

Cloud and Data Center Server Migration Made Easy

Managing Data Center Complexity

Managing a data center has never been easy. But in today's world of shrinking IT departments, strained budgets, advances in IT hardware, and movement of servers and applications to the cloud, your job has gotten a lot more complex. And with complexity comes all sorts of challenges that IT and data center managers must resolve—quickly and cost effectively.

Is Server Migration the Answer?

The need for cost reduction and the desire for increased operational efficiency has a constant impact on the organization of IT resources. Enterprises are continuously looking for better ways to manage infrastructure, systems, and applications. This search often leads to the execution of projects where large numbers of server workloads are moved from one platform or data center to another, or to the cloud. And while the number of servers in these projects can be as few as a couple of hundred, in some cases they can reach into the tens of thousands.

Typical Server Migration Projects

Physical or Virtual to the Cloud (X2C) and vice versa, e.g., moving a server workload from an on-premise location to Microsoft Azure or Amazon Web Services

Virtual to Virtual (V2V), e.g., migrations from VMware to Hyper-V or vice versa

Physical to Virtual (P2V) and vice versa, e.g., virtualizing a server workload that's currently running on a physical server

Physical to Physical (P2P), e.g., moving a server workload from an outdated physical server to a newer model

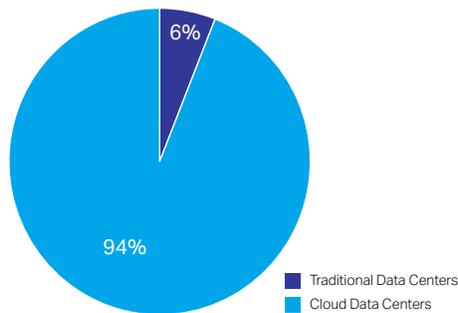
Cloud to Cloud (C2C) is the movement of physical or virtual machines, along with their associated configurations, operating systems, applications and storage, from one cloud computing provider to another.

A successful server migration project can reap immediate rewards. By enabling a hybrid IT model, IT leaders and financial directors can realize greater agility, security, and reliability—not to mention reduced capital expenditures (CAPEX) and/or operational expenditures (OPEX), along with the ability to quickly scale. Yet many IT operations managers struggle to assess the effectiveness of their hybrid IT approaches. In a recent Uptime Institute survey, only about half were confident in their organizations' ability to compare costs and risk/performance across their on-premises, colocation, and cloud facilities.¹ Solutions that help these organizations place server workloads in the "best execution venue" according to cost, availability, compliance and other factors are needed to help shape new composite hybrid IT approaches.

Server Migration Challenges Today and Tomorrow

Once you've decided that a server migration project is a good option, you're likely to face a few common challenges. Rebuilding your

It's 2021: Do You Know Where Your Servers Are?



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Questions To Ask Yourself About Your Server Migration Project:

- Are you relying on "free" migration tools? (If so, consider the cost and complexity of managing multiple vendor-specific tools.)
- Is your current server migration tool highly manual and error-prone?
- Has the project overrun time or gone over budget because you need to migrate very large, multiple server workloads with limited staff?
- Does your current migration tool lack support for a wide range of server manufacturers, virtualization platforms and cloud migrations? (You may need an "anywhere to anywhere" migration solution.)
- Are you experiencing too much downtime during a migration using your current workload migration tool?

¹ Uptime Institute 2018 Global Data Center Survey, by Rhonda Ascierio

“By enabling many different workload movement activities, PlateSpin technology supported both our data centre consolidation project and our ongoing operational requirements—all within a single software, support and training investment.”

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server workloads from scratch is a manual, slow, and error-prone process that can end up making your project very costly in human and monetary resources.

Moreover, you may have hundreds or thousands of servers to virtualize and consolidate with limited staff to accomplish the migration. Given these factors, how can you still meet aggressive project timelines? And a move of servers to the cloud will likely be part of your plan as well. According to a recent index, by 2021, 94 percent of server workloads and compute instances will be processed by cloud data centers; 6 percent will be processed by traditional data centers.²

Tackling Server Migration Challenges

The solution for keeping costs and downtime at bay seems straightforward: Use a server workload migration solution to migrate existing workloads, instead of rebuilding them from scratch. But there are many solutions out there, even “free” ones. How do you decide which one gives you the best return on investment?

“Free” tools are rarely the best option for any server migration project that needs to scale to a couple of hundred server workloads or more. They usually have very limited functionality and poor replication speed, and are very platform specific, so you need to learn a new tool (with its own set of limitations) for every new platform that you want to migrate to.

Meanwhile, in the world of paid server workload migration solutions, the difference in quality and performance can be significant. Today’s and tomorrow’s server migration projects

require not only fast and reliable replications and near-zero planned downtime for individual server workloads, but also solutions that help you plan, track and even completely automate your migration project—at the application level rather than at the level of the individual workloads. More often than not, migration projects don’t meet their deadlines because of poor planning or unexpected dependencies that didn’t show up until the last minute, so look for solutions that help you with these challenges.

Migration solutions with a high level of automation will minimize planned downtime—but avoiding manual operations is also an important factor in minimizing unplanned downtime and avoiding business disruption.

Towards Data Center Transformation

In summary, as you evaluate your choices, make sure that you choose an option that will:

- Complete migrations faster, up to 40 simultaneous replications, instead of the minimal number of concurrent migrations typically supported by native tools.
- Provide maximum scalability, so that you can tackle projects of up to thousands of server workloads—or more.
- Do everything automatically—with fewer staff. Configure and set up servers according to your parameters. With full automation, all you do is push the ‘migrate’ button.
- Realize high-speed transfers using very fast block-based transfers for all platforms and include data compression.
- Ensure customer data protection with a FIPS-compliant solution that supports

multiple roles with a secure credentials store and encrypts data transfers.

- Enable you to test your migration at any time, so you can perform that migration only once and know it will work when you cut over to production.
- Help you to plan, schedule, and visualize the execution of large-scale server migration and data center transformation projects.

When you select a solution with these capabilities, you will be able to quickly and efficiently migrate and test large numbers of servers across infrastructure boundaries, across the data center floor, or around the globe. You will be able to keep users connected to the critical resources they need to do their jobs with minimal service downtime, using a secure migration methodology.

Choosing the Right Solution

As you evaluate which solution will work best for you, consider PlateSpin® Migration Factory from Micro Focus®. PlateSpin Migration Factory automates and integrates the planning, scheduling and execution of large-scale cloud and data center migration projects. It helps you to complete your migration projects quickly and efficiently by enabling automated, high-speed Physical-to-Virtual (P2V), Virtual-to-Virtual (V2V), and Anywhere-to-Anywhere server migrations—including to the cloud.

Learn what next steps you can take by visiting us at: www.microfocus.com/products/platespin/migration-factory/

² Cisco Global Cloud Index: Forecast and Methodology, 2016–2021