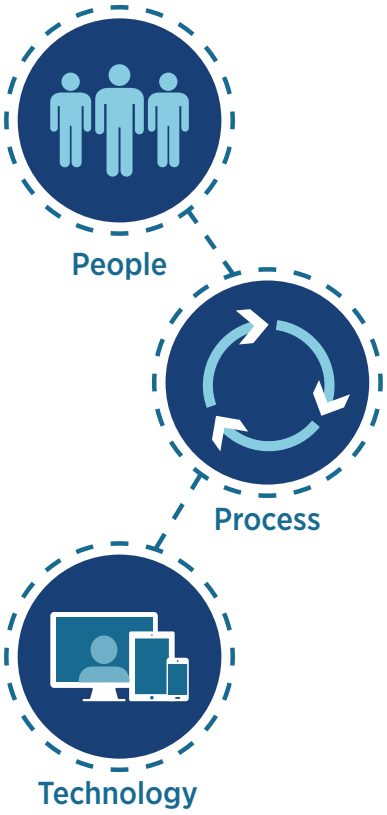

Getting People, Processes and Technology Ready for Network Virtualization

The Right Foundation Provides a Wealth of Returns

Like compute virtualization, the VMware NSX® network virtualization platform checks a stunning number of boxes on IT's priority list. The success of implementing NSX is based in detail, detail, detail. The more your team works through the details of how network virtualization will be supported by—and affect—people, processes and technology, the better the results.

Some results are both immediate and far reaching, like stronger and more adaptable data center security. VMware NSX builds security into the DNA of your data center network, which allows you to achieve a Zero Trust (ZT) security model[1]. The ZT model says that in a more virtualized world there should be no distinction between trusted and untrusted networks—all networks and segments must be subject to security controls. NSX introduces a capability called micro-segmentation that makes ZT a practical reality.

Top-Level Planning Principles for Network Virtualization

Before diving into details, it's important to embrace the high-level principles that guide successful adoption of NSX.

COLLABORATIVE AND CROSS DOMAIN

Network virtualization has benefits across all IT domains—network, compute, storage, security, architecture design and applications development. Transparency, clear communication and collaboration will all contribute to the results you'll achieve with network virtualization.

PREPARED FOR THE FUTURE

Network virtualization is non-disruptive to your existing hardware infrastructure, so you can implement it in stages, on your own schedule. Every step you take with network virtualization not only addresses an immediate problem, but helps advance your vision for Software-Defined Data Center (SDDC). You can think about immediate returns today, and also use network virtualization to advance your longer term vision.

1. Forrester Consulting, Leverage Micro-Segmentation to Build a Zero Trust Network, Forrester Consulting, 2015

Involving People and Aligning Processes and Technology

People

Without doubt, network virtualization with NSX will create more value for stakeholders than they ever imagined. As you share information about the capabilities of network virtualization, you'll cultivate champions in every domain and at every level. Here are three examples of how to get people invested in your network virtualization journey:

- Create a blended cloud team: The move to network virtualization is the perfect opportunity to create a more blended cloud team of cross–domain, cross-disciplinary skills. The team can work together to come up with common goals and operating principles that will make planning around network virtualization and hybrid cloud smoother.
- Share the vision of network virtualization as an important milestone in the evolution of the software-defined data center: Everyone has a stake in successfully transitioning to an SDDC. Network virtualization is a critical component of the SDDC model. Each domain will be interested in participating in these SDDC-related discussions, and your planning will be more on target with their involvement.
- Communicate the professional challenges and opportunities: Developing expertise in network virtualization will certainly require training for already busy network engineers, administrators and technicians. But they will be acquiring new software skills that keep them at the leading edge of network virtualization, security and SDDC. This will be an important message to communicate throughout the planning process.

NETWORK VIRTUALIZATION CERTIFICATION

vmware CERTIFIED PROFESSIONAL 6 NETWORK VIRTUALIZATION

Validate your network virtualization skills and be among the first professionals certified in this new field. Plus, if you hold a Cisco® certification already you are eligible to "fast track" your certification process.

To learn more, visit: http://www.vmware.com/go/NSXtraining

Processes

Network virtualization provides the opportunity to standardize and automate to a degree that has never been feasible in a hardware-based networking model. You'll eliminate errors, improve tracking for compliance, and free up valuable engineering resources for new high-profile projects. Here are three examples of areas to focus on for process planning:

- Determine your priorities for automating and standardizing: Without question, you'll have a long list of tasks that can benefit from standardization and automation. Establishing priorities (which may involve some of your stakeholders from other domains) will help ensure that you target projects that will benefit most from standardization and automation. Early wins are always good for gaining new champions.
- Assess the vulnerabilities of your current security processes and policies: With NSX, security policies are enforced by firewall controls integrated into NSX hypervisors. Policies can be changed quickly and even move automatically with workloads. Work closely with stakeholders to identify known or suspected vulnerabilities and high-risk workloads as a starting point.
- Consider how virtualization can transform network management: Managing the network (including monitoring, troubleshooting and remediation) is one of the most important responsibilities of your networking team. Related daily operational tasks include change, release and capacity management. As you review your procedures for each of these processes, you'll be able to set goals for simplifying and strengthening all of these areas.

Technology (Infrastructure and Architecture)

Network virtualization with NSX decouples network services from the underlying physical infrastructure. As soon as you do that, you'll find yourself operating at amazing speeds. NSX reduces network provisioning time from days (or weeks) to minutes or even seconds. This acceleration in delivery of services and adaptability to change will be an adjustment for everyone—in a good way. Here are three examples of infrastructure and architecture planning elements:

- Start with a use case: Identify workloads that have the highest risk/reward profile to showcase new capabilities. The most common use cases are security, IT automation and application continuity. Then, involve stakeholders in framing the outcomes they'd like to see. You'll learn a lot from the early use cases, especially because you have more freedom to adapt and change.
- Take advantage of network virtualization to make changes in your network architecture: NSX gives you the means to bridge and build hybrid clouds, because you're no longer hampered by physical topology or hardware constraints. And you don't have to worry about network interoperability or service provider lock-in.
- Plan for speedier new releases: It will be to everyone's advantage (and in the spirit of collaboration) to publish a regular cadence for developing and releasing new networking features. Moving faster and communicating regularly across domains will promote active participation and feedback from stakeholders.

Conclusion

Network virtualization with NSX can bring enormous benefits to your organization today, such as stronger security and an easier bridge to building hybrid clouds. It is also a cornerstone for the future, supporting your vision for SDDC. You can improve adoption by thinking holistically about people, processes and technologies in your planning. Stakeholders will become champions the more they learn about the capabilities of a virtual network infrastructure. And remember that you can implement NSX at your own pace, starting small and expanding as your needs dictate.

To learn more about how you can get ready for network virtualization, visit www.vmware.com/products/nsx.

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VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com