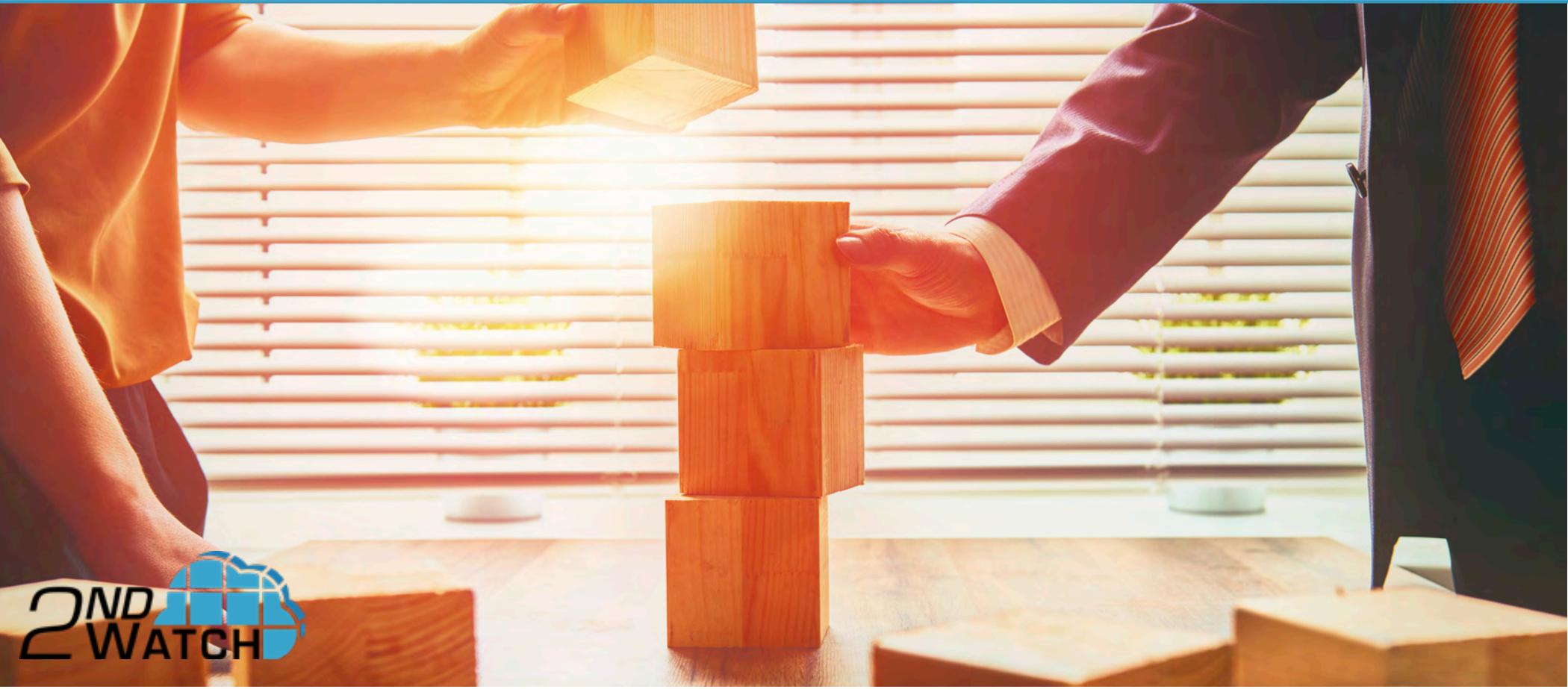


5 Keys to a Solid Cloud Foundation

Lessons from 10 years of cloud migration



So much migration. So little time—and experience.

The cloud revolution has been going on for a decade now, and many enterprises have seen the benefits.

Businesses and organizations that go through digital transformation have seen greater agility, scalability, resource efficiency, and more. With the right setup from the beginning of the process, public cloud computing can bring **improved efficiencies of 50 to 70 percent**. They get instant, on-demand infrastructure with no need for long planning cycles to buy, install and manage a rack full of servers, data center space, storage and routers for workloads that only occur periodically.

From a cost and efficiency standpoint, IT organizations moving to the cloud enjoy affordable provisioning of the ultimate environment for speed and performance when they need it, not based on future year requirements that may or may not be realized.

Some companies have to plan their capital and resource purchases out three, or even five years. No company can do that—it's just too risky and inefficient.

The cloud does away with that and allows for plan changes, and even company strategy alterations on the fly. Now you can scale infrastructure up and down as needed, hourly, daily, weekly or monthly. For instance, your company could run 1,000 to 10,000 cores for less than \$10,000 per run, in the cloud. You can't do that an on-premises datacenter because you have to plan ahead, buy ahead or wait until the capacity is there.

And your customers certainly won't wait. They'll move onto a company that fills their demand.

Take Yamaha for instance. The largest manufacturer of musical instruments in the world, **they saved \$500,000 by migrating to the cloud** and retiring their data center. By doing this, Yamaha eliminated the need to manage physical infrastructure and stopped having to buy extra or future capacity based on fallible predictions.

As a result, Yamaha started using staff time more efficiently and were able to focus their attention on more strategic initiatives for the business. They reduced data center and hardware costs and outages as well, all while avoiding the need to hire additional IT staff to cope with growing management needs.



Taking advantage of the cloud gives you advantages throughout your enterprise tech stack as well. It frees your people to take advantage of more agile technologies and internal processes. That's why it's important that you find a partner like 2nd Watch to help with migration.

Partnership immediately injects essential experience in maximizing the benefits without requiring your internal teams to become instant experts in the entire process. Having an expert partner frees them to focus on how to apply and maximize new technologies and roles to optimize company performance. That way, you keep your IT more focused on critical strategic issues for your company.

It's already a given that all business is becoming, to a greater or lesser extent, digital. And as cloud adoption becomes the business standard, the consequences of delay become more serious every quarter.

Those that put off cloud migration are finding growing consequences of inaction. In fact, because many existing data storage and management solutions have lapsing renewal dates or capacity constraints, there may be actual deadlines for cloud adoption. Also, both internal and external stakeholders have come to expect ever-increasing levels of agility, service, and capacity that current

infrastructure is simply too cumbersome and costly to provide.

In other words delay loses customers—internally and externally. And finally, staying in a data center may be costing too much money. Traditional datacenter roles tend to be siloed and myopic, with many specialized individuals required to execute a single workflow. That’s ineffective and expensive.

Even with all those reasons to move to the cloud, the barriers to action are often difficult to overcome. And it’s not just technologically conservative culture that slows things down. It’s also a matter of finite resources.

With current IT teams often tapped out just managing what’s on their plates today, they often don’t have time to learn or keep up with the rate of innovation. And worse, the IT department may include many members with siloed expertise. That leads to low efficiency and long turnaround times that negatively impact customer experience.

So the general sense throughout the organization may be that there just isn’t the skill, knowledge, or time to effectively tackle a mass migration. This naturally leads to concerns about security, continuity, and return on investment.

In this e-book, we’ll be talking about the best ways through the barriers to the benefits of a successful mass migration to the cloud. We’ll show you the four proven steps developed and tested by 2nd Watch for a successful mass migration for a large data organization.

Quantifying the benefits of cloud migration

The benefits of cloud migration are not static. They increase. IDC Research found that the advantages of cloud migration get larger over time. And even in the first year, the benefits are substantial:



Laying the foundation: 5 keys to a solid foundation for the cloud

Digital transformation isn't just about technology. It involves a cultural as well as a technological shift. Over our years working with clients, 2nd Watch has determined 5 essential keys to getting your company ready for the changes.

1. Overcome resistance from inside

You will have champions throughout the organization for the cloud journey. Give them what they need to make the most of an exciting shift. Educate senior IT and business people as well as engineers on the advantages of cloud computing. This will alleviate fears among the dubious and increase the enthusiasm of the supporters. Let them know how the major cloud providers, such as AWS, can benefit them with open architecture and transparent platform operation. (Let them in on the competitive edge, flexibility, and business advantage of cloud computing.)

2. Create a cloud-friendly culture

Every culture is made up of actions. And to make a culture that values a cloud-first approach, it's best to start by applying a cloud-first approach to new applications or refreshes. This will give you practical grounds to sell the benefits such as provisioning and de-provisioning resources on the fly without the budgetary or time constraints of traditional IT environments.

To get started, jump in and experiment with smaller workloads or initiatives. With cloud infrastructure and features changing monthly if not weekly, get IT ready to anticipate platform changes rather than solving issues which may not exist in a few months.

3. Reshape staff, don't reduce it

Change is often frightening; especially in a time when newer technologies often mean fewer jobs. But IT jobs need not disappear because of digital transformation. It's a matter of redirecting staff, not letting them go. Encourage a mindset that's more strategic and contributing to the business rather than counter-productive skepticism. It will be necessary to address staff questions, so strike a tone of positivity, emphasizing that performance, monitoring, and security management are still important internal roles and that valued skills will be even more needed as you transition. Find the experienced enterprise architects who are willing and able to learn about cloud infrastructure and utilize their experience. When your transition is complete, you'll find teams have more time to develop new revenue-driving productivity tools and customer-facing services.

4. Make the benefits of cloud-first clear

A cloud-first model isn't just exciting because it's better for the organization. It presents more new skills to learn and opportunities for IT workers to shine. Share with them the chances to work with cutting-edge tools, get products to market quicker, free up time to be more creative and strategic, learn faster and more often, and even grow their own personal market value.



5. Automate everything

Finally, don't neglect one of the most powerful enhancements the cloud offers: automation. Without automation, a cloud journey is simply about using a cheaper data center – not about real transformation and agility. With the tools available today, there's no reason why IT workers should slog away to manually configure, provision, de-provision, monitor, and upgrade systems. By automating mundane tasks that frustrate IT staff, you'll not only empower them to make a bigger, more strategic difference, but you'll also save money and time, and help the business respond faster and better to market or customer needs when they appear.

What mass migration looks like:

Careful preparation to make it all happen

Once you've laid the groundwork for cloud migration, here are the steps 2nd Watch has used year after year to get it done efficiently and successfully.

1. Assessment

First, figure out who to engage as your partner. Make sure they're AWS certified professionals with enterprise experience. Finding an experienced partner like 2nd Watch to help manage and plan frees your people to learn and focus on new ways to innovate with cloud technologies, define exciting new roles, and optimize team efficiency, rather than spending time learning the ropes while they're climbing them. What to assess:

- Identify gaps and risks
- Tailor a Well-Architected Framework across the enterprise
- Implement cloud best practices
- Business and technical requirements
- Governance and security requirements

- Mass Migration plan
- Scalability for your entire organization

2. Deployment

Business must continue—and accelerate—during your transition. Make sure all the continuity and business requirements you identified in the assessment are met.

These include:

- Process
- Governance and security
- Reliability
- Security
- Performance efficiency
- Identify gaps & risks

3. Migration

At this point you should be ready to execute the mass migration. The process must accomplish all of the following:

- Meet business continuity needs
- Leverage the most reliable and tested mass migration tools
- Include installation of Managed Services Agent like 2nd Watch for efficient use of resources
- Provide for post-migration testing
- Document run books and leverage repeatable templates

4. Management

Migration is just the beginning. After it is complete, ongoing functions must include:

- Review and testing of specific security policies
- Service management integration with a partner like 2nd Watch to free up IT leaders to create more strategic teams
- Cloud Management Platform integration and training
- 24/7 monitoring, alerts and incident management
- Performance optimization
- Financial optimization



Yamaha Corporation: Upping the IT tempo in the cloud

Founded in 1887, the Yamaha Corporation has grown to become the world's largest manufacturer of a full line of musical instruments, a leading producer of audio/visual products, as well as a host of technological and other product. Yamaha is one of the world's great companies, with a network infrastructure to match.

Challenge: Overcoming the IT maintenance grind

The Yamaha USA IT department was spending too much time handling routine maintenance tasks and too much budget on buying capacity. Running with a single physical data center located in Buena Park, California the IT department was very limited. Rather than be bogged down in mundane physical facility tasks, they wanted their IT people to spend 70% of their time on new initiatives and only 30% on routine maintenance activities. With an aggressive timeline for cloud migration, the company took both challenges on at once.

Solution: Migrate allegro with 2nd Watch

Yamaha worked with 2nd Watch to migrate their development and testing systems, and by August 2014, almost all production systems had been moved to AWS. 2nd Watch also helped Yamaha configure database mirroring in MS SQL 2008 to ensure high availability.



Results: More IT harmony in the cloud

More strategic use of IT staff:

Yamaha has been able to increase the number of daily tasks IT outsources to 2nd Watch and others. This increased standardization and efficiency allows them to focus on getting important strategic projects done.

Worry-free IT management:

With 2nd Watch on board, Yamaha no longer has to handle tasks like server maintenance or hardware rotation, and since the cloud migration, IT can scale resources up and down as needed. It now takes only days to prepare an environment for a new application, instead of weeks.

Cost savings:

Since migrating to AWS, Yamaha has projected annual savings of \$500,000. The savings will come from eliminating the need to buy extra capacity, better use of staff time, reduced data center and hardware costs and the avoidance of hiring IT staff to cope with growing management needs.

Make anything possible in the post-hardware world.

You really can achieve anything if you stay in front of the cloud. 2nd Watch helps its clients embrace and thrive on exciting new technologies and opportunities for rapid innovation, competitive advantages, and developing more efficient business processes in this post-hardware era.

2nd Watch solutions are tailored for our clients and utilize a combination of expertise, automation and software to achieve faster business outcomes that work the first time. The result for our clients is a faster adoption rate, more agility and greater business value. Our approach has been successful for some of the world's leading brands and is tested, trusted and proven to accelerate your cloud adoption.

