NOKIA

Automation of Scale Out Process to Improve Efficiency

Advanced Consulting Services
Cloud Transformation Consulting

Case study

As communication service providers (CSPs) expand their services and offerings for customers, they are met with significant annual traffic growth. To keep up with this growth and demand, the ability to scale up capacity (and scale down, where needed) in the IMS and EPC domains are required.

Nokia's Advanced Consulting Services assessed the current scale-out process of a LAT Tier 1 operator and developed a Network Service Descriptor to automate the process. The process could then be executed centrally, and time controlled using Nokia Cloud Operations Manager.

Business benefits

Reduced significant manual effort

Improved efficiency with automation

Improved timeliness

Reduced errors due to manual process iteration across data centers

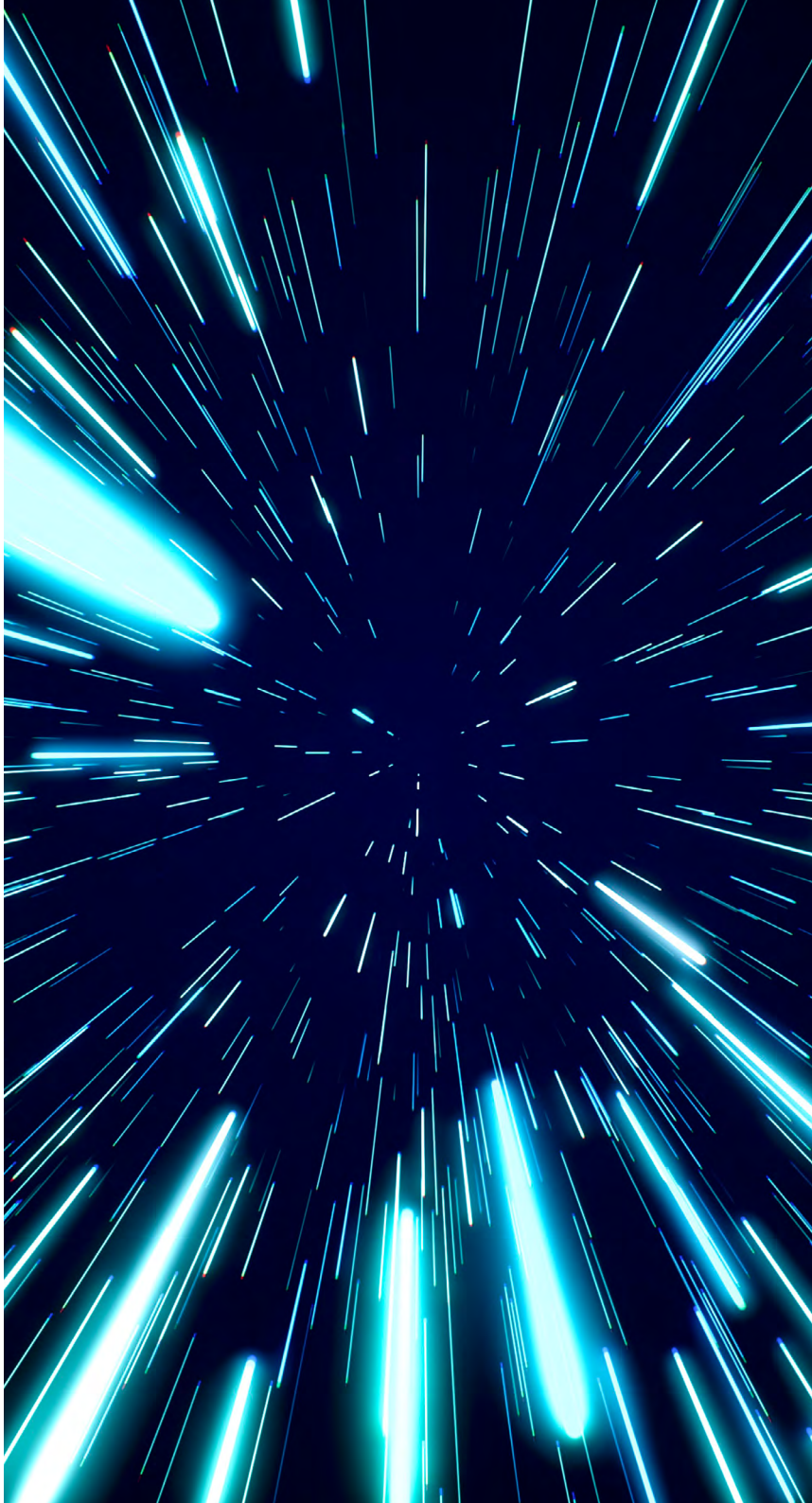
The customer challenge

A LAT Tier 1 operator faced significant traffic growth and needed to re-distribute the traffic across data centers periodically. This would become more complex as the operator introduced many new data centers in the coming years.

To meet the growing demands the operator was facing, they needed the ability to scale up capacity in the IMS and EPC domains to meet the increase of annual traffic growth. The scale-out of each domain, if done manually, will involve several VNF types and instances across multiple sites including:

- A significant engineering effort to perform pre-health checks, backup, scale-up/down and post check if needed. This had to be done for each VNF instance
- Extensive time commitments for VNF maintenance windows to reduce impact of changes to live networks
- Repetition across multiple data centers due to the risks introduced by manual processes

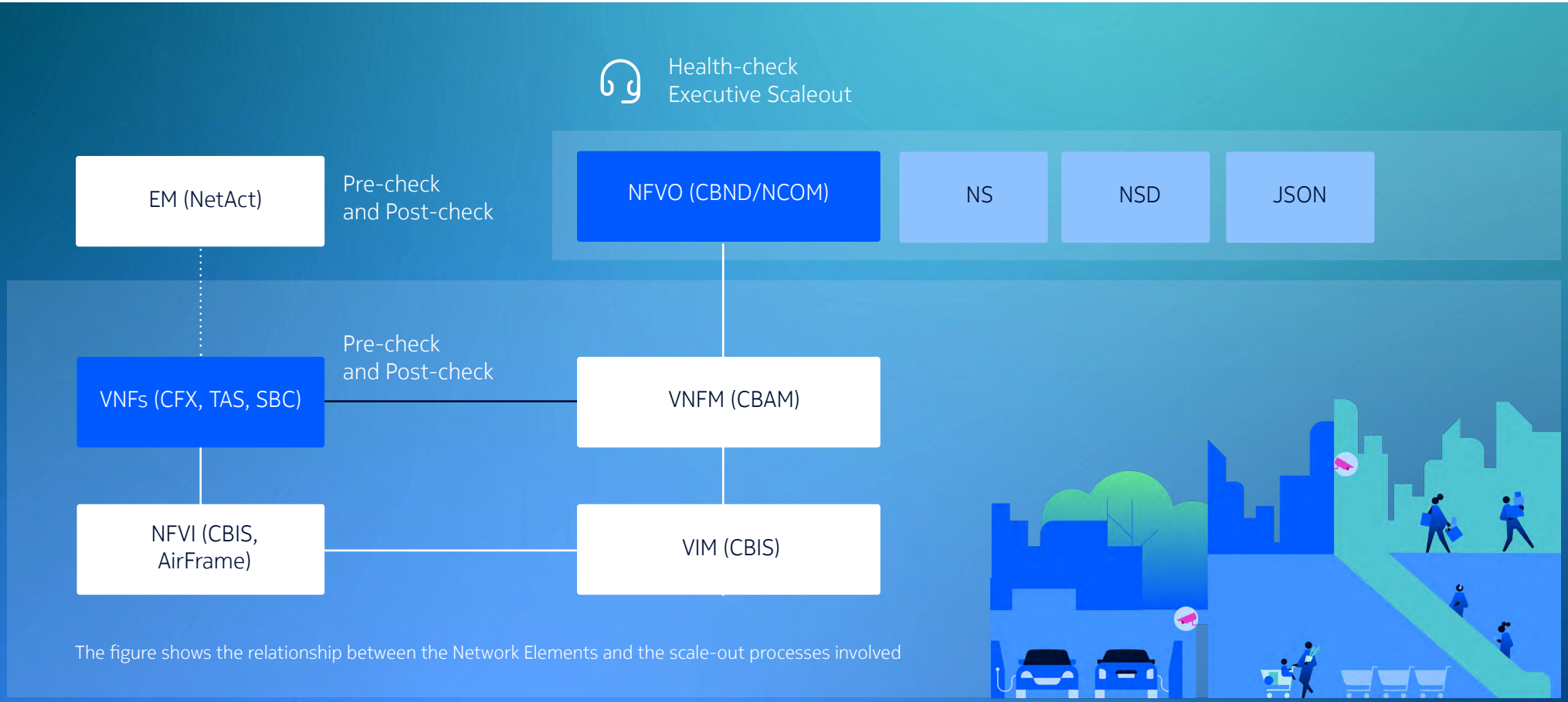
To minimize the considerable effort, time and risks, the LAT Tier 1 operator approached Nokia Advanced Consulting Services (ACS) to develop a customized automated solution using their already existing Nokia's CloudBand solution. They were also familiar with ACS' capabilities to improve the efficiency of the IMS and EPC domain scale-out to improve timeliness and reduce errors.



How Nokia helped

Our cloud transformation experts automated the scale-out processes by developing a Network Service Descriptor that could be executed centrally, and time controlled using Nokia Cloud Operations Manager. The automation allowed for efficient and error-free scale-out or scale-in of complete IMS and EPC domains which saved the customer resources and time to meet traffic growth as more data centers are deployed.

In this case, our cloud transformation consultants helped the operator incorporate best practices for data modeling, developing method of procedures, network service specifications and test documents. Nokia Advanced Consulting Services also provided enablement/training for all the phases of solution development, modification and execution.



The figure shows the relationship between the Network Elements and the scale-out processes involved

The results

Through the work done by our consultants, the LAT Tier 1 operator has implemented the new processes incorporating automation. The new process has reduced the engineering effort to perform pre-health checks, backup, scale-up/down, and post-check, and rollbacks.

We also decreased the time commitment for execution to be done in the VNF maintenance window. This led to a reduction of errors that typically enter the manual process while also allowing the CSP to harness advanced product capabilities.

Nokia OYJ
Karakaari 7
02610 Espoo
Finland

Tel. +358 (0) 10 44 88 000

CID:213399

nokia.com

At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering the future where networks meet cloud to realize the full potential of digital in every industry.

Through networks that sense, think and act, we work with our customers and partners to create the digital services and applications of the future.