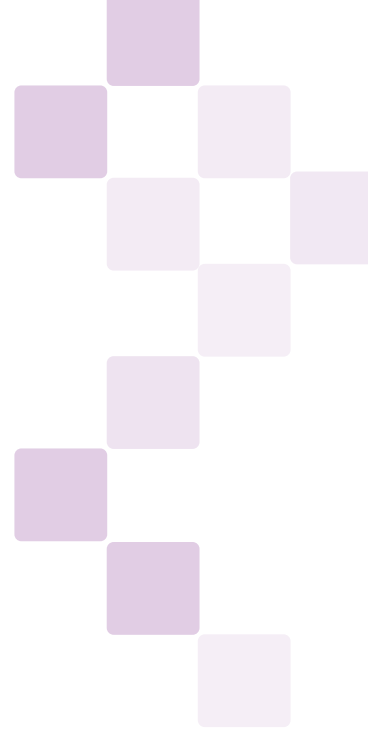# What is a Data Center CMDB?

DCIM as the Source of Truth

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DCIM that's easy, fast, and complete.

Introduction

Modern data centers are more complex, distributed, and difficult to manage than ever before. This is true not just for the physical data center infrastructure, but also for the software tools used to manage it.

Today's data center managers often find themselves performing swivel chair management in which they must use disparate systems to manage their data center operations.

The most common pain points of having unintegrated data center management tools are:

- **Data inaccuracy.** When data needs to be manually entered into multiple systems, there is an increased likelihood that human error will lead to incorrect data in one or both tools.

- **Reduced productivity.** The manual effort of dual entry is time-consuming and takes resources away from other more productive tasks.

- **Cross-functional silos.** Functional blockages may lead to teams only having access to the data in their specific tools. This leads to a lack of data sharing and collaboration that enables the most informed decisions.

To overcome these challenges, data center managers must create a single source of truth.

In this eBook, we'll explore how leading organizations are integrating modern CMDB and data center management tools to drive automation, boost productivity, and increase the accuracy of their data.

What is a Traditional IT CMDB?

To deliver IT services more efficiently and make better business decisions, most organizations leverage a Configuration Management Database (CMDB).

A traditional IT CMDB stores information on the hardware, software, systems, facilities, and personnel within an organization. It provides a view of your IT environment to help you understand what assets (also known as Configuration Items or CIs) you have and how those assets are related.

Traditional IT CMDBs are commonly used for accurate data center change management and ticketing requests, allowing data center professionals to account for and report on moves, adds, and changes. They are also frequently used for impact analysis, root cause analysis, and legal compliance.

Traditional IT CMDBs are useful, and many organizations would not be able to function properly without them. However, data centers are mission-critical to modern organizations and traditional IT CMDBs do not offer the complete solution they require.
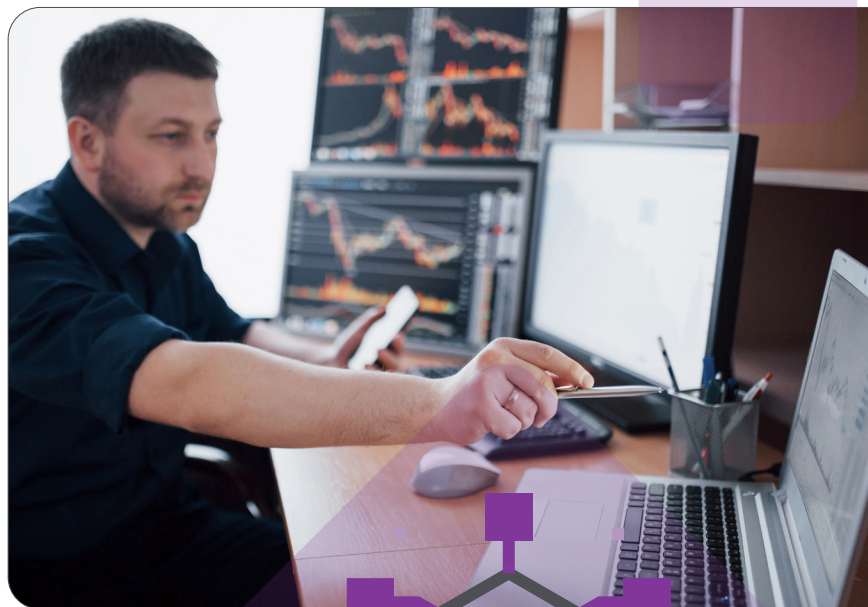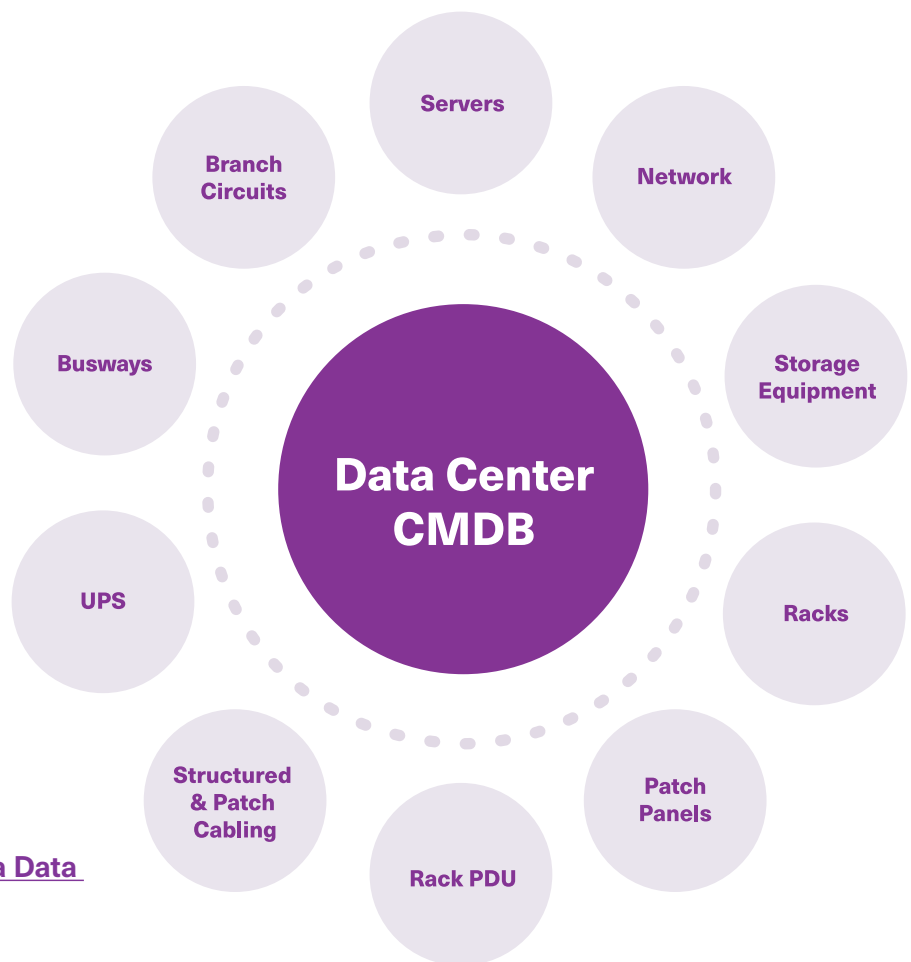
Today's data center teams need a Data Center CMDB.

What is a Data Center CMDB?

A Data Center CMDB is a component of Data Center Infrastructure Management (DCIM) software that expands upon and enhances the information that is typically tracked in a traditional IT CMDB.

It provides an accurate, real-time view of the IT equipment residing in the data center (i.e., servers, network, storage) and the supporting infrastructure assets (i.e., racks, rack PDUs, patch panels, structured cabling, patch cabling, floor PDUs, UPSs, busways, branch circuits).

A Data Center CMDB shows you what assets you have, who owns them, where they are located, and how they are connected with relationship mapping down to physical port levels and up to virtual machine and application levels.

▶ **Watch a two-minute demo of a Data Center CMDB.**

Servers

Branch Circuits

Network

Busways

Storage Equipment

Data Center CMDB

UPS

Racks

Structured & Patch Cabling

Patch Panels

Rack PDU

How Does a Data Center CMDB Compare to a Traditional IT CMDB?

While a Data Center CMDB and a traditional IT CMDB share some similarities, they are typically used by different teams and track different information for different use cases and desired outcomes.

Both types of CMDB complement one other. Rather than using one or the other, both tools have advantages that are amplified for all teams when they are integrated and share data.

	Traditional IT CMDB	Data Center CMDB
Used by	IT teams	Data center operations teams
User interface	Database of fields	Rich 3D visualization with detailed information
Tracks	All corporate IT assets and their configurations as logical objects	All data center resources and capacity
Use cases	Change management, ticketing, impact analysis, root cause analysis, legal compliance	Asset management, power and environment monitoring, capacity planning, connectivity and port management, visualization
Goals	Better align IT with the business through the product or service delivery lifecycle	Optimize the availability, efficiency, and utilization of the data center

What Is Typically Tracked in an IT CMDB vs. a Data Center CMDB?

There is some overlap in what information is commonly tracked in a traditional IT CMDB and a Data Center CMDB. However, a Data Center CMDB provides a much more holistic view of all the data center infrastructure resources and capacities.

What Is Typically Tracked	IT CMDB	Data Center CMDB
Asset identification and description	✕	✕
All corporate IT assets (Configuration Items)	✕	
Configuration Item relationships	✕	
Hardware/software configurations (e.g., server, memory, disk space)	✕	
Asset lifecycle (e.g., in service, out of service)	✕	
Hardware/software that resides in the data center, along with their configuration and asset lifecycle		✕
All physical data center infrastructure (racks, rack PDUs, patch panels, structured and patch cabling, floor PDUs, UPSs, busways, branch circuits) along with their physical relationships/connections		✕
Detailed physical location of data center assets (e.g., site location, cabinet location, and U position)		✕

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| What Is Typically Tracked	IT CMDB	Data Center CMDB
Rack elevation views with high-fidelity front and back images		✖
Measured power and temperature readings, trending, and alerting		✖
Dimensional, weight, and physical data/power port information of assets		✖
Physical relationships and connectivity for power supply and network interface cards along with capacity of all physical port types		✖
Utilization and capacity of data center infrastructure resources (e.g., power, space, and cooling)		✖
3D visualization of assets and logical connectivity between equipment		✖

What Can't You Get From Your Traditional IT CMDB?

A traditional IT CMDB is just a database of fields. It does not allow you to remotely visualize any of your devices or how they are connected.

By comparison, a Data Center CMDB provides a digital twin of your data center.

With a Data Center CMDB, you can visualize:

- **Assets.** See where your servers, networking, and storage equipment are in real-time. High-fidelity images of each asset provide a 3D replica down to the port level that's to scale. Rack elevations of single or multiple racks can be viewed at any angle or side by side.

- **Connections.** See all your structured, patch, and power distribution cabling with port-to-port information such as cable length, color, and type. You can even visualize cables that are under the raised floor or in overhead cable trays.

- **Power.** Real-time power data from metered devices such as intelligent rack PDUs is overlaid on floor map and rack elevation views to understand health and capacity at a glance.

- **Environment.** Live measured readings from environmental sensors such as temperature, humidity, and pressure differential provide an accurate view of what's happening in the data center.
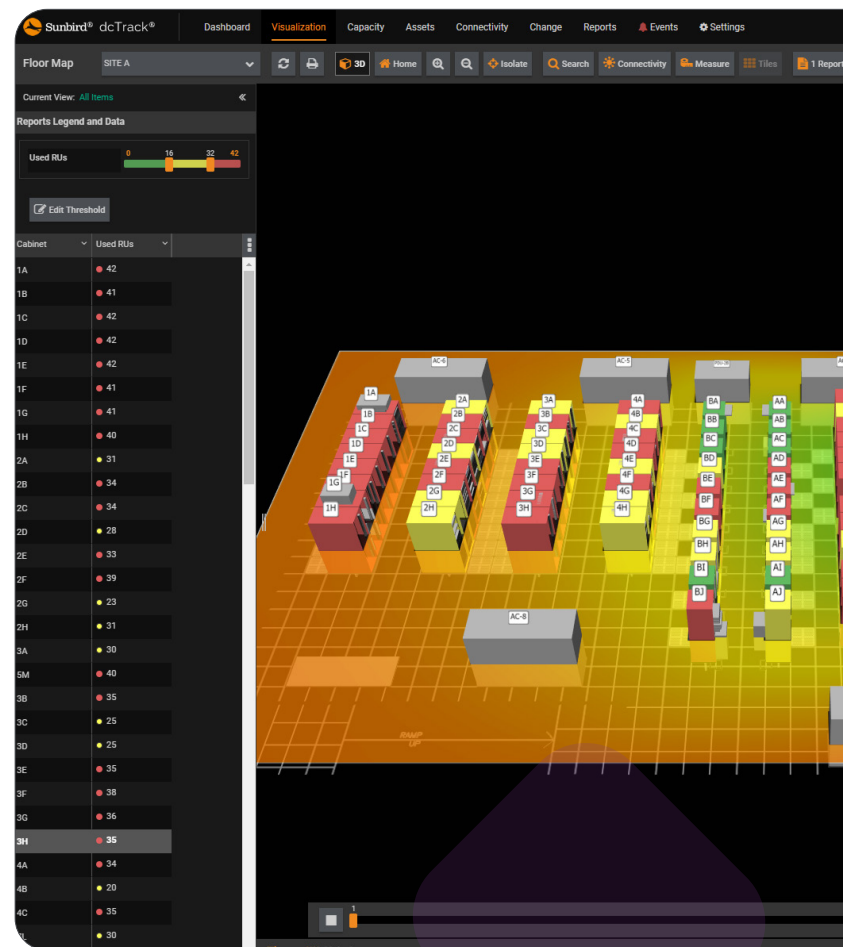
▶ **Watch a two-minute video of what your IT CMDB can't provide.**

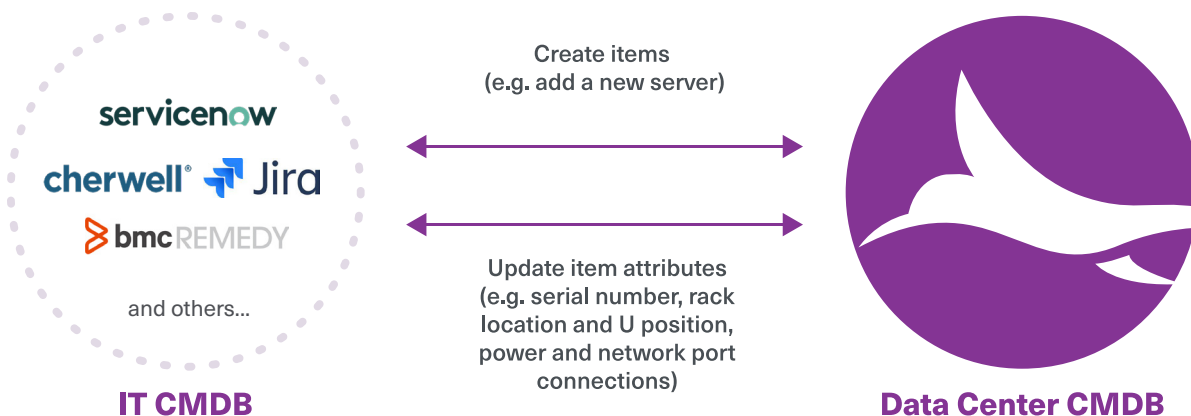# How Does a Data Center CMDB Integrate with a Traditional IT CMDB?

Data center management involves a lot of manual effort which is time-consuming and has the potential for human error.

A modern Data Center CMDB vendor will be focused on providing "automation via integration," in which out-of-the-box CMDB connectors enable you to automatically populate data in the systems you want to see it to eliminate swivel chair management. This not only reduces the manual effort required to track your physical infrastructure but also increases the accuracy of your data and enhances the presentation of information.

Your Data Center CMDB should work with what you have and come with open APIs and configurable connectors to simplify integration and enable bidirectional communications to automatically create, update, and delete assets in both systems.

ServiceNow is one of the most popular IT CMDB tools and is also the easiest to integrate with a Data Center CMDB. Leading Data Center CMDB providers will have a certified ServiceNow connector app available on the ServiceNow store. Integrating the two typically takes less than one hour. Once you've planned out your goals for integration, it's simply a matter of installing the connector app, mapping a few key fields, and optionally configuring any filtering.

For other popular IT CMDBs like BMC, Jira, and Ivanti/Cherwell, leading Data Center CMDBs will have a universal CMDB connector that can be configured to integrate with virtually any CMDB that exposes its REST APIs, even homegrown systems.

servicenow
cherwell® **Jira**
bmc REMEDY
and others...

IT CMDB

Create items
(e.g. add a new server)

Update item attributes
(e.g. serial number, rack location and U position, power and network port connections)

Data Center CMDB

▶ **Watch a two-minute video of how easy it is to integrate CMDBs.**

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What Are the Benefits of Integrating CMDBs and Sharing Data?

There are many benefits of driving automation via integration in your data center.

The key benefits we hear most from leading data center managers include:

- **Enabling a single source of truth.** Integrating systems breaks down information silos and increases the accuracy of your data.

- **Increased collaboration across functional teams.** Integration creates one holistic picture of all available data, enabling data-driven collaboration and decision-making across all teams.

- **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.

- **Elimination of human error.** Automation dramatically reduces human error which can negatively impact uptime and efficiency.

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

- **Simplified data center security management.** You can easily maintain user permissions across multiple systems to ensure security policies are adhered to.

FROM THE EXPERTS:

"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."

Ken Torres, Global Data Center Engineer, eBay

"Say we didn't put a rack in our DCIM. If something is installed from the ops team, ServiceNow will actually go and tell our DCIM which cabinet and which U. It will automatically place the item in our DCIM when it's been inputted into ServiceNow."

Mark Jones, Global Data Center Engineer, eBay

Conclusion

To reduce the complexity of modern data center management, you need to maximize the value of your data and eliminate swivel chair management. However, with different teams and disparate systems for separate areas and functions of the data center, it can be difficult to standardize on common tools.

The best data center managers are enabling a single source of truth by leveraging a Data Center CMDB and integrating it with their traditional IT CMDB.

Don't be left behind. Drive automation via integration with modern data center management tools to save time and improve data accuracy.

Other Resources to Help You Enable a Single Source of Truth with CMDB Integration:

- **DCIM Software and CMDB: Why You Should Consider Integration**
- **Creating a Single Source of Truth with DCIM Software and CMDB**
- **3 Real-World Use Cases of Data Center Automation via Integration**
- **Integrate and Automate with DCIM Software**
- **5 Ways to Automate Data Center Operations**
- **Top 10 Ways to Drive Data Center Automation**
- **Data Center Automation: 15 Best Practices**

Take the Next Step with Sunbird

Schedule a Personalized Demo
Get a one-on-one live tour of our Data Center CMDB.

Request Demo Now

DCIM Operations Online Demo
Remote 3D visualization of all your racks, assets, power, and network connections. View 200+ dashboard charts and reports. Know the capacity of all infrastructure items.

Try it Free

Watch Data Center CMDB Videos
See two-minute videos of the full-circle capabilities a modern Data Center CMDB provides such as asset management, visualization, BI and analytics, connectivity management, capacity management, and more.

Watch Our Videos