Cloud transformation strategies to future-proof technology, operations and security

Nokia Cloud Transformation Consulting
Communications service providers (CSPs) are spending more than ever on technology — 5G, cloud, automation, artificial intelligence and more — with the goal of becoming true digital service providers (DSPs). These technologies enable new use cases and applications that bring new performance demands, which require the low latency, efficiency and flexibility of cloud-native solutions. Cloud-native solutions enable rapid onboarding, operation and scaling of new services for breakthrough business agility.
How ready are you to seize cloud?

Investing in cloud technologies comes with a long list of questions. What operational and delivery models do you need to implement these technologies and how do you create a diverse ecosystem to support them? What tools do you need to meet industry standards and adapt as those standards evolve? How do you keep your network and customers secure in the cloud? How can you make quick short-term gains while planning for longer-term sustainable transformation? And what can you do to optimize deployed solutions to get the highest possible return on your cloud technology investments?

Cloud transformation is crucial, however, as the scale of 5G brings massive numbers of connected devices and a diverse mix of services, creating an environment where legacy operations simply cannot keep up. Automation is required — especially for slicing — driving the need to reinvent how CSPs operate.

This environment is more advanced, fluid and dynamic than ever before — often co-developed with third party partners and continuously evolving in pace with customer needs. This unprecedented flexibility and openness erases the traditional network perimeter. If security requirements are already hard to keep up with today, the coming years will bring a whole new level of complexity.

To make sure you’re investing in the right cloud technology, get the best operational results, and create a well-architected security framework, you need a clear plan and flexible and optimized solutions. Nokia Cloud Transformation Consulting has the experience, insights and methods to help you evolve strategically and realize your cloud vision.

Organizations are 17 times more likely to increase cloud spend than reduce it over the next 12 months.¹

¹ Gartner 2020 Cloud Study
A standards-based, cloud-oriented consulting approach

Our results-focused cloud consulting methodology is designed to rapidly get you from your current state to a flexible, secure, standards-based, multi-cloud architecture supported by agile work processes — delivering measurable results for your business. The Nokia Cloud Transformation Consulting team can help you set the right strategies and make sure you get the best performance out of your solutions.

Nokia Cloud Transformation Consulting spans cloud technology, cloud operations and cloud security. We provide:

- **Cloud Transformation Technology Consulting**
  Select the right cloud technology, build your future architecture and create and execute a roadmap to migrate both new and legacy workloads.

- **Cloud Transformation Operations Consulting**
  Define your target operating model and close gaps from today’s operating model. Develop the future organization strategy and identify training needs. Ensure business value is realized.

- **Cloud Transformation Security Consulting**
  Perform a complete risk assessment and mitigate risks of the selected cloud architecture. Improve security monitoring, visibility and response across an expanded threat surface.

A proven methodology

Nokia Cloud Transformation Consulting applies proven methodologies supported by industry-best practices for assessing opportunities, designing and implementing solutions tailored to your specific use cases and measuring investment returns. It covers everything from customer touchpoints, customer experience and service performance, to process evaluations and key performance indicator (KPI) tracking.

Internet content providers such as Google and Microsoft will grow 7 times faster than CSPs in the coming years, with compound annual growth rates close to 10%. Cloud transformation is key to pushing back against this trend.

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Most CSPs recognize the need to go cloud-native to be ready for the 5G era, with a mix of private clouds, public clouds and hybrid models. Nokia can help you define a holistically resilient cloud infrastructure by putting individual cloud decisions in the context of your strategic goals and helping you create an architecture that cost-effectively delivers the performance you need.

Cloud Transformation Technology Consulting consists of:

- **Technology blueprint creation**
  Set a clear path for standards-based evolution and arrive at a future-proof architecture for any cloud

- **Cloud strategy**
  Define a comprehensive cloud strategy aligned with your business goals, including a complete roadmap for workload migration

- **Cloud migration**
  Define a migration path for legacy and virtualized workloads to cloud-native and any cloud

The methodology is made up of the following high-level steps:
- Assessing what is required to move to a cloud model
- Creating an any cloud deployment model (private/public/hybrid) and cloud-native readiness assessment
- Developing a shared understanding of the primary goals for technology transformation
- Creating a candidate architecture and agree on the minimal viable release
- Producing cloud-native migration scenarios for any configuration on any cloud
- Performing a gap analysis and registering identified risks

**Benefits**
Nokia Cloud Transformation Technology Consulting will help you to:
- Future-proof your cloud strategy with an expertly designed architecture that supports multi-vendor cloud networks
- Monetize your cloud assets and generate new revenues
- Minimize migration risk and comprehensively secure your cloud
- Easily operate and agilely deploy your cloud infrastructure
Cloud Transformation Operations Consulting

The multiple challenges being faced by CSPs today require due diligence and definition of the right cloud strategy, primarily around transformation of their organization, processes and skills. It is important for CSPs to address requirements such as availability, agility, scalability and quality with the help of the right organization modelling and process definitions for cloud operations.

Cloud Transformation Consulting operations methodology

Cloud Transformation Operations Consulting includes:

- **Current mode assessment**
  With a defined and proven process, Nokia helps to clarify your operational vision, business drivers and key use cases.

- **Future mode definition**
  Define the target operating model using the current mode assessment and industry references, providing high level functions to be enhanced or introduced and the handoff’s/interfaces between functions.

- **Gap analysis**
  Analyze your current state to identify gaps to be addressed, against the defined future mode definition.

- **Future organization and process design**
  Define the future organization structure to align seamlessly with the future mode of operations, identify future roles and responsibilities, map existing roles to new roles, and define high level process flows and KPIs.

- **Competence and training strategy**
  Define the key roles and associated competencies needed for successful operations, design training curriculum, baseline the capabilities of the existing workforce and deliver the training.

- **Roadmap and change management strategy**
  Joint prioritization of future high-level initiatives (HLIs), develop a roadmap, positioning the HLIs on a timeline per CSP business priorities and prepare a change management communication plan.

- **Business value realization**
  Continuous improvement and efficiency of the operating model by including more automation at every step. This is demonstrated via a targeted initiative for business value realization, showing the benefits with certain specific operational KPIs.
**Benefits**

The program will deliver an efficient operating model that realizes the benefits of cloud. There is no one-size-fits-all model that can be replicated for all CSPs. Based on CSP operations readiness, a proper plan will be delivered by Nokia’s cloud consultants to deliver the following benefits:

- Achieve agility in the end-to-end deployment life cycle covering strategy, planning, design, build and operate activities
- Create an agile organization with minimal handovers and decision points, preparing for DevOps
- Ensure revenue growth via rapid launch of new services and minimal downtime
- Enable better customer experiences with an efficient operating model having robust, fast and reliable customer facing services
- Introduce more automation at different levels and pave the way for a DevOps ecosystem
Cloud Transformation

Security Consulting

Our experience helping hundreds of CSPs transform their security posture has given Nokia’s security consulting team deep insight into what’s needed, what works, and how to get results. In addition to a rigorous, proven methodology for security transformation, we are a trusted partner of telcos and national regulators worldwide and one of just two companies in the world with an end-to-end 5G security infrastructure.

Cloud Transformation Consulting security methodology

This same rigor is brought to Cloud Transformation Security Consulting through the following services:

- **Security assessment**
  A complete risk assessment, security scan, architecture review and compliance audit process specific to the threat profile of your technology and market

- **Cloud security evolution**
  Recommendations to bridge the gaps between your current and desired future state, including telco domains protection design, security of cloud-native or public cloud infrastructure

- **Security operations**
  Security operations center transformation with an advanced response architecture for rapid, accurate security insights and responses across all your endpoints, networks, cloud services and users

  To improve your security posture, you must understand your current state.
  - Is your technology up to date?
  - Are your security processes and policies effective with new emerging cloud technologies?

- Where are the gaps or weaknesses that could leave you vulnerable?
- Do you have complete visibility over what security events may occur across your deployed base?
- Are you utilizing automation to perform cloud security operations more efficiently?
We help you establish your security baseline with:

- **Security architecture review**
  Consultants will drill down through the current design and identify improvements that can lead to more effective protection.

- **Security process assessment**
  We give you comprehensive insight into the maturity of your processes based on industry best practices, recognized standards and regulations, including ISO/IEC 27k, ITU-T X.805 and NIST.

- **Vulnerability assessment**
  Our team of experts can identify specific technical security gaps and provide recommendations to bridge them effectively.

**Benefits**

- Identify threats and risks of the selected cloud models and technologies (on premises, cloud native, hybrid, multi-cloud).
- Improve cloud security monitoring, visibility and incident response across multi-vendor clouds.
- Select best of breed solutions and practices to strengthen the security posture of even most complex environments.
- Improve regulatory compliance with the help of our risk-based approach.
- Determine the most efficient plan to close identified security gaps and protect cloud resources.
Your partner for the cloud transformation journey

Nokia Cloud Transformation Consulting ensures you have the right technology, operations and security model to meet your business goals today and be at the forefront of the 5G future, with expertise and experience in cloud strategy, migration, operations, security, revenue growth, customer experience, operational efficiency and more.

Concrete benefits for your business

Engaging Nokia Cloud Transformation Consulting provides a solid foundation for success in the cloud.

**Alignment with industry standards and best practices**
By migrating to a fully standards-based architecture in step with best practices, you gain ease of management, interoperability and evolution.

**Future-proof architecture**
We ensure your technology architecture is ready to handle the increased demands and scale of 5G.

**Faster time to respond**
With full visibility and improved workflows, incidents are detected, responded to and, if necessary, recovered from, faster.

**Better compliance**
A comprehensive, fully auditable, end-to-end security solution gives you confidence that you’re compliant with global 5G and security standards.

**Clear vision**
Move confidently toward your desired future state with a step-by-step operations transformation plan including key initiatives and milestones.

**Measurable progress**
Keep your plan on track with governance and accountability frameworks to achieve every milestone.

**Data analytics advisory and assessment**
We help you define, implement and optimize the most appropriate analytics strategies, tools, algorithms and operating models for your business.

**Dashboards and reports**
Our custom reports and dashboards are built using visualization tools to make it easy for you to monitor your network KPIs for analytics-based decision making.

**Model integration and automation**
Our team can help you integrate analytics models and AI/ML use cases (such as churn prediction or predictive maintenance) with various Nokia solutions as well as third-party cloud platforms.
Nokia is unique in the consulting services arena. We have worldwide network expertise, real-world experience in any cloud and 5G solution deployment and broad perspective on how CSPs are tackling the digital transformation challenge. With insights from our global customer engagements, we create and implement end-to-end transformation blueprints for the most complex, multi-vendor and future-facing environments.

Cloud Transformation Consulting leverages the strength of our full suite of Nokia Advanced Consulting Services

- **Business Consulting**
  Digitally transform your business with results you can measure.

- **Data science and analytics Consulting**
  Turn data into insight and insight into strategy to grow your business the way you want.

- **Operations Consulting**
  Retool your processes for greater agility and conquer operational complexity.

- **Security Consulting**
  Tackle today’s toughest network security challenges with confidence.

- **Technology Consulting**
  Get the best performance out of your existing and future technologies.

Cloud Transformation Consulting
Devise the best strategies to future-proof technology, operations and security.

Want to know more?
About Nokia

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

As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world.

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