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**What Role are DCIM Solution Providers Taking to Develop a Common Language?**

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# What Role are DCIM Solution Providers Taking to Develop a Common Language?

BY HERMAN CHAN



While there are some standards for certain aspects of Data Center Infrastructure Management (DCIM), such as ASHRAE thermal guidelines, to date there have been few attempts across the industry to standardize DCIM definitions, frameworks, and best practices in ways that simplify the vendor selection process for customers. A potential explanation for this minimal standardization is that the DCIM industry is still relatively young, but a more convincing rationale may be the often-cited notion that DCIM means different things to different people.

**I**t might be more accurate to say that different people’s perspectives of what DCIM is (and is not) are colored by the aspects most relevant to their roles. Industry analysts define DCIM solutions based on completeness of vision (point tools versus suite solutions), what the tools are meant for (monitoring versus operational efficiency, energy management versus asset management), and what the next big trend will be (DCIM versus DCSO (Data Center Service Optimization)). Meanwhile, customers view DCIM through their experiences with the tools they use to manage their data centers, their responsibilities and KPIs within their own organizations, what they hear from their peers as well as from influencers, and what they’ve learned over the course of their DCIM implementations.

These varying interpretations of DCIM underscore the lack of clarity running rampant across the industry, hindering customers on their quest for the right solution for their needs. However, although there currently are no concerted efforts to create an industry standard of what DCIM encompasses, these seemingly disparate definitions appear to be converging around a common set of key capabilities. Cognizant of both what analysts say and what customers want, product vendors develop their own definitions of DCIM based on how closely their product offerings and features align with these common capabilities.

## FOUNDATIONS OF A COMMON LANGUAGE

When you have a young industry composed of a variety of players, the closest thing to standardization often is what the analysts say. In the case of DCIM, analyst definitions tend to focus on the main capabilities that integrated DCIM solutions should include. The table below provides a sampling of some of the major capabilities from three of the major analysts in the industry.

Despite some slight variations, most of these DCIM capabilities can be organized into the following overarching categories:

- Asset management
- Capacity management
- Change management
- Energy management
- Power management
- Environmental management

Although there is no official industry-standard language at present, these capabilities are forming its foundation. As a result, they also represent the main categories across which DCIM vendors align their products.

## FROM CAPABILITY TO FEATURE

Few, if any, DCIM solutions provide all of the capabilities outlined by major analysts. Rather, in order to be categorized as DCIM solution providers, vendors typically interpret what the analysts say in practical terms that are conducive to fitting their product features to specific capabilities.

For example, features mapped to asset management might include inventory reports and the ability to track adds, moves, and changes in your data center. Forecast charts and failover reports typically fit under power or capacity management.

With so many competing definitions, vendors frequently need to reinforce this alignment and their own interpretations of DCIM with customers. They often do so through educational materials, speaking engagements, product training, and other resources.

## THE POINT-SUITE CONTINUUM

The degree to which vendors align their products with these common capabilities determines whether they are categorized as point tools or suite solutions.

Imagine a continuum: On one end of the continuum are point tools, with modules or features that align to one or two (or a small percentage only) of DCIM capabilities. On the other end of the continuum, you have suite solutions, which are more comprehensive and mature products with features that align with many or the majority of these capabilities.

This alignment has created a plethora of product offerings, all of which appear to fit comfortably under the DCIM umbrella. Unfortunately, the resulting variety of products and lack of transparency around the degree of alignment often confuse customers to the point where they believe that all DCIM products are created equal. Without a clear explanation of which products and features align with different capabilities, how can customers assess and decide which solution is best for them?

## Key Capabilities of Integrated DCIM Solutions by Analyst

Gartner <sup>1</sup>	451 Research <sup>2</sup>	IDC <sup>3</sup>
<ul style="list-style-type: none"> <li>• Power monitoring</li> <li>• Environmental monitoring</li> <li>• Reporting</li> <li>• Visualization</li> <li>• Resource management</li> <li>• Predictive analysis</li> <li>• Modeling and simulation</li> <li>• Airflow and pressure monitoring</li> <li>• Workflow management</li> <li>• IT physical asset monitoring and management</li> </ul>	<ul style="list-style-type: none"> <li>• Cooling optimization/ environmental management</li> <li>• Asset and capacity management</li> <li>• Monitoring and data aggregation (including power/energy monitoring)</li> <li>• Data collection</li> </ul>	<ul style="list-style-type: none"> <li>• Asset management</li> <li>• Data aggregation and analysis</li> <li>• IT automation</li> <li>• Capacity planning</li> <li>• Workflow/moves/adds/changes support</li> <li>• IT service management</li> <li>• Adaptive cooling</li> <li>• Power load management</li> <li>• Energy resource management</li> </ul>

1 Gartner 2016 Critical Capabilities for Data Center Infrastructure Management Tools. 2 451 Research. Next-Generation Datacenter Management: From DCIM to DCSO.

3 IDC MarketScape: Worldwide Datacenter Infrastructure Management 2015 Vendor Assessment.



## AVOIDING THE FEATURE-COMPARISON TRAP

With this increasing focus on capabilities as the common denominators for integrated DCIM solutions, it's easy to see how customers might be lulled into the false expectation that the more features a DCIM product has, the better a fit it will be for their needs. As a result, customers often become distracted by unnecessary features and overcomplicate their DCIM implementations, reducing the likelihood of their success.

How can you avoid this feature-comparison trap? Being aware of the main categories of capabilities and which ones are most relevant to you is a good place to start. Educating yourself on the many available DCIM products on the market can also be valuable.

But perhaps the surest way is to clarify your near-term, mid-term, and long-term problem statements. Well-researched and fully developed problem statements will provide context to your team and your vendors and help you hone in on the most critical features for your DCIM project.

## ADDITIONAL TIPS

Following these additional tips can help you stay cognizant of the feature-comparison trap and take appropriate action to avoid it:

- **Start small and establish success before expanding.** Concentrating on only the top one or two most critical data center challenges first will ensure that you are focused on your problem statements and therefore will help you prioritize features. Trying to do too much too soon encourages scope creep, dilutes focus, and strains resources for aspects of the project that may have less impact or may introduce the risk of project failure. A phased approach also limits any negative impact of change and helps teams become accustomed to new ways of operating.
- **Develop RFPs and RFQs around your “must-have” DCIM requirements.** A long list of requirements can bury your true needs among nice-to-have features that will not necessarily address your top challenges. A vendor invested in your success will mitigate any concern about weak or missing features in the long term by expanding product functionality as needed to address your specific requests.
- **Be as specific as possible in your requirements.** The lack of industry-standard definitions means that feature descriptions can vary widely across vendors. In your requirements, consider documenting your use cases, current processes, existing challenges, and what you want to accomplish. Detailed explanations of not only your problems but also your desired outcomes will result in a clearer understanding of how the vendors' solutions will help you achieve your objectives.
- **Limit your assessment to two or three DCIM vendors at most.** A drawn-out selection process involving a large number of vendors could lead to more than just diluted resources and evaluation fatigue. It also could impede decision makers' ability to differentiate between different vendors and products, delay the decision-making process, and even lead to the wrong decision (or no decision at all). A shorter list of vendors facilitates in-depth discussions with each for better overall engagement and decision quality.
- **Invest time in getting to know the vendors and their product offerings.** Understanding how each product solves your key problems and how the vendors interact with and support their customers will help you be confident

in your decision long after the vendor selection process has been completed. In addition to product demonstrations and case studies, speaking directly with current users and even calling the technical support teams will give you a more accurate representation of the customer experience.

**A Note on Integration:** The ability to integrate with CMDDBs, BMSs and other systems in your organization may be an important consideration for your DCIM implementation. However, proper planning and, more importantly, staging—even if this means waiting until after the initial DCIM project has been completed successfully before integrating with existing systems—can help you avoid complications and achieve a faster and smoother implementation.

Ultimately, though, avoiding the feature-comparison trap is only half the battle. Whether you decide on a point tool versus a suite solution hinges on understanding which option is sufficient for both your current needs and future plans. If your organization only requires one or two DCIM components and has no plans for integration, a point tool may be adequate. On the other hand, a suite solution may provide more value if you plan to evolve and mature DCIM in your organization down the road.

## PREPARING FOR THE FUTURE

Many DCIM vendors today create their own interpretations of DCIM by appropriating major industry analysts' definitions of common DCIM capabilities and identifying the features that best match in their own real-world products and applications. How closely the features align is one indicator of where the solution should be considered along the point-suite continuum. The wide variety of products that can be categorized as falling under the DCIM umbrella and the resulting lack of clarity can impede customers' efforts to choose the solution that best fits their needs.

While a common language has yet to be fully established and could certainly be helpful, the lack of standard definitions, best practices, and frameworks across the DCIM industry is not an insurmountable problem for customers at this time. Organizations that are able to determine their top problem statements in the context of how they want to address their near-term, mid-term, and long-term DCIM considerations will be better positioned to select the best partner to accommodate their unique data center challenges and help them achieve success now and in the future. ■

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**About the Author:** Herman Chan is President of Sunbird Software, a global company that is changing the way data centers are managed through radically simplified DCIM software. Prior to his role at Sunbird, Herman was the DCIM General Manager at Raritan, Inc., leading product management and marketing teams for over 15 years. He can be reached at [herman.chan@sunbirdcim.com](mailto:herman.chan@sunbirdcim.com).

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