Data Centre Management as a Service is a game changer

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South Africa Johannesburg, 23 October 2018; Connectivity and data continue to transform the way that industries work, how companies interact and how people live. Data centres, server rooms and IT closets all play a critical role in making this happen.

The Internet of Things (IoT) has brought an increasingly vast volume of machine data and outsourcing many enterprise applications into the cloud has elevated the importance of resilience in distributed IT environments and edge data centres, all of which redefine the need of availability for a connected and always-on generation of users.

The dilemma is how to increase operational efficiency and availability within an industry that relies on a break-fix program to meet service and maintenance requirements of both mission critical infrastructure and risky, local edge facilities. Clearly, a new and dynamic approach to data centre operations is required.

Introducing DMaaS

For an increasing number of organisations, data management is vital but it is not their core business and they do not have the necessary knowledge to do so. In that case, data centre management as a service (DMaaS) is the ideal solution.

DMaaS is composed of an integrated set of hardware and software solutions, some new and some already well established, to enable the optimisation of the IT layer.

Different from on-premise and SaaS-delivered DCIM, DMaaS aggregates and analyses large sets of anonymised customer data that can be enhanced with machine learning. A key goal is to predict and prevent data centre infrastructure incidents and failures and to detect inefficiencies or capacity shortfalls

DMaaS achieves this by simplifying, monitoring and servicing all connected physical infrastructure equipment which supports IT (DMaaS is vendor neutral) in any sized facility, from edge installations to major enterprises.

A typical DMaaS installation works by connecting physical infrastructure to the cloud using a secure and encrypted gateway. This enables connected equipment to be monitored, data outputs to be analysed and actionable information and alerts provided to the user via their smartphone or device. DMaaS promises the team managing IT and physical infrastructure real-time operational visibility, awareness of alarms, and reduced resolution time when troubleshooting, without all of the costs associated with deploying an on-premise DCIM system.

DMaaS is quick to deploy, low cost (starting at free) and requires no more than a software download plus a smartphone app for users to begin to get remote monitoring and real-time insights into the data centre. Whilst in the past, the cost and complexity of instrumenting a data centre presented a barrier to DCIM deployments, DMaaS is able to utilise data from a range of sources such as temperature sensors for a fast track to value.

Data lake enables learning

As an exemplar case of using technology to solve the challenges of technology, two transformational developments have enabled the development of DMaaS: the predominance of 'internet connected' IT physical infrastructure and the ubiquitous availability of secure cloud services that enable data to be pooled and propel the new world of big data analysis.

Currently around 1 000 new devices are being connected to the Schneider Electric cloud each day. As increasingly more data centres are connected to DMaaS, more data from more diverse manufacturers'

equipment is accumulated into a data lake, which is being supplemented and enhanced by customers. As a result, data scientists are already able to provide all sorts of new insights to help improve the reliability and efficiency of critical facilities.

Whilst the data is tagged and anonymised for privacy reasons, analytics can be applied, which can be turned into customised recommendations to improve data centre performance. From a big data point of view, cloud-based remote monitoring brings advantages that point-monitoring solutions cannot match.

With DMaaS listening to and learning from connected devices, the system is able to provide better management information to the data centre manager. This enables maximised protection of critical equipment through smart alarm notifications and remote troubleshooting. At the same time, smart insights are able help improve availability and efficiency.

In addition, with data being accumulated across a range of operating and environmental conditions, DMaaS becomes more intelligent about maintenance requirements, as well as gathering insight into events surrounding any equipment failure. In any event, the cloud-based approach to data centre maintenance and repair gives the facility manager choice. In addition, drawing on data from a wider pool also offers guidance about spares holding etc.

Natural evolution from DCIM
Schneider Electric has had years of experience creating a world-leading DCIM platform and is using this to create a cloud-based vendor-neutral Software as a Service architecture (EcoStruxure IT) that will guide data centres, edge, and hybrid IT environments safely into the future.