

IT transformation through virtualization

How companies can leverage virtualization to create efficiencies and optimize business



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The IT Transformation Continuum and virtualization

Virtualization's place on the IT Transformation Continuum

The IT Transformation Continuum is the journey in which businesses evolve and transform their IT infrastructures to create efficiencies through virtualization, integration and automation. It's not an infrastructure-based progression, and it's not about where workloads live. Business decisions shouldn't be made based on infrastructure, but rather the applications that need to be optimized.

All organizations are in different places along the spectrum and in most cases, specific workloads within them are in a different place on the transformation spectrum. IT Transformation can be thought of as the process of surviving and thriving in the age of digitalization, a major driver for identifying where your business stands in the ongoing process of innovating, phasing out legacy systems, and shifting operating models to excel in the digital economy. Virtualization is a significant component.

According to Gartner, 47 percent of CEOs are being challenged by the board of directors to make progress in digital business, and 56 percent said that their digital improvements have already improved profits.¹

For all businesses, regardless of industry, costs of traditional IT need to be minimized and reallocated into more innovative technology initiatives to help propel enterprises forward. People, processes and technology all come into play, and implementing efficiencies in each area is key to success. Teams must become highly efficient, technologies must empower people and processes must be streamlined and automated to ensure superior functionality.

In terms of virtualization, leveraging virtual machines, containers and serverless technologies positions your business to be more structured in all systems you build.

Templates help to spin up services, and from a security perspective, you're better enabled to be sure you have the right access lists, password requirements, and more built into your entire infrastructure from day one. Security also becomes an integrated piece of your technology. Many security services available today are built cloud-ready and easy to consume.

- Containers
- Microservices
- Serverless computing

¹Gartner "Gartner Survey Shows 42 Percent of CEOs Have Begun Digital Business Transformation" April 24, 2017 by Amy Ann Forni



Key trends driving the need to go viral

Why are more and more companies focusing on virtualization? Primarily, to gain better speed and greater agility. From a business perspective, virtualization has become critical in the age of digitalization, allowing developers to get new features and functions out to end users or clients rapidly.

From an IT perspective, virtualization brings the ability to manage more for less. Originally, virtualization was conceived because servers were multiplying to an unmanageable extent. Now, it's possible to run 20 virtual servers on one physical server, the ultimate result being high availability previously unheard of without significant budget and investment in hardware.

"Most businesses are virtualized all the way, or to a heavy extent. We consider containers and serverless technology part of virtualization, but they're still getting their legs under them. In the mainstream, right now you seeing more virtual machines than containers and serverless, but we believe they'll start coming out in droves over time - they bring a whole new level of efficiency."

Seth Patterson
Executive Director,
Solution Architecture
Flexential



Evaluating your place on the IT Transformation Continuum

Where are you with virtualization?

From bare metal on-premise to containers and serverless technology, every company is in their own unique place on the virtualization spectrum. The further you move to the right, the more you abstract from hardware and bare metal. As you start to progress into microservices, containers and serverless, you begin to shift from hypervisors and VMs, and the motivation is to create considerable efficiency.

1. As you move further from hardware and closer to software defined, in all facets of IT, you have significantly more power, more automation capabilities and more potential for integration with other IT components. The IT Transformation Continuum, with respect to virtualization, is a way to measure where you are on your journey based on applications, with an intentional vision for the future. The goal is to continuously become faster, more automated and repeatable, such that when IT issues arise, you can recover quickly. If there are obstacles on your path because of an old application, issues specific to that application will persist until it's redesigned.
2. If you evaluate your place on the continuum, and you find that you still have many systems on bare metal servers, start by asking yourself why. Are your reasons technical? Fear-based? Hesitation to shift something that seems to be working? Keep in mind, most businesses today do have a virtual-first strategy—if it can be virtual, it will. If this is you, but you are left with a system that can't be virtualized, assess your reasons. There are valid reasons to keep some assets as they are.
3. Ask yourself if your IT is performing to the level that your users are expecting. Is there latency? Bursting demand on your application? Has user demand gone up, but performance gone down? These are problems that you can use creative solutions to solve, and it's a major reason businesses are continuously evaluating their transformation journeys. When you start getting user demand for better performance or availability, it's a good sign that it's time to make a change.



Why sharpen your virtualization focus?

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- More flexibility
- More scalability
- Steady cost
- Consistency, enabling templates for machines
- Developers are empowered with more automation capabilities
- Applications have better architecture options

“Take a look at where your apps really are. It ultimately goes back to your specific application, your needs, wants and whether you deliver to your user. If you aren't, that's a driver, and you need to do something to make it more robust, more available and increase performance.”



Bhu Virdi
Director of Technical Sales
Flexential

How to evolve your virtualization strategy to become more optimized

Here's the thing about evolving your virtualization strategy for better IT optimization. Historically, planning to make a major IT change, such as leaving the data center business, consisted of picking up and moving everything. Even if you were simply making a shift to colocation, you'd either plan to move it all, or at least a large subset.

Conversely, when we're talking about virtualization, container or DevOps strategies, you put the emphasis on identifying opportunities within the whole group as opposed to a subset, thinking strategically more so on the application level. For instance, if you look to shift toward the cloud and you wonder where you should go, it's best to start by defining what you wish to accomplish and what you want to focus on, because there are different answers for different apps.

This is how we break down the process of evaluating your own virtualization strategy:

1. Identify current state and business goals

Complete an assessment. Comb through all your apps and find out what sorts of benefits you can reap from applying transformation, whether technically or strategically.

2. Take stock of applications to determine what's beneficial in transformation

Take your findings and figure out what's actually possible. There are many possibilities for all of your assets once you identify what you have. Many of the missteps that take place in an effort to apply IT transformation are due to a lack of information. For example, many businesses don't even realize there's a difference between clouds. Some assets are even better off collocated.

3. Know what's possible through designs, options and providers

Whatever your goals, find the right partner to help. Understand there isn't one answer for every app and workload. There are reasons certain clouds work and perform differently than others. Find someone trustworthy to help guide you where you should go..



Evolving your virtualization strategy

There's no bad place to be

"There's no bad place to be. There are just varying degrees of what make you more efficient as a business. You might not be bad, but you may be able to be better."

Bhu Viridi
Director of Technical Sales
Flexential

The above is the philosophy we like to prescribe to our customers in terms of pursuing IT Transformation through virtualization. IT Transformation is an ongoing process, and today, most businesses find themselves somewhere in the middle, with both physical and virtual systems serving different purposes. In fact, 61% of organizations would intentionally choose a hybrid environment if starting from scratch, while an average of 24% would opt for 100% cloud environment. An average of 11% would choose 100% on premise, according to last year's Flexential Hybrid IT Study. As you can see, there's no single right answer, and regardless of where you see yourself going, we can help you make decisions along the way.

So, develop a solid strategy and philosophy, and if you aren't sure what yours is, find an experienced, proven partner like Flexential to help you create your strategy. Be sure to get executive buy-in and understand how your business deals with IT decisions financially. Know the best hack for your business from a financial and technology perspective.

A few best practices

Let's wrap it up with a handful of best practices to keep in mind as you make your way through your journey.

- Complete an official, full cloud readiness assessment and identify auditor requirements so that you know where you are today. From there, figure out which business applications are important and what you should be focusing on. The apps with the most exposure are probably the most critical.
- Develop a cloud strategy! What are you using it for? Are you looking to try Disaster Recovery? Are you branding a new app? Be intentional.
- Find the right partner to answer questions objectively and point out considerations you might not have thought of. We can't stress this one enough; the value of a fresh pair of eyes is immeasurable.

Flexential helps organizations optimize IT transformation while simultaneously balancing cost, scalability, compliance and security. With a focus on building trusted relationships, providing valuable support and delivering tailored solutions and reliable performance, Flexential delivers colocation, connectivity, cloud, managed solutions and professional services to 4,200 customers across the U.S. and Canada.

