Data center networking is the process of establishing and interconnecting all the physical and network-based devices and equipment, along with VMs and containers, within a data center facility. I&O leaders can learn from the implementation experiences of their peers shared on Gartner Peer Insights.

Overview

Gartner Peer Insights is a free peer review and ratings platform designed for enterprise software and services decision makers. Reviews go through a strict validation and moderation process to ensure they are authentic.

We analyzed 160 Peer Insights reviews to identify lessons learned implementing data center networking solutions. This report focuses on the responses to the questions: "If you could start over, what would your organization do differently?" and "What one piece of advice would you give other prospective customers?" To browse all reviews, see the full list of data center networking reviews on Peer Insights.

Peer Lessons Learned

This edition of “Lessons Learned” summarizes clients' firsthand experiences with implementing data center networking solutions. The peer advice results both from successful implementation projects and learnings based on what went wrong. This peer perspective, along with the individual detailed reviews, is complementary to expert research and provides a holistic view to the implementation process. Reviewers who submitted their lessons learned represent a cross-section of small- to midsize and large organizations. (See Figure 1).
Below are some key lessons learned and most cited recommendations by Peer Insights reviewers to help infrastructure and operations (I&O) leaders in implementing their data center networking solutions.

Lesson 1: Choose a Vendor That Aligns With Your Technology and Business Needs

I&O leaders should identify the business and technology requirements of the organization during the initial stage. It would lead them to a specific set of vendors that could solve the specific use case. Knowing the business objectives is also critical for this process. The peers also advise to thoroughly assess a range of vendors and select a vendor that satisfies all the requirements.

A peer reviewer says:

“Take a look at the entire suite of products before deciding on a platform. While they inter-operate to industry standards with each other, the deployment and OS are so different, mixing them will not be administratively beneficial.”

CxO, Services Sector

Thoroughly analyze the product, advises a peer:
“Figure out your company’s requirements and goals and then decide if the product will help you get there. Talk to other individuals within the industry that have used the product. You might learn something that will help you make the final decision.”

Business Professional, Services Sector

Peer recommendations include:

- Evaluate multiple vendor options and have a clear idea of the organization’s final goals.
- Assess the capabilities of the vendor to ensure it aligns to the organization’s requirements.
- Analyze and verify the speed and support of the product per the business requirements.
- Explore the information required for specific configurations based on the organizational needs.

Recommended reading:

“Magic Quadrant for Data Center Networking”

“Building Data Center Networks in the Digital Business Era”

Lesson 2: Diligently Select the Data Center Networking Switches

Peers recommend I&O leaders to be careful while selecting the switches to avoid replacing or upgrading the software/configuration at a later stage. Also, proper configuration of the switches for better functioning is an important point highlighted by the peers.

A peer suggests:

“To study the network you’re willing to implement, ensure to choose the proper switch that better adjusts to your business requirements.”

Data and Analytics Professional, Services Sector

Another peer adds:

“We send all the switches to the branches before the configuration and made them remotely. If I could start over, I
would make most of the configuration and then send them to the location.”
Technical Professional, Finance Sector

Peer recommendations include:

■ Ensure the correct switch specification is selected. Always confirm it with a trusted advisor/IT partner. Choose the latest version of the switch.

■ Explore and consider switches of the existing family range equipped by the organization to minimize the configuration time in scenarios where switches have already been deployed.

■ Purchase the fastest switches that you can afford and provides the best value to your organization. It would enable you to future-proof your organization and make upgrades less frequent.

Recommended reading:

“Market Trends: Evolve Ethernet Fabrics to Seize Opportunities in the Edge Networking Market”

Lesson 3: Perform a POC Before Implementation; Allocate Time to Trainings

Peer reviewers recommend conducting training sessions to familiarize professionals with the data center networking solution. They also suggest running extensive testing and proof of concept (POC) on the product before going ahead with the implementation.

A peer says:

“Conduct trainings ahead of time. There are a lot of new features and terms that you will need to get familiar with.”
Infrastructure and Operations Professional, Education Sector

Test the solution, a peer suggests:

“Take advice of others and perform your homework before jumping into deployment. This requires a different kind of thinking than what you are used to. Don’t make a rush to implement before you test the full potential of the product and its suitability for your environment.”
Infrastructure and Operations Professional, Construction Sector
Another peer recommends:

“Although a POC was available, we did not utilize it as well as we should have done. We came up against some issues during the deployment of our next-gen data center network which would have been apparent during a POC. The POC that our vendor put together for our organization was well thought out. We utilized it and it proved beneficial in our decision to go with the topology, design and product.”

Infrastructure and Operations Professional, Services Sector

Peer recommendations include:

- Provide trainings to staff across all departments, including computing, network, security, storage, etc.
- Involve every project member in the trainings to better interface the product with the team.
- Invest time to study the management menu and test the product configuration.
- Run extensive testing and POCs to ensure you have the correct model/vendor for your company.

Recommended reading:

“Critical Capabilities for Data Center Networking”

Lesson 4: Invest in a Third-Party for Deployment per the Organizational Needs

Peer members suggest having a third-party integrator who understands the product and can provide expert guidance during deployment, unless you have the required expertise for implementation on a regular basis. Working with an experienced third-party integrator will allow users to gain critical insights on seamlessly implementing a data center networking solution.

As one peer reviewer suggests:

“Find a good third-party vendor to help design your data center networking solution. Ensure to explain your requirements.”

Infrastructure and Operations Professional, Services Sector

Take time and choose your integrator wisely, suggests another peer:
“The only thing that I would alter about our experience, so far, would be the finalization of the integration and deployment with our integrator.”

Infrastructure and Operations Professional, Media Sector

Peer recommendations include:

- Involve a decent partner to deploy. It is essential to ensure your environment is set up correctly.
- Ensure to deploy an engineer who is familiar with command-line management during implementation.
- Understand the different forms of authentication your apps support before you start to devise your deployment roadmap.
- Allow expert partners to help with implementation and provide them a seat at the table.

Recommended reading:

Lesson 5: Focus on Strategizing the Implementation

Many peers stress the importance of having a proper implementation strategy as a wrong move during deployment can prove to be costly and time consuming to rectify. They advise I&O leaders to think through all the pieces before starting the deployment.

One peer recommends:

“Deploy to a larger subset of offices faster. Spend more time upfront engineering the business rules for application performance and priorities.”

CxO, Healthcare Sector

Another reviewer recommends having a thorough understanding prior to deployment:

“Before deployment, ensure to have a configuration management tool in place if you will use one (which I suggest), understand how it will work with the system so that you can set up the configurations and automate the deployment as much as possible.”
Peer recommendations include:

- Set up a dedicated configuration and server for automated deployment.
- Invest adequate time in implementation and be diligent during the process.
- Ensure to have technical support readily available during deployment.

Recommended reading:

“Avoid These ‘Bottom 10’ Networking Worst Practices”

“2019 Strategic Roadmap for Networking”

Methodology

Of the Peer Insights survey data considered for this market, only those responses meeting the following criteria were included in this synthesis:

- Reviews less than 12 months old.
- Responses that pertain to the project experience and are not tied to the capabilities of a vendor.
- Reviews were clustered into the top-five most-referenced categories (lessons learned) and then listed in order of relevant phases in the project life cycle.

The results of this synthesis are representative of the respondent base and not necessarily the market as a whole.

Document Revision History

“Peer Lessons Learned: Implementing Data Center Networking”

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

“Magic Quadrant for Data Center Networking”

“Building Data Center Networks in the Digital Business Era”

“Market Trends: Evolve Ethernet Fabrics to Seize Opportunities in the Edge Networking Market”

“2019 Strategic Roadmap for Networking”

“Avoid These ‘Bottom 10’ Networking Worst Practices”