

Eight Toxic Networking Vendor Selection Philosophies

The Old Axiom “No One Gets Fired For Buying [X]” Should Be Laid To Rest

by Andre Kindness

July 11, 2016

Why Read This Report

Many enterprise networking teams still struggle to shift away from their incumbent network infrastructure, even if it's the right decision for the company. This report addresses eight common statements that organizations use to rationalize their choices and criteria. Such language no longer works. In this report, we explain why each statement is an invalid justification for choosing a networking vendor and how infrastructure and operations (I&O) professionals can change their thinking and their language to make the right choices for their customers and their unique businesses.

Key Takeaways

Network Demands Have Changed, But Selection Criteria Have Not

Virtualization, software-defined networking (SDN), and customer engagement networks have changed network products and architecture. However, I&O professionals continue to use the same old criteria to choose their networking vendors.

“Unicorns” Show There Is An Alternative

Google, Facebook, and other so-called unicorns have turned away from traditional networking vendors, architectures, and solutions. These companies have revolutionized what we expect from network operations while creating some of the most scalable and resilient business networks in the world.

Eight Network Criteria Statements Don't Work

Enterprise I&O teams will use one or more of eight common statements to justify sticking with their incumbent vendors. All of them are myths in some way. Contradictory thinking — and the language to express it — will be vastly superior as you tackle the new demands of the digital business.

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Forrester interviewed more than 100 user companies in researching this report.

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[Top Technologies For The Infrastructure & Operations BT Agenda](#)

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Your Networking Vendor Choices Can Damage Business Agility

Your network is the lifeblood of your company. Every customer interaction and every action of the digital business needs a fast, flexible, and reliable network to link your complex collection of technology elements, employees, and customers. This crucial backbone of your business suffers from a systemic problem — you’re likely making design, deployment, and management decisions based on obsolete and destructive vendor relationships.

Technology Vendor Selection Is Generally Misguided, Especially In The Network

Over the past 20 years, technology has driven network refreshes and upgrades, and vendor selection has often involved criteria like needing power over ethernet (POE) or dealing with server virtualization. Even the way that I&O professionals choose vendors hasn’t changed. Typically, the market leader appears at the top of the shortlist, whether that list includes switches, load balancers, or wide-area network (WAN) optimization controllers. And why not? These companies have typically offered the most features inside the most powerful hardware and had the largest product portfolios. They support every type of company in the carrier and enterprise space. However, in the age of the customer, companies can no longer serve all markets well. That’s why the networking market is fragmenting by industry.¹

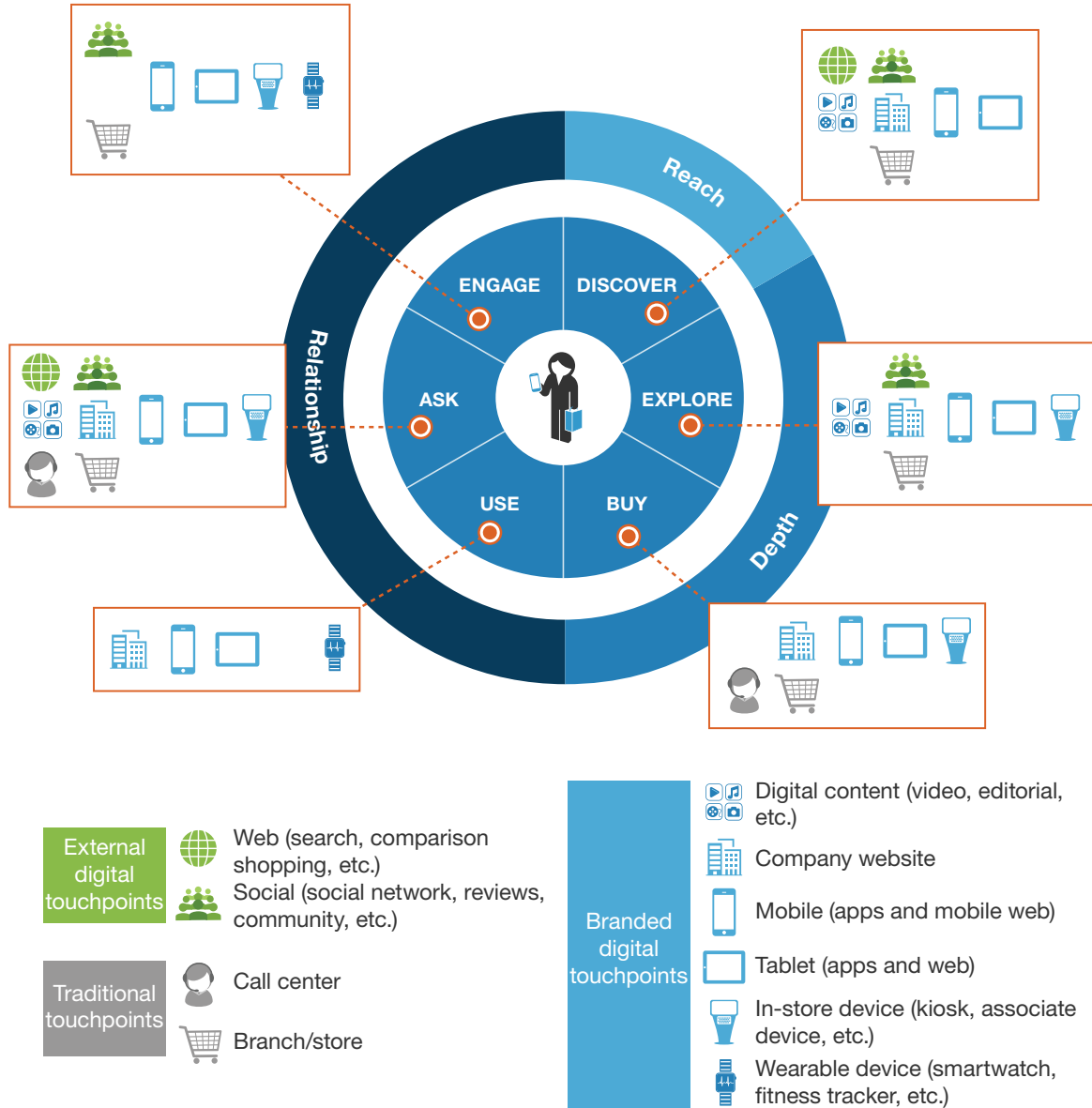
Only Virtual Network Infrastructure Can Serve A Digital Business

Network infrastructure isn’t just supporting internal business operations — systems of record — within the corporate office, nor is it just offering up traditional technology management services such as email, enterprise resource planning, or corporate-owned computers.² Companies will use most of the network to support their digital transformation.³ Digital customer experiences and operational excellence within stores, hospitals, stadiums, or airplanes require completely different approaches; each needs an infrastructure that can help the business win, serve, and retain customers.⁴ Forrester calls this business technology (BT) infrastructure, and it touches all six stages of the customer life cycle (see Figure 1). BT rests on a virtual network infrastructure.⁵ I&O professionals must design, deploy, and manage this infrastructure based on customer engagement network (CEN) principles, which force a reevaluation of the organization’s networking partner.⁶

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FIGURE 1 Digital Transformation Affects All Aspects Of Your Business



Learn From Unicorns Who Buck The Trend And Align Vendors To Their Strategy

Facebook, Google, and other so-called cloud unicorns have challenged the concept of going with market leaders and now run some of the most sophisticated, scalable, resilient, and secure data center networks in the world.⁷ Each knows that much of its core differentiation lies in its data center technology. Unlike enterprises where the CEN is in a hospital or retail store supporting the customer, a cloud provider’s CEN is in its data center. Using CEN principles, first-tier cloud

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providers aligned themselves with vendors, such as Accton and Arista, that weren't traditionally market leaders in enterprise data centers. Most importantly, these cloud providers perform their due diligence in choosing their networking solutions and vendors during every build-out and refresh. For cloud providers, “incumbent” is a dirty word. Instead of finding reasons to keep their incumbents, they continually challenge themselves to find better options. Change is good and rewarded. Your company will likely never become a unicorn itself, but you can emulate a lot of new thinking from these leading innovators.

Eight Common Statements Signal Danger For Your Business Network

Enterprise I&O professionals, especially networking teams, often don't like change. Many enterprise I&O professionals enter into a refresh cycle with good intentions. However, Forrester finds that I&O professionals usually have their minds made up already and just go through the motions to satisfy process requirements. They fail to perform proper due diligence across all viable solutions to best deliver on their BT agendas. The selection criteria in these situations may be tainted by bias, were established long ago, and have been reinforced over time in favor of vendors and practices that may no longer make sense. These biases either predefine a set of solutions or, too frequently, become the criteria for deciding to select the market leader. People signal their biases with verbal statements about decision processes. Forrester distilled such bias statements down to the eight most common destructive intentions, listed in this report in order of most common to least common. The biases are often so deeply buried in people's minds that they are “unintentional intentions.” Think about your own language as you read the following statements.

Statement 1: “We Want To Go With The Market Leader”

Forrester has fielded many client inquiry calls from I&O organizations asking us about networking market leaders that they can put on their vendor shortlists for requests for proposal or quotes. While networking market leaders might have been acceptable to whittle down a large market 10 years ago, using this approach for your CENs could bog down your business. Your retail store, hospital, stadium, or manufacturing floor is your company's area of differentiation. Each network is unique. Instead of focusing on a general market leader, I&O professionals should think about networking market leaders for particular industries. Gone are the days of vendors serving every market and industry. Vendors that focus on serving a select few industries will:

- › **Help simplify operations.** Giant cloud providers and high-frequency trading companies shifted away from networking market leaders because they didn't need the hundreds of features demanded by carrier, enterprise, and small and medium-size business (SMB) customers. They need only a handful of them. By eliminating feature bloat and related configuration complexity, these advanced I&O teams reduce set-up time, security holes, time-to-knowledge, and other operations.

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- › **Increase the network’s value to the business.** Vendors that work with companies in a similar industry will have more insight into what works and what doesn’t. For example, asking a generic wireless vendor to pitch features around bring-your-own-device (BYOD) to a logistics company is a waste of time. A logistics-oriented wireless company, such as Zebra, can spend the time getting into how wireless will help with specific logistics initiatives or how it can help a company manage multiple wireless mediums, such as Bluetooth, Zigbee, cell, and Wi-Fi, that distribution centers commonly need.
- › **Have solutions that fit your business model.** The structure of a business can dramatically affect the choice of a solution. A highly distributed company with many small locations, such as telecommunications company NTT or retailer Foot Locker, would benefit from a simple, easy-to-deploy solution that supports local business operations. These types of companies favor cloud-based wireless solutions such as Aerohive Networks and overlay solutions such as Nuage Networks.

Statement 2: “We Use [X] Proprietary Feature And Need New Infrastructure To Support It”

Proprietary features provide a good option to solve some issues during the introduction of new technologies. However, I&O professionals tend to paint themselves into a corner if they hold onto them and build infrastructure around them over a long period of time. There’s nothing functionally wrong with NetFlow, PVST, and other proprietary protocols, but continuing to use them prevents companies from leveraging the other 99% of the market options. Ultimately, I&O professionals are doing the business a disservice and potentially putting the business at risk. I&O teams should shift away from proprietary protocols as soon as possible. To do this, they should:

- › **Challenge themselves on why the network can’t run without that feature.** If a certain function, such as Cisco’s vPC, is important, then other companies need the functionality and, more often than not, IEEE or the Internet Engineering Task Force (IETF) has already created a comparable standard, such as MC-Lag. If a standard isn’t available, then the networking team should look at a network architecture or approach that doesn’t require that proprietary protocol and instead leverages standards-based protocols to solve a problem.

If the team does decide to use a proprietary feature over a standards-based feature, it should craft a solid financial analysis to show the value of the proprietary feature over alternative methods before making a final decision.⁸ Then, after a year, do a retrospective to ensure that the initial analysis was accurate and you have considered everything; use this information for future analysis on other projects.

- › **Avoid using a future requirement as a valid reason for today’s proprietary feature.** Too often, teams will use future requirements, such as inter-DC VM mobility or SDN implementation, as a reason to use a feature. Over the past five years of interacting with clients and tracking their projects, Forrester has found that they rarely implemented future plans within the life cycle of a product. A lot of those dream projects were beyond their capabilities and resources to implement or weren’t among the top projects to get attention.

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- › **Set a goal to switch to a standards-based alternative or eliminate the problem feature.** If you adopt a proprietary solution or feature, make it a goal to change over to a standards-based option. If none is available, then consider a network design that eliminates the need for that feature or solution. Otherwise, the infrastructure won't be available to that vendor. Forrester has heard from many clients who haven't looked outside their incumbent vendors for more than 12 years because of proprietary functions. During that period, such functions have caused more issues than they've ultimately solved.

Statement 3: “The Pool Of Networking Professionals Limits The Choices Of Vendors To Use”

A director of networking operations at a retailer told Forrester, “Due to our location, we don't have a lot of choice. I don't want to choose a vendor that limits the professionals I can hire.” Because of this, the organization wanted to stay with the market leader because it would have the largest talent pool from which to hire. That was a fine approach five years ago, but cutting-edge companies don't build their networks based on what's available but rather on where they want to go. While there's nothing wrong with hiring people who know a particular vendor's product, that aspect shouldn't be a criterion of your product selection. Manufacturers don't hire engineers who know their product; they hire people who know engineering. Also, don't look on this as a challenge but rather as an opportunity. The networking industry's state of transition makes this a good time to change and update the skills in your own workforce. Networking professionals should have foundational networking certification that covers good standards-based networking concepts and proof of some of the following skill sets:

- › **Good networking principles, protocols, and architectures.** Sensible networking principles are the foundation. In infrastructure that connects the world, no one should expect radical shifts in the fundamental methods of moving data across ethernet and IP networks. However, components, protocols, architectures, and management methods are always changing. Networking professionals shouldn't get wrapped up in how specific vendor-centric solutions should work but should look instead at how good open, heterogeneous networks operate.
- › **Knowledge of virtualization and orchestration technologies.** Network functions virtualization (NFV), OpenStack, software-defined networking, and other technologies are completely changing the design, deployment, and management of networks. Networking professionals don't need to be expert in all of them but should have a deep understanding of these initiatives as well as the languages and goals associated with them.⁹ This will help companies evaluate them properly and use them appropriately.
- › **Software and coding skills.** Basic skill sets to operate and troubleshoot a switch will never go away, but these needs are diminishing as more-sophisticated software takes over repetitious tasks. At a minimum, engineers, architects, and administrators will need to pick up coding skills and have a better understanding of APIs. The future of infrastructure is a balance of hardware and software. Those who want to prosper in that future should know software as well as hardware.

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- › **Good communication and interpersonal skills.** Networks were never standalone domains, but somehow, organizations have built and managed them that way for the past 30 years. This approach is dead. The success of the software-defined data center (SDDC), cloud, and other business initiatives hinges on the network. Networking administrators, architects, and engineers should be spending a minimum of 25% of their time engaging with other technology management members and the business to design, manage, and troubleshoot the network as a full system, beyond just “network plumbing.”¹⁰

Statement 4: “We Want One Throat To Choke”

The idea of aligning to a single vendor for multiple systems (also known as “one throat to choke”) can be good business strategy if the vendor is a good strategic partner. However, that often isn’t the case. You should limit the number of vendors, but reducing that number to one is usually a bad idea. Forrester finds that I&O professionals typically use the single-vendor concept to stay with an incumbent or to extend an incumbent vendor’s footprint within the company’s infrastructure. I&O pros will highlight the “better together” aspect of multiple solutions, such as merging voice over IP (VoIP) with switches or the value of having one phone number to call when the I&O team is trying to troubleshoot issues across multiple systems. The strategy of using only one vendor is only good if:

- › **A single vendor is a consistent and standard companywide strategy.** Networking shouldn’t be the only domain that strives to reduce the number of vendors. Other domains should do this as well. However, I&O should only use a single-vendor approach if it’s also common business strategy. If the business believes in working with multiple vendors to achieve the best results, then the networking team should follow the same strategy.
- › **The team completes a quantifiable cost and risk analysis.** Too many professionals believe that working with multiple vendors is more expensive than dealing with one vendor. They claim there’s less management overhead and quicker time-to-resolution with just one vendor. While this might be true, the I&O team isn’t taking full costs into account if it chooses to leverage other solutions just because they’re simpler to use. The analysis should be all-encompassing and compare vendor management costs and networking operating costs between the two solutions. In addition, technology management professionals should recognize that maintaining healthy competition forces vendors to offer more value continuously.
- › **A value-added reseller can replace a vendor as a single neck to choke.** Deal with fewer vendors by moving the interface point to a channel partner. If you use a channel partner, you have more than likely acquired the network infrastructure and other systems from the same value-added reseller (VAR). Few companies can buy direct. VARs are making money on selling products and should be the ones to help solve intersystem issues. These companies tend to work with vendors that have experience meshing solutions together. For example, for many businesses, Dimension Data can usually work out the kinks beforehand.

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Statement 5: “We Want Investment Protection Or Need This Certain Feature”

On average, fewer than 10% of companies end up using future features of hardware after the company buys a networking solution.¹¹ Many factors come into play as to why, but these are the top three:

- › **There’s a good chance the vendor won’t develop the feature.** When a vendor releases a product, it already has a long list of features that didn’t make the cut. More than likely, the vendor wanted to get the product out so it could start making money. It prioritizes some features and defers many others. While a vendor will say a feature is on the road map, only a select few ever make it into the product — typically, a single-digit percentage of planned features. This might be because the vendor can’t support the feature in the hardware. Or the feature may depend on a different feature that has slipped; perhaps it won’t deliver on the revenue for the amount of investment or is too complicated to implement. Maybe other features, such as bug fixes, have taken precedence.
- › **The vendor may discontinue the product.** Most networking products last only about five years on a vendor’s price list. Peak sales are typically two years into the product life span. Assuming a two-year support on the product, companies will have access, on average, to three years of upgrades and updates. Assuming that the vendor releases the feature within the first year, it typically takes an enterprise about a year and half to roll it out and take advantage of the feature. This means six months of usage and a negative return when an end-of-sale notice appears and the teams have already started preparing for the next refresh cycle.
- › **The customer may not implement the feature during its networking hardware life cycle.** Unless a company ties a specific feature to one of the top five BT projects scheduled over the next 18 months, its use is unlikely. Forrester has found that over 95% of the time, organizations never implement advanced network access control features such as TrustSec, various flavors of virtual chassis, or other proprietary features.¹² Most I&O teams don’t have the resources or time to implement or upgrade all the components. The capabilities might be on their wish list, but the organization pulls networking teams off to other priorities. Be realistic about future plans.

Statement 6: “We Want A Unified Wireless And/Or Single Operating System”

One of the biggest fallacies in networking is the idea that networking products from one vendor will have a single operating system (OS). Another is the idea that a unified wireless and wired solution is a “better together” story. While it may seem logical and more efficient that organizations buy as much as possible from one vendor, I&O organizations don’t capture that kind of data, nor do they offer any quantitative analysis or results that justify this stance. However, the market indicates that marketing fantasies drive I&O perceptions because:

- › **Vendors usually have three or more operating systems.** Over the past few years, the networking market has fragmented to serve specific areas and industries. Because of this, networking vendors have increased the number of operating systems on their equipment. I&O professionals will find a

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unique operating system for the data center switches, one for the campus switches, and a third-party OS for a vendor’s hardware as replacement for their own OS. Some companies have multiple data center operating systems or even multiple campus OSeS that support merchant silicon or custom application-specific integrated circuits (ASICs).

- › **Feature overlap between access point and switch features is miniscule.** Forrester has found less than 0.1% commonality between all networking features that companies can set up across a managed 48-port switch and an 802.11ac Wave 2 wireless access point.¹³ Consequently, I&O professionals aren’t saving significant time or resources with products or management solutions from a single vendor offering. They can obtain better efficiencies by incorporating solutions that have simpler management interfaces. By not locking switching and wireless together, I&O professionals can widen their market options.
- › **Unified access control is eroding, too.** Based on multiple data points, Forrester has found that fewer than 6% of I&O organizations have deployed 801.1x access control on both wired and wireless (Wi-Fi) ports.¹⁴ That base won’t be growing. The future of applying policies across both wired and wireless connections has started to diminish as we see production of more notebooks without wired ethernet ports. Networking teams should focus most of their resources on following the best practices outlined in Forrester’s “Navigate The Intersection of Enterprise Mobile Management And Network Access Control” report.¹⁵

Statement 7: “[X] Is Our Strategic Technology Partner”

Enterprise I&O and procurement teams too frequently label an incumbent vendor as a strategic partner when they’ve had the same vendor for the past two refresh cycles. Beyond that one criterion, these professionals can tell us very little about what makes that vendor a strategic partner. Justifications rarely indicate if the vendor is a commodity partner, technology partner, or business partner. In certain situations, the customer allows the vendor to design the next infrastructure with little oversight because the vendor is a “trusted” strategic partner. Forrester has found that vendors overdesign infrastructures to benefit themselves, not the customers. A vendor is not a strategic partner just because it has good products and services. That’s a *good* vendor. A vendor can only be a strategic partner if it:

- › **Is an extension of your business.** A partner inserts its creative business into a client’s business, so the product or service it supplies is but one component of the overall relationship. As with any partnership, both parties in the creative business have expectations. While a strategic vendor will get the lion’s share of its client’s business, it will also be involved in developing new business opportunities with the client.
- › **Is in sync with your business cycles.** Businesses have cycles, and the vendor should be following yours. Strategic vendors should not only provide more products and assistance during a business boom but also help eliminate waste and unused infrastructure during times of business contraction. A partnership includes mutual vulnerability and risk sharing. Customers may write this type of dependence into the contract, but usually they don’t. Vendors often work to the letter of the agreement, but partners such as Dimension Data are willing to do what it takes to make the customer happy.

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- › **Knows your business.** Retail, hospitality, manufacturing, financial services, and other industries are distinct businesses. Forrester’s customer engagement network research highlights the aspects that make designing, deploying, and running a network for each industry unique.¹⁶ The vendor should be able to craft a solution that supports the company’s top business and technology initiatives, not what’s hot in the general networking market. For example, a vendor should design a network in a retail store around the customer experience and improving store operations, while a network in a manufacturing plant should enhance plant efficiency and production.
- › **Can show quantifiable results.** All vendors claim to improve efficiency or reduce costs. Your strategic partner should come to the table with calculations based on your current and future infrastructure. For example, it should avoid generic benefits and instead calculate quantifiable time savings for certain tasks or a real percentage for reduction of tasks for your business. Your company is measuring you, and you should require the same from thing from your vendors. This will help your joint partner team show the value it’s adding to the business.

Statement 8: “We Want To Use The Same Networking Vendor As Our Peers”

In Forrester’s network assessment projects, clients often ask us to rank them against their peers. This is good standard practice. What’s not a good practice, and what comes up a lot, is clients asking if they’re using the same networking provider as their peers. Teams just want reassurance that they’ve chosen the right vendor. However, using the same networking vendor as their peers has little bearing on whether teams are using the equipment’s optimum capabilities or whether the vendor is best suited for their environment. Instead, I&O professionals should take note of:

- › **Giant cloud providers.** Amazon, Facebook, and LinkedIn, to name a few, don’t align to each other based on vendors. Each measures itself against the others based on results — speed, efficiency, capabilities, and other services. This is why each of them has a very different set of vendors. These companies have found that there’s more than one vendor to help them achieve their goals.
- › **The telecom industry.** Over the past 18 months, AT&T, NTT, and others have been very vocal about adopting SDN technologies and evangelizing the value. In particular, the telecom community sees network function virtualization as a key method to change the way they do business. Taking a broad scan of these companies’ infrastructure providers, I&O professionals will no longer just see the usual carrier-class brand names: Alcatel-Lucent/Nokia, Cisco, or Juniper. Edge Core, Meta Switch, NEC, Viptela, and other innovative companies are now part of the networking vendor list.
- › **The financial industry.** Running a highly secure and resilient network is mission-critical in the financial industry. The connected world has turned this industry upside down. At Open Network User Group conferences, Bank of America, Credit Suisse, and UBS have presented information on how they transformed their networks to achieve greater business success. These companies are looking past their traditional networking vendors, which may have been entrenched for a decade or more, and bringing in companies more suited to their unique environments, such as Arista Networks.

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Recommendations

It's Time To Thoroughly Scrutinize All Of Your Networking Vendors

Market leaders didn't get to the top by offering poor-quality service or products. They often rank highest across many categories that I&O teams should consider. In addition, market leaders can be of great value in some parts of the network that are not a company's differentiator, such as a campus network or a research and development center. This isn't to say that general market leaders can't be industry leaders in certain verticals; some are. As an I&O leader, you must understand that:

- › **A market shift is a great opportunity to disrupt yourself — seize it.** Mobility, virtualization, internet of things (IoT), and other business digitalization technologies have inserted new boundary conditions. More than ever before, this is the right time to reevaluate your technology, infrastructure, and personnel. Exercise proper due diligence around the next refresh cycle or upgrade. Consider something different and maybe even radical. Close to 90% of hospitals use the networking market leader for their wireless systems.¹⁷ However, Ford HealthCare Systems bucked this healthcare trend and instead went with an Extreme Networks wireless solution. The Extreme Networks wireless systems proved best for this company's mobility-first strategy, which will support IoT and enhance the customer experience. This philosophy exhibits many of the same driving principles we discuss in Forrester's customer engagement network research.¹⁸
- › **When you alter your language and philosophy, you alter your fate.** As a technology leader, your language matters — a lot. Abandon all eight of these toxic statements about networking and technology in general. Change your thought process and your language as you speak about plans with your colleagues. Instead of “let's go with the market leader,” say “let's find the best provider for us.” Language drives institutional philosophy, which steers decisions along that philosophy and rallies everyone around that philosophy. Navigate this properly, with the proper language, and you'll amaze yourself and everyone else with the success you can bring to your customers and your business.

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Endnotes

- ¹ The applications, devices, and users connecting to petroleum, retail, or healthcare networks each have special and unique environments relative to the others. Because it is impractical for one solution to support Federal Information Processing Standards (FIPS), Health Insurance Portability and Accountability Act (HIPAA), Common Criteria, and Payment Card Industry (PCI) criteria, the wireless vendors have started to focus on three or four key vertical markets. See the “[Customer-Centric Strategies Require Business-Centric Network Hardware](#)” Forrester report.
- ² Traditionally, the most powerful hardware with the most features provided by a market leader connected systems of record. Speeds and feeds drove the decision tree.
- ³ For more information on the digital transformation, see the “[Digitize Your Business Strategy](#)” Forrester report.
- ⁴ Real digital businesses go much further, integrating the two sides of digital strategy: digital customer experience (DCX) and digital operational excellence (DOX). See the “[The Digital Business Imperative](#)” Forrester report.
- ⁵ For more information on virtual network infrastructure and the criteria to build on, see the “[Virtual Network Infrastructure](#)” Forrester report.
- ⁶ For more information on the principles and design criteria for networks to support the digital business in the age of the customer, see the “[Create A Customer Engagement Network For Your BT Agenda](#)” Forrester report.
- ⁷ Facebook, Google, and LinkedIn build some of their switches. Facebook and Google redefined switches and their architectures with the use of Linux-based operating systems and OpenFlow.
- ⁸ The analysis should take into account the investment into the feature and the cost of not being able to leverage the rest of the market that does not support the proprietary feature. This means the team should understand what they are giving up, such as lower cost products from other vendors, a smaller pool of vendors that offer augmented services, and more.

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⁹ Just as IT administrators shouldn’t mess with Windows exec or config files on desktops, most network professionals shouldn’t try to memorize every command line interface (CLI) command or understand all the nuances. Sure, a few people need to know this, but not everyone. Orchestration and automation systems will take on the brunt of network configurations.

¹⁰ We base this on multiple discussions with engineers who say that the networking team gets high scores from other teams and indicate that they spend a quarter of their time engaging with other teams, walking the floors, and talking with customers.

¹¹ We base this data on feedback from inquiry calls, analysis done during network assessments, and discussions with companies at events such as conferences.

¹² We base this on data collected during inquiry calls.

¹³ Forrester compared all the features, such as IP source guard, power over ethernet (POE), memory, etc., that could be set up on an edge switch, across all the ports versus all the features, including service set identifier (SSID), RF strength, and client roaming, that could be set up on an access point. Forrester divided the total number of common features by the total number on a switch.

¹⁴ We base the data on clients answering network access control (NAC) questions on inquiry calls.

¹⁵ This report helps I&O pros navigate the organizational silos and technology related to enterprise mobile management (EMM) and network access control (NAC) configuration and access policies to support workforce enablement. See the [“Brief: Navigate The Intersection Of Enterprise Mobile Management And Network Access Control”](#) Forrester report.

¹⁶ For more information on the principles and design criteria for networks to support the digital business in the age of the customer, see the [“Create A Customer Engagement Network For Your BT Agenda”](#) Forrester report.

¹⁷ We base this data on inquiry calls from healthcare companies and more than 20 interviews with hospitals. We asked these clients what vendors they deploy in their facilities.

¹⁸ For more information, see the [“Create A Customer Engagement Network For Your BT Agenda”](#) Forrester report.

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