The data center is evolving as a result of major forces such as virtualization, cloud, converged infrastructures, big data and advances in mobility. This rapid pace of change is introducing architectural complexities and exposing infrastructure inefficiencies. At the same time, the current tools for monitoring IT operations are ill-equipped to handle this growing complexity. There is strong evidence that companies are focused now more than ever on investing in data center infrastructure management (DCIM) solutions to address the growing complexity, operational inefficiencies and the need for improved flexibility and agility.

According to Gartner, the DCIM market is projected to grow to $1.7B by 2016 at a CAGR of 29%. DCIM investment is not solely being driven by energy cost savings but increasingly by the need for capacity planning and predictive analysis. Energy benefits are relatively easy to demonstrate but it’s no longer the primary reason for DCIM adoption.

IT operators are being asked to do more with less, to better optimize data centers to mirror the demands of the business. Emerson Network Power’s Trellis™ platform is a real time, purpose-built, modular DCIM solution that is open, scalable, reliable and holistic across IT and facilities. The Trellis platform can help mitigate risks of infrastructure availability, access, accuracy and agility, and improve efficiencies through capacity planning, predictive analysis, asset management and environmental insight.

Effective capacity planning and predictive analysis capabilities were identified by Gartner as the most important DCIM investment criteria. To enable IT-as-a-service and holistic end-to-end visibility across all data center resources, physical resource optimization must be tightly aligned with IT hardware systems, ITSM tools, workloads and applications. The Trellis platform delivers next generation data center capabilities today and allows customers to easily start their DCIM journey and grow in a modular, scalable fashion with incremental investments.

Current State Of The Data Center

Modern business is undergoing a period of incredibly rapid change enabled by, what Gartner terms, the “Nexus of Forces.” Mobile, social, cloud and information/big data are the forces that are “intertwined to create a user-driven ecosystem of modern computing.” Put more succinctly by Gartner:

The combination of pervasive mobility, near-ubiquitous connectivity, industrial compute services and information access decreases the gap between idea and action. To take advantage of the Nexus of Forces and respond effectively, organizations must face the challenges of modernizing their systems, skills and mind-sets. Organizations that ignore the Nexus of Forces will be displaced by those that can move into the opportunity space more quickly — and the pace is accelerating. (Source: Gartner, “The Nexus of Forces: Social, Mobile, Cloud and Information,” 14 June 2012.)

Next generation IT systems are making the data center more complex and heterogeneous, which threatens availability and agility while increasing costs. Initiatives like virtualization and newer trends such as cloud computing and converged infrastructures are requiring tighter alignment of physical and logical resources to increase agility and manage availability. At the same time, capacity constraints on power, cooling and space are becoming bottlenecks to data centers.

In addition to the changes affecting modern business, the IT operations that run the data center are shifting from a ‘support’ function to being a function that IS the business itself. And despite ongoing enhancements to IT operations and service management
The ugly truth for traditional data centers is that they are managed in silos, as shown in Figure 3 above. The facilities silo manages the physical layer (power [PDUs], cooling [CRACs] and space) while the IT silo manages not only the IT layer (servers, storage, network and switches) but also the logical layers (applications). Additionally, the IT layer is typically split into three domains – compute, network and storage – and managed as such. Silos, by design, create boundaries and lead to a lack of visibility, control and context in the relationships between all of the data center systems, which leads to sub-optimal decision making and inefficiencies. Until now, data centers have been looking in the rearview mirror to drive the business forward—and this no longer works.

The key challenge of the data center surrounds trade-offs between availability and efficiency (i.e., energy, capital, personnel and operational costs). IT has shortcomings in asset, change/configuration, problem and SLA management, issues with delivering key services and being able to efficiently manage workloads and capacity. In addition, it is unable to efficiently allocate physical resources (power, cooling and space) in the most optimal manner for the appropriate workloads and applications. The facilities group deals with stranded energy capacity and higher-density computing environments while dealing with a lack of visibility and control—introducing more risk to availability and increasing costs.

Traditional ITSM solutions are unable to independently address holistic data center infrastructure visibility, management and control. All of these have led to a data center environment fraught with heterogeneity, complexity, inflexibility, inefficiency with increased risk to service-level agreements (SLA) and business performance. Meanwhile, IT is under pressure to be more relevant to the business and is embarking on IT-as-a-Service and Business Service Management, which further drives a greater need for holistic, real time infrastructure management.

The fundamental problem is that facilities and IT operations have not worked well together. Until recently, these groups didn’t have the tools and processes to easily gather relevant information in real time and in context. So what really drives enterprises to purchase DCIM? What are the key elements to a new and better approach? Read more to find out.

What Really Drives Enterprises To Purchase DCIM

According to Gartner, enterprises are increasing data center strategic planning as part of an integrated plan and this is having an impact on purchasing decisions. A key finding states that companies have a growing interest in DCIM for capacity planning and predictive analysis while continuing to be interested in energy cost analysis as a third area.

Could you answer how much you could improve your operation if, at any time, you truly understood the energy costs—from power grid to IT service delivery—of running an application or workload? The ability to execute real-time capacity planning and statistical analysis across all IT and facilities resources while managing assets and monitoring all resources in real time dramatically improves IT operations. DCIM vendors who have made significant investments in technology and created partnerships with ITSM vendors can extend the value of their DCIM solutions to provide holistic visibility across the entire data center. This enables comprehensive management of all data center infrastructure resources and aligns them with applications, workloads and IT services, and substantially increases availability, efficiency and agility.

The market is filled with tools labeled DCIM, but they lack many critical DCIM capabilities. It’s important to understand that ‘point’ products often address only a few of the essential aspects of DCIM and hinder customer progression to the higher levels of DCIM Maturity shown in Figure 4.

A true DCIM solution should be real time and purpose-built as a platform with a distributed architecture ideally with a centralized interface and built on services-oriented architecture (SOA) to allow integrations via published Web services. And, where the data center and facilities organizations have their siloed functionality converging and aligning for flexible responsive data center services, disparate DCIM solutions must converge to serve the evolving organizational alignment. Emerson Network Power’s Trellis platform allows you to balance short-term needs with long-term capabilities.
The DCIM Maturity Curve is a view of the problems that DCIM solutions should address in priority order. DCIM vendor selection criteria should include the ability of the vendor to provide modular, scalable solutions with a single platform that spans the range of capabilities. Gartner Research suggests, while the core drivers of their DCIM purchase could vary, they still need all of the underlying capabilities, which makes the need for a **holistic DCIM platform** very important. While many vendors can deliver on the capabilities required for the first two phases, most will be unable to evolve customers to the higher maturity levels as they lack a real time, distributed architecture delivered on a single DCIM platform.

### New Approach

A new and better approach to managing critical infrastructure must be holistic—covering **all** aspects of the data center in a **single** platform. IT and facilities are being forced to work together and become customer-focused to deliver a platform that helps businesses compete better. The CIO’s primary concern is that his organization is an **enabler to support both existing and future business growth initiatives** and, therefore, he or she will demand an agile, forward-thinking data center that addresses all business requirements. This new approach using DCIM essentially allows the CIO to flex the infrastructure rapidly with the requirements of the business.

“DCIM tools started to become important in data centers about three years ago and are increasingly being seen as a key component of general data center operations management and specifically, energy efficiency. …these tools act as a critical bridge between data center operations management, and, specifically, energy management.” (Source: Gartner “The Six Triggers for Using Data Center Infrastructure Management Tools, 29 February 2012).

The DCIM value proposition is becoming clearer and centers on delivering immediate value (reduced risks, lower costs, increased efficiency and improved agility) to the business. DCIM solutions solve problems more elegantly with real time data presented in context combined with the ability to remotely access and control assets. At its core, DCIM lowers the risk of downtime while enhancing the flexibility and agility of operations. Some key benefits of Emerson’s DCIM approach are:

- **Autonomic**
  - Automated policy enforcement
  - System responds to common events

### Table 1

<table>
<thead>
<tr>
<th>Traditional Approach to DCIM</th>
<th>Emerson’s DCIM Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited/ silo view</td>
<td>Holistic view and context</td>
</tr>
<tr>
<td>Historical data</td>
<td>Real time data</td>
</tr>
<tr>
<td>Multiple products</td>
<td>Single platform</td>
</tr>
<tr>
<td>No access, no control</td>
<td>Secure, centralized, remote access and control</td>
</tr>
</tbody>
</table>

But why is having real time data important? The ability to collect, filter and process real time data provides critical visibility across the entire infrastructure. Many solutions use models with historical or ‘offline’ data and this dramatically reduces the value of the DCIM investment. Meeting the real time requirement allows the facilities infrastructure to be closely aligned with the IT infrastructure and operations for quick and efficient decision making.
Monitoring and managing critical infrastructure elements is key, but taking it to the next level, being able to optimize operations by automating key aspects of data center operations is an essential driver to increasing the effectiveness of the DCIM solution. The **highest-order step in DCIM** is having a data center that is dynamically optimized in real time with predictive analytics. Smart decision-making as it relates to the energy and environment combined with workflow and process automation can significantly increase data center performance and efficiency. The ability to enact closed-loop control-based management of all IT and facilities resources in real time is the highest-level goal that is achievable. So what will the next generation data center look like?

**The Next Generation of DCIM**

Emerson Networks Power’s vision for the next generation data center is one that relies on real time, closed-loop control that optimizes infrastructure capacity, efficiency and availability and is tightly aligned with ITSM and IT-as-a-Service. The next generation data center will rely on comprehensive monitoring solutions, with intelligence and insights, a policy-based control framework, automation and predictive analytics. This future data center will actively support virtualization, cloud and fabric computing paradigms and will evolve along the DCIM maturity curve from a basic to an autonomic state. Depicted below, the Trellis™ platform affords real time, optimized DCIM with closed-loop control, making the next generation data center a reality today.

Data centers are going forward with virtualizing mission-critical workloads in a production environment. They will become adept at managing heterogeneous cloud resources in an autonomic/elastic manner. Remote management will be a key aspect with the ability to remotely manage virtual and physical resources. Fabric computing will necessitate closer alignment of facilities infrastructure with computing resources pools, requiring tighter integration of DCIM with IT operations (including workloads, applications and ITSM tools).

**FIGURE 5**

The Trellis™ Platform Enables a Connected Data Center Ecosystem

Source: Emerson Network Power (2012)

The next generation data center will consist of highly virtualized resource pools that are managed holistically and designed to deliver IT-as-a-service and business service management for both cloud and traditional environments. As depicted above, a unified, real time platform for DCIM designed for closed-loop control and optimization is critical to realize the full potential of next generation data centers. The Trellis platform enables the journey to the next generation data center in a modular scalable fashion and is depicted in Figure 6. It is designed to allow customers to get started easily and invest and grow incrementally as their needs evolve.

**FIGURE 6**

The Trellis™ Platform Functionality

Source: Emerson Network Power (2013)

CIOs have a lot of tough decisions to make in the coming years. They will be focused on new technologies for optimizing and automating the data center—and they will need a robust DCIM solution to create their own ‘data center of the future.’ A solution that can be implemented to meet today’s requirements yet grow organically with the data center and help with capacity planning and predictive analysis as well as offer proficiency in power and cooling management and asset management is being demanded by the marketplace.

Want to learn more about how the Trellis platform reduces IT risk and improves operational efficiency? Then visit us at the seeTrellis.com and click on the contact us button and we’ll show you how to get started.

Source: Emerson Network Power
With interest in data center infrastructure management tools growing, providers are vying for share of what Gartner estimates will be a $1.7 billion market by 2016. Understanding not only who is buying but why will be critical for product marketing and strategic marketing managers.

Impacts
- A growing interest in data center infrastructure management (DCIM) for capacity planning and predictive analysis means that DCIM providers now need to evolve their messaging and positioning beyond power and cooling management to focus on this more advanced functionality.
- Survey data showing a high level of DCIM deployment by large enterprises can lead providers to underestimate the remaining market for DCIM; many of the reported deployments may be point solutions and pilots that can be expanded.
- Companies that have strategic data center plans differ in their DCIM deployment and investment from those that don’t have such plans, creating targeting opportunities for providers that segment their customers this way.

Recommendations
- Ensure that you communicate that your DCIM offerings include strong business intelligence (BI) and analytics components.
- Understand what comprises the current deployment and investment plan statistics in the survey data, and use the information to inform your strategic marketing, messaging and sales approach.
- Segment customers and prospects according to whether or not they have a definitive strategic plan for their data center so the information can be used to optimize messaging.
- Focus on efficient deployment and exceptional customer service to ensure that small pilot deployments grow into corporatewide, even international, deployments since customers are not likely to introduce additional complexity into their data center environments by deploying multiple different DCIM solutions.

Analysis
Standing Out in a Crowded Market
With over 70 companies currently claiming participation, the DCIM market is crowded, hype-filled and confusing for potential customers. Many vendors use the term DCIM to describe their offerings when what they really offer is only one component of the broader DCIM picture. They are “specialists” or “niche vendors” within the DCIM arena, which certainly have their place, but when they promote themselves as DCIM providers, it makes the vendor landscape even more confusing for customers. (See Note 1 for Gartner’s definition of DCIM.)

To get noticed and win business, DCIM providers need to clearly articulate where and how their offerings dovetail with current initiatives and investment priorities of CIOs (such as analytics and BI, cloud computing, green/sustainability and legacy modernization), as well as those of facilities managers (such as energy management and intelligent buildings). Then they need to build a strong reputation around those solutions to create customer confidence in their key priority areas. Thus, market education will be required, along with a strategy for bringing the various customer constituencies together and guiding them to the ultimate conclusion that your product meets all their collective needs. While the product’s capabilities and ease of integration are obviously vitally important, the DCIM vendor’s ability to effectively communicate the value proposition in this congested market cannot be underrated.

As its primary fact base, this report uses a large-scale primary research study that Gartner completed in December 2012 (see Note 2 for an explanation of the methodology). The study included large enterprises in the United States, Brazil, India and China. Deployment status, investment plans and business use case justification for DCIM were among the many topics explored. Also included, and relevant here, was a continuation of our previous research on the trend toward increased data center strategic planning among large enterprises worldwide and the impact that trend has on purchase decisions. In this same large-scale primary research study, we asked each respondent to think about how their organization approaches change in their data center(s) over the next five years, and asked if they have a definitive strategic plan that includes an integrated project road map or if they address each project separately in an effort to meet current needs, rather than as part of an integrated plan. Then we analyzed their responses to all the other questions in the study, in light of this response. This revealed several interesting data points, including some pertaining to DCIM, which we will explore in this report.

Impacts and Recommendations
A growing interest in data center infrastructure management (DCIM) for capacity planning and predictive analysis means that DCIM providers now need to evolve their messaging and positioning beyond power and cooling management to focus on this more advanced functionality
While temperature and power usage are relatively easy things to monitor, and the impact that managing them can have on energy costs provides an obvious way to demonstrate ROI, power and cooling management is not the reason that most large enterprises are deploying DCIM today. Rather, the organizations we talked to that either had already deployed DCIM in an
# FIGURE 1
Impacts and Top Recommendations for DCIM Providers

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Top Recommendations</th>
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</thead>
<tbody>
<tr>
<td>A growing interest in DCIM for capacity planning and predictive analysis means DCIM providers need to evolve their messaging and positioning beyond power and cooling management to focus on this more advanced functionality.</td>
<td>• Ensure your offering is part of a broader solution that provides capacity planning and/or predictive analysis capabilities, as well as power and cooling management.</td>
</tr>
<tr>
<td>Survey data showing a high level of DCIM deployment by large enterprises can lead providers to underestimate the remaining market for DCIM; many of the reported deployments may be point solutions and pilots that can be expanded.</td>
<td>• Understand what comprises the current deployment and investment plan statistics.</td>
</tr>
<tr>
<td>Companies that have strategic data center plans differ in their DCIM deployment and investment from those that don’t have such plans, creating targeting opportunities for providers that segment their customers this way.</td>
<td>• Use the information to inform your strategic marketing, messaging and sales approach.</td>
</tr>
</tbody>
</table>

- Segment customers based on their data center strategy, and use the information to optimize messaging.
- Commit to a marketing and sales strategy that is consistent with your marketing resources.
- Focus on efficient deployment and exceptional customer service to ensure that small pilot deployments grow into corporatwide, even international, ones.

Source: Gartner (May 2013)

Existing data center or were planning to by year-end 2015 reported that capacity planning was the most commonly used primary justification for that purchase. This was followed by predictive analysis, with power and cooling management coming in a distant third (see Figure 2). Note that the study did not ask about asset tracking or management. (See Note 3 for the definitions of capacity planning and predictive analysis used in the study.)

This doesn’t mean that power and cooling management was not part of the equation; being able to measure and understand those two elements is part of the broader picture of doing capacity planning and predictive analysis for any data center. These results simply indicate that it is not the primary reason for deployment, and therefore, targeting your DCIM offerings strictly for power and cooling improvements, while easy to message, is not where the bulk of the market opportunity is.

The same pattern holds true in all the countries we studied except Brazil, where predictive analysis placed third behind power and cooling management (see Figure 3). In “Emerging Market Analysis: Data Center Strategic Planning Changes Are Under Way,” we showed that large enterprises in Brazil have been slower to adopt the more holistic approach of using a definitive strategic plan with an integrated project road map to manage their data centers than large enterprises in other countries. Thus, it is not surprising that they would also be slower to consider DCIM for predictive analysis purposes, as that implies a more comprehensive view of, and approach to, the data center.

Looking at the data by organization size, the overall pattern again mirrors the global results. However, enterprises with 1,000 to 9,999 employees are more likely (statistically speaking) to use power and cooling management as their primary justification for buying DCIM than those with over 10,000 employees. The biggest companies have bigger data centers and, thus, higher data center costs and, therefore, have progressed further along the path of strategic, holistic data center planning then their smaller counterparts.

Whether you partner to include power and cooling management as part of your DCIM solution, build it organically, or simply have an open enough platform that you can integrate with solutions from power and cooling specialists to feed the live data into your application, participating in the DCIM market requires that you have this capability. But having a power and cooling management product alone will not be enough to meet market needs in the future.
Recommendations:

• Ensure that your DCIM offering is part of a broader solution that includes capacity planning and/or predictive analysis, as well as power and cooling management.

• Specialist providers with a niche in providing power and cooling management have four choices:

  1. Build strong partnerships with broader-based DCIM providers to allow your product to supply the monitoring component that feeds into their broader DCIM solutions. This requires a strong set of open APIs so that your customers and partners can leverage the wealth of information being generated by DCIM deployments.

  2. Develop additional product capabilities to expand into the capacity planning or predictive analysis areas of the market, or to integrate horizontally by adding increased asset management capabilities.

  3. Acquire or seek to be acquired.

  4. Settle for a niche approach with potentially limited market potential.

• Craft your positioning and messaging for C-level executives around capacity planning and predictive analytics. The more you can demonstrate that lost capacity and a lack of visibility into future scenarios will negatively impact your customers’ ability to provide services to their users with potential financial implications, the easier it will be to get the attention of C-level executives.

• Demonstrate to data center managers and facilities managers how the predictive analysis value proposition fits in tactically with other analytics and BI tools that they may be using, such as building management systems (BMSs).

Survey data showing a high level of DCIM deployment by large enterprises can lead providers to underestimate the remaining market for DCIM; many of the reported solutions and pilots that can be expanded

Claims of robust DCIM deployment by large-enterprise customers paint a misleading picture of the current market opportunity. While a significant amount of piloting and proof-of-concept testing is going on, vast opportunity remains as those organizations move on to deploy throughout their data center(s) and new organizations deploy.

The primary research study data shows that 65% of large enterprises either have deployed or are currently deploying DCIM in their primary data center, but that number is misleading when it comes to evaluating the market opportunity for these offerings (see the first chart in Figure 4). Gartner’s data center forecast estimates that there were 6,836 large and enterprise-class data centers in the world in 2012 and that those data centers held over 2 million racks. (Note that these site classes, which we believe are the most suitable for DCIM deployments in the near term, loosely correlate to the employee-based organization size criteria used to qualify survey participants). If the 65% deployment rate indicated in our survey is taken at face value, that would mean that there are 4,443 data centers and 1.3 million racks currently using DCIM.

But when we consider this data coupled with an understanding of how technologies are adopted and the fact that we only asked about deployment plans for the primary data center, it suggests that the deployments
reported so far include a lot of small pilots, point solutions (such as asset management or power management) and proof-of-concept tests, rather than full deployments. Indeed, this conclusion is supported by client inquiries and by polling conducted at our 2012 United States Data Center Conference, in which the number of reported significant DCIM deployments (defined as covering the majority of a major data center’s area and operational rather than a test or pilot) was much lower than 65%.

Furthermore, what the primary research respondents had to say about their future investment plans for DCIM also supports this theory. For example, you might think that if an organization has already deployed DCIM, it wouldn’t be investing in it again in the short term. Or that the number that said they are currently deploying or plan to deploy DCIM by year-end 2013 would be about the same as the number that say they are planning to invest in that time frame. However, neither is the case. When we asked specifically about investment plans for DCIM (and this time we didn’t limit it to the user’s primary data center), the results confirm that there remains a great deal of opportunity for future investment in this technology. The many existing installations are smaller test cases, which will pave the way for additional deployments. New organizations will start to explore the technology as well (see the second chart in Figure 4). In fact, 73% of large enterprises say there is a high likelihood that they will invest in DCIM by year-end 2013.

Although the deployment data does not tell the whole story, it is still useful because it indicates that there is solid interest in DCIM technology and continued, extensive growth opportunity. The data suggests that many large enterprises have moved beyond the initial research stage and have begun testing solutions. This is good news for providers. With the market still in the early stages of the market adoption curve, providers should focus on getting into accounts for pilot testing and then making the best possible first impression. There are likely to be opportunities to expand an initial install into additional areas of the data center or into secondary data centers if the customer is satisfied with the initial deployment. The market is likely to see continued fragmented offerings, as well as failures, mergers and acquisitions for some time to come. Providers must make the right marketing moves to survive, and this approach should position them to fully leverage their sales and maximize their revenue potential.
Companies that have strategic data center plans differ in their DCIM deployment and investment from those that don’t have such plans, creating targeting opportunities for providers that segment their customers this way.

One of the topics we studied in this primary research was how an organization’s approach to managing its data center impacted its technology deployment and investment plans. Each respondent was asked if their organization had a definitive strategic plan for its data center over the next five years that includes an integrated project road map or if it addresses each data center project separately in an effort to meet current needs, rather than as part of an integrated plan. We’ve shown in other research that organizations that have a strategic plan behave differently in terms of how and when they deploy various technologies, compared with those that do not operate with a definitive strategic, and that pattern holds true for DCIM investments, as well. For example, examining the DCIM deployment status and investment plan data revealed three patterns:

- While the lack of a strategic plan has not stopped companies from investing in DCIM, those with strategic plans are now deploying at higher rates (see Table 1).
- Organizations with the most mature strategic plans for their data center (in place for more than eight years) are further along the curve (see Figure 5).
- Large enterprises that have a strategic plan in place for their data center are more likely (at a statistically significant rate) to invest in DCIM tools by the end of 2013 than their counterparts that don’t have a strategic plan (see Figure 6). That is not to imply that the nonstrategic organizations are not going to invest in DCIM in 2013. They also report a high likelihood with a 5.68 mean on a scale of 1 to 7. However, those with a strategic data center plan are even more likely to do so.

**Recommendations:**

- Understand what comprises the current deployment and investment plan statistics, and use the information to inform your strategic marketing, messaging and sales approach.
- Demonstrate the comprehensive nature and cumulative results that can be obtained with today’s DCIM tools as a way of distinguishing your value proposition from point solutions. Confusion reigns in the market with regard to the definition and value of DCIM tools, so anything you can do to help customers understand their value proposition and how they can supplement existing BMS solutions should help to build your reputation as a trusted supplier.
- Focus your marketing efforts on enterprise and large-scale data centers within North America and Western Europe, because these are expected to represent the largest market opportunity for DCIM through 2016.

### Table 1

DCIM Deployment Plans — Large Enterprises With a Definitive Strategic Data Center Plan Versus Large Enterprises Without One (Percentage of Respondents)

<table>
<thead>
<tr>
<th>Deployment Status</th>
<th>Strategic Plan</th>
<th>No Strategic Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already deployed</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Currently being deployed</td>
<td>42</td>
<td>23</td>
</tr>
<tr>
<td>Plan to deploy by year-end 2013</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Plan to deploy by year-end 2015</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>No plans to deploy before 2016</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Sample size: strategic plan: n = 363, no strategic plan: n = 142

Source: Gartner (May 2013)
Based on this data, you could expect to have moderate success if you used a single marketing approach to all enterprises, since both groups report a high likelihood that they will invest in DCIM in 2013. Alternatively, you could conclude that a more targeted approach is warranted. However, if you decide to target large enterprises that have a strategic data center plan since they are more likely to buy in the near term, you might be missing an opportunity.

When you couple the DCIM deployment data with their investment plans, you see that large enterprises that have a strategic plan both have more existing/in progress DCIM deployments and are more likely to invest further in DCIM in 2013. Common sense dictates that customers who are satisfied with their initial DCIM deployments are not likely to test or install a different solution in other parts of their data center or different data center locations. Enterprises are already reporting that the top challenge they face when managing infrastructure and operations is increasing complexity in the data center environment [watch for future research based on our Data Center Infrastructure Perceptions and Tools Survey for more information]. Therefore, we view it as unlikely that they will increase that complexity and the associated learning curve by introducing a different DCIM solution. So with 69% of large enterprises with a strategic plan already using or piloting DCIM solutions, much of their future investment plans are likely to be expansions of those deployments. And in those cases where the piloted solution does not meet their needs, the logical next step would be to move to another vendor that was on their piloting shortlist rather than beginning the research exercise again from scratch. That means that the barriers to entry are higher for a new vendor trying to get into the account. Therefore, while it may seem counterintuitive, large enterprises with definitive strategic plans may not be the best target for emerging DCIM providers that have limited marketing budgets.
Enterprises that address each data center project separately rather than as part of a definitive strategic plan, however, are equally likely to invest in DCIM tools in 2013 but have fewer existing or in-progress deployments to compete with. Furthermore, they report more plans to deploy in 2014 or 2015 than the organizations with strategic plans, and there is additional opportunity to educate and win over the higher percentage of them that don’t have any plans to deploy DCIM at this time. They, therefore, make an intriguing target, because you have a better chance of engaging them early and becoming their preferred vendor for future expanded deployments.

While these data points on DCIM investment plans point to an immediate sales opportunity that you can act on (the tactical view), they are also valuable because they provide insight into enterprises’ overall approach to evaluating and buying DCIM (the strategic view), which can inform your marketing efforts beyond 2013, as well.

Recommendations:

- Segment customers and prospects according to whether or not they have a definitive strategic plan for their data center.

- If your marketing resources permit, develop separate and distinct messaging and sales approaches specifically for each group.

- Use one messaging approach to target all large enterprise prospects under the assumption that even the groups that are the less likely to invest in DCIM tools in 2013 have high enough likelihood ratings to warrant a scattershot approach.

- Or hone your messaging so it resonates with your specific target audience. Remember that organizations that are not yet thinking about their data centers holistically may require more education, help in doing assessments, guidance on how to quantify their potential savings, and help in translating those savings into statements of business agility that will resonate with C-level executives.

- Focus on efficient deployment and exceptional customer service to ensure that your small initial pilot deployments grow into larger corporatwide, even international, ones.

Evidence

Data in this report was derived from primary research conducted from October to December 2012 as described in Note 2. That data was supplemented by Gartner analysis derived from the Gartner Research Data and Analytics team, Gartner forecasts, and the knowledge of the author and other Gartner analysts based on ongoing research, vendor briefings and client inquiry. Like all Gartner research, this research was also put through Gartner’s rigorous peer review process.

Note 1

Gartner's Definition of DCIM

Gartner defines DCIM as tools capable of monitoring, managing and/or controlling major data center assets and resources:

- IT infrastructure — Servers, storage, networking, and so on

- Facilities infrastructure — Power, cooling, space, and so on

DCIM tools are data-center-specific rather than general building tools (that is, DCIM tools do not include general-purpose BMSs). DCIM capabilities can be delivered as software, as a combination hardware and software solution, or as a service. Solutions do not have to be sensor-based, but they must be designed to accommodate real-time monitoring and to analyze the data. They operate at the “box” level (where “box” includes both IT equipment and facilities equipment), showing what and where the box is, as well as what resources it is using. As such, these tools provide data center infrastructure management, not simply energy management, and must incorporate at least the following functionality: real-time energy management; “what if” scenarios; data center inventory tracking; performance of necessary workflow functions; and the ability to integrate with ITIL operations processes.
Survey Methodology

Gartner completed a large-scale study in December 2012 designed to help us better understand how large enterprises think about, plan and manage their data center operations from the perspectives of hardware, management software, organizational structure and strategy. Questions centered on four initiatives:

- How organizations are approaching change in the data center
- Deployment plans and vendor selection criteria for data center management tools
- What’s changing in the data center environment itself
- Attitudes and adoption plans for integrated systems

Total sample size for the survey was 505, including 127 respondents in Brazil, 127 respondents in China, 126 respondents in India and 125 respondents in the United States. To qualify for the survey, organizations had to have a primary data center in one of the above countries and had to manage at least 25% of the IT operations for mission-critical applications in-house. They also had to have 1,000 or more employees worldwide to qualify as large enterprises. The study achieved a good split between low-end and high-end large enterprises, with 59% of respondents coming from organizations with 1,000 to 9,999 employees and 41% of respondents from organizations with 10,000 or more employees. All participant verticals qualified for this study with the exception of hardware/information technology services and software. Respondents were screened to ensure that they had high personal knowledge across the following areas: data center IT operations projects and strategies; data center IT operations hardware infrastructure; and data center IT operations software. Interviews were conducted using a mixed methodology of online interviewing and computer-assisted telephone interviewing.

The main survey was developed by a team of analysts and then reviewed, tested and administered by Gartner’s Research Data and Analytics team. The questionnaire was fielded by an external vendor under contract with Gartner.

Note 2

Capacity Planning and Predictive Analysis

For the purposes of this study, capacity planning was defined as going beyond placement of data center equipment or management of assets to also look at floor space, rack space, power, cooling and network connections to form an overall picture of what’s going on in the data center today.

Predictive analysis was defined as the ability to take hard data about the performance and consumption of all equipment within the data center in terms of space, power, cooling, network connection, and so forth, and use it to do what-if analysis in an effort to understand the cascade effects of making any change and the cumulative effects of that change over time.

The study did not ask about asset tracking or management.

Gartner RAS Core Research Note G00247432, April Adams, Federico De Silva 20 May 2013
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