Paradigm Shift: Moving Legacy IT to the Cloud

Why organizations will have a zero-footprint by the end of 2018

NETGAIN

Table of Contents

The recent years: waiting to move to the cloud

We've all been watching the maturation of cloud computing during the last decade or so. Initially, it was simply web-based applications that arrived on the scene, and in the last three to four years we've seen an increasing focus on significant migration of infrastructure to the public cloud, to private clouds and to outsourced service providers.

In this eBook we'll discuss the new direction of the industry, creating a situation where most firms and practices achieve "zero-footprint" status for their on-premises IT infrastructure by the end of 2018. This is a key paradigm shift for the industry, as it has delayed investment in legacy technology, expecting to move to the cloud at some future point. Now that we've reached that point, let's make sure your organization can keep up with the industry and reach your goals.

Is the cloud safe?

It's interesting in today's world to ask if the cloud is safe. Almost daily, we see breaches, data exposures prolific hacking all around us, leading to concern about cybersecurity. Often, most of these cyberattacks ultimately are caused by human failure and vulnerabilities. Infrastructure, next-generation firewalls, intrusion prevention systems, and security operations centers have significantly advanced the strength and security of the cloud.

41% The two primary causes of a data breach are insider error or wrongdoing (41%) and cybersecurity threats (32%). Human error (can be intentional or accidental) remains one of the greatest vulnerabilities.

Scale, scale, scale

Most organizations are interested in the flexibility the cloud provides around IT needs. Historically, you needed to buy equipment and storage expecting it to last between three and five years. The reality was that tech advancements shortened the usable lifespan of hardware. IT directors and CIOs needed to ask for more resources. Additionally, data demand has exploded and the need for more resources to support users continues to increase. What firms and practices really want is the ability to scale, in real-time and not a day sooner. This is the age of scaling!

Selecting the right partner

Your decision to make this move for your organization, whether it's 50 people or 1,000 people, is often dependent upon the strategic partners you choose. Selecting a partner with significant experience hosting server infrastructure, security and applications specific to your industry is key. Identifying partners who have significant relationships with Amazon or Microsoft is also important. You'll want someone who has done this before and has the financial backing to engineer the correct solution in today's hyperscale world.

NETGAIN

Does it perform?

The industry has decided to move everything to the cloud over the next two years. Many organizations are focused on achieving a "zero-footprint" by the end of 2018 and are aggressively working on that strategy now. Others will wait and invest a small amount of capital to get through the next year, because they haven't yet planned for their cloud migration. Progressive organizations will take advantage of what the cloud offers and won't be pushed into delaying any longer.

Resources

When you audit the resources you currently deploy to provide IT services to staff and management, it's imperative to understand your environment. Moving to an Azure solution with a partner who provides significant insight into the environment, requires you to understand your current situation. You have applications installed on PCs, servers and web-based applications, and most likely, you're providing remote access for a group of staff that needs it. You may have several locations, complex connectivity and disaster recovery and backup needs that would make any CIO blush. What you really need is the flexibility to get the resources you want, when you want them, that perform as expected, and that have an SLA that meets the industry's demands.

TIP

A hosting provider's Service Level Agreement (SLA) should detail the organization's availability standards, response times and support services. Be sure to carefully read the SLA and ask questions in any areas needing additional clarification.

Connectivity becomes the key

Think about this: if your organization has 12 locations across many states with significant staffing at each location, you've likely developed complex connectivity solutions to share resources among locations: internet access for all locations, redundancy safeguards and backup and disaster recovery solutions. This matrixed solution is common throughout the industry, and it has created situations where users from one location need resources from another location, but the speed of those resources is slow. Connectivity has been the key, but the complexity and the cost of it has driven every network engineer crazy. So, with this move to the cloud, how does connectivity change? Will this save us money? Can we provide the level of redundancy and disaster recovery we need to maintain performance and availability requirements? All good questions.

NETGAIN

What about my locally installed applications?

In today's world, we have applications everywhere: our phones, tablets, PCs, servers and the web. We must account for this need for mobility as we move to the cloud. What do we do with our locally installed applications?

DaaS as the focal point

The answer here is the concept of desktop-as-a-service, or DaaS. These cloud-based, hosted desktops provide phenomenal control and centralization with modern-day performance. They look like Windows 10, perform like the applications are running locally and they can be displayed across three or four monitors at the same time. The ability to centralize these typically decentralized applications is key to reducing support costs, updates and software management while still providing a tremendous user experience to staff.

Multiple monitor reality

It's interesting to look at productivity across organizations and the changes organizations have made to try to increase productivity. Most organizations have moved to document management, document intake, remote capabilities and a perennial staff favorite, multiple monitors. We often see customers using a small desktop or laptop and then connecting up to four 28-inch monitors. This huge screen footprint has increased productivity, but can be a resource drain if not configured correctly. The ability to have everything up in front of you at the same time as well as your key communication tools has had a huge impact on user satisfaction. The multiple monitor trend is only going to continue.

Enabling the ability to work from anywhere

Today, we work from the office, from our cars, hotels, home and anywhere we have access to a device and a connection. As IT tries to support that need, many approaches have been attempted. Some people have tried to implement Citrix, but found that those environments often under-deliver on their promise. They didn't run fast enough, they were hard to connect to and in reality, they didn't provide what people needed.

Today's solutions need to be able to allow staff to work from anywhere. They need to connect to a desktop that provides every single application that a staff member needs. They need to allow people to work offline and sync back to the cloud when they reconnect. Some applications don't allow that, so it's important to understand your users' requirements from the beginning. The IT groups that can deliver everything that a staff person needs when and where they need it can dramatically boost productivity.

Enterprise-readiness

When you consider your organization, you must decide whether you are enterprise-ready. Have you thought about what the organization's strategic goals are? Have you started researching cloud-based solutions for the organization that match its needs? Have you inventoried all the applications, data locations, compliance needs and service levels? It's time to complete those action items.

NETGAIN

Where do you go?

So, where do we go from here? Do you go directly to the public cloud? Do you create your own private cloud in a data center? Do you use a vendor who creates and manages a private cloud for you? Perhaps the best way to answer this question is to ask yourself, do you want to generate your own electricity? It's an odd question, no doubt, but in today's world, buying your own hardware is no longer necessary when you have access to IT-as-a-Service (ITaaS) at your fingertips. Investing capital in something as commoditized and available as electricity seems ridiculous to the business. It's up to the IT department to truly embrace this and provide a solid solution for the organization. That solution should include a solution with help from key partners, which frees up any internal IT resources to focus on more revenue-generating activities. Never buy a server again.

Public cloud
The public cloud has changed dramatically over the last decade. Initially, the public cloud meant spinning up one server at a time and then managing the rest by yourself. Today, Amazon (AWS) and Microsoft (Azure) have significant resources and services that can provide organizations almost everything imaginable. Additionally, cloud services providers and application providers have marketplace services and solutions that allow you to take advantage of best-of-breed services within that public cloud. Partners like Netgain, who can help you navigate the cloud, are key relationships to have in this space.

Private cloud
The private cloud approach has been around for quite a while and delivers effective results. You engineer exactly the environment you need, buy those services monthly and then manage them yourself. A better approach in this space is a private cloud managed by a private cloud services provider like Netgain. When you partner with a firm to manage your private cloud, you get all the benefits of a private cloud space without all the management headaches.

Hybrid cloud
The hybrid approach combines several cloud solutions and adds in any on-premises infrastructures. This has been done over the last five or six years with some success, depending on what you moved to the cloud. Moving backups, disaster recovery and specific applications to the cloud and then running the rest locally has been the most common approach. With today's "zero-footprint" direction, it's time to move the remaining pieces to the cloud.

Private space within the public cloud
What Netgain does today and what we are seeing industry experts talk about is the concept of a managed private cloud living within the public cloud. It takes advantage of the hyperscale of the public cloud and utilizes cloud experts to provide exactly what the organization needs. These experts then manage that infrastructure, provide support, software application updates and management, so that local IT resources can be redeployed to benefit the productivity of the company. This is how the industry is going to most efficiently realize a "zero-footprint" and successfully capitalize on the benefits of the cloud.

The last few years of “legacy bonus”

It’s been a strange last few years. As different cloud solutions have matured, IT departments across the country have squeezed an extra year or two out of their infrastructures. They’ve bought extra data when they’ve needed it, but have really tried to refrain from investing new capital into their IT infrastructure. We’ve seen this “legacy bonus” lead to a dip in IT spend on capital over the last three years. The expectation has been that many of these organizations would move to some type of cloud solution and that the cost and size of local infrastructure would reduce. Leaders at organizations, seeing capital requests come in, favored delaying capex investment. Their objective wasn’t to hamper the IT group, but to look at where they should be more efficiently deploying capital within their organization.

Hardware becomes super reliable

As the technology sectors continue to evolve, we’ve seen hardware get incredibly reliable. Both locally in the organization, as well as within the public cloud. We’ve seen the move to solid-state drives for all compute and servers and, in many cases, files and folders. Spinning disks continue to be used for backups and situations that don’t impact user performance.

Waiting to move due to the “legacy bonus”

As organizations have waited to move to the cloud, they’ve treated the decreased capex budget as a budget bonus. Many have used these savings to better support staff, fuel growth in other areas and in some situations, provide additional compensation. This delay has benefitted balance sheets across the industry.

Maturing of services

Part of the reason for this delay in capex upgrades is due to the maturing of services. We’ve seen the big cloud providers (Amazon, Microsoft and Google) deliver general cloud services for many years, but the specific services that enterprises and small organizations need weren’t traditionally focused on. Today, these specialized cloud solutions are table stakes. By using a strategic cloud partner who understands the unique needs of your industry, organizations can take advantage of all the experience and expertise of public cloud experts. This expertise provides significant value during this critical migration time. Instead of relying on your IT staff, whether it’s three people or 30 people, to be the experts, partners are providing that expertise. This focuses the IT staff’s productivity, application knowledge and increased strategic value to the organization.

Marketing and acceptance

As a technology company, it’s interesting to watch the dramatic increase in marketing spend on public cloud services. When speaking with a partner five years ago about cloud-hosted services, he had read an article titled, “Cloud: Not Ready for Primetime.” The interesting thing was this two-page article completely shifted his thoughts about the cloud, and cost him over $100,000 a year for three years in additional capex investment. Thankfully, much of the marketing over the last number of years has gone to reduce these baseless fears of the public cloud.

“Zero-footprint” by the end of 2018

The industry’s goal of achieving “zero-footprint” by the end of 2018 comes at a time when cloud services have matured to a level of dramatic confidence. Organizations are saying it’s time to move. CIOs are working on plans that will allow them to move all the applications, data and support services to cloud infrastructures within the next year. Their goals are to drive down capital costs, increase performance and reliability and provide a user experience that leads the industry.

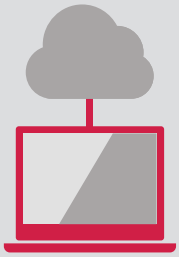
The industry is moving

The industry is moving. Key on-premises applications now have solid web-based competitors, applications suites are available on the web and hosted desktops perform at the same speed as local desktops and to complete outsourced services are available. It’s time to review your plans and make sure they include this move so you’re not left behind.

SaaS, hosted desktops, hosted servers

How are these services moving today, and how are users being provided for? As mentioned earlier, Software-as-a-Service (SaaS) apps have dominated new application titles and legacy application changes, so users are now seeing more and more features and functionality out of web-based applications. Cloud or hosted desktops are providing speed and usability that outreaches local desktops.

DID YOU KNOW?



Leveraging the server infrastructure available in the cloud provides tremendous processing power to each user. And, hosted servers can be scaled to any size, paid for by the second, turned on and off as needed and customized to fit your needs.

Creating your plan

Getting started is simply a planning exercise. If you haven’t already created your plan, it’s time to do that now. Pull together the details of your current environment, as you understand it. It’s important to understand the application base, understand where applications are going, know where your organization is looking for new solutions and be a part of those discussions. Build room in your plan to utilize a strategic partner to help deliver what the organization needs.

Execution is key

Execution is always the most critical component. This execution can often be done as a complete organization move, so that the infrastructure, applications and data basically get “lifted and shifted.” This approach is often the best way to do it. Larger organizations might opt to do a proof of concept to test the performance of a couple key applications in a cloud environment. The proof of concept provides the ability to quickly test the move of key applications to the cloud, which provides confidence in the technology, the staff and the partner you’ve selected. Once those key applications are migrated, the rest of the on-premises applications and architecture can be migrated to a cloud environment.

NETGAIN

Options for organizations

Organizations have several options to achieve "zero-footprint" by the end of 2018. The best long-term option is to include a partner in the management of an outsourced IT environment. Focus your staff on internal strategic productivity and value-added services, and outsource the rest. The cost effectiveness of this approach is significant.

Proof of concept for key applications
Doing a proof of concept, or POC, for key applications is sometimes the way to start a working relationship with a new partner who can migrate your entire infrastructure to the cloud. Spin up a 30-day POC in Azure; it's quick and easy when you utilize a partner, and by having the ability to test with your staff and users allows the POC to fulfill its goals. We see many of these POCs move directly to production once complete.

Why enterprise cloud matters
When we think about the options for your organization, it's important to understand that the cloud really is an enterprise cloud. The amount of money spent on security, infrastructure, redundancy and connectivity is astronomical. The ability for the cloud provider to spread those investments across so many customers provides a cost-effective solution. You get access to the best services and infrastructure, but you pay only for what you use. It's the best of both worlds.

SaaS versus on-premise applications?
Should you migrate on-premises applications to SaaS-based solutions? The key here is all about features and functionality. Whether you need to move to a SaaS application now or later should be dependent on the requirements of your organization. Many SaaS applications have been developed to the point where they can replace on-premises applications completely. Work with your application provider to see if they have alternative versions that meet those goals.

Complete cloud desktops with all servers and services
There is a tremendous amount of on-premises applications still in production. Over the next couple years, these will move to cloud-based applications. For some applications, this move may take up to five to 10 years. Until everything is in the cloud, you need to provide an environment for those applications, and the best way to do that is through hosted desktops. The concept is that the hosted desktop is your launch point to your business world. The ability to provide an extremely fast and reliable desktop, that looks and feels like Windows 10, is key to your users. By moving to hosted desktops, you provide the same value of all your applications moving to the cloud, whether they're on-premises-installed applications or web applications. You get all the benefits of scaling, and pay for what you use and give all your staff the ability to work from anywhere at the same time. This is key to achieving a "zero-footprint" by the end of 2018.

How do you decide?
So how do you decide as an organization? Look at your inventory of applications, data, locations and users. It's important to take a thorough approach to get a complete picture of your infrastructure. It can help to work with a partner like Netgain to provide a more holistic dimension to your cloud strategy. You may move some applications to web applications, you may host some servers separately and you may choose to do fully-hosted desktops. Architecting the right solution is key, which is why selecting the right partner is so critical.

Getting ready – POC, cloud desktops, and pilots

Let's get started! You worked through your plan, identified your different application needs and you're ready to start. Let's look at how to get started.

POC to vet the enterprise capabilities
Doing a proof of concept for your key applications is extremely important. The ability to prove that it will work, and work as you need it to, is important for senior management and all other users. Early success in a POC, helps drive future success of a complete migration.

The Windows 10 cloud desktop experience
With cloud desktops, users get access to all business resources from one hosted desktop. Their ability to access that desktop from a PC, Mac, tablet, hotel or grandma's house is very important. They can work on any project, anytime and anywhere, with all the tools at their fingertips. The old days of terminal services only running one or two applications are gone. Today, hosted desktops provide dramatic performance, look like Windows 10 and run across as many monitors as desired. This environment provides the organization an unprecedented level of control and works better than any other approach. Key security and compliance resources are centrally-managed by this environment, and multifactor authentication validates who is logging in and helps dramatically improve your security footprint. This cloud-desktop framework leads to successfully moving everything to the cloud by the end of 2018.

What is multifactor authentication?

Multifactor authentication adds an extra level of security. Instead of just entering your username and password, two or more pieces of evidence are needed. Evidence typically includes something you know (like a password), something you have (like a smart card), and something you are (like your fingerprint).

Key applications and strategic direction
There are likely one or two applications in your industry that you should be using but aren't. Maybe you don't know about them, maybe you've heard about them but decided not to use, maybe they're related to new technology, like artificial intelligence or big data, or maybe their productivity gains dramatically increase the amount of work each person does. You need to be able to look at these, kick the tires and work to implement them in your organization. This is the strategic direction of what IT groups within organizations should be focused on. Get away from reinventing the wheel, get back to adding significant value to the organization.

Getting Started

Contact Netgain to get started
How do we get started? The best way is to reach out and connect with Netgain directly, and start the discussion. Whether it's for an initial handful of POCs to validate your approach, or to move those desktops to cloud desktops, many options are available for you to succeed. The key is getting started now.

Comparing options and costs
It's important to understand costs that you have today and costs of each alternative going forward. Organizations have taken advantage of this legacy refresh bonus, and there may be additional operational expense savings by moving to the cloud. It's important to identify, calculate and capitalize on these savings. Try to find the best combination of premier service and support at the right price. You also want a partner that has significant resources behind them. A balance sheet that says they're going to be around for decades is more valuable to you than a fly-by-night tech startup. Given what's at stake, it's no longer sufficient to choose the tech guy down the street to support your organization. It's just too risky.

QUESTIONS TO ASK

These questions will help you better understand a cloud provider's experience with financial services firms and healthcare practices:

- Do you have experience supporting organizations of my size and specialty?
- How long has your company been providing cloud services?
- How is your company different than other cloud providers?
- How does your security protocol keep our data secure?
- What applications are you able to host for our organization?

Your current support environment
The concept of freeing up your internal staff to work on strategic initiatives within the organization is important. By moving support for the environment and end-users to a partner, it removes you from the break-fix fire drills that many organizations have today, allowing you to be an added-value expert within your organization and industry. That's where real value is derived. Let someone else run the elevators within your organization.

The "new standard" of cloud computing
"Zero-footprint by the end of 2018." It really is the new standard of cloud computing. It includes hosted desktops for all users that run every application that they need, in a secure and compliant environment, where you only pay for what you use. It provides enterprise-level performance without the cost of enterprise-level infrastructure. This new standard turns this computing that everyone needs into a service that becomes a turnkey service for the organization. Almost utility-like in its robustness, service levels and performance, this new standard delivers on the promises of cloud computing across the industry.

About Netgain

There are several companies that can host applications, or deliver Desktop-as-a-Service (DaaS) or IT-as-a-Service (ITaaS), but what makes us unique is The Netgain Standard. It's a set of eight features that truly differentiate us from anyone in the market. This is what our clients have come to expect over the past 17+ years. It's why they remain our clients and—with an incredibly high frequency—recommend us to their peers in the market.

The Netgain Standard is included with every solution. Every time.

Performance and Availability
Keep my IT up and available, day and night, with redundancy safeguards and a **99.95% uptime guarantee**.

Awesome User Experience
Give my users an exceptional support experience at every touchpoint so they come away elated and relieved.

Client Care Team
Give me a 24/7/365 dedicated client care team that knows me, my business and my specialty applications.

Cost Predictability
Show me simple and straightforward per-user pricing that allows me to pay-as-we-go and pay-as-we-grow.

Cybersecurity
Safeguard my sensitive data from tomorrow's threats with DoD-grade, ultra-secure protection.

Top-Tier Talent
Provide me access to a deep bench of IT professionals, who know my business, to call upon when needed.

Complete Compliance
Give me HIPAA and SSAE 18 certification so I know we will be meet–and exceed–compliance standards.

Flexibility to Scale
Let me pay only for the IT that I need today, and allow my IT to easily scale as my company grows.

Contact Us

Corporate Headquarters
720 West Saint Germain Street | St. Cloud, MN 56301 | 877.797.4700 | 320.251.5030 Fax
www.netgaincloud.com

Chicago Operations
350 South Northwest Hwy
Suite 200
Park Ridge, IL 60068

San Diego Operations
7535 Metropolitan Drive
San Diego, CA 92108

NETGAIN