

DCIM MARKET DEFINITION



Data centre infrastructure management (DCIM) systems collect and manage data about a data centre's assets, resource use and operational status throughout the data centre lifecycle. This information is then distributed, integrated, analysed and applied in ways that help managers meet business and service-oriented goals and optimise the data centre's performance. At PowerOn 2013 Amit Singala, software business development manager at on365 – an elite partner of Schneider Electric, presented an introduction to some of the benefits of DCIM

Modern day data centres are more complex, more interdependent and even more critical than ever before. Data centres have always used massive amounts of energy but predicted price rises of over 20% per annum combined with expanding infrastructure, rapid change, more focus on operations and in depth scrutiny of return against investment require Facility and IT managers to go beyond performance management of equipment to manage the entire datacentre infrastructure.

With intense budgetary pressure operational managers must now do more with less, whilst driving increased efficiency in the datacentre and provide meaningful and reliable information on performance and costs. Business executives have realised that hundreds of thousands in energy and operational costs can be saved by improved physical infrastructure planning, by minor system reconfiguration and by small process changes, gains in optimisation can be achieved. Not only that, but facilities and IT staff now also being challenged to convert data centres from cost centres into producers of business value.

However, you cannot manage what you do not measure and you cannot save money until you understand where it is being spent. Legacy reporting systems, designed to support traditional datacentres are no longer adequate for new 'agile' data centres that need to be proactive rather than reactive managing constant capacity

changes and dynamic loads.

This has led to the need for more intelligent and automated facilities and IT infrastructure management and this is what DCIM delivers, providing visibility into the datacentre physical infrastructure within and across both the IT and facility domains enabling the datacentre team to effectively and operate this complex environment optimising datacentre resource utilisation, efficiency and availability.

DCIM includes management of the datacentre infrastructure layer (power, cooling and the physical space), the IT infrastructure layer (compute, storage and communications equipment) and the gap between the two layers.

Today's DCIM tools are designed to identify and resolve issues with a minimum amount of human intervention. By correlating power, cooling and space resources to individual servers, DCIM tools proactively inform IT management systems of potential physical infrastructure problems and how they might impact specific IT loads. Particularly in a highly virtualised and dynamic cloud environment, this real-time awareness of constantly changing power and cooling capacities is important for safe server placement.

DCIM tools also enable facilities and IT teams to inform the lines of business of the consequences of their actions before server provisioning decisions are made. Business decisions that result in higher energy consumption in the data centre,

for example, will impact carbon footprint and carbon tax. Charge backs for energy consumption are also possible with these new tools and can alter the way decisions are made by aligning energy usage to business outcomes.

Furthermore, through a graphical user interface DCIM tools graphically display a complete inventory of the datacentre's physical and logical assets. Effective DCIM provides not only full access, control and management of these devices in the physical infrastructure but also a true insight into how that equipment is being utilised, what capacity is available, where it's residing and how much power is being used. This can also illustrate the current physical state of the data centre and simulate the effect of future physical equipment adds, moves, and changes. This capability provides answers to some common planning questions

In summary, DCIM provides both the facilities and IT domains with full knowledge-driven control of their datacentre and gives the insight required to drive performance throughout it including data centre assets and physical infrastructure. With effective DCIM implementation managers can plan, monitor and execute datacentre management strategies which can support improved financial and operational performance through the most efficient use of power, cooling and space achieved by optimal placement of data centre assets and their use.