

Subject: Executive summary on best practices when transitioning to a software-defined network.

Dear Dr, Perigo,

The rapid speed at which networks are growing and changing makes it very tough for traditional setup to respond to the challenges which are dynamic in nature such as change management, fault tolerance, network convergence and the ability to fully utilize the resource while keeping the low TCO(total cost of ownership).

The SDN offers the potential to centralize the decision-making functionality while maintaining the holistic view of the network by taking advantage of virtualization. It eliminates the challenges such as vendor lock-in, increases the speed of innovation, streamlines management of resources and promote uniformity which boosts performance as device can utilize the hardware speed to perform tasks offloaded to them.

We can utilize several best practices to ensure minimum disruption and maximum efficacy by following ways –

**Comprehensive Planning[1]** – This is the first step in any migration to document the shortfalls. patterns which allow to devise a better plan to address those issues. This entails making exhaustive plan of each step and identify resources which aids in the migration.

**Proof of Concept[1]** – This step ensures the shortcomings, or the process identified for the migration works as expected or can perform in similar fashion as expected and it allows us to recalibrate and verify if the planning contains all the required pieces before moving forward with the implementation and gives a glimpse on what to plectrum the new system.

**Small Scale Implementation[1]** – This step allows for us to integrate the new identified technologies with existing stack and allows us to document if there are any changes which may break things the way it works or require any drastic changes. This allows to document if there are any legacy systems which may not be compatible with the proposed changes.

**Testing [1]** – This allows for intended users to validate the deployed changes to see if the changes or new system works as per expectation and the security audits to be performed to see if the system matches the required policies before it can see a large-scale deployment.

**Monitoring[1]** – This step entails collecting the feedback from the stack holders and monitoring the deployed solutions and scale it from there using collected data.

If we follow this basic principle, it will allow for gradual migration ensuring maximum uptime and minimal disruption to the customers.

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1. Step-by-Step Guide to Migrate from Traditional Networks to SDN or SD-WAN  
(<https://netseccloud.com/step-by-step-guide-to-migrate-from-traditional-networks-to-sdn-or-sd-wan>) - Ethan Tucker