



Top 5 Tips When Considering Network Virtualization

Turning the promise of cloud into positive IT outcomes

For many companies, a critical stage in achieving a truly agile infrastructure is to virtualize their network. Network virtualization promises new efficiencies, greater stability, faster workload provisioning, and advanced security inside the data center. It's also a stepping stone to building a fully automated software-defined data center. But what are the major considerations to keep in mind as you set off on the path to network virtualization? Here are 5 key points that can help ensure that your network transformation is a success.

#1. Think dependencies.

Make sure you understand what you need to do before you're ready for network virtualization. A virtualized network rides on top of a physical network and an already-existing virtualization layer. But it won't slot easily into place unless dependencies like application design, application rationalization, physical network review, and individual component testing have all be accounted for. So be sure to plan for that process in your project timeline.

#2. Engage all of your stakeholders from the start.

As you embark on your network virtualization project, make sure to engage everyone in your organization with a stake in the outcome. Remember, network virtualization isn't just virtualization, or just networking, or just security. It's all three. Each of the groups responsible for these services will be affected by what you are planning to do to their infrastructure. It's crucial, then, to have conversations with each unit up front—helping them understand the business justification for the planned virtualization and sharing with them how it is likely to impact their work. Then they should be invited to help define and design the changes they'll need to make for the transition to succeed.

Because this takes time and effort, it can make a 'skunk works' approach a tempting alternative. But skunk works projects only succeed until they have to integrate with the rest of the environment, when you'll likely get reactions like: "Oh you want to use it in PRODUCTION? That's an additional set of requirements." Bottom line: make each stakeholder a partner in the transformation from the start, and your path to a successful implementation will be a whole lot smoother.

#3. Don't forget your operations team—engage with them long before the handover.

The people who commission and test new networking technologies typically don't get to run them once they are in place. Too often, though, operations only gets brought in very late in the game. The result: a half-hearted adoption that's a major barrier to the project's overall success. So make sure to recognize that network virtualization will significantly alter how your operations professionals do their work. Bring them on board early enough to, a) absorb how their practices will need to change and, b) plan how to make that transition, before you hand them the keys. Done right, your operations team won't be a drag on change. Instead, they'll help drive it, looking to reap the operational benefits as soon as they can.

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How do you successfully engineer change? It all comes down to training. You need all of your key stakeholders fully engaged to learn throughout your network virtualization process. So take advantage of vendor educational resources to get everyone in your organization ready for the shift to virtualized networking. Consider a short-term engagement with vendor consulting teams to create a 'slow handoff' period that can help ease the transition to full adoption. And use what you learn to streamline your operations process and book running, too.

One other point: this is cutting edge technology and people trained on it can get hired away fast. Having more people trained in the new technology will help ensure the new implementation's continued success, even if some of its leaders leave the project.

#5. Target your value return.

Once you have all your stakeholders on board, the next question is where do you actually start? There are two good options:

- **Begin with your most compelling use cases**

Your overall virtualization project might require transforming your entire organization, a lengthy process that can hold up aspects of the virtualization that would otherwise offer immediate wins. If that's the case, it can make sense to start by deploying around your most compelling use cases. Security is a good example. A virtual security infrastructure, after all, lets you do things like automated security provisioning and micro-segmentation that simply aren't practical in the physical realm. Targeting your project can let you reap those kinds of gains early—and, as a bonus, it will create allies for your transformation as you build more capability, such as Layer 2 over Layer 3, or start to integrate next-generation firewalling and hypervisor-based anti malware.

- **Go all-in, but in a small environment**

Alternatively, set up a new, fully virtualized network that, at first, only covers a relatively small domain. Get it working as a flagship initiative that signals your route to the data center of the future, then scale out to include your entire networking environment.

Which to choose? That depends on who's willing to step up and drive the transformation. If you have one group ready to take the lead, let them run with it and show what's possible—that could be what it takes to get your company moving on network virtualization. But remember, too, that you can't stop there. Although the pressure for change will relax once your most urgent needs are addressed, you won't realize the full benefits of a virtualization project until you have adopted the complete solution. So agree upon a clear, structured, and sequential plan for rolling out production of your entire set of networking services well before you start to address your targeted areas.

The second path is often more successful when it's IT management that's pushing for change. With the CIO and other C level execs on board, it's possible to fully transform all aspects of the network in a small environment from the start and build out quickly from there. The choice also depends on whether your organization is already comfortable with cloud environments. If it is, a lot of the groundwork for network virtualization will already be done, so the second route will likely offer the most impact in the shortest time.

Bonus tip! Plan to build a test environment as a learning tool

Here's one more insight: What happens when it's time to upgrade your virtualized network environment? You're now using it to communicate with the outside world, so you don't want to be changing it without testing. For that reason, it's a good idea to plan to build a place where you can test proposed upgrades before rolling them into production. If you already have a proof of concept (PoC), you're ahead of the game: it's not hard to turn the PoC into a test site for the operations team to learn and support the environment they now have in production.

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