6 Common Digital Transformation Mistakes Made by Infrastructure Leaders

Senior IT leaders, motivated by both the changing nature of our economy and more recently, the COVID-19 pandemic, have decisively shifted their focus toward applications. The industry catchphrase for this shift, "digital transformation," makes clear its dual nature: directed toward the digital future, while at the same time acknowledging that the existing environment must be modernized—in other words, transformed.

In fact, according to a January 2021 VMware survey of C-suite-level tech execs, 90 percent said they were migrating and modernizing legacy applications with the goal of driving start-up level innovation.[1]

And that goal appears to be well worth it. Dell Technologies, Intel and VMware partnered with analyst firm ESG in March 2021 to survey 2,000 IT leaders from around the globe.[2] Organizations were divided into Technology Reactors, Technology Evaluators and Technology Accelerators, based on their digital transformation maturity. The results were clear: The companies who prioritized and successfully implemented digital transformation had a number of concrete advantages over their counterparts.

Benefits of being a technology accelerator[2]

- Higher confidence and resiliency – Accelerators are 3.2x more likely to be very confident in their resiliency

- Faster time to market – Accelerators are 2.7x more likely to beat competitors to market than Reactors.

- Increased revenue through innovation – Accelerators drive an average of 45 percent more revenue than Reactors by leveraging new products, services and delivery methods.

- Higher customer satisfaction – Accelerators are 2.9x more likely than Reactors to exceed their customer satisfaction goals.

The benefits are overwhelmingly clear, but how do organizations get there? Operations groups are tasked with enabling this new breed of applications. To succeed, they must build a digital-ready environment that can move at the speed of cloud native competitors.

1. VMware. "After a Transformative Year, Businesses Seek Preparedness." January 2021.
2. Dell Technologies, Intel and VMware. "A New View on Technology Maturity: 3 IT Imperatives for Leading in the Data Decade." March 2021.

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Key ingredients in this initiative typically include:

- Use of one or more public cloud providers in addition to the existing on-premises infrastructure.

- Adoption of containers and Kubernetes to enable use of common application artifacts across the entire application lifecycle.

- Creation of a platform group charged with managing a developer-friendly computing environment.

Despite the commendable enthusiasm operations groups demonstrate when it comes to digital transformation, many such initiatives falter or fail completely. Even when backed by the most determined of teams, many digital transformation efforts collapse in disappointment and recriminations. And six common themes pop up when things go wrong.

1. Failing to obtain business and IT alignment

The phrase digital transformation symbolizes the shift in IT's role from "supporting the business" to "driving the business." The old approach required IT to receive a set of instructions from its business counterpart and faithfully execute them. The new reality of digital means that business and IT have to co-create the company's market offerings.

Unfortunately, many infrastructure leaders remain committed to the traditional order-taking processes, failing to understand that they must actively participate in defining those offerings. Aligning business strategy with IT workstreams is critical, and the best of today's IT organizations prioritize alignment as a first-order requirement.

2. Lumping all applications together in the digital transformation bucket

While every company has digital transformation opportunities galore, every IT organization also has legacy systems aplenty. Critical to successful business/IT alignment is figuring out a plan for each application: Some applications need to be replaced with a cloud native version; others could benefit from being moved to a scalable public cloud from a resource-constrained, on-prem environment; still others should be left as is because they're working just fine.

To ensure budget and talent are directed toward the most important growth opportunities, IT—in consultation with its appropriate business counterparts— must sort the application portfolio in the right action category, then further prioritize, according to the categories that require investment.

3. Making digital transformation infrastructure-centric

Digital transformation requires agile infrastructure, available on demand via cloud computing and container orchestration. However, too many infrastructure groups leave existing technology and practices in place, which find them layering slow manual processes over old infrastructure and failing to generate any improvement in overall responsiveness or customer experience.

Digital transformation pushes the boundaries of what is needed from a technology foundation. It's not just about performance, it's about data placement, it's about security, it's about productivity without boundaries. An infrastructure must meet this challenge to handle more.

Application developers have been conditioned by the big cloud providers to expect instantaneous resource availability, and they require nothing less from their employer's platform. All parties that interact with the platform must be engaged with its design and rollout to ensure application development practices can operate at cloud native speed.

4. Failing to streamline the path to production

Even if developers can rapidly access development resources, and the underlying platform operates at a fast pace, it doesn't mean that the overall application lifecycle will move any faster than it would have pre-platform. That's because if legacy practices lay undisturbed between the developer's fingertips and code artifact deployment, the net effect of agile infrastructure efforts might be stymied or severely degraded.

Automating or removing bottlenecks in the path to production can produce enormous improvements in throughput.

For example, if a testing group has to rebuild new artifacts from scratch to assess release quality, that introduces a delay into the path to production. Worse, it also introduces uncertainty as to whether what's tested is what eventually goes into production.

One way to streamline the path to production is to undertake a value stream analysis, which maps out each step in the journey—from code complete to running in production—and identifies any steps that hinder the path to production. Many organizations are surprised to discover steps that no one was really aware of, or find low-value manual steps that can be conducted independently of the main production path.

"Large organizations operate at scale, and one manual step slows them down," says Rick Walsworth of the VMware Cloud Foundation™ product team. "In order to maintain that scale, they look for every opportunity to remove manual processes."

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5. Scaling without proof points or experience

Sometimes enthusiasm outruns ability, which is something that frequently occurs with digital transformation efforts. Senior IT or business leaders mandate immediate action, the need to have an external authority develop a Big Bang transformation initiative leads to large consulting contracts being signed, and the entire organization subsequently swings into frantic activity. The ambition is understandable; the result, however, is often chaos.

The reality is no one begins their running career at the starting line of the Boston Marathon. Runners begin with noncompetitive jogs and gradually work up to more challenging competitions by rising through the ranks of community races and less-competitive distance races, and then qualifying for the big time.

IT organizations must take a similar path to digital transformation. Instead of mandating an unreachable objective and inviting failure, the right approach is to start with an overall strategy. They should then identify a few smaller, but high-value projects that expose the organization and its members to working with cloud native technologies and allow them to incrementally build skills and processes to use as scale templates. By following a less demanding path, the organization will reach its digital transformation destination more quickly.

Walsworth says, "It's like pouring the foundation before building a house. You want to be sure you have the flexibility to support the kind of workloads you'll be running three to five years out."

6. Assuming a cloud instance can meet all your needs

Organizations must evaluate the infrastructure underlying a cloud instance to confirm it will meet all of the requirements of their applications and users. Not all cloud instances provide the performance, performance/$, or security an app requires to deliver. Despite cloud providers trying to abstract away the infrastructure, it's important to ensure an instance will meet the capabilities required.

Achieving cloud native success

Digital transformation is an imperative for both lines of business and IT teams, no matter their company's industry or size. Successfully moving to cloud native capabilities is the foundation needed to remain a viable entity in tomorrow's economy.

But success requires more than being aware of what needs to be done and having the ambition to achieve it. Much in the same way running the Boston Marathon requires planning, preparation and execution, so too does successful digital transformation. If your organization can avoid the six mistakes IT leaders commonly make in the heat of the current digital transformation race, it will position itself for cloud native success.

About VMware and Intel

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