**EBOOK** 

# Top 10 Ways to Drive Data Center Automation



## Introduction

Data center automation is expected to rapidly change the data center industry in the near future as organizations aim to increase efficiency, improve data accuracy, and boost productivity.

Many data center professionals wonder what data center management will look like once automation is implemented.

The fact is that we already know.

Modern data center managers are already driving integration and automation in their data centers, and they are getting incredible results.

### "What we're trying to do as an organization is to get out of the data world and into the information world,"



The university of CHICAGO

Raymond Parpart, Director Data Center Strategy & Operations

To achieve this, the university is making Data Center Infrastructure Management (DCIM) software "the center of the universe for the data center."

This is the story we are hearing more of every day.

All data center managers need to increase operational efficiency and improve data accuracy. The best ones have already found the solution and it's catching on quickly.

In this eBook, we've compiled use cases from our most innovative and sophisticated customers on how they are driving automation in their data centers with second-generation DCIM software. Follow their example and you, too, will be able to dramatically simplify data center management.



### What are the Benefits of **Data Center Automation?**

The benefits of data center automation are wide-ranging and numerous. The key benefits that we hear most from cutting-edge data center professionals who have integrated systems and are automating data center operations include:



A single source of truth. Integrating systems breaks down information silos and increases the accuracy of vour data.



#### Improved collaboration across functional teams. Integration creates one holistic picture of all available data, enabling data-driven collaboration and

decision-making across all data center, facilities, and IT teams.



#### Maintain uptime and meet service level agreements. Get automatic notifications of conditions in your data center that may lead to downtime so you can resolve them before they become real problems.



#### Simplified data center security management. You can easily maintain user permissions to ensure security policies are adhered to. If some users only need access to some data, they can still see the relevant data they need.

Eliminate human error. Automate manual data entry and say goodbye to a leading cause of data center outages: human error.



#### Increased utilization of existing resource capacity.

Automatically provision resources in the most efficient manner possible to maximize the value of your existing footprint and defer capital expenditures.



#### Improved workflow and productivity. Information entered in one system is automatically pushed to another, saving you time by not having to update multiple systems or cross-check data.



Focus more on strategic projects. Automating routine, time-consuming tasks frees your team up to spend more time on higher priority projects.

### **O** FROM THE EXPERT:

"DCIM really is for us a source of truth for the tens of thousands of bare metal assets that we have in our global data centers."



workdoy. Tim Putney, Senior Software Engineer Manager



### Top 10 Ways to Drive Data Center Automation



### Enable a Single Source of Truth with CMDB, Ticketing, and DCIM Software

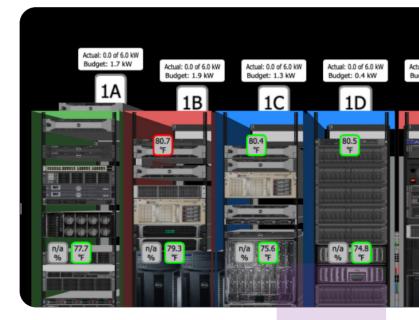
A traditional IT CMDB is just a database of fields. By integrating it with DCIM software, you'll also get additional detailed asset information and visuals such as the exact site and rack location with U position, dimensions, weight, power and network port connections, and rack elevation visualizations to provide a 3D experience.

Plus, it's incredibly easy to do.

If you are one of the many organizations that use ServiceNow for your CMDB, a modern DCIM solution will have a certified ServiceNow app that enables bidirectional communications to automatically create, update, and delete items. You can integrate your systems in under an hour.

Watch the two-minute video to see how easy it is.

A second-generation DCIM solution will also have a universal CMDB and ticket connector that integrates with your BMC, Cherwell, Jira, or homegrown asset and ticketing information just as effortlessly.



#1

Integrating your CMDB and ticketing systems with DCIM software enables a single source of truth that allows for better management of all data center resources and capacities. You can break down information silos, increase the accuracy of all data, eliminate multiple manual data entries, and facilitate data-driven collaboration and decision-making across all functional teams.

#### **FROM THE EXPERT:**

"We're going to use the ServiceNow integration so that when our operations team adds the serial numbers and asset tags, it'll automatically populate [in our DCIM]. That saves a pretty big step for both our teams."

CORV Ken Torres, Global Data Center Engineer



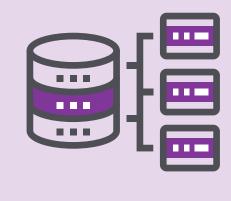
### Automate Virtual Machine Management

Server virtualization reduces hardware costs, enables faster provisioning of resources, and reduces energy costs. Still, managing your clusters, hosts, and virtual machines can be a chore.

However, you can enhance virtual machine management by integrating your VMware deployment with DCIM software.

By integrating DCIM software and VMware, you can register for "events" such as new cluster, host, or VM being deployed, and that information will be automatically populated into your DCIM so you can, for example, map which physical machines a VM is running on.

You can also integrate DCIM with VMware Cloud, including vSphere on AWS and across hybrid clouds, to gain insight to VMs in public and private clouds as well as in on-premises data centers. You can search by asset name, type, or status using either the DCIM or VMware hierarchy. And if you are going to take a system down to perform maintenance, you can know exactly which VMs are on that host.



#2

Customers say it only takes "3 or 4 minutes" to set up the integration.

#### Watch The University of Chicago demonstrate how easy it is (skip to 39 minutes, 5 seconds).

Alternatively, IT organizations like Workday use their own API client to push VM data directly into their DCIM software. They track their VM data with a VMware application, package the data into a CSV file, and push it to Jenkins where they have an automation job that processes the file and creates or updates information in their DCIM software.

#### **FROM THE EXPERT:**

"Not only do you have the logical representation of where [a VM] is, you also have the physical representation... There's no human error involved. It's maintained by itself automatically."

CHICAGO Abe Shaker, Monitoring and Reporting Engineer



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