

Modius Whitepaper

5 Reasons Colocation Providers Need DCIM

Considering DCIM for your Colocation facility? This Whitepaper highlights the top 5 reasons you shouldn't wait to start providing DCIM functionality for your Facility Operations Team and Colocation customers.



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Executive Summary

Over the last several years, companies looking to reduce data center operating costs, or avoid costly expansions of existing facilities, have considered using Colocation as a viable option for reducing OPEX and CAPEX costs associated with operating an in-house data center. This rise in popularity has created higher levels of competition between Colocation operators to on-board new customers quicker and keep them longer, through the use of value-added services.

Traditionally, Colocation operators have used a combination of CAD or Visio drawings, multiple monitoring systems, spreadsheets, BMS, and home-grown applications to manage the physical resources, (power, cooling, and space) as new clients are added. These silos of information are detrimental to the on-boarding process and don't contain enough detail to provide the Real-time Operational Intelligence (RtOI) required to optimize facility resources and the data required to support the additional services needed to have a competitive edge.

Data Center Infrastructure Management (DCIM), empowers colocation operators to better manage their facilities by consolidating all the information needed to make smarter, faster decisions for infrastructure planning and the day-to-day management of hosted equipment. DCIM solutions like OpenData collect real-time data from facility infrastructure and IT equipment, providing operational insight into resource capacity planning as new customers are added (or deleted) and have the ability to share this management information with customers as a value-added service.

With DCIM, Colocation operators can transform their business by having the information they need to work faster, increase revenue, improve utilization and provide service differentiation to their customers --- while reducing the risk of unplanned downtime from increased density. This Whitepaper outlines the 5 key benefits that DCIM provides to Colocation operators and how DCIM can differentiate your company in a very competitive market.



The Colocation Market

As the economy improves, companies are ramping up IT projects and new applications to drive revenue and provide an edge over their competition. Although the future looks bright, many companies still remain wary and are not willing to “bet the farm” on significant investments to expand existing data center facilities and take on additional operating expenses to support these new IT initiatives. These factors have made Colocation a viable and increasingly more popular alternative to expanding corporate owned data centers to deal with IT growth.

“There are thousands of measured and calculated data points within a data center which, without DCIM, are nearly impossible to effectively analyze. We now have the ability to gain insight at a high-level or granular basis to the state and performance of every piece of equipment supporting a customer service with a few mouse clicks.”

Val Milshtein
V.P. of Technology
Cologix

Data Center Knowledge - September 2014

As the demand for Colocation services has grown, so has the number of operators and providers. DataCenterMap.com’s most recent list reports nearly 1,500 Colocation companies in the U.S., creating a very competitive environment with providers looking for ways to differentiate themselves without eroding margins by reducing their prices.

So what does a Colocation customer want? They usually want the lowest cost for hosting their equipment, but they expect all the benefits of using a quality service provider; high security, Tier certifications, redundant systems, Five 9’s uptime, quality power and a knowledgeable staff to support them.

So how does a Colocation provider compete against all the other companies offering the same basic service without getting into a price war? By providing customers with additional functionality for the management of their hosted equipment using technologies like DCIM.

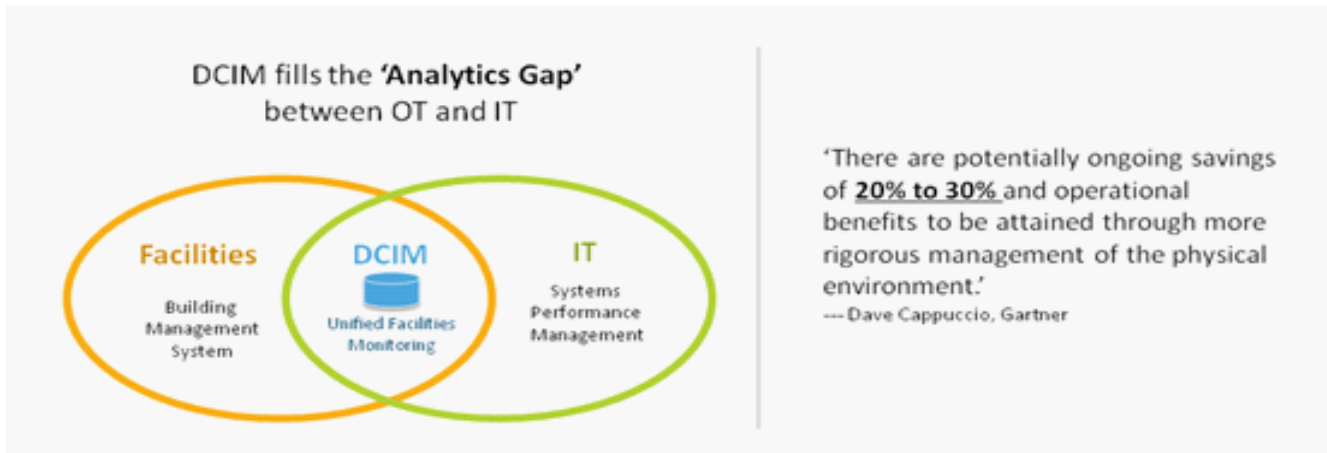
DCIM: An Introduction

DCIM technology has evolved over the years to include multiple features and functions related to better management of the assets in the data center and the infrastructure supporting those assets. In the past, Colocation providers used a number of applications and tools to manage their facilities, from CAD and Visio drawings to keep track of the physical space, BMS systems to monitor the building infrastructure, spreadsheets to manage the assets, and discrete systems to monitor and measure power and cooling.

DCIM systems were designed to provide a unified application that allows both facilities and IT support groups the information and tools they need to plan and execute operational changes with high regard to the optimal use of data center resources,



(i.e., power, cooling and space). DCIM provides a common platform for facilities and IT support to work together to insure efficient best practices and reduce the risk of unplanned downtime as operational changes are made.



The good news for Colocation operators is that DCIM's benefits can be used to improve operational efficiency and provide a number of value-added services that can spell the difference between winning new business, or losing out to a competitor.

Delivering both high-level and granular real-time performance information, DCIM systems like Modius OpenData give operators the confidence to reduce data center costs and energy consumption while concurrently maintaining uptime SLAs. Five key DCIM benefits for Colocation operational efficiency and Customer value-added services include:

1. Faster Customer On-boarding
2. Faster MTTD and MTTR Response times
3. Superior Capacity Planning and Resource Management
4. More Flexible Billing Options
5. Customer Visibility for Colocated Equipment

DCIM systems like OpenData deliver these benefits by collecting and normalizing real-time performance data from all of the infrastructure. This data is combined with other sources of information, (e.g., BMS, Financial Systems, ITSM, CMDB, etc.), to provide a rich selection of analytics to help Colocation operators and their customers make informed decisions for data center operations and the equipment being hosted.



Top 5 Reasons Colocation Providers Need DCIM

1) Faster Customer On-Boarding

The faster a Colocation provider can on-board a new customer, the faster they can provide the requested services and begin billing that customer. Without DCIM, this can become a very time consuming and difficult planning process. For example, if physical changes to the facility are required by the customer, and a security cage is needed, the CAD drawings must be consulted and updated to reflect the changes. This can take weeks to accomplish. With DCIM, changes to the facility's floor plan can be assessed quickly and virtually, allowing operational personnel to compare multiple options and pick the best approach for execution. DCIM users can build a virtual cage on the allotted floor space, add racks to the cage and change floor tiles to support hot and cold aisles. As equipment is virtually moved in, the impact to power and cooling subsystems can be assessed to insure that nothing is overloaded, causing an unplanned service outage. This "virtual" planning and assessment step would be very difficult and time consuming using CAD drawings alone.

For example, using DCIM to help facilitate the process of adding a new customer can shave time from weeks to days. With a list of customer equipment planned for colocation, a Colocation provider can buildout the correct number of racks, order the rack mounted PDU's, network equipment and make any modifications required to support the power and cooling demands. Using DCIM to virtually build-out this configuration before any construction starts can eliminate doubts and provide a blueprint for the operational teams to review and execute.

2) Faster MTTD and MTTR Response Times

Every minute counts when equipment goes down and applications or websites stop working. In many cases, Colocation service providers must offer their customers some form of Service Level Agreement (SLA) to insure that adequate power, cooling, and network connectivity will be maintained at the levels called out in the contract. To insure those levels are maintained, Colocation providers use multiple systems to monitor the health of the infrastructure. DCIM's ability to monitor both the facility's equipment and IT systems housed within the facility, provides a significantly quicker response to detecting and repairing failures, or preventing them altogether.

For example DCIM monitoring may pick up an anomaly in the motor RPM of a chiller on the roof of the facility. The DCIM application can also determine that this chiller is either serving the facility breakroom, or the zone of servers of your best customer. In either case, the DCIM system can expedite an emergency repair, or let you know to schedule a repair during the next maintenance service. Because DCIM can also provide the Colocation provider and customer with alarms and alerts from real-time monitoring of operational changes to the IT equipment, both parties can share data to insure that repairs can be made quickly to the right equipment in an expedited



manner.

3) Superior Capacity Planning and Resource Management

Colocation providers are renting capacity in their facilities and the smarter they manage this capacity, the more revenue they can generate. Unfortunately, they must also balance capacity and resource allocation with prudent guidelines and contractual obligations to insure that the customer's equipment is supported correctly. Before DCIM, most data centers would grossly over-provision their resources to insure that any downtime was not related to inadequate capacity. But for Colocation operators, excess capacity is money down the drain.

Many DCIM installations were justified on the promise of helping companies close the gap between capacity demand and availability. This core capability of DCIM plays a significant role for colocation providers by allowing them to make "virtual" operational changes to assess the impact on available capacity. For example, a Colocation provider can use DCIM to assess the space impact of switching from 48U to 72U cabinets in the facility only to realize that the existing subfloor won't support the additional weight. The cost of upgrading the subfloor to support the additional weight can be added to the cost of the new cabinets and then evaluated against the number of new customers and revenue that could be added in the existing space. DCIM's ability to "virtually" evaluate operational changes can help Colocation operators quickly eliminate the projects that don't make financial sense.

4) More Flexible Billing Options

In a highly competitive market like Colocation, price becomes an important decision point for potential clients as they consider their options for equipment hosting. In some cases, Colocation providers would offer half or full cabinet bundles at a monthly fixed price or private cage rentals for significantly more money. These monthly fees would factor in averages for power, cooling and space overhead, manpower to provide local on premise support and security, and other support systems like fire detection and suppression. Most of the Colocation providers offer similar levels of secure data center environment, standard services and SLAs for power and network uptime, so price and value-added services become key differentiators to determine who is getting the customer's business.

With DCIM, the ability to collect detailed data on the power consumption for individual equipment supports flexible billing options for customers who don't require, or do not want to pay for, a full rack to support their three servers. Using measured power and custom configurations based on total required U-space and network connections, a Colocation provider can offer significantly lower prices while still maintaining healthy profit margins. DCIM also provides a level of visibility for the customer by measuring and reporting on power consumption so workloads can be adjusted to run during off-peak hours to save additional money.



5) Customer Visibility for Colocated Equipment

A highly desirable, value-added service for customers considering colocation is the ability to remotely monitor and access their hosted equipment. Without remote monitoring, equipment failures are harder to detect and downtime is significantly increased. Successful Colocation operators keep their customers happy by providing the tools needed to insure that their equipment is properly managed and the information they need to make better decisions about placing additional equipment in the facility.

DCIM can provide a level of visibility beyond Visio, Spreadsheets and CAD drawings, so both the Colocation operator and customer can work together to insure the equipment is properly managed and maintained. For example, an alarm that a key process on a server has stopped can trigger a message to the customer's DCIM console. After evaluation, a remote reboot on the server is attempted, but fails. Rather than drive to the Colocation facility, the customer can call the Service Desk and tell them exactly which server needs to be physically rebooted, with both parties using the same DCIM software. DCIM can also be used by the customer to plan for adding new servers to their rack(s), by creating a reservation and checking to make sure there are enough resources to support the new equipment. This feature of DCIM can significantly reduce the time required to on-board new equipment and insure that nothing falls through the cracks.

Conclusion

DCIM can manage and monitor every aspect of the IT and facilities infrastructure from IT assets to power and cooling infrastructure. For Colocation providers, DCIM not only addresses the critical requirements of power, space and cooling management, it can also help the Colocation operator distinguish their offerings with attractive value-added services.

Whether your organization is a Colocation provider, a managed service provider, an application cloud-based service provider, or all of the above, the need for complete and accurate visibility into infrastructure is the key to successfully managing costs, capacity and availability. Because DCIM solutions like OpenData provide real-time data collection and analytics for intelligent capacity planning, all types of service providers can benefit. DCIM makes it possible to optimize the profits derived from your facilities by identifying and freeing stranded capacity, increasing the productivity of your service staff, and insuring that all your SLAs are achieved.

Bottom line --- every data center can benefit from DCIM, let Modius show you how easy it is to get started.



About Modius

Modius is an independent software vendor based in San Francisco, California. Founded in 2004, Modius develops and delivers intelligent measurement systems for mission critical facilities that improve business continuity, energy performance, and capacity management. Modius solves the challenge of integrating both IT and Facilities Management information into a single, comprehensive measurement system. Modius empowers Real-time Operational Intelligence for improved data center management through:

- Widespread, practical, low-cost collection of all physical-layer performance data
- Trustworthy and reliable analysis tools based on comprehensive data and rich-analytic capabilities
- Useful and actionable Real-time Operational Intelligence through highly-configurable business logic
- Customized workflows, delivering the right intelligence to the right people at the right time.

For more information on Modius, please visit www.modius.com.

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