

Magic Quadrant for Data Center Infrastructure Management Tools

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Analyst(s): Jay E. Pultz, David J. Cappuccio, April Adams, Federico De Silva, Naveen Mishra, Henrique Cecci, Rakesh Kumar

VIEW SUMMARY

Data center infrastructure management tools optimize data centers by monitoring and managing IT and facilities resources and energy consumption. Data center and facilities managers can use this Magic Quadrant to identify DCIM technology providers and determine which meet their prioritized needs.

Market Definition/Description

This document was revised on 23 September 2014. The document you are viewing is the corrected version. For more information, see the [Corrections](#) page on gartner.com.

Gartner defines the data center infrastructure management (DCIM) tool market as a space that encompasses tools that monitor, measure, manage and control data center resources and energy consumption of:

- IT-related components, such as servers, storage and network switches
- Facilities infrastructure components, such as power distribution units (PDUs) and computer room air conditioning (CRAC) units

DCIM tools offer value to IT organizations because they:

- Enable continuous reoptimization of data center power, cooling and physical space usage. This can help defer capital expenses for expanding existing data centers or building new ones.
- Integrate IT and facilities management of a data center. This helps bridge the gap between the IT manager and the facilities manager by supplying each with information and analysis, bringing back together these two interrelated positions.
- Achieve greater energy efficiency. Energy cost savings alone are often enough to make a business case for justifying the purchase of DCIM tools, although these tools offer other benefits that are more difficult to quantify, such as improved workflow.
- Model and/or simulate the data center, enabling the IT manager and the facilities manager to assess "what if" scenarios.
- Enhance resource and asset management by showing how the resources/assets are interrelated.

The data for DCIM tools comes from a variety of sources, including existing systems, inventory and asset management databases, and sensors, which are often used to augment existing systems. Monitors that are used in a wireless network can feed temperature, air pressure, humidity, and other data to DCIM software tools for management and reporting.

DCIM tools also offer extensive reporting capabilities, including dashboards, multiple-level visualization and custom reports for specific roles. Managers can view not just information about specific facilities, but also about power usage, cooling requirements, space and capacity. This helps managers track operations and measure how the system is operating against management's set of key performance indicators (KPIs) and goals.

Although our definition for DCIM tools may appear to be simple and straightforward, it requires further clarification because it has significant implications for this Magic Quadrant:

1. DCIM tools must cover a portfolio of IT-related and facilities infrastructure components, and are not limited to a specific component, such as cooling systems.
2. This is a DCIM tool market Magic Quadrant. We do not include within this market those companies that offer only DCIM consulting and support services.
3. Technology providers can deliver DCIM tools as software, through a combination of hardware and software, or as "DCIM as a service" (i.e., as a cloud-based offering that provides shared-service DCIM tool capabilities).
4. DCIM tools are generally available for purchase and use. We have excluded DCIM tools that are only available to the vendors' customers in the vendors' hosting sites.
5. The DCIM tools in this Magic Quadrant are specifically designed for data center use. General-purpose building management system (BMS) tools are not included in this market.



EVALUATION CRITERIA DEFINITIONS

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes

6. DCIM tools provide granularity of monitoring, at minimum down to the rack level (or to the level of other floor-mounted components), and preferably at the individual component level. Tools such as power usage effectiveness (PUE) calculators are not part of this market.
7. DCIM tools can enable integration of IT and facilities infrastructure management.
8. DCIM tools are used to optimize data center power, cooling and physical space.
9. DCIM tools do not need to be sensor-based, but they must accommodate real-time monitoring and have the ability to analyze the data collected in ways that are meaningful to several roles, including, but not limited to, data center managers and operators and facility managers.
10. DCIM tools must include power monitoring, temperature/environmental monitoring, resource management, reporting and multilevel visualization functions. They may also include other functions, such as predictive analysis, modeling/simulation, airflow and pressure monitoring, and related capabilities.

differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

Based on our analysis, all of the vendors included in our Magic Quadrant offer products that meet this definition. We discuss additional requirements for inclusion in this Magic Quadrant in further detail in the Inclusion and Exclusion Criteria section.

Magic Quadrant

Figure 1. Magic Quadrant for Data Center Infrastructure Management Tools



Vendor Strengths and Cautions

ABB

Publicly traded and headquartered in Switzerland, ABB is a \$42 billion energy and automation company, employing more than 150,000 staff in more than 100 countries. ABB views its data center initiative as a natural extension of its mission-critical infrastructure business. ABB's DCIM — Decathlon for Data Centers (DDC) — is facilities-oriented; however, DDC is readily integrated with many third-party IT-based solutions (including Nlyte Software's). ABB introduced its "Early Access" version of DDC in 2011, with general availability the following year.

Strengths

ABB's financial viability is very solid.

With its engineering heritage and strong partner network, ABB applies strong processes and techniques to every facet of the DDC product life cycle.

Cautions

Partly due to late market entry, ABB lacks substantial mind share in the DCIM market.

ABB relies on third-party IT-oriented DCIM products (including the Nlyte DCIM) to augment DDC

when a fully featured DCIM solution is required. In the dynamic DCIM market, there is risk in reliance on partners.

CA Technologies

Based in the U.S. and publicly traded, CA Technologies is a well-known, major software company with a focus on IT management solutions, including IT service management (ITSM). In 2009, CA started a DCIM incubator project and began offering DCIM solutions. In 2012, the vendor rebranded the offering to CA DCIM. CA envisions DCIM as the basis for IT and facilities integration. A focus on DCIM, supported by an aggressive sales effort, has built CA into one of the market leaders. CA DCIM is sold and supported through CA's direct presence in more than 45 countries, including North America, EMEA, Latin America and the Asia/Pacific region. CA also has sales partnerships with Aceco, Bull, Eaton, Fujitsu, HM Cragg and Honeywell.

Strengths

CA's size and credentials as a software engineering company extend the reach of its DCIM initiative to enterprises, and gives it brand recognition.

Many customers provide positive feedback for the vendor's DCIM solution, and expert team members are involved in resolving customer issues.

Cautions

Although CA has strong mind share for DCIM in IT, it is not well-known on the facilities side.

CA's Visual Infrastructure (VI) product is highly dependent on the Optimum Path nonexclusive partnership.

Cormant

Cormant is a privately held pure-play DCIM provider founded in 2001 and headquartered in the U.S. Its DCIM product, Cormant-CS, enables a comprehensive view of data center facilities, IT infrastructure, assets and connectivity, along with environmental monitoring. Cormant-CS (formerly CableSolve) can be extensively customized to meet specific needs. It is portable, so it is applicable to all areas where IT is present, including data centers, telecommunications rooms, work areas and campus environments. In addition to Cormant-CS, the vendor offers planning, implementation, training and auditing services.

Strengths

Cormant's comprehensive data center view is augmented by strong, pragmatic tracking and alerting capabilities via bar code and/or RFID tags.

The vendor uses a unique "pay as you grow" pricing model.

Cautions

Cormant's asset database and inventory system may conflict with or replace current configuration management database (CMDB) or ITSM processes.

The vendor's marketing is limited; it tends to rely on word of mouth from satisfied customers.

Device42

Founded in 2011, Device42 is a privately held, U.S.-based pure-play DCIM vendor. Most of its staff is dedicated to product development, with engineers in the U.S. and India. Although Device42's DCIM is scalable to much larger data centers, the vendor is primarily focused on smaller enterprises and moderately sized data centers (typically, sites of between 1,000 and 3,000 square feet). To address this market segment, Device42 adopted a self-service business model, which relies on sales of software downloaded from its website and online support. We believe this is an appropriate approach for its target market. Monitored devices can be both physical and virtual. The core product is focused on IT asset management; separately priced power and thermal monitoring modules are also available.

Strengths

Device42 primarily targets smaller enterprises and smaller data centers, and offers a feature set geared to this focus.

The vendor's pricing model is transparent and simple.

Cautions

Device42 is relatively unknown, and it will need to develop a marketing strategy that goes beyond its website if it wants to gain mind share.

The self-service model limits support and services. Customers prefer direct access to Device42 engineers, which may not be practical as the vendor expands.

Emerson Network Power

U.S.-based and publicly traded, Emerson is a \$24.7 billion major energy, cooling and automation systems firm. Emerson Network Power is one of Emerson's five major business units, and is dedicated to critical infrastructure, including data centers. During 2009, Emerson acquired two DCIM pioneers, Aperture and Avocent, for \$1.2 billion. In 2012, Emerson released its next-generation modular DCIM platform, Trellis; a gateway product interfaces with an extensive set of IT and facilities products and protocols.

Strengths

Trellis is integrated into IBM's ITSM suite via an exclusive partnership that includes sales. Emerson

also resells to key IT vendors, such as Oracle.

With 133,000 employees in 150 countries, Emerson has strong direct sales and support. Its indirect channel includes over 850 professional services companies, such as Infosys.

Cautions

Emerson's older ("legacy") DCIM products and Trellis overlap functionally; the vendor needs to better define and articulate a transition plan — and to strongly incentivize customers.

Until this year, the vendor lost a number of legacy customers due to support issues. Although we detect considerable improvement since then, customer feedback indicates more work needs to be done.

FieldView Solutions

Privately held and U.S.-based, FieldView Solutions is a pure-play DCIM vendor that introduced its DCIM product FieldView in 2006. FieldView targets larger enterprises and service providers with its facilities management capabilities, and partners with other DCIM players (such as Nlyte Software) to address the IT aspects of DCIM. FieldView is a self-contained, nonmodular solution that monitors power usage, temperature and alarms. It is well-integrated with many popular facility systems.

Strengths

FieldView is highly scalable, as evidenced by its deployment in the large data centers of its "blue chip" list of customers, such as banks, colocation/hosting providers, e-commerce companies and government agencies.

FieldView provides native integration capabilities with several BMS, electrical power management system (EPMS), protocols (e.g., Modbus, BACnet, SNMP, OPC, XML and SOAP), and hardware and software vendors.

Cautions

Because FieldView has a clear focus on data center facilities monitoring, other DCIM capabilities (e.g., IT asset management) require extension via FieldView's partner products.

The vendor has a small direct sales force.

FNT

In business for 20 years, FNT is profitable, still owned by its founders and headquartered in Germany. The vendor's forte is developing software tools for a wide range of data center management processes. FNT is strong in the German-speaking DACH region (Germany, Austria and Switzerland), and is expanding into North America, the Middle East and Southeast Asia. Its DCIM product, FNT Command, consists of four modules, all based on FNT's data model, a repository that links information from the facilities side up the stack to business processes. It is an open platform that is highly integrated and automated. FNT's partners include Eirteic, Future Facilities, HP, Oracle and yandree.

Strengths

FNT's DCIM uses FNT's unique data model, a unique and visionary data repository that links from facilities through to business processes.

FNT's DCIM pricing structure is a concurrent user software license model, which is independent of data center size.

Cautions

FNT's DCIM solution is principally geared to data monitoring, collection and workflow. As such, it will appeal primarily to data center operations staff. The solution lacks the trending and analytics of competitive offerings.

Outside of DACH, FNT lacks mind share. The vendor will need to substantially expand its marketing efforts to succeed in its geographic expansion plans.

Geist

Geist, a privately held U.S. company, has been in business since 1948 as a supplier of power, cooling and environmental monitoring equipment. Geist is owned by PCE, a large global manufacturer of plastic products and data center solutions. Geist has recorded annual revenue of \$80 million and has 245 employees worldwide. In 2007, the vendor launched its Environet DCIM product, which focuses on monitoring and management of power, cooling, security, fire and life safety environmental. Environet offers a number of integrated views, and a Geist integration team ensures that the core product works with the client's other software tools. A companion product, Racknet, monitors power strips and environmental sensors for visibility of data center facility white space.

Strengths

Geist has a presence in different geographies. Its indirect sales approach includes 25 global value-added reseller partners, representative firms in the U.S., and other sales partners in the U.K. and China.

Environet integrates natively with multiple BMSs, open APIs and other integration methods, such as SNMP, email, SMS messaging, XML and OBIX.

Cautions

Geist lacks a compelling vision for future product design and integration with ITSM tools. It needs a strong partner on the IT side that can complement its facilities-oriented strengths.

Power strips, which account for the large majority of Geist's overall revenue, are not a strong complement to DCIM.

IO

IO is a well-funded, venture-capital-backed, U.S.-based private company that offers modular solutions both within and external to its colocation data centers. It initially developed its IO.OS DCIM product for its own needs, but now also sells IO.OS to its customers and on a stand-alone basis. IO views IO.OS as a key element to its modular-software-defined data center offerings. IO.OS is an extensively featured DCIM tool available in separate enterprise and service provider options. With a very rich set of open APIs, IO.OS can interface with a wide variety of IT and facilities components and protocols. The solution's road map includes predictive analytics, automation and control.

Strengths

IO is an innovator in DCIM; for example, it was one of the earliest vendors to offer mobile DCIM access.
IO.OS has unique, "iconic" data center representations, which the vendor sees as stripping away unnecessary detail.

Cautions

IO.OS is principally (but not exclusively) sold to the vendor's modular solution customers, and its sales and support is limited outside of its data centers and modules.
IO's geographic coverage is limited, with sites in Arizona, New Jersey, Ohio, Singapore and London.

iTRACS

iTRACS hails from an asset management background and introduced its first DCIM product in 2009. It was acquired in 2013 by CommScope, a public company that reported \$3.5 billion in revenue in 2013. This gave iTRACS access to additional resources to support its development efforts, along with the potential to expand its marketing and sales reach. CommScope reports having about 12,500 employees, although the number devoted to the iTRACS DCIM offering is significantly less. iTRACS' current DCIM product is Converged Physical Infrastructure Management (CPIM) v.3.2.

Strengths

Joining forces with CommScope eliminated concerns typically raised about smaller companies' financial viability.
iTRACS can preconfigure and integrate CPIM into CommScope's Data Center on Demand and imVision products.
CPIM has strong visualization capabilities with its navigable 3D environment.

Cautions

CPIM is priced as a portfolio product. Many customers prefer, and economic conditions often require, more modular pricing.
Organizations without strong process maturity may find CPIM implementation to be time-consuming and complex.
iTRACS has prematurely overemphasized its "our DCIM Developer Community" initiative and its potential impact on the market.

Modius

Founded in 2004, Modius is a private, U.S.-based, pure-play DCIM vendor. The vendor's DCIM offering, OpenData, focuses on complete infrastructure monitoring, as well as asset, and environmental management for data centers and other facilities. Most sales are direct, but Modius is expanding its partnership strategy. Modius has integrated OpenData with hardware and software offerings from HP, IBM, Universal Electric Corp. (UEC) and other vendors serving the DCIM marketplace. Modius has customer deployments across the Americas and Asia.

Strengths

OpenData has built-in analytics with customized dashboards and reports, providing strong multisite visualization.
Modius' enterprise service bus provides a scalable, patented data collection and normalization technology for all data center infrastructure (networked and legacy), with integration support for sharing data with other applications (BMS, CMDB and others).

Cautions

Modius is a small company with limited direct service capacity.
IT monitoring occurs at the rack level (through power strips or sensors), rather than at the server or virtual image level, and its offerings have little formal integration with ITSM products.

Nlyte Software

U.S.-based and privately held, Nlyte Software is a DCIM pioneer that has been in business for over 10 years and currently has more than 100 employees. Now in its seventh major release, the Nlyte product suite provides intelligent capacity planning, power management, cooling and space management, and asset provisioning. It has a strong workflow engine and is available both as on-premises software and as a SaaS offering. Nlyte has focused on continuing to enhance the features and capabilities of its DCIM

offering.

Strengths

The vendor has a clear understanding of the DCIM market (current and future), and a well-thought-out road map to a vision with which Gartner concurs.

Nlyte has strong technology and sales partners, including BMC Software and HP, and facilities-oriented DCIM vendors seeking an IT component that complements their strengths.

Cautions

The link between ITSM and Nlyte functionality can appear complex to users, as the vendor is stronger on the IT side than the facilities side.

Nlyte's brand awareness and marketing is not as visible as that of its larger competitors.

Optimum Path

Founded in 1999, Optimum Path is a U.S.-based, privately held software engineering company with about 40 employees. It focuses on innovation, and its expertise in visualization and operating support systems is evident in its DCIM product, Visual Data Center (VDC). VDC creates 3D data center renderings and incorporates smart interfaces between IT equipment and the power and cooling infrastructure. Although Optimum Path has a small direct U.S. sales force, its focus has been on R&D, with VDC private-labeled by partners or incorporated into expanded DCIM suites.

Strengths

The vendor's 3D data center visualization is particularly strong.

Its development relationship with CA Technologies has provided Optimum Path strong credence as an innovative DCIM software engineering firm.

Cautions

Heavy dependence on a DCIM OEM creates business risk; other partnerships are too new to assess for growth potential.

Optimum Path's limited direct customer engagement restricts its visibility, mind share and market understanding.

Panduit

Founded in 1955, Panduit has always been focused on the physical infrastructure in data centers, enterprises and industrial environments. Its SmartZone DCIM offering is integrated to provide a consolidated view of data centers, which enables users to monitor multiple sites, and it can centralize IT and facilities information to provide a holistic and drill-down view of each location.

Strengths

Panduit has a strong power, cooling and engineering focus, and a well-established global partner ecosystem.

It offers real-time monitoring, alerting and visualization of facilities, network and IT components, with integrated views of multiple locations.

It offers customizable reporting on power, environmental, connectivity, capacity, costs, carbon dioxide and alarms/security information, including SynapSense Active Control as an advanced means of cooling efficiency and control automation.

Cautions

The vendor primarily focuses on facilities, with detailed monitoring and reporting integrated with SmartZone hardware products; however, it fully supports BACnet, Modbus and SNMP protocols.

The vendor's collection and management of asset attributes may conflict with existing CMDB implementations and ITSM systems.

Its integration with established workflow and ticketing systems is cursory.

Rackwise

Founded in 2005, Rackwise is one of the early pioneers of DCIM. It is the only publicly traded, pure-play DCIM vendor. Its DCiM X is an affordable DCIM tool — made so, in part, by a unique concurrent user licensing model. It has a solid, well-received feature set.

Strengths

The vendor's customer base remains sizable and strong. Customers appear well-pleased with DCiM X.

Rackwise has an exclusive sales partnership with Unisys — especially developed to enhance opportunities within the U.S. federal government market. Unisys also provides customer support, such as implementation and training.

Cautions

Rackwise is in poor financial condition. Its 10-Q filing for the period ending 31 March 2014 reported a net loss about four times greater than its quarterly revenue of about \$400,000. A recent \$3 million cash infusion has helped, but the vendor still must resolve its financial issues.

Rackwise's financial performance in the recent past has slowed product development, leaving it behind its key competitors in the rollout of advanced features and capabilities.

Raritan

Raritan is a private company founded in 1985 as a keyboard, video, mouse (KVM) vendor, and is run by its founder. It has expanded its physical infrastructure product lines to include smart racks, intelligent rack PDUs and electronic asset tagging systems. The vendor entered the DCIM market in 2008. DCIM is now one of three business units; Raritan has over 400 employees. Its DCIM offering consists of dcTrack and Power IQ, which provide detailed views of physical assets; manage changes; and provide monitoring, tracking and analyzing of power, energy, resource capacity and the environment. These products appeal to both IT and data center facilities operations professionals.

Strengths

Raritan has a global sales channel strategy, an IT-focused partner network and a direct presence in 13 countries.

It has integrated its DCIM product offering with its power and other data center infrastructure products.

Cautions

Its products are geared principally for data center operators, rather than managers who are empowered to make buying decisions.

Although Raritan has good basic physical infrastructure capabilities, it has not advanced as rapidly as some of its competitors.

Schneider Electric

Schneider Electric is a global energy technology and solution provider. During 1H14, the company generated about €11.7 billion in revenue — 13% from the IT business unit where the DCIM product resides. To differentiate itself from operational technology (OT)-focused competitors and to support its data center initiatives, the vendor has made several acquisitions, particularly in software. Schneider Electric's DCIM offering, StruxureWare for Data Centers, is built on a software platform that is used in its product lines for other industries to monitor and manage energy and physical assets. The DCIM product consists of 10 modules that may be bought and used independently. Schneider Electric also provides implementation and consulting services.

Strengths

StruxureWare for Data Centers is a comprehensive solution with good support services surrounding it, and one of the most successful DCIM products in the market today.

Schneider Electric has demonstrated its ability to market and sell to and support current and prospective DCIM customers in multiple geographies.

Cautions

Some customers have reported long implementation and problem resolution cycles.

With its strong background in OT, the vendor does not have the same reach into IT as some competitors.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor's appearance in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

None; this Magic Quadrant is in its first release.

Dropped

None; this Magic Quadrant is in its first release.

Inclusion and Exclusion Criteria

Magic Quadrants do not include all vendors in a given market; they include those vendors that have a strong market position. In most cases, vendors that have a strong market position must derive a specified minimum level of revenue from a defined market to be included in the Magic Quadrant for that market.

Hardly any DCIM tool vendors make their DCIM tool revenue publicly available; thus, we had to develop a different approach to ascertain vendor market position. We also needed to take into account the bifurcation of the DCIM tool market. Some vendors meet our definition, but offer only very basic functions; others offer enhanced capabilities, such as operationalized Computational fluid dynamic (CFD) analysis. The average selling prices in these two categories differ widely: Typically, enhanced products are at least three times as expensive as basic products. Both basic and enhanced offerings are included in our Magic Quadrant.

Our estimates factor in this market bifurcation. In addition, the primary DCIM analysts had to be in consensus that the vendor's product and operations were mature enough for Gartner clients. We judged this, in part, by the relative number of vendor employees.

We base our estimates of vendors' market strength on vendor/market surveys, vendor briefings (more than 50 vendors related to this space have briefed Gartner), vendor discussions, and analysis of vendor website content, Web searches and other publicly available sources. Based on this data, we *estimated* the relative market positions of the vendors, using ratio analysis, data triangulation and other analysis techniques. To be included in the Magic Quadrant, vendors must, by our estimates, have:

Twenty-five or more customers with at least 20 racks (or rack equivalents) monitored/managed by the vendors' DCIM products; they also must have signed a significant deal in the last six months (see note below)

A total of 2,500 or more racks (or rack equivalents), monitored/managed by the vendors' DCIM products (see note below)

Note: *All* racks must be revenue-producing for the vendor, and *all* racks must be in a production environment. "Rack" means either a rack/cabinet of IT/facilities equipment or other floor-mounted unit. Typically, a rack constitutes about 30 square feet of data center space, including aisle ways. "Rack equivalents" are other floor-mounted units that the DCIM tool monitors and manages.

Our remaining inclusion criteria are:

The initial general availability release date for the product(s) occurred on or before 1 March 2013.

The vendor has DCIM tools customers in North America or EMEA.

Firms that offer only DCIM consulting and support service were not included.

A vendor must meet *all* of the inclusion criteria to be included in this Magic Quadrant. (Note: As the DCIM tool market continues to mature, our inclusion criteria will also change.)

Evaluation Criteria

Ability to Execute

The evaluation criteria for our assessments of each vendor and across all vendors for their Ability to Execute included (but were not limited to) these key aspects:

Product or Service: Features and capabilities of DCIM products

Overall Viability: Financials, both at the enterprise and DCIM product levels

Sales Execution/Pricing: Pricing structure and presales approach, including proofs of concept (POCs)

Market Responsiveness/Record: Key examples of responsiveness and their win rates

Marketing Execution: Initiatives and marketing response metrics

Customer Experience: Customer support and service programs, including professional services, installation, customer relationship approach, customer references, client inquiry feedback, customer satisfaction metrics and retention rate

Operations: Organizational structure, key executive and DCIM team profiles, and DCIM team composition metrics

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product or Service	High
Overall Viability	Medium
Sales Execution/Pricing	High
Market Responsiveness/Record	High
Marketing Execution	High
Customer Experience	High
Operations	Medium

Source: Gartner (September 2014)

Completeness of Vision

The evaluation criteria for our assessments of each vendor and across all vendors for their Completeness of Vision included (but were not limited to) these key aspects:

Market Understanding: Vendors' point of view regarding current critical needs and their potential evolution

Marketing Strategy: The vendor's value proposition statement, key differentiators, marketing communications programs and plans

Sales Strategy: Sales approach and plans, and sales partnering strategy and plans

Offering (Product) Strategy: Product road map, IT/facilities integration plan, scalability, product development methodology and the impact of data center trends on the vendor's DCIM

product

Business Model: Business rationale, relationship to other product lines, and strategic partnerships and plans

Vertical/Industry Strategy: How the vendor is currently addressing key DCIM market segments, and its future plans for doing so

Innovation: Key DCIM R&D investment areas and R&D investment metrics

Geographic Strategy: The vendor's plans to expand its geographic coverage, either directly or through partnerships and channels

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	High
Marketing Strategy	High
Sales Strategy	High
Offering (Product) Strategy	High
Business Model	Medium
Vertical/Industry Strategy	Low
Innovation	Medium
Geographic Strategy	Low

Source: Gartner (September 2014)

Quadrant Descriptions

Leaders

Companies in the Leaders quadrant offer a comprehensive range of DCIM functions and capabilities. Leaders are performing well, have a clear vision of the market's direction, and are actively building competencies and adding or enhancing functions to sustain their leadership within the market. Leaders typically have a relatively high level of market strength. (For our definition of market strength, see the Inclusion and Exclusion Criteria section.) Leaders show evidence of superior vision and execution on current and anticipated customer requirements, and they receive positive customer feedback for large, complex DCIM implementations (such as hosting data centers) and related service and support.

Challengers

Challengers execute well, but have a less well-defined view of market direction than Leaders. Companies in this quadrant typically are financially viable and offer a solid DCIM product; have track records of market success, including satisfied customers; and run efficient operations. However, Challengers may lag Leaders and Visionaries in their rollouts of new functions within longer-range road maps.

Visionaries

Visionaries have a clear vision of market direction and are focused on preparing for it, but they may be challenged to execute against that vision because of undercapitalization, a limited market presence, lack of experience, smaller company size or narrower market scope. As the name of this quadrant suggests, Visionaries often are innovators that introduce new capabilities earlier than the vendors typically found in the Challengers and Niche Players quadrants. Visionaries in DCIM typically are well-attuned to the impact of broader data center trends, such as integrated systems, software-defined data centers and alternative energy sources.

Niche Players

Niche Players may offer a sound, credible DCIM solution for one or more segments of the market, but not necessarily for all segments; for example, some DCIM vendors are more focused on midsize enterprises or data center operations personnel than vendors in other quadrants. Niche DCIM vendors may, for example, have a good offering that serves the facilities aspects of DCIM, but derives its IT aspects chiefly by partnering. This narrow focus may affect Niche Players' ability to outperform their competitors or be innovative. Vendors in this quadrant typically have a smaller installed base than vendors in other quadrants. Inclusion within this quadrant does not reflect negatively on the vendors' value in the more narrowly focused market they service.

Context

Key implementations have demonstrated that DCIM can provide compelling operational benefits. All data center managers and associated facilities managers and infrastructure and operations (I&O) leaders that have at least a moderately sized data center should consider investing in DCIM solutions:

DCIM should be a requirement in all major data center builds and renovations.

If you haven't already implemented DCIM, consider pilot projects and limited implementations.

Before evaluating DCIM tools, determine what you want to accomplish with them, identifying which among the varied DCIM functions are most important, and what the product road maps of

prospective vendors encompass. Ask for POCs and references, and assess the product maturity. Factors to consider in evaluating what is right for a particular data center include its size and which vendors it currently includes for related IT and facilities products.

Market Overview

Most DCIM tool solutions provide data center and facilities managers with substantial benefits which will only become stronger and more apparent over time. Gartner clients express concern about the price tag attached to DCIM, but DCIM costs represent only a small percentage of the overall total cost of ownership for the data center. In addition, typical DCIM licensing costs per rack have substantially declined over the last three years.

Recent Gartner research projects show that, for 2014, DCIM is managing about 425,000 racks worldwide — an impressive number which nevertheless shows that DCIM has only just begun its penetration, as this represents only 7% of the racks in data centers most suitable for DCIM (that is, data centers with an area greater than about 1,000 square feet). In North America, the penetration rate for 2014 is about 12%. By 2017, Gartner forecasts that DCIM tools will be deployed in more than 60% of the larger data centers in North America. Currently, DCIM primarily is being adopted within service provider data centers (including colocation and telcos); by large global organizations in the financial services, high tech and healthcare sectors; and by federal governments.

The Magic Quadrant for DCIM is composed of vendors of varying backgrounds:

Nearly 50% of the vendors are essentially pure-play DCIM vendors that are startups or began as startups: Cormant, Device42, FieldView Solutions, iTRACS, Modius, Nlyte Software, Optimum Path and Rackwise. Several of these vendors started out in asset management (e.g., Device42).

Five vendors are in the power equipment space: ABB, Emerson Network Power, Geist, Schneider Electric and Raritan.

Four of the vendors come from IT segments: CA Technologies, FNT, IO and Panduit.

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