

Next Generation System & Service Management

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Peter Bachmann
Managing Partner



Think forward

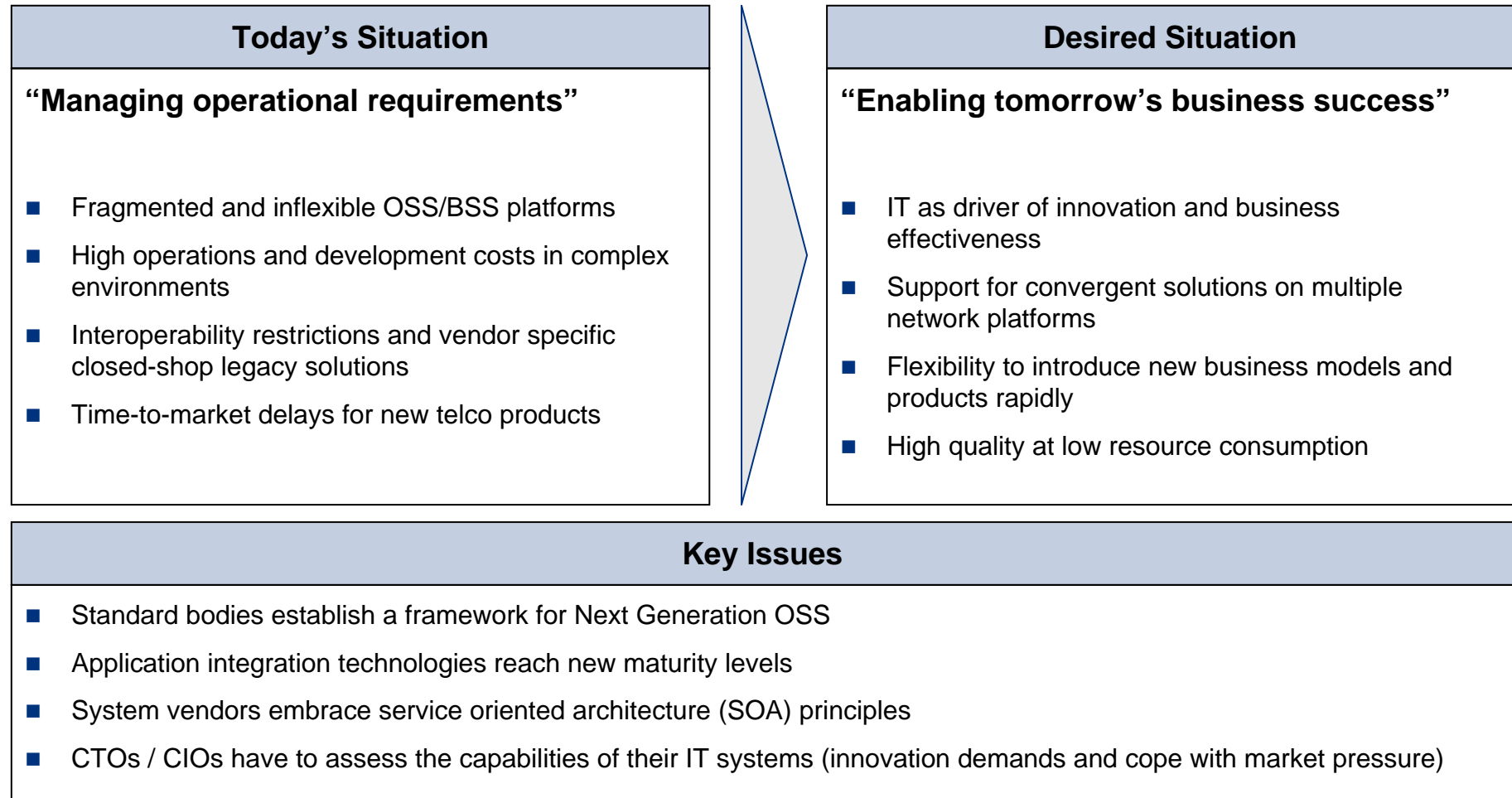
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Challenges For the IT (R)evolution

Current and desired situation

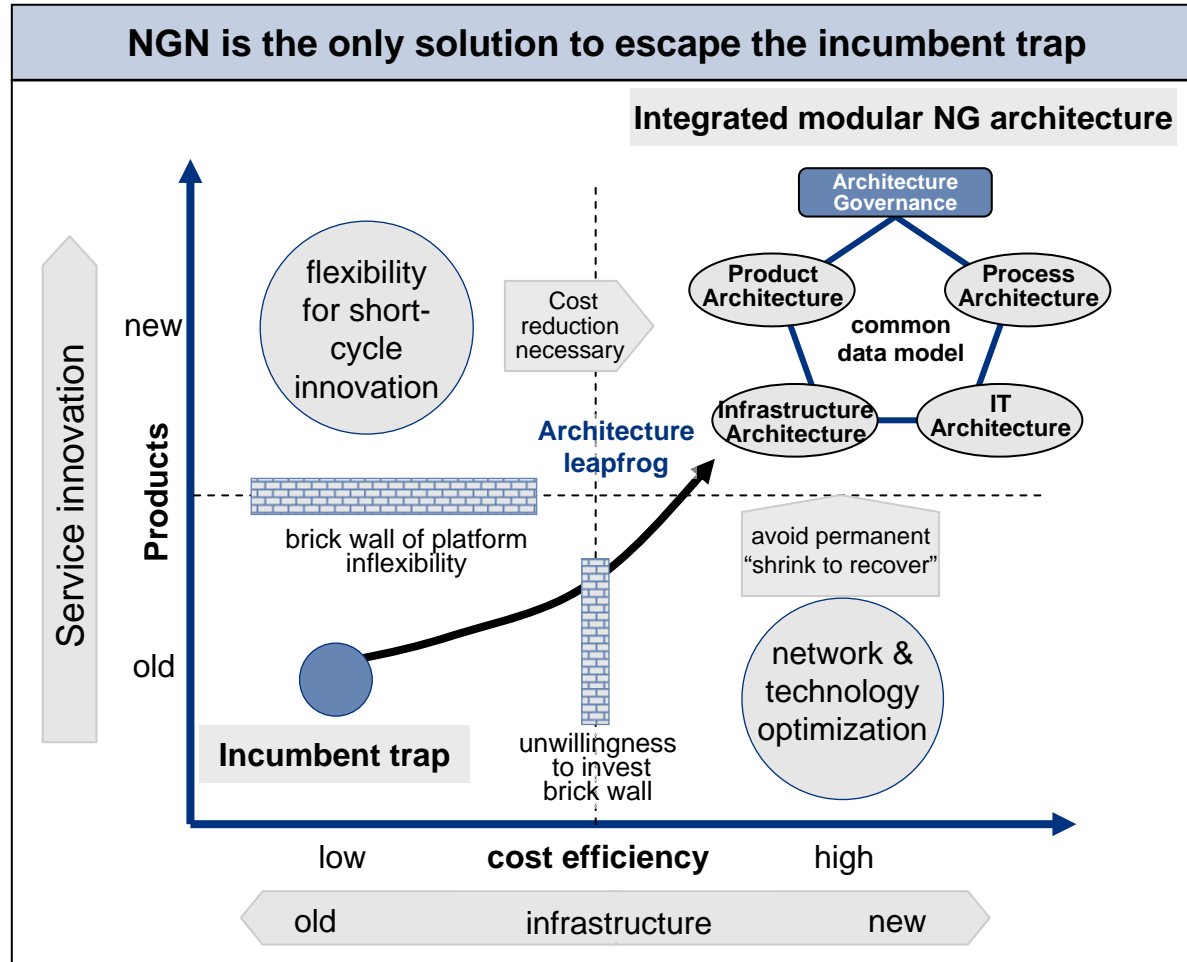
Advanced IT system architecture and design enable IT platforms to support internal business processes and external services more effectively.



Business Strategy

The NG telco strategy from the viewpoint of an incumbent.

An accelerated NG telco strategy aims at a complete business transformation to achieve both short-cycle innovation capability and infrastructure efficiency.



Key Issues

- NGN transformation is much more than just a technology upgrade
- NGN requires a business transformation with the simultaneous goals of revenue increase and cost reduction
- Meeting customers demands with highly efficient all-IP operations

Detecon Assets/Client Benefit

- Transformation strategy matched to specific carrier situation (markets, customers, competitors, platforms)
- Better services, improved responsiveness, lowered cost-structure, increased margins and shareholder value

Best Practices

Be inline with other international carriers

A lot of international carriers and service providers are following the NGN and NGSSM approach, working in standard bodies, and running dedicated projects.



Activities world-wide

- DT NG Factory
 - migration towards all-IP platform
- DT IP Revolution
 - fully automated all-IP service provider
- TMO Operational Model
 - SLA management
 - international harmonization
- Slovak Telecom
 - SLA & Inventory Management

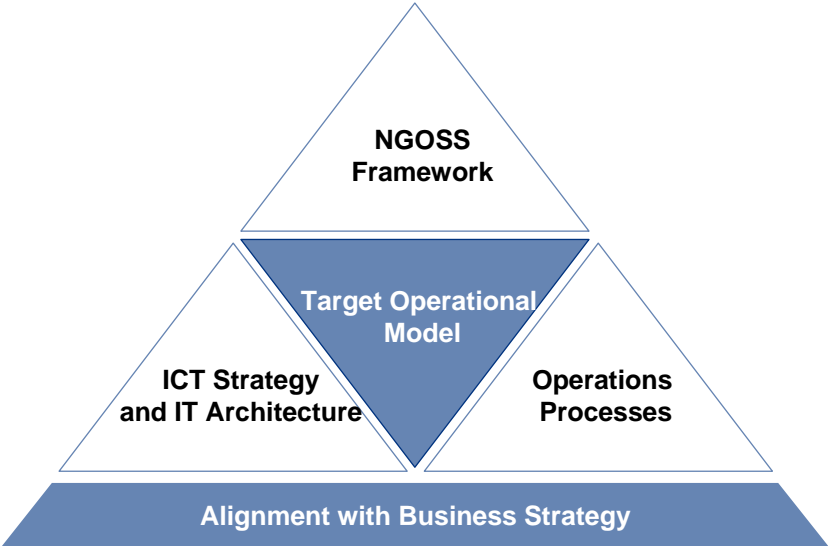
- Standardization work within bodies
 - TeleManagement Forum
 - 3GPP, ETSI TISPAN, ...
- Big transformation projects running
 - Belgacom's infrastructure transformation
 - BT's 21st century network
 - China Telecom NGOSS
 - Chunghwa new Billing System
- Using COTS



Potential Project Scope

Areas to be addressed

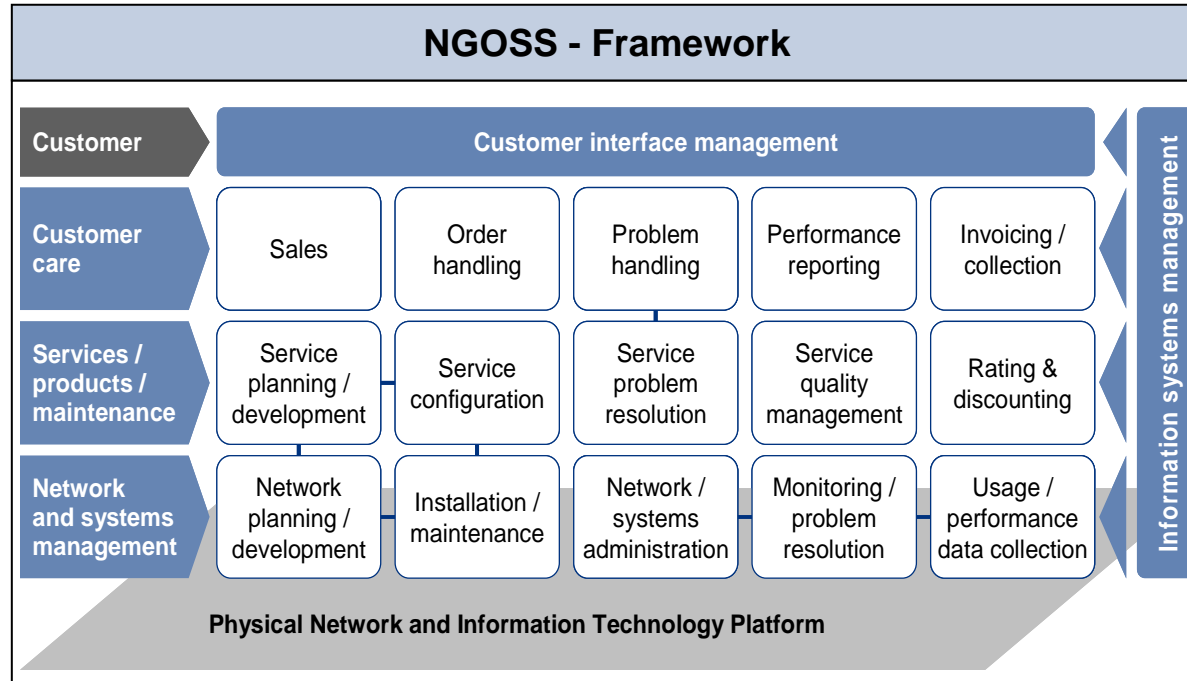
A detailed concept and structured roadmap is needed to move towards the new Target Operational Model in order to achieve the goals of the overall NGN transformation.

Areas Requiring Action	Objectives
<p>To achieve the most benefits with the proposed Target Operational Model the alignment of the business strategy with the following areas is necessary:</p> <ul style="list-style-type: none"> ■ NGOSS framework and concept ■ ICT strategy and IT architecture ■ Operations processes 	<p>Detailing the NGOSS framework by designing a concept for the proposed NGOSS architecture, the required IT architecture and the proposed operational model</p> <ul style="list-style-type: none"> ■ Holistic view on NGOSS architecture supported by an efficient ICT strategy and IT architecture ■ Clarification of responsibilities, used standards, vendors, implementation partners, etc. ■ Financial synergies due to consolidation and/or replacement of older technologies as well as process optimization (OPEX reduction) <p>Planning of a structured NGOSS roadmap</p> <ul style="list-style-type: none"> ■ Stepwise implementation of target NGOSS architecture ■ Alignment with overall NGN migration strategy ■ Phased roadmap for the IT architecture and the Operations process optimization ■ Budget forecast for transformation and implementation activities

Potential Project Scope

Key issues to be addressed on high level for the NG System & Service Management Strategy

The pressure to achieve differentiation potentials in cost, value and time-to-market on each business layer drives a substantial shift of paradigm for the telco IT (NGOSS).



Key Issues

Basic Analysis

- Reflection of existing quality assurance issues into the new operational model

Operations strategy

- Target operational model

Implementation strategy

- Migration planning

Change management

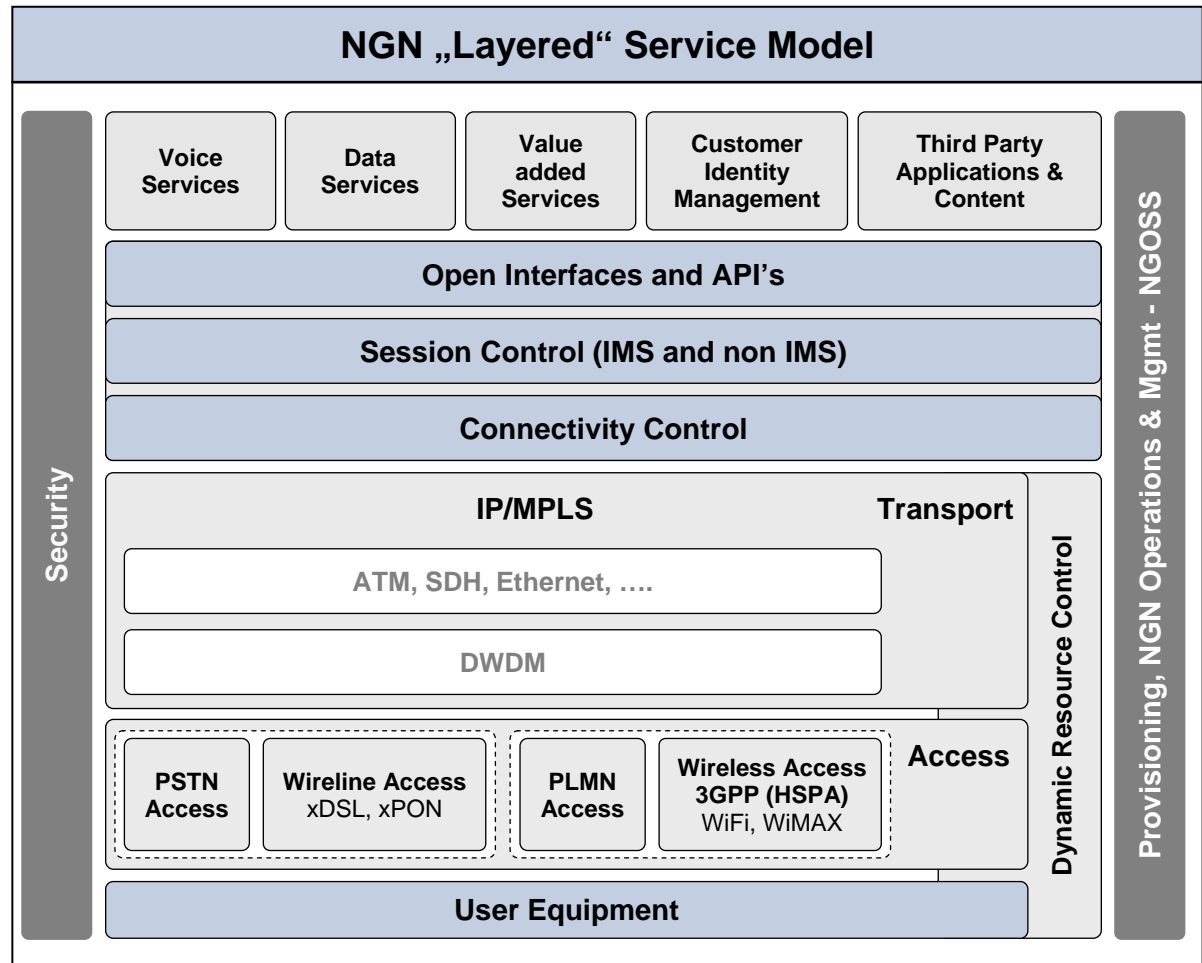
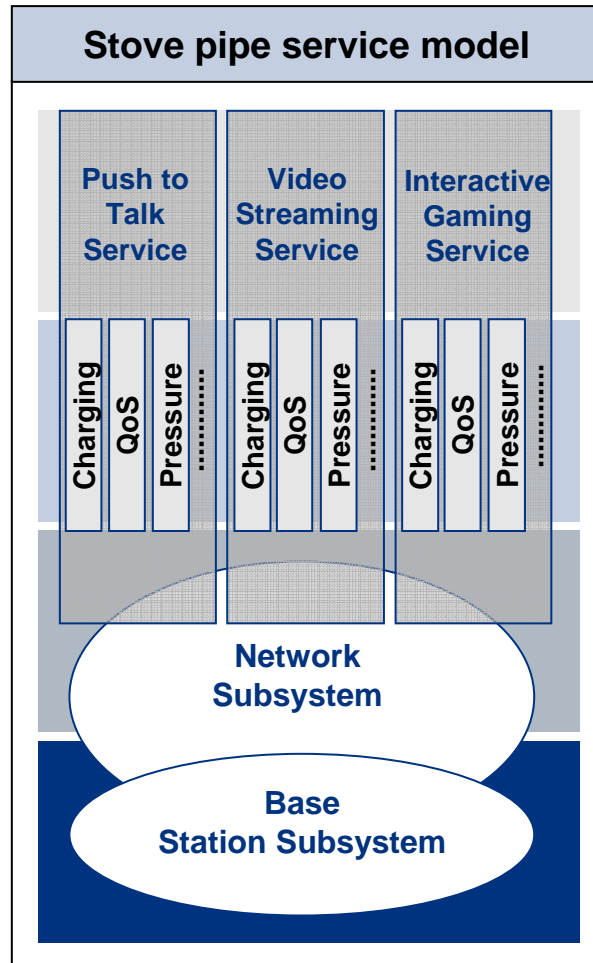
Differentiation Criteria

- Best practice operation efficiency.
- Short term and long term quality of service improvements,
- The reduction of operational costs.

NGN Architecture Shift

Carriers move away from stovepipes towards layered architecture

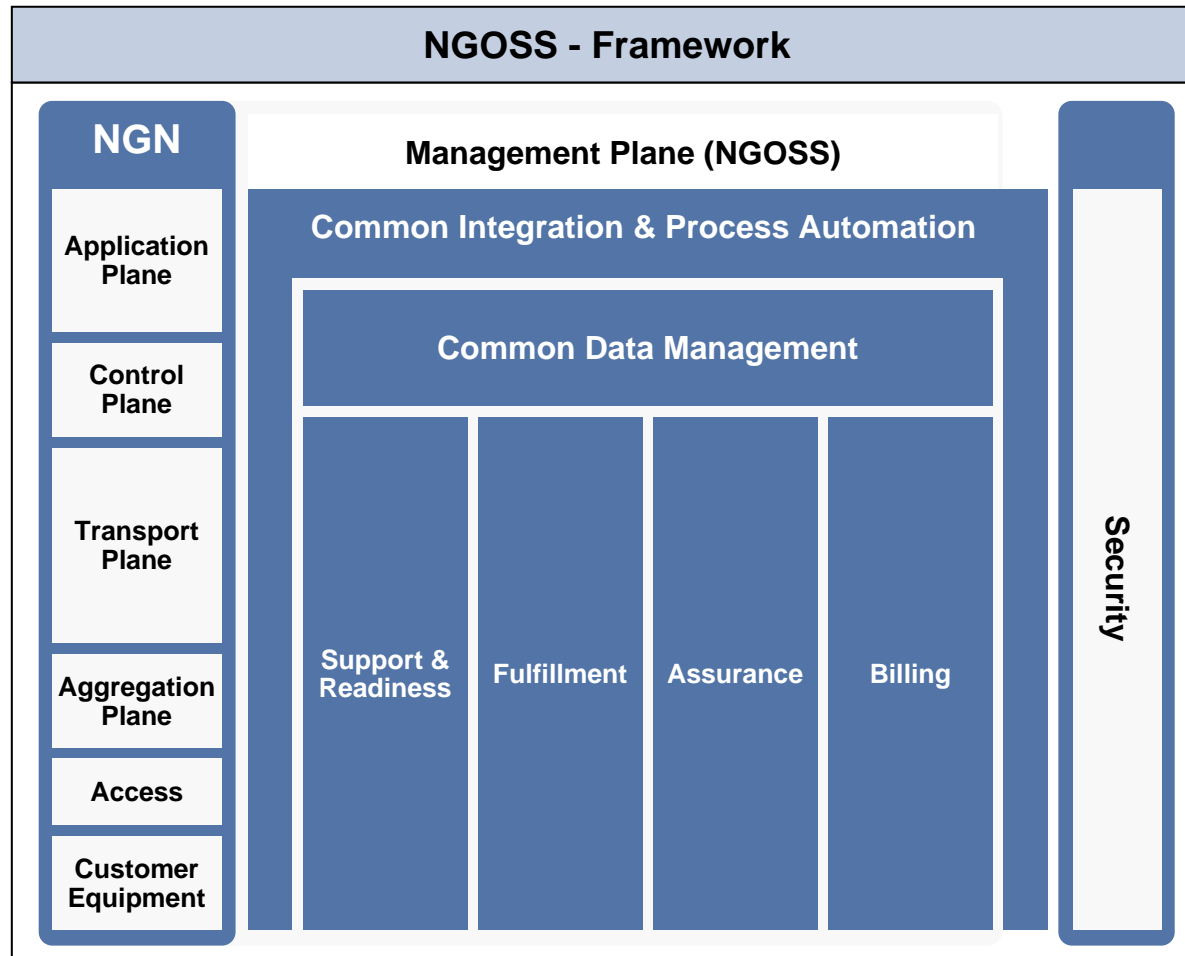
Next Generation Network enables a fundamental change in the network from current monolithic architecture towards a layered architecture with network abstraction.



NG System & Service Management Strategy

Generic Requirements for a Target Operational Model

To overcome the limitations posed by traditional silo management solutions, NGOSS delivers a framework aiming at providing end-2-end service and resource management.



Key Issues
<p>Technical Issues</p> <ul style="list-style-type: none"> Standardization, but multi-vendor integration Proactive QoS assessment & management Universal resource and service inventory Platform security / interoperability <p>Operational issues</p> <ul style="list-style-type: none"> Re-organization of traditional O&M environments (network centric to customer centric) Shorter product lifecycle <p>Architecture</p> <ul style="list-style-type: none"> NGOSS design (TAF) Data Model (SID) <p>Processes</p> <ul style="list-style-type: none"> Interaction with CRM/BSS <p>Integration Issues</p> <ul style="list-style-type: none"> Migration planning

NG System & Service Management Strategy

NGN Security

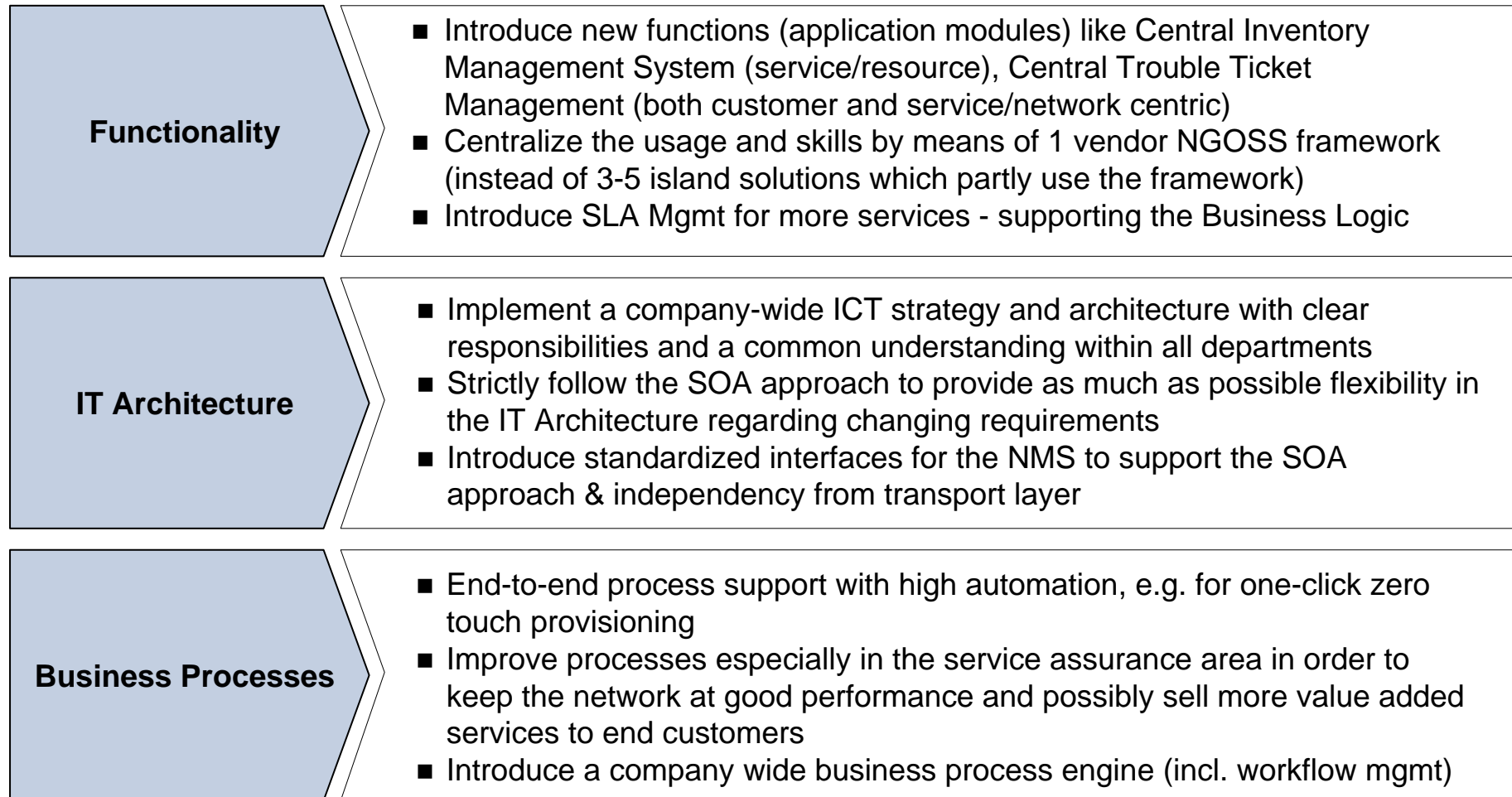
The migration projects either imply new threats or challenge through major changes in existing risks. To avoid nasty surprises, a diligent NGN Security Strategy is needed.

NGN Migration issues				
Service Migration	Real-Time, Cross-Media	<ul style="list-style-type: none"> • Play-out support • Traffic optimization 	<ul style="list-style-type: none"> • Unified IMS • NGBSS • SIP Standard compliance 	<ul style="list-style-type: none"> • NG Factory (interactive) IP-TV • Extended Directory Services
	Core Product Convergence	<ul style="list-style-type: none"> • All-IP backbone • Access and aggregation consolidation 	<ul style="list-style-type: none"> • NGOSS • Identity Management • Multi Service IMS 	<ul style="list-style-type: none"> • SDP trial • ENUM • Location based service trial
	VoIP Trial	<ul style="list-style-type: none"> • Broadband access • Quality of service in aggregation 	<ul style="list-style-type: none"> • IMS introduction 	<ul style="list-style-type: none"> • SIP trial • Extended SMS
		Access + Core Aggregation	Control Layer Consolidation	Application Platform Implementation
Infrastructure Migration				

NGN action scope	
Customer Equipment Protection	<ul style="list-style-type: none"> ■ CE Security functionality in an Internet environment ■ Error rate and immaturity of CE hard- and software ■ CE architecture security concept
Authentication/Identity Mgmt	<ul style="list-style-type: none"> ■ Access-independent authentication ■ Device-independent authentication ■ Adaptive authentication strength ■ Inter-carrier authentication standardization
Network Security Architecture	<ul style="list-style-type: none"> ■ Security functionality for network and interfaces ■ Staff training in IP and security ■ Re-definition and assurance of suitable availability levels

Recommendations

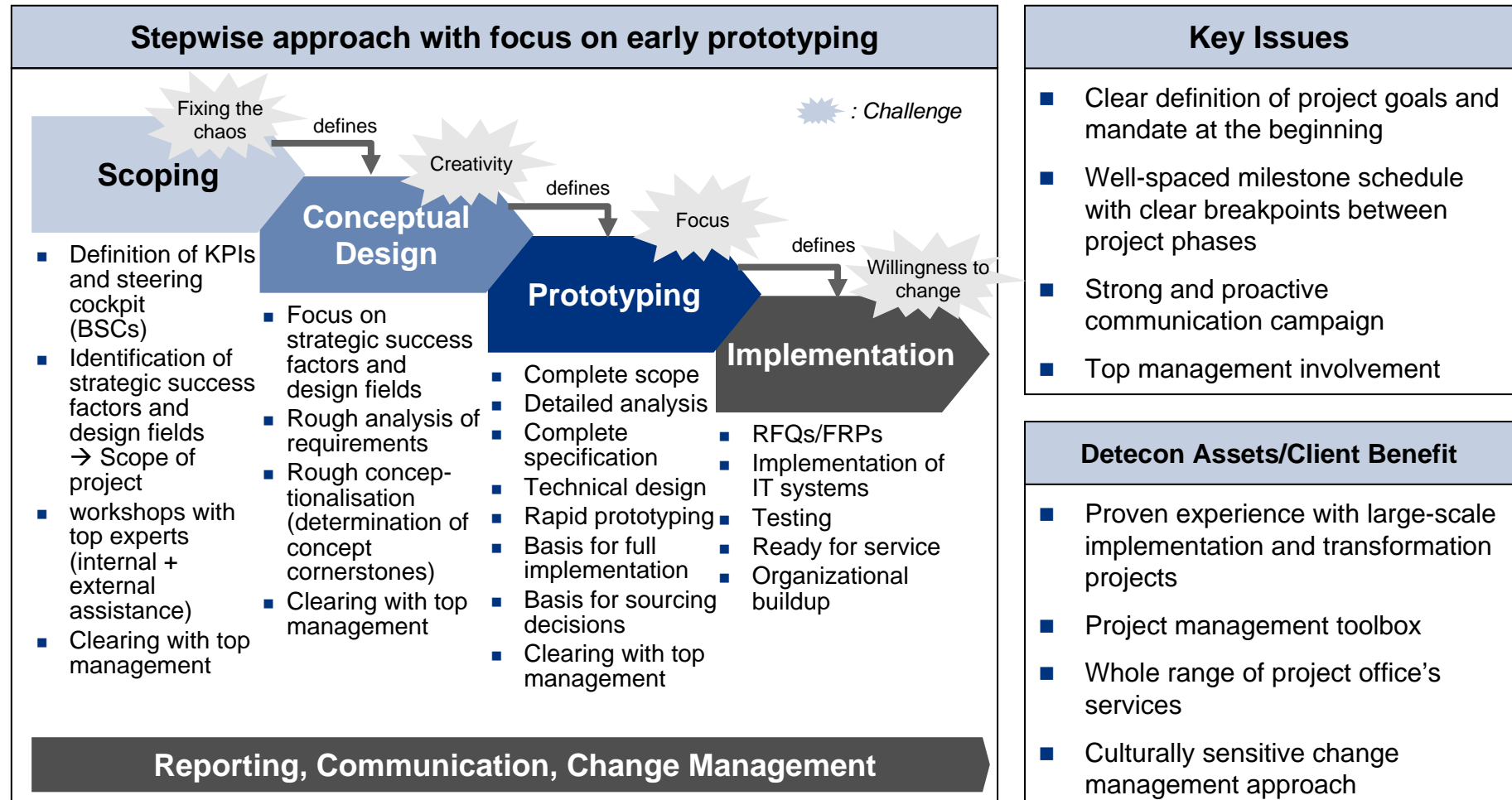
Telcos should consider the following recommendations regarding functionality, IT architecture and business processes to achieve a fully fledged NGOSS architecture.



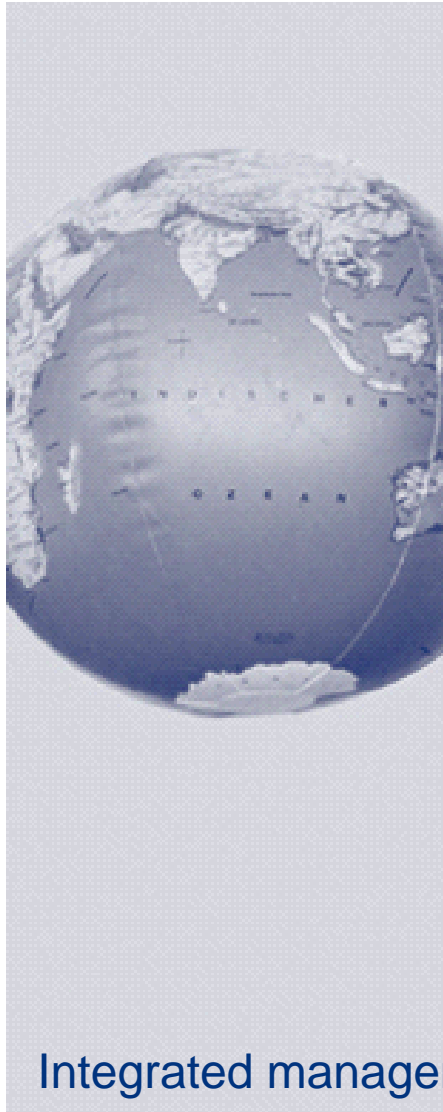
Transformation Consulting

Project management and cultural change.

A successful implementation goes along with tools and skills including program and change management expertise to support the large-scale transformation projects.



Contacts



For additional information please contact



Peter Bachmann

Managing Partner

Detecon International GmbH
Hazaa Bin Zayed Street
P.O. Box 52612
Abu Dhabi, United Arab Emirates
Phone +971 2 443 4778
Fax +971 2 445 3801
Mobile +971 50 8361565
Peter.Bachmann@detecon.com

Integrated management and technology consulting worldwide