



## DCIM Software and IT Service Management - Perfect Together

DCIM: The Physical Heart of ITSM

A White Paper from Raritan

## Overview

*Information Technology is so fundamental to every business today that every organization needs to establish formal processes to ensure that IT services are continually aligned to the business, and deliver efficient and reliable support over the entire lifecycle of products and services. These processes, commonly classified as IT Service Management (ITSM), may follow a well-known model such as ITIL (IT Infrastructure Library) or, more likely, a set of internally-developed best practices.*

*Regardless of the chosen approach, it will typically include a database (or repository) that defines the current overall IT function status accompanied by a set of ITSM processes with well-defined steps and workflow rules for planning, designing, implementing, managing and changing all components of the IT function. Many organizations have deployed ITSM software to automate and control some of these processes, especially to manage and document the workflow for changes to any component of the IT function.*

*At the heart of the overall IT function is the data center where an analogous discipline categorized as Data Center Infrastructure Management (DCIM) has evolved to guide the management of data center assets, their environment, and overall operations. Many organizations will effectively use both ITSM software and DCIM software independently. However, since DCIM can be categorized as a subset of ITSM, there can be added value to tying the management of the physical data center to the general IT management framework. In this paper, we discuss how Raritan's DCIM software can be integrated with existing ITSM software to increase efficiency and reliability.*

## What is a DCIM System?

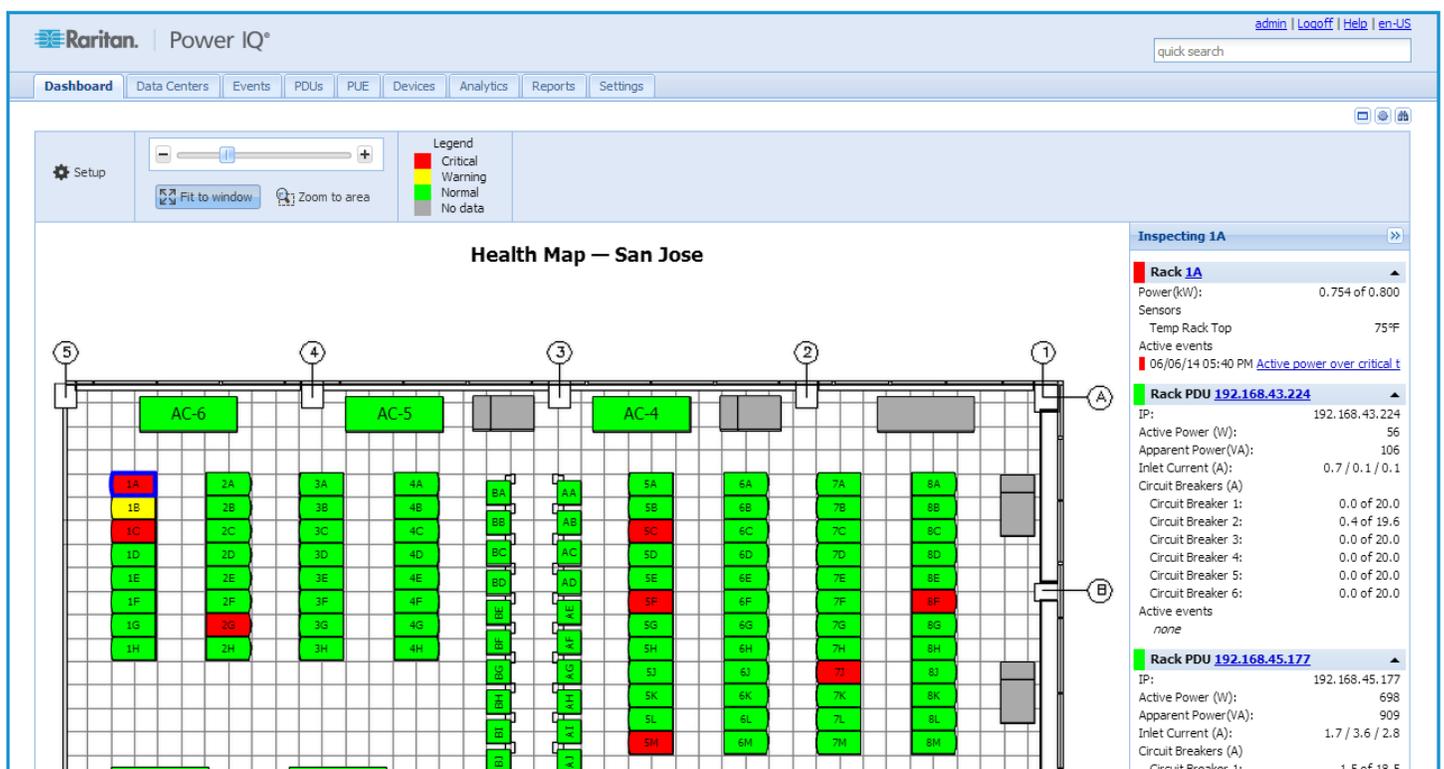
Practical definition: "A data center infrastructure management (DCIM) system collects and manages information about a data center's assets, resource use and operational status. This information is then distributed, integrated, analyzed and applied in ways that help managers meet business and service-oriented goals and optimize their datacenter's performance." — 451 Group

A DCIM system will typically include:

- Single, accurate, **centralized database** of all physical and virtual data center assets
  - What assets do we have, where are they located, what are they connected to, what is their purpose, what are their detailed specifications, what is their service history?
- Accurate, real-time data on space, power and cooling **utilization** and **availability**.
  - Where can we move or add equipment?
- Real-time dashboards that **monitor** operations.
  - Are there potential power or cooling issues?
- Complete data center visualization including: equipment, power, network, connections.
  - Where is the problem, what is its impact down the line?
- Information and insights for capacity **planning/optimization**.
  - Where do I have spare space, power and energy resources? How and when do I best expand?
- A **workflow** management feature with ticketing system integration.
  - What is the status of the request move, add, or change of an item?

In short, your DCIM system is the trusted source of data center information to answer all questions.

**Health and Capacity Map** provides an easy to understand status view of your data center Power, Current, Temperature, Humidity, Airflow, Pressure and more.



## How are ITSM and DCIM Connected?

An ITSM system will provide processes for documenting, managing, and changing all components of traditional IT functions such as server management, and provides a central repository for storing ITSM information. In most ITSM software implementations, that central repository is called the Configuration Management Database (CMDB) and it normally includes the same information one may find in a DCIM database. Furthermore, a key component of both ITSM and DCIM best practices is a “ticketing” process and a workflow engine that manages change requests. So it is clear that ITSM and DCIM have both conceptual as well as practical similarities. In fact, much of the power and value of both ITSM and DCIM are attributable to four very simple, analogous concepts and their implementation:

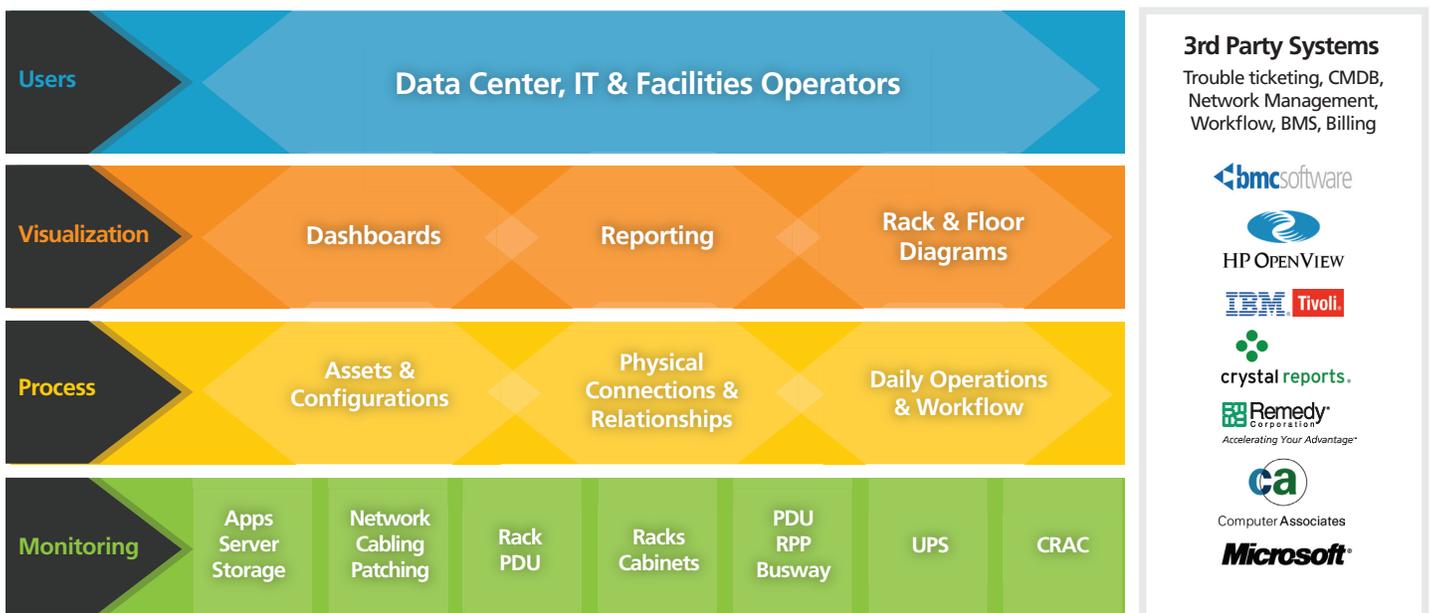
- Accurate definition of the current status of system elements.
- Formal processes to request and implement changes to the current status.
- Single point of control for change request initiation/incident logging (ticketing).
- Automated tracking of process steps.

These concepts can be related directly to:

Component	ITSM Software	DCIM Software
Database	CMDB (includes static DCIM information)	Physical Asset
Processes	Management	Management, Monitoring
Ticketing Process for Change Management	Services Desk for all changes	Physical change requests
Workflow Engine	Controls all changes	Controls physical changes

As we see ITSM and DCIM software have common and overlapping elements, and thus DCIM can be viewed, to some extent, as a subset or extension of ITSM. So organizations that have already adopted ITSM software and also want to realize the benefits of DCIM software may gain even greater operational efficiencies by integrating the two and leveraging their combined strengths.

**A comprehensive DCIM solution is comprised of components that include Enterprise Class monitoring, complete inventory information, multiple ways to visualize and report on data, workflow management, and open integration capabilities.**



## ITSM and DCIM -- Objectives and Relative Strengths

The primary goal of ITSM is to better align IT with the business throughout the product or service delivery lifecycle, while the primary goal of DCIM is optimize the performance of the data center that serves that same business. This commonality indicates there are benefits to be gained with integration.

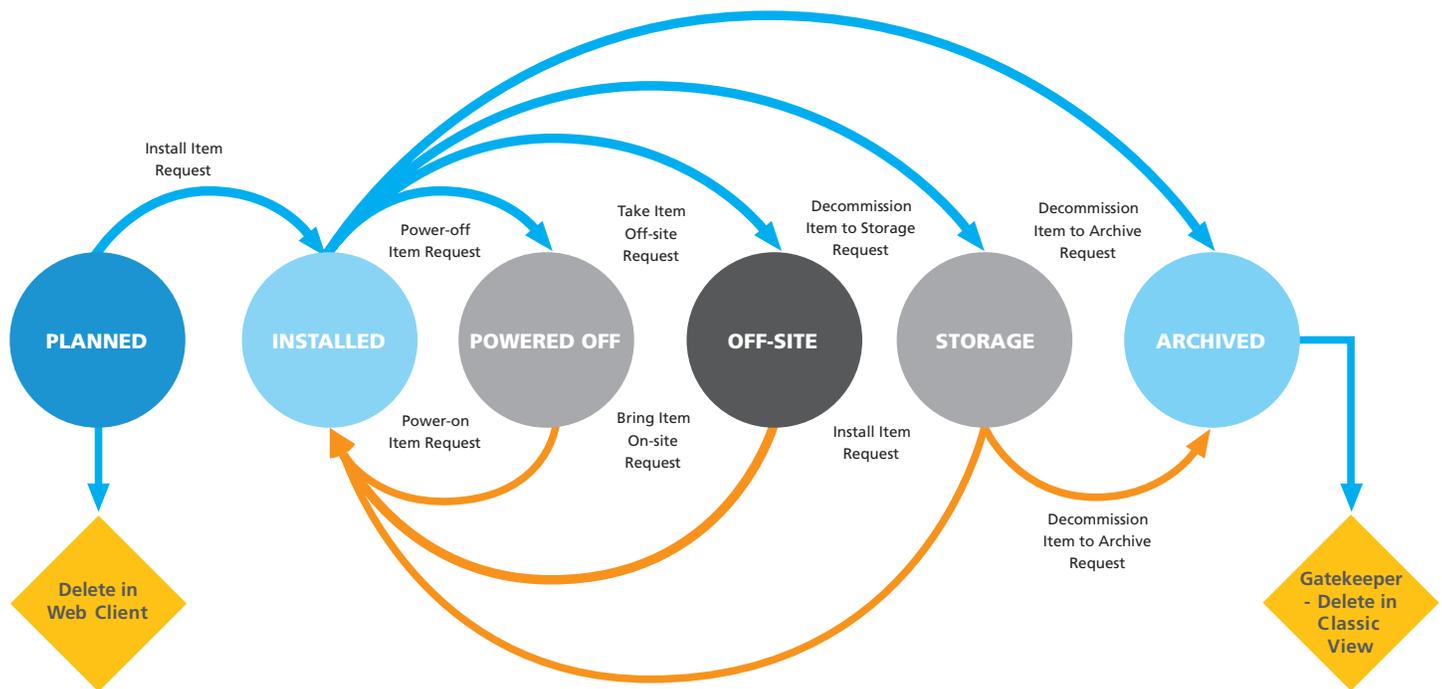
The adoption of a complete set of ITSM processes requires extensive time and resources - something very few organizations are able to commit to. Most organizations will build a simplified CMDB to document the current status of all IT assets—e.g. IT services, applications, data center equipment, and relationships, and they will often implement only those processes for managing changes using available ITSM software tools from providers such as BMC, HP and Service Now.

The core strength of an ITSM system lies in the comprehensive documentation of the current status of all IT assets (CMDB) along with robust processes and tools to request and manage any change – i.e. the IT service desk, a ticketing system and workflow engine.

On the other hand, the standard CMDB will often lack crucial data center asset detail, especially a dynamic dashboard with real-time and historical information on space, power, cooling usage, and physical connections of both the power chain and data communications cable plant. This information is crucial for reliable and efficient day-to-day operations, as well as capacity planning of the data center; this is the strength of DCIM.

So, an organization that has deployed both ITSM and DCIM systems can realize operational efficiency and reliability by leveraging the ITSM change management tools and incorporating DCIM's extensive data center information into a single ITSM central repository.

### A comprehensive DCIM supports IT assets as they flow through various lifecycle changes



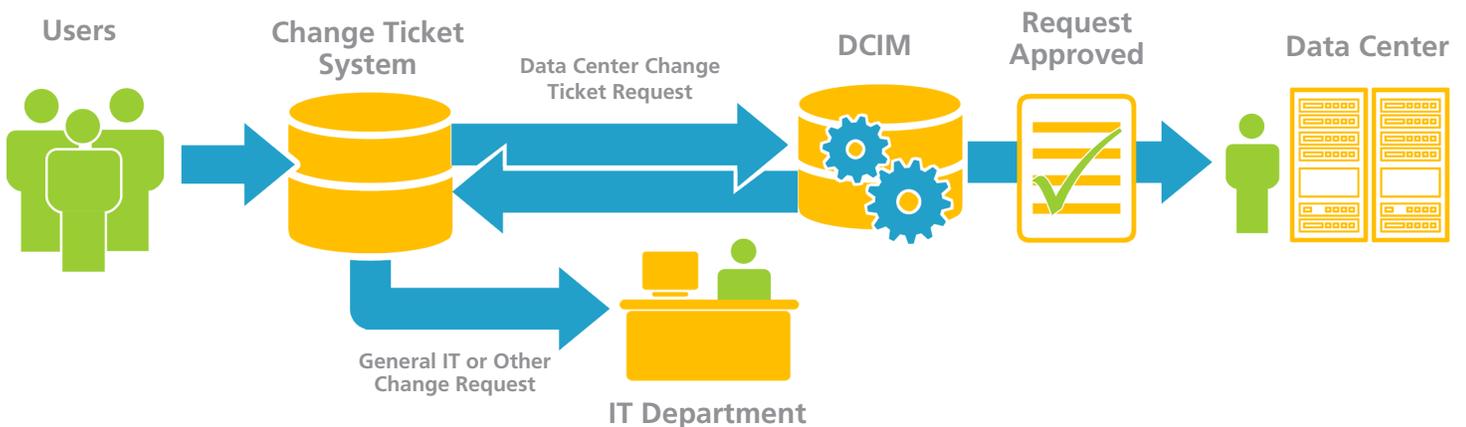
## Benefits of Integrating ITSM and DCIM

Several organizations are already integrating their Raritan DCIM software with their ITSM software and operational support elements, e.g. CMDB, Service Desk, change ticketing systems, and workflow engines.

Requested changes to the DCIM system information flow to and back from the ITSM system. In this way, there is operational consistency in handling all change requests and a single, accurate repository of all IT assets that can be populated with real-time and consolidated historical data collected by the DCIM monitoring tools. This results in significant operational benefits.

- **Single Service Desk systems increase IT staff efficiency.**
  - ITSM is primary change request, ticket control, and work flow engine for all IT including data center staff.
  - Tickets automatically flow into the DCIM system for parallel processing.
  - Updates flow back to ITSM as changes are implemented.
- **CMDB becomes the single source for all IT data.**
  - Asset information accuracy is far greater.
  - Physical data center asset information (moves, adds, changes) automatically flows-back to CMDB from the DCIM system.
  - It automatically populates CMDB with real-time and historical space, power, cooling usage data from DCIM system (“as built” item details) and updates accordingly.
- **Data Center asset look-up from CMDB allows for immediate and confident action.**
  - All authorized users access information from identical source.
  - Expedites all physical/virtual equipment provisioning and incident tracking.
  - Single, complete database for detailed asset information, data analysis, planning.

### Raritan DCIM software connects to ITSM software seamlessly



## Learn how Raritan DCIM Software can make a difference in your data center

Used independently or in conjunction with any other IT management systems, Raritan DCIM software has brought a greater degree of control, efficiency, and confidence to hundreds of IT organizations with single or multiple data centers of all sizes.

Raritan's total DCIM solution includes open APIs to enable flow through operations that improve efficiency, accuracy, and uptime. With open APIs you can use the tools you are most familiar with to integrate and meet the technical, business, and user needs of your organization.

Several organizations are already using DCIM in an integrated fashion. For example, one Raritan customer is using DCIM as the single version of truth for data center configuration information and using an IT CMDB as the single point of truth for IT service information. Used in this fashion, the data center organization now has the ability to get information that correlates data center physical information (from their Raritan DCIM solution) and IT service information (from their IT CMDB).

These integrated solutions enable efficient and positive decision-making and resource allocation. For example, if the incident management system reports an event in the San Jose data center, the combined solution ensures data center professionals are aware and enables them to immediately understand the potential impact to their business.

Consider the following scenario:

A company experiences two server outages: one outage to servers that are used by internal employees to upload files to a shared drive, and a second outage to a server that impacts business services for private wealth customers. Unfortunately, there are only enough resources to respond to one.

With information obtained from the DCIM-CMDB solution, data center professionals can better understand the down-the-line impact and make restoring service to the private wealth clients the priority since it would have the most positive impact to the business.

### Summary

While ITSM and DCIM solutions have often been used independently, these two solutions share a number of components, and in fact DCIM can be viewed as a subset of ITSM. Tying management of the physical data center to the general IT management framework helps to deliver efficiency and reliability and thereby increases the value of your data center operations.



Take a test drive today and see for yourself how Raritan DCIM software can help you manage your data center's assets, infrastructure, power, cooling, space, and overall operation.

Visit [www.raritandcim.com](http://www.raritandcim.com) to sign up and learn more.

Raritan is a proven innovator of power management solutions, DCIM software, and KVM-over-IP for data centers of all sizes. Based in Somerset, NJ, Raritan has a global presence across 38 offices, serving 76 countries and 50,000 locations worldwide. Raritan's award-winning hardware and software solutions increase energy efficiency, improve reliability, and raise productivity. For more information, please visit [www.raritan.com](http://www.raritan.com) or call 800-724-8090.

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