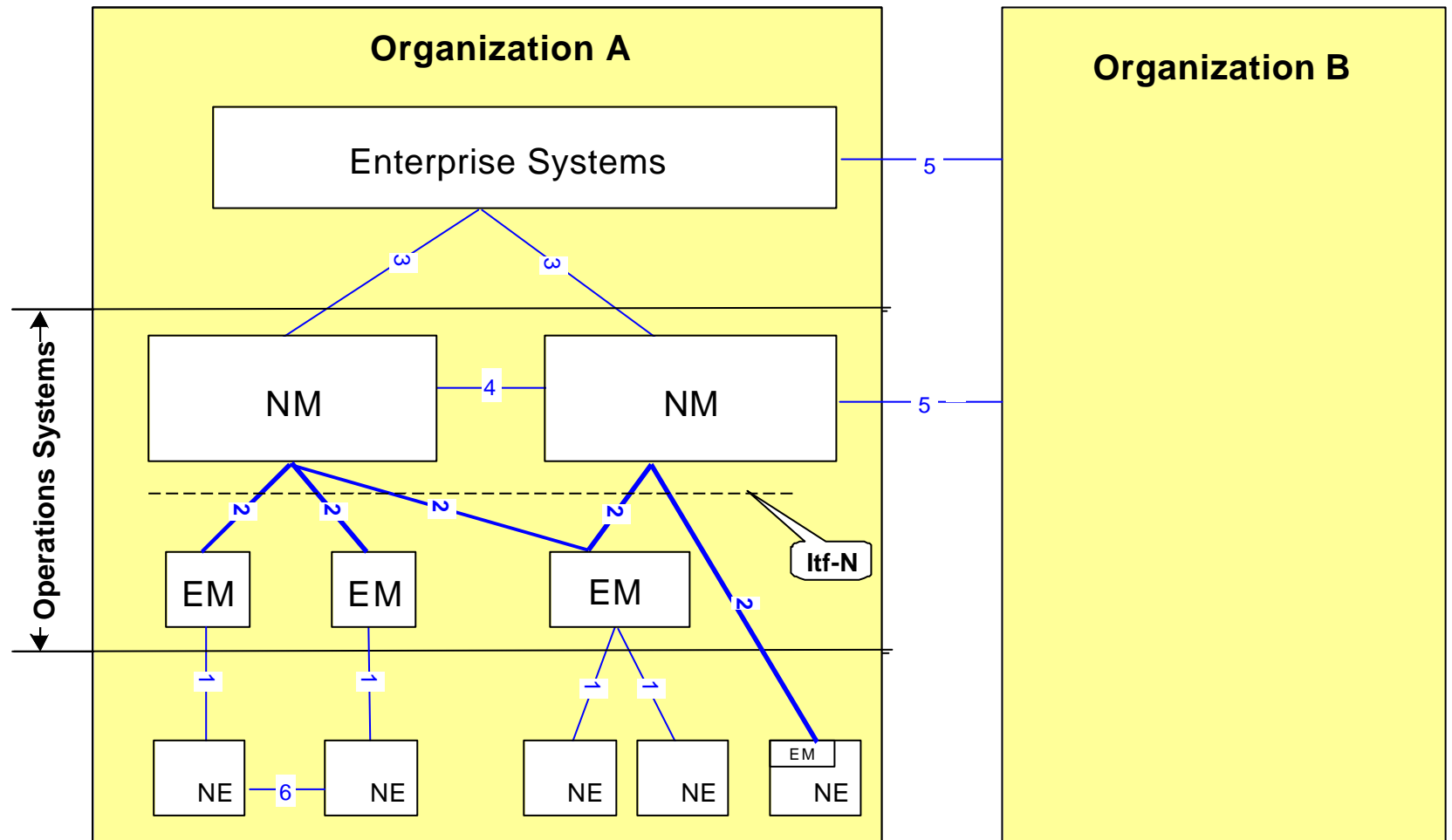
7

TMF eTOM Business Process Architecture (M.3050)

Customer

Strategy, Infrastructure & Product

Strategy & Commit	Infrastructure Lifecycle Management	Product Lifecycle Management

Marketing & Offer Management

Service Development & Management

Resource Development & Management
(Application, Computing and Network)

Supply Chain Development & Management

Operations

Operations Support & Readiness	Fulfillment	Assurance	Billing

Customer Relationship Management

Service Management & Operations

Resource Management & Operations
(Application, Computing and Network)

Supplier/Partner Relationship Management

Enterprise Management

Strategic & Enterprise Planning	Enterprise Risk Management	Enterprise Effectiveness Management	Knowledge & Research Management
Financial & Asset Management	Stakeholder & External Relations Management	Human Resources Management	

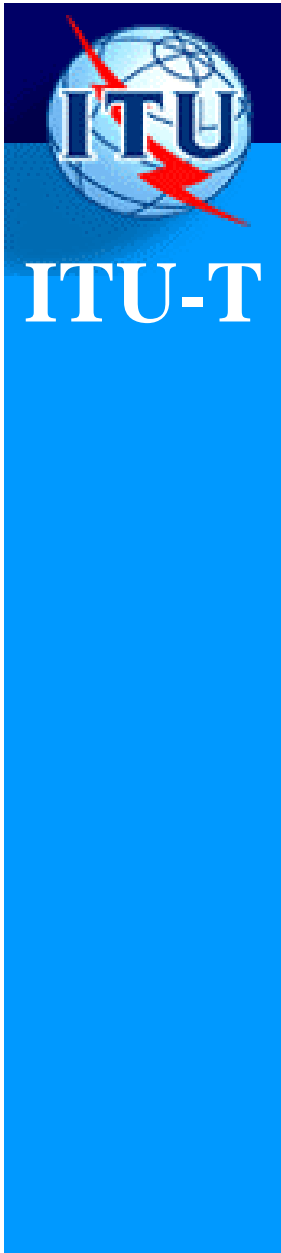# 3GPP Management System Interactions (32.101)
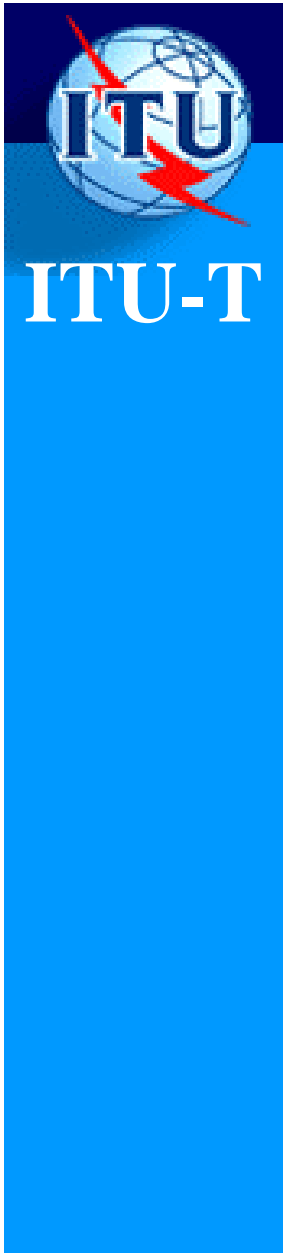
TeleManagement Forum

o **MTNM**: Multi Technology Network Management

o **MTOSI**: Multi-Technology Operations Systems Interface

o **NGOSS**: Next Generation Operations Systems and Software
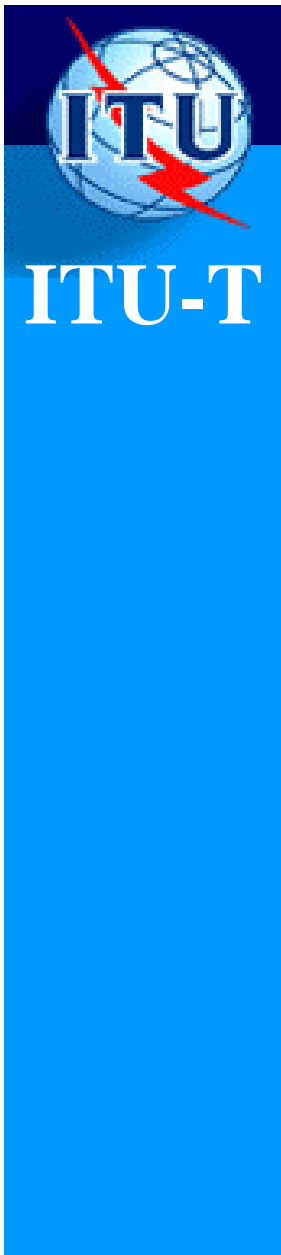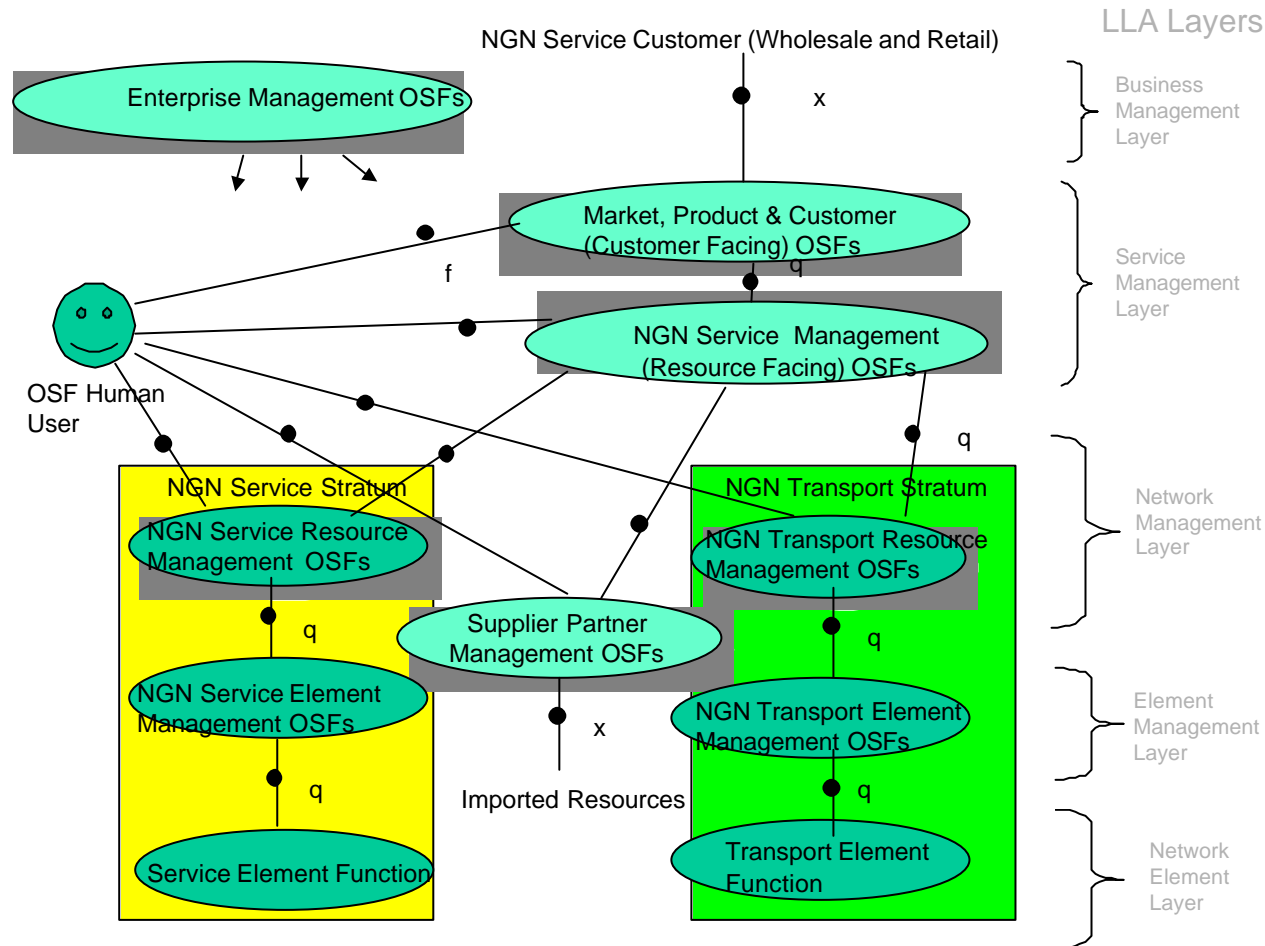
o **SID**: Shared Information/Data Model

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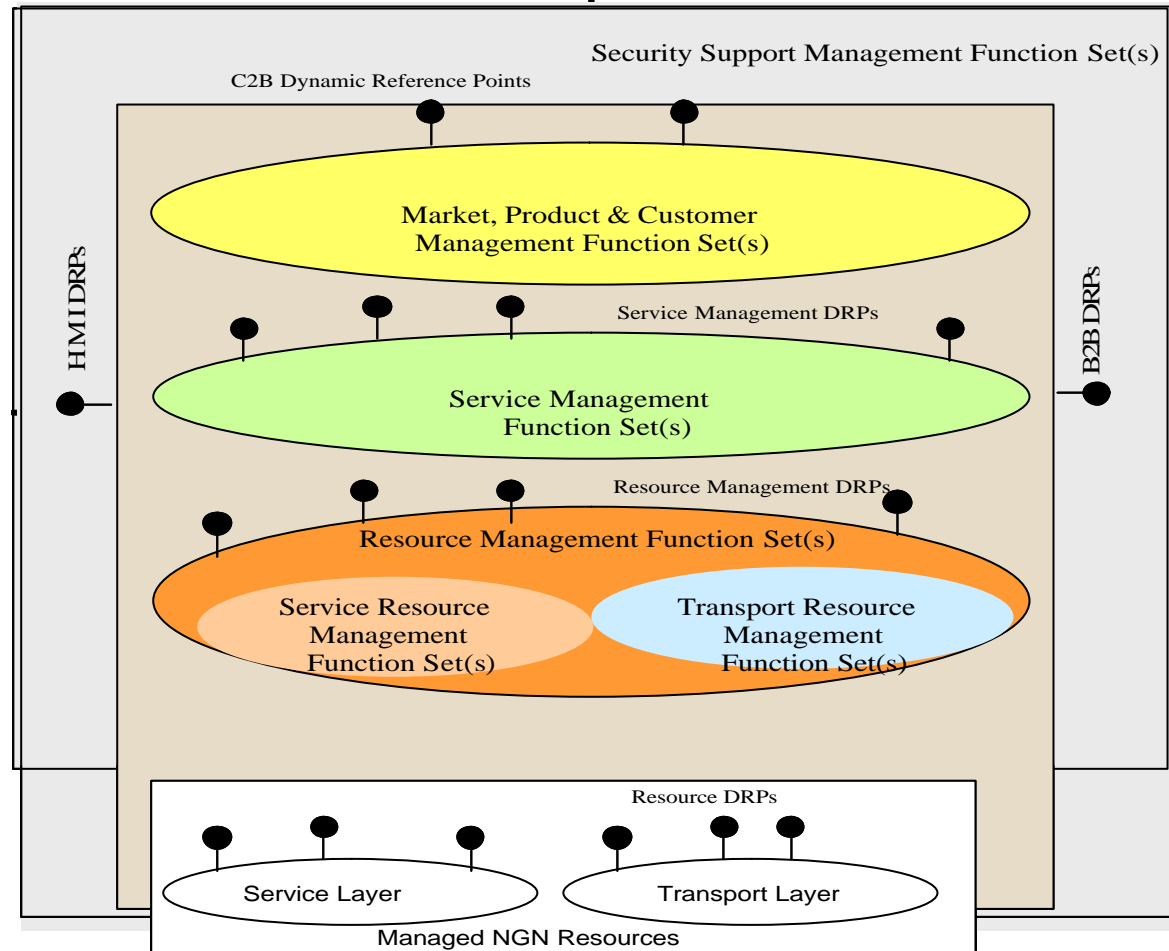# NGN Management Logical Layered Architecture (M.3060)
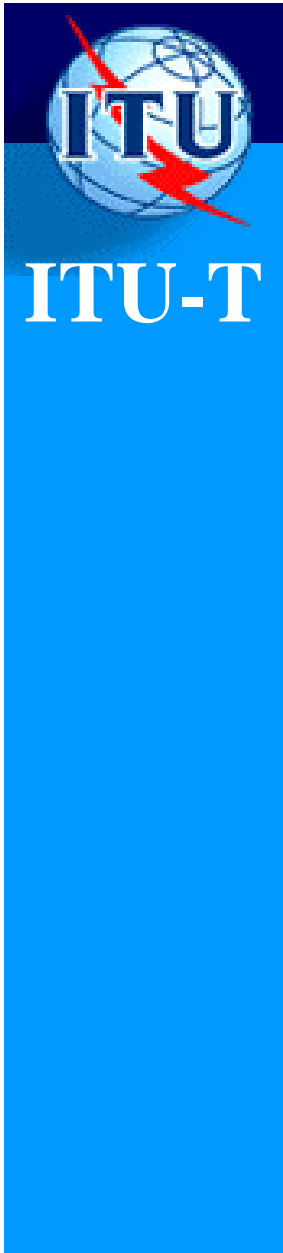
ETSI NGN Management Architecture (TS 188 001)
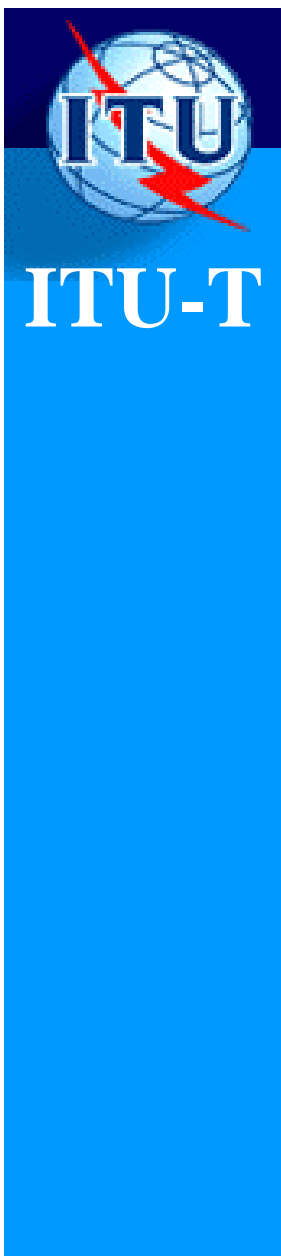
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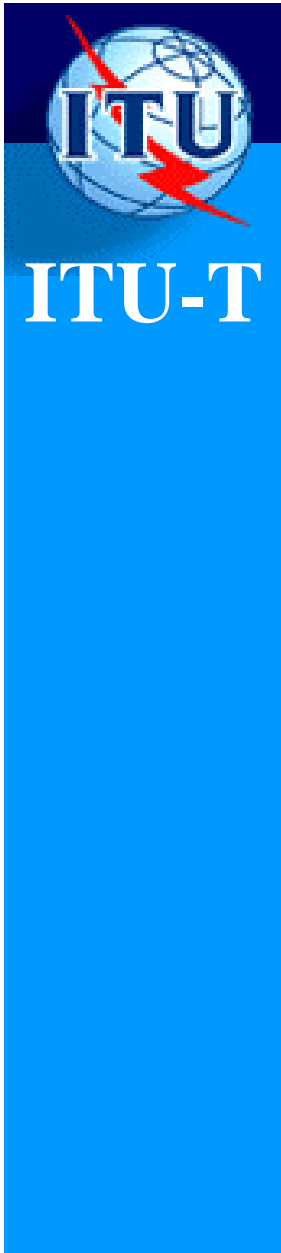
Next Steps

o Converge Architectures

o Protocol Neutral and Protocol Specific Modeling

- Reuse/adapt where possible

- Content of required new work not yet clear

- Work Items created in 3GPP and in ETSI

- CMIP, CORBA ??

- SNMP, XML

- OSS/J
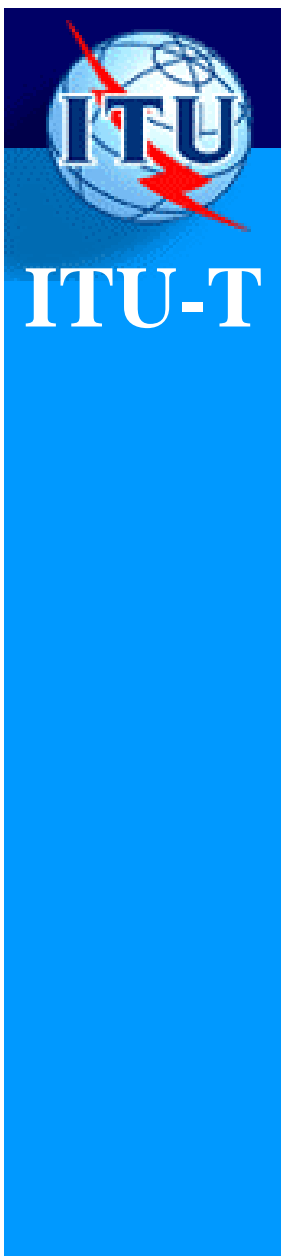
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Glossary

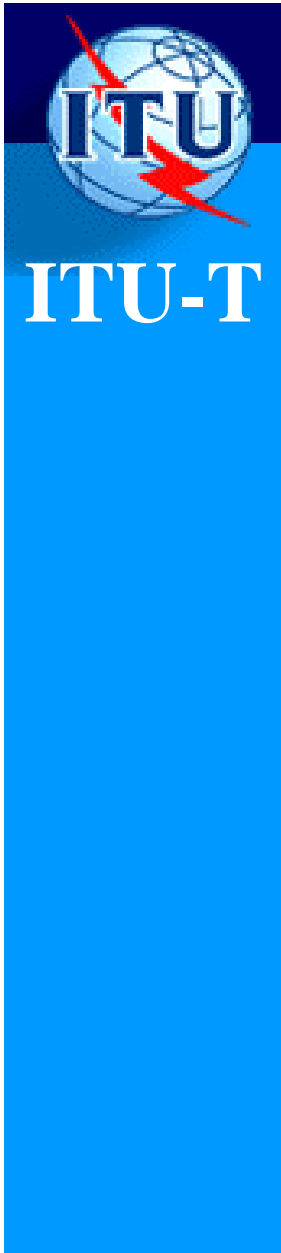o B2B: Business to Business

o C2B: Customer to Business

o DRP: Dynamic Reference Point

o EM: Element Manager

o HMI: Human Machine Interface

o Itf-N: Interface N

o NE: Network Element

o NGN: Next Generation Networks

o NGNMFG: NGN Management Focus Group

o NM: Network Manager

o OSF: Operations System Function

o SDO: Standards Development Organization

o TMN: Telecommunication Management Network