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Automate core network updates for unparalleled quality and speed

Use case

Coping with rapid change is a growing challenge for Communications Service Providers (CSPs), especially as 5G networks are rolled out. While DevOps has delivered huge benefits to webscale businesses by accelerating deployment cycles without affecting reliability or customer experiences, the approach is limited when applied to the telecom environment. [Nokia DelOps \(Delivery and Operations\)](#), redefines DevOps to meet the more complex, individual needs of CSPs.

Challenge

CSP networks have long connected people and businesses using voice, text and data. But with 5G, CSPs can go further, transforming the network into a platform for creating digital value and offering a vastly expanded set of innovative services to customers. It's already happening, with services being launched at an ever-faster pace as 5G reveals new ways to generate revenue.

Cloud and webscale technologies play an important role in these developments as network elements are transformed into software, removing the need to change hardware when they are upgraded.

DevOps was introduced by webscale companies to quickly deploy updates to their customers. While DevOps works well for a single vendor delivering software into a homogenous environment, it falls short in CSP environments which are far more complex. That's because they comprise network elements and components from multiple vendors, making each CSP network highly individual and more intricate to update.

Solution

DelOps is Nokia's redefinition of DevOps to deal with the complexity and individuality of the CSP environment. Nokia Continuous Integration/Continuous Delivery (CI/CD) services overhaul the entire update process by extending automation right through to CSP operations.

DevOps and DelOps both use agile processes. However, DelOps redesigns DevOps and extends CI/CD processes into operations, matching the needs of the complex CSP environment without sacrificing network reliability.

DelOps updates products automatically across all phases – from delivery to network design, integration and testing, to operations. CSPs can ensure changes, new features, bug fixes and trials are provided to their subscribers and networks quickly and safely.

Supported by Nokia CI/CD services, DelOps automates network updates to enable a CSP to outperform its competitors by rapidly creating and delivering innovative services

Benefit

DelOps, enabled by Nokia CI/CD services, provides three key benefits for CSPs:

- **Business acceleration** – automated workflows, deployment and testing allow more frequent updates and ensure new features, bug fixes, and changes are delivered rapidly and efficiently.
- **Reduced effort** – through tracking and managing releases and features including creating, executing and maintaining test cases.
- **Improved quality** – automated testing, configuration and product customization help avoid manual errors.



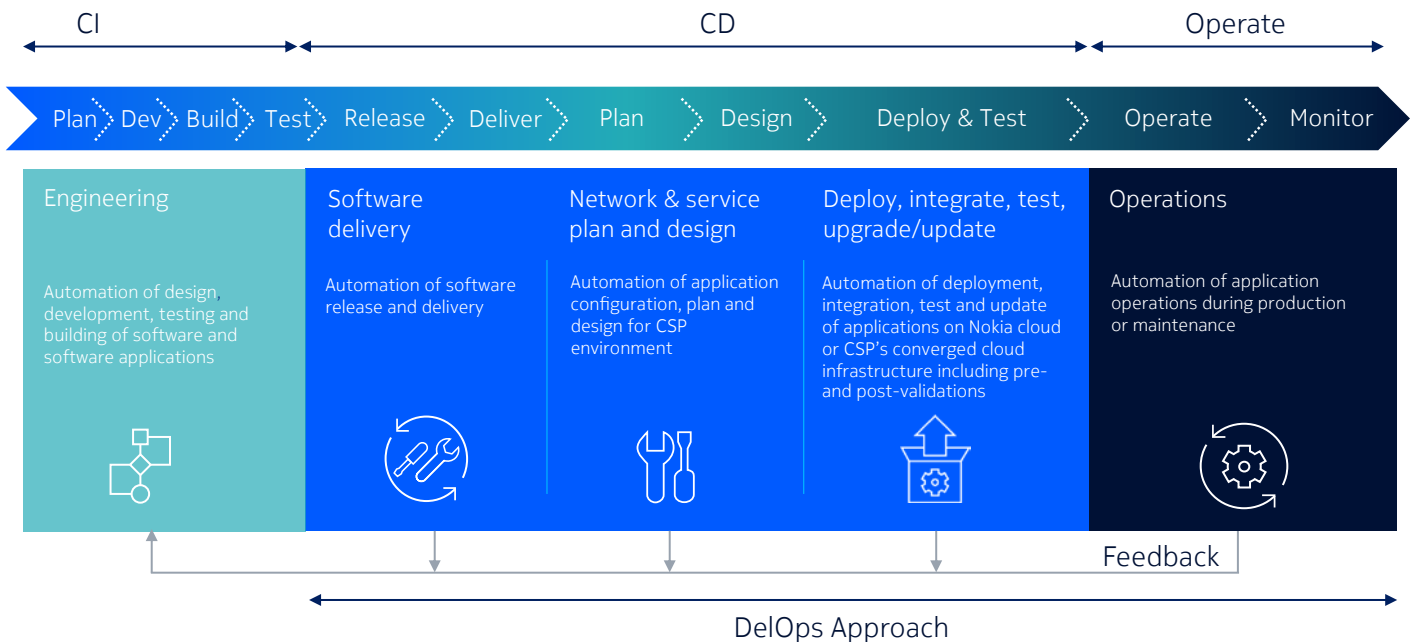
Result

The DelOps approach uses CI/CD services from Nokia to work with the CSP's cloud infrastructure to manage the full lifecycle of cloud-native 5G core applications. It adapts the DevOps approach to deliver results in today's highly customized CSP environments.

With this approach, vendor software is delivered to the CSP's network in a highly streamlined and automated way. Manually introduced errors in configuration and customization are dramatically reduced, as is the effort needed to deploy updates.

Discover more about how DelOps, supported by CI/CD services, automates core network updates to achieve unparalleled quality and speed.

Visit the [Nokia website](#) or read our [brochure](#).



About Nokia

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

As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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