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Network Operations and Engineering Automation Strategy
Value proposition overview

Telecom Engineering Centre of Excellence (TEE)

Current telecom network operating model

The current telecom network operating model in a world moving to 5G is doomed because operators…

…need to **move to Digital Service Provider (DSP) Model**, managing end-to-end services on the fly

…manage multiple access networks (2G/3G/4G/5G), forcing the need to **tackle network operational complexity**

…are implementing **Network Virtualization**, moving to a far more dynamic environment

…need to **manage a growing diversity of network services** and massive IoT

…have relentless need to **lower OPEX and minimize CAPEX**

Conclusion

In a world moving to 5G, which is an overlaid network tailored for all services, fully virtualized and targeting cost benefits, managing engineering **and operations without automation is just no longer feasible.**

How to tackle network automation strategy?

We defined a 4-step approach to design a future proof network automation roadmap.

Deloitte's methodology for building an automation strategy begins with an assessment of the business and technical ecosystems, identifying and prioritizing the relevant use cases to design a roadmap for the network automation journey.

As-Is Assessment
What is the current network automation status when compared with the desired target?

Identify Opportunities
Where should we look to find the best network automation opportunities?

Prioritize Use Cases
What should we do first to maximize the key outcomes?
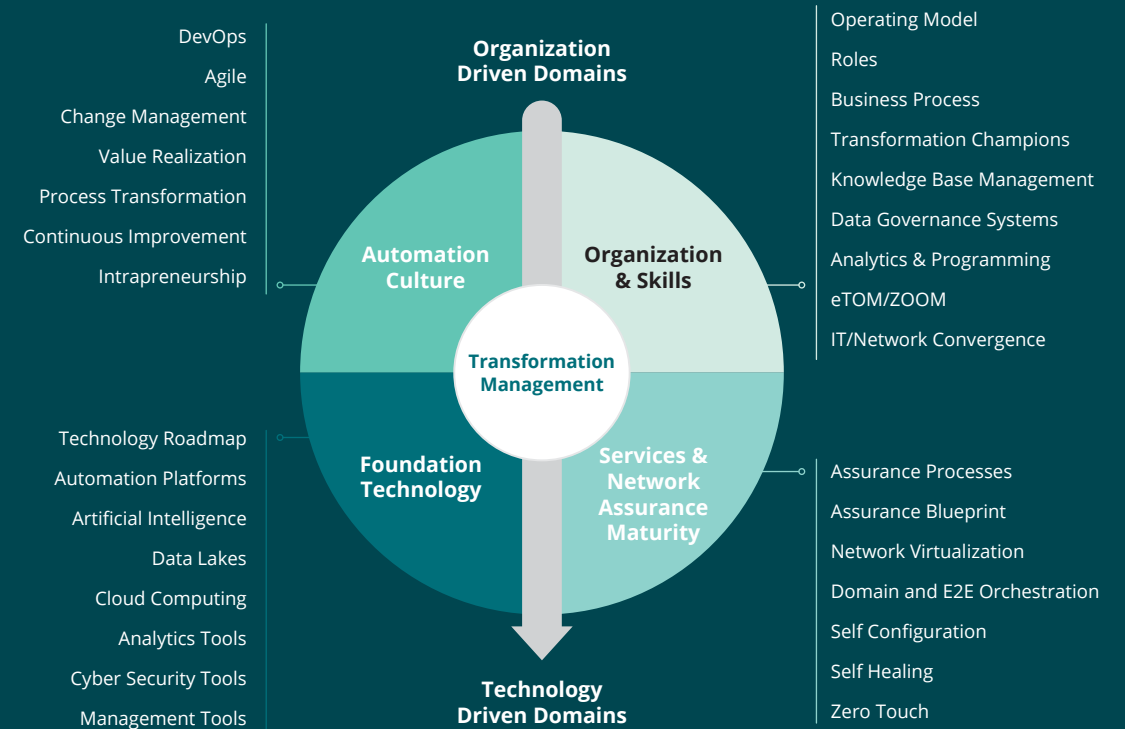
Roadmap Design
How should you implement the automation journey?

Is network automation only about Technology?

Network automation strategy means considering multiple components including organization, technology, skills and culture in order to define a consolidated roadmap.

Organization Driven Domains

DevOps
Agile
Change Management
Value Realization
Process Transformation
Continuous Improvement
Intrapreneurship

Operating Model
Roles
Business Process
Transformation Champions
Knowledge Base Management
Data Governance Systems
Analytics & Programming
eTOM/ZOOM
IT/Network Convergence

Automation Culture

Organization & Skills

Transformation Management

Technology Roadmap
Automation Platforms
Artificial Intelligence
Data Lakes
Cloud Computing
Analytics Tools
Cyber Security Tools
Management Tools

Foundation Technology

Services & Network Assurance Maturity

Assurance Processes
Assurance Blueprint
Network Virtualization
Domain and E2E Orchestration
Self Configuration
Self Healing
Zero Touch

Technology Driven Domains

A deeper dive into our proposed methodology

Deloitte's approach considers an iterative process to define and deliver a roadmap design capable of ensuring a future proof Network Automation Strategy.

As-Is Assessment
Perform a client's ecosystem assessment in both business and technical features

- Assess network automation goals and pain points
- Identify the existing accelerating platforms or toolkits
- Analyze the data flow and data life cycle and gather relevant KPIs for identifying automation gaps

Identify Automation Opportunities
Identify potential focus for automation

- Identify the gaps between current and target scenarios for all domains
- Elaborate a high-level business case
- Quantify business and technical key performance indicators

Prioritize Use Cases and Define a Blueprint
Prioritize according to the balance between identified opportunities and customer's needs and capacity

- Identify options with short term positive ROI
- Prioritize use cases based on the opportunities space and define the business & technical requirements
- Identify market available solutions and define the HL architecture to be addressed in the roadmap

Roadmap Design
Define the timeline and design the network automation journey

- Define goals and target outcomes of designed strategy
- Identify the key milestones to reach the outcomes
- Prepare a work plan with extensive activities to be executed in the network automation journey

Which are the benefits of network automation?

Increased efficiency and consistency in network operations are key pillars to allow differentiation, agility and competitive advantage in the marketplace.

Improved ROI	Automation and Orchestration has resulted in 300% to 400% ROI for Tier 3 to 5 providers over the past 5 years
Team efficiency	Team effort reduction of around 37% in RAN engineering management by deploying SON algorithms
Improved consistency	70% to 90% of repetitive work can be automated via machine learning improving consistency and efficiency
Time to Market	Time reduction to provision end to end services from days to minutes
Costumer Experience	Automatic technical customer complaints based on machine learning reduce response time from days to minutes

Sources: Deloitte, Heave Reading Reports, Cisco, McKinsey, Tupl and Cellwize

Telecoms Engineering CoE: Who we are

With circa 100 telecom engineers, we deliver telecoms engineering consulting professional services globally supporting our customers via a global network of offices from Europe to Australia, having delivered over 200 projects globally in over 50 countries and over 50 Telecom operators.

Amsterdam
Netherlands

London
UK

Lisbon
Portugal

Luanda
Angola

Melbourne
Australia

Caption
Hub
Branches
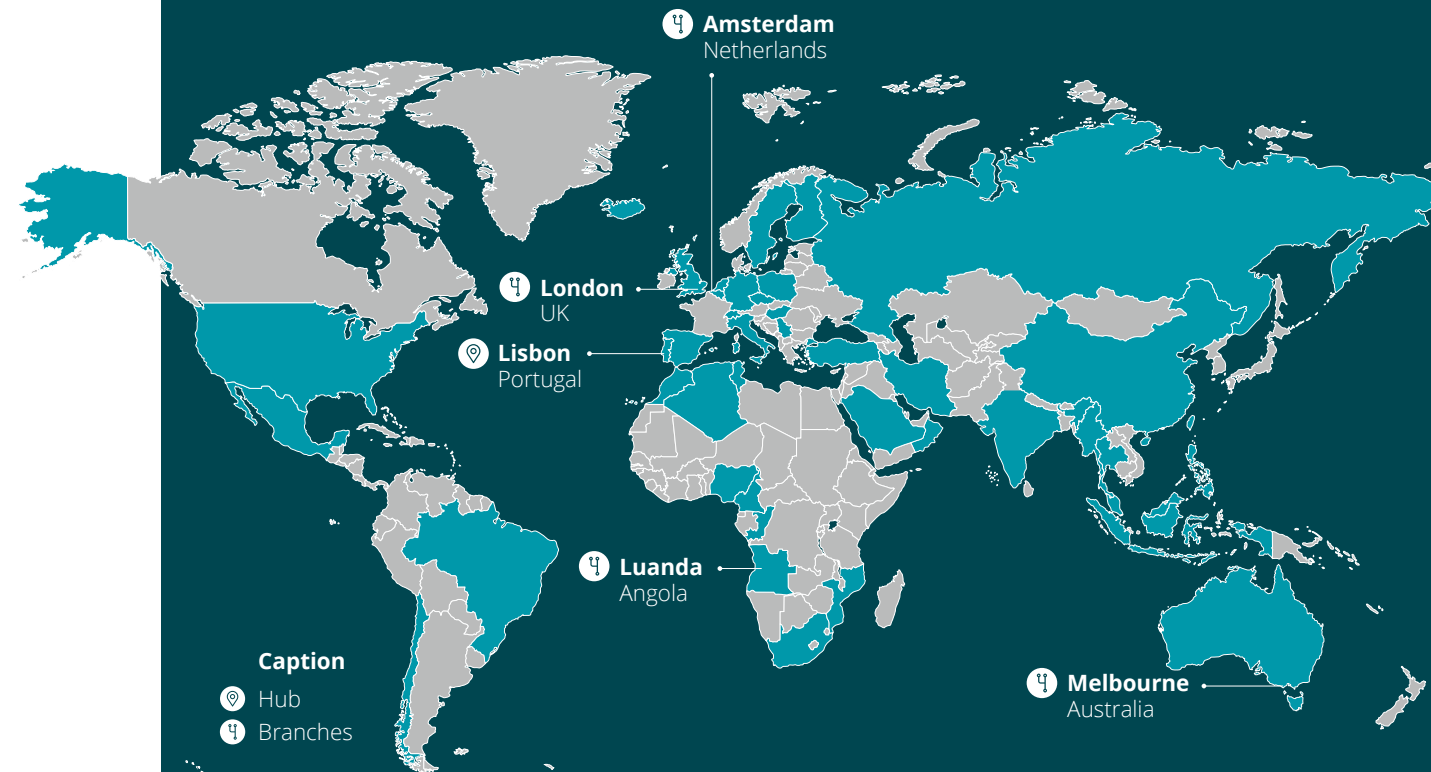
Contacts

Sponsors

Pedro Tavares

Telecom Engineering
Centre of Excellence
(TEE) Lead Partner

petavares@deloitte.pt

Experts

Hugo Pinto

Telecom Engineering
Centre of Excellence
(TEE) Associate Partner

hupinto@deloitte.pt

Maurício Pereira

Telecom Engineering
Centre of Excellence
(TEE) Senior Manager

mauripereira@deloitte.pt

Miguel Rodrigues

Telecom Engineering
Centre of Excellence
(TEE) Manager

miguerodrigues@deloitte.pt

Regina Souza

Telecom Engineering
Centre of Excellence
(TEE) Senior Consultant

regsouza@deloitte.pt

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