

Checking Off Benefits to Your Data Center with Intelligent DCIM

Specific benefits from Intelligent DCIM that help IT meet the demands of business that enable success.

Currently, most organizations suffer from siloed information in disparate systems, resulting in manual workarounds and a lack of the information necessary to make high impact decisions. It is often difficult to quickly answer important questions such as “where is the best place to deploy a new asset?” or “are we able to reduce cooling costs by 30%?” To answer these questions, you need multiple pieces of information (power, space, cooling, assets, and connectivity) integrated into a holistic picture to allow you to make the best choice. This is where Intelligent DCIM comes to play. For example, making a decision to deploy a new asset based on the visibility of four variables, power, space, connectivity and cooling can save considerable time and expense down the road, since once a piece of equipment is deployed it’s often anchored there for life. If it’s in the wrong place, it will create on-going problems and reduce valuable data center capacity. As a result, data center operations may not be able to fully meet the demands of a dynamic business. Intelligent DCIM provides the metrics, data, comprehensive view, and capabilities that solve many of the existing issues that limit the effectiveness and efficiency of data center operations.

The Intelligent DCIM Benefit Checklist



Reclaim Stranded Capacity

Gartner estimates that up to 35% of data center capacity is lost from the original design spec of the facility. This problem occurs when power, space, and cooling are unbalanced, as is the case when, for example, a rack has empty Rack Unit space but is tapped out of power or cooling, making the empty space unusable.

Intelligent DCIM enables visibility into these variables, so that you can make decisions on the best location to put a new piece of equipment based on available power, space, connectivity and cooling capacity to maximize all available resources. By reclaiming this capacity you can increase the useful life of the data center and defer the CapEx cost of building a new facility before it is necessary.



Automate Device Discovery

Data centers often experience regular changes, such as the addition of new devices (servers, storage, switches) and the movement of existing devices to new locations. Much of this change may be undocumented, adding tremendous complexity to determining an actual inventory of data center devices and their location. Some organizations still use a manual process with spreadsheets, which is no longer an acceptable process as they are highly error prone and can’t keep up with real-time changes. The lack of an accurate device inventory means higher auditing and reconciliation costs, and the added cost of operating unnecessary devices that can’t be

decommissioned because the data required to do so doesn't exist. In addition, you can lose valuable data center physical space devoted to phantom or unused devices. By automating the device discovery process, you can eliminate manual asset tracking and provide real-time representations of the network to present an accurate and up to date inventory to increase the efficiency of data center operations.



“Single Pane of Glass” Executive-Level Dashboard Visibility to Identify Risks

In many data centers, the ability to generate an easily understood and comprehensive management view of the physical infrastructure is very difficult. The challenge is to integrate silos of information into an executive-level dashboard where data is presented in a way that can be analyzed to make informed business decisions to drive efficiency and ROI. Besides connecting silos of like information, the true power is to view the interdependencies between related information. For example, deploying a new asset requires visibility into available data center capacity, which is in turn derived from understanding available power, space, connectivity, and cooling. Having a cohesive data center view is essential to maximizing the data center asset, utilizing staff resources effectively, and provides the ability to make changes and react to business demands far more quickly.



Improved Resilience and Uptime

The single most important aspect of data center operations is to prevent unplanned or unanticipated downtime. In some organizations, downtime actually results in employees being sent home, and although the cost of downtime varies by industry, the Uptime Institute estimates downtime costs at \$300,000 per hour. This is a general figure that may differ for your organization based on the size of the data center or the application workload. Intelligent DCIM systems with the ability to track and manage power, environmental, and connectivity metrics are essential to mitigating potential downtime. It is critical to prevent thermal spikes and transient situations through trending and early warning alarms to prevent an emergency situation that can cause a shutdown impacting business resilience and uptime. Intelligent DCIM puts a framework in place to automate visibility into unbalanced power, impending cooling systems problems, or connectivity disruptions that have a direct correlation to impacting SLAs.



Meet Corporate and Regulatory Compliance Requirements

Many companies are increasingly asked to prove reductions in energy and CO² emissions, and this can be a challenge in two ways. First, it's often time consuming and difficult to extract information from monitored and unmonitored systems to create accurate reporting to substantiate your reduction claims. Second, it's imperative to have visibility into both IT and Facility systems to be able to analyze and conclude which change(s) will reduce consumption in the future. Prioritizing which cost saving activities have the most ROI is also essential. Intelligent DCIM is a tool to automate these processes that allows your organization to continue to drive energy reduction and automate documentation that can be used to assist with corporate and regulatory compliance requirements over time.



Accurate Data for Chargeback/Costing of Data Center Physical Infrastructure

As companies focus on accurate costs for different operations within the organization, there is a demand for charging back comprehensive IT costs which include power and cooling utilization, not just hardware acquisition. With intelligent DCIM solutions, information on power usage, and by corollary, cooling and other infrastructure costs, on a server, rack, or cabinet level, it now becomes easier to identify actual data center costs for chargeback and allocation.



A Framework to Facilitate Communications Between IT And Facilities Management

Enabling the facilities management team and their Building Management System (BMS) systems to effectively communicate and work with IT and their DCIM systems is essential. However, this has been a difficult task. Intelligent DCIM systems integrate with existing facility and IT monitoring platforms to provide a picture that bridges the gap between IT and Facility domains. This ensures that data center requirements will not exceed building capabilities and helps protect against downtime. This information sharing also leads to substantial cost reductions and greater efficiency.



Real-Time Monitoring for More Effective Data Center Operations

With new technology that “throttles” devices up and down in terms of performance and power consumption, and “Live Migration” which allows workloads to move in real-time, it is essential to have real-time environmental temperature and humidity monitoring in the data center. Visibility must be granular enough to detect developing hot spots via trend reporting and early alarm notifications. Further, having multiple automated sources of environmental information that must be correlated is complex. This complexity is avoided with an integrated intelligent DCIM solution that provides a comprehensive view of the data center. From a network availability perspective, solving any network interruption requires the ability to immediately identify if there are any physical layer issues that may be causing the interruption. Causes are identified immediately and service can be resumed before it impacts SLAs.



Panduit SmartZone™ Provides Your Intelligent DCIM Solution

An organization’s situation prior to deploying Intelligent DCIM often appears as a system of disconnected and manual processes that are cumbersome and lack information required to make business decisions while also reducing risks. Lacking a clear picture of your power, environmental, connectivity, and assets can lead to delays in deploying applications, and negatively impact uptime and availability. Panduit automates each of these aspects and provides not only a clear picture of each system, but enables you to see the interdependencies between power, cooling, connectivity, and assets to unlock lost capacity, extend the life of your data center, and make it more competitive to outside offerings, such as those in the Cloud.

Panduit’s SmartZone™ portfolio of software, hardware, and services is built upon a 6 Zone™ Methodology that breaks down the IT and Facility domains into distinct functional areas to better understand granular data for each. This data is captured by SmartZone™ Solutions that are deployed in the six zones. The result is a consolidated view of infrastructure operational metrics through dashboards of the various systems that removes siloing of information and shows you the interdependencies between systems to unlock lost capacity and extend the life of your facility. With this perspective you can make decisions to optimize your facilities based on real time factual information.