

## REPORT REPRINT

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# Vertiv prepares a cloudy overhaul of its datacenter software

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The Emerson Electric datacenter spinoff is rationalizing its sprawling portfolio of datacenter management software and related products. Disproving rumors, the new strategy and reorganization revolves around its flagship DCIM platform, Trellis.

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Vertiv has outlined a revamped strategy for its datacenter software and related communications software and hardware, following a review by management and its new owner, the private equity firm Platinum Equity. Vertiv, a leading datacenter technologies supplier formerly known as Emerson Network Power, is readying several software-driven initiatives, including a hosted SaaS version of its flagship DCIM platform, Trellis, which is slated for launch later this year.

It has also created a new business unit to more strategically position its DCIM and other software as part of 'blended ecosystem,' which in some cases will mean retiring legacy tools. The company will also embed more software into more of Vertiv's datacenter equipment. On the longer-term roadmap is a move toward a cloud-based datacenter management as a service (DMaaS) approach that would closely tie into Vertiv's extensive datacenter lifecycle services business.

The broad strokes of Vertiv's strategy were disclosed to 451 Research amid industry rumors that it was pulling back from further development of Trellis and away from DCIM altogether. Vertiv's response: 'to the contrary.'

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## THE 451 TAKE

Vertiv's new owner has begun rationalizing the company's sprawling assets, beginning with software. The plan for software is partly a continuation of moves that were already underway - embedding more code into its datacenter equipment, for example - and partly a cleanup of legacy (in some cases, anachronistic) products, including some regional-specific software. We believe a wider goal will be to re-architect the base Trellis code to make it more accessible and attractive to a wider group of datacenter managers. We also expect it will extend Trellis' capabilities beyond just datacenters. It is no secret that sales of Trellis, along with most of the DCIM sector, have not delivered on expectations. While the Trellis brand may or may not survive, the underlying platform seems set to be better exploited over time. If executed, Vertiv is likely to transition to a more software- and services-oriented firm, which could help increase customer loyalty for its equipment.

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## CONTEXT

Vertiv is one of the largest suppliers of datacenter technologies, often either number one or number two behind Schneider Electric, depending on the product subsector.

Vertiv was formerly the datacenter business of Emerson Electric, which in late 2016 divested it to private equity firm Platinum Equity for \$4bn, creating the largest independent supplier of power, cooling, services and management software to datacenter providers and telcos. Following the transaction, the company officially changed its name from Emerson Network Power to Vertiv, and changed its leadership. A new CEO was appointed, Rob Johnson, who was formerly with the VC firm Kleiner Perkins Caufield & Byers and was also a former CEO of APC (which rival Schneider Electric acquired for \$6.1bn in 2006.)

In recent years, Emerson Network Power had been repositioning its wide-reaching portfolio to lessen its reliance on enterprise datacenter revenue, where budgets for privately owned, on-premises datacenters have been shrinking.

As a private company, Vertiv has the opportunity to recalibrate and refine its strategy, while also being more nimble. We believe the company will expand into adjacent markets outside of datacenters, particularly mission-critical infrastructure. We would also not be surprised if Vertiv, under the advisory of Platinum Equity, entertains alternative strategic options for certain business lines in its portfolio.

## SOFTWARE CONTEXT

Software has been assuming a growing role during the past several years in a company that has historically derived most of its revenue from infrastructure equipment such as cooling and power. The launch of Trellis in mid-2012 marked a major investment in a new scalable datacenter and IT management platform that incorporated the best capabilities of a range of existing products (following Emerson's acquisition of Avocent in 2009).

The Trellis suite had been engineered to replace an ageing but widely adopted product – Aperture (from Avocent) – and to improve on it with features that spanned the traditional divide between IT and datacenter facilities. However, it took a number of releases before Trellis matched some key functions that the company was already delivering in other ways, which led some Aperture customers to migrate to others' platforms. Trellis has also attracted new customers, including NTT, which has a target to standardize on Trellis across most, if not all, its more than 140 datacenters globally.

Vertiv does not disclose total customer numbers or revenue for Trellis, but says that in 2016 it added nearly 30 Trellis customers and that Trellis revenue was flat. Based on 451 Research's end-user experience and consultancy, Trellis is routinely included in prospective buyers' RFP short lists.

## SOFTWARE STRATEGY

Data about Vertiv's equipment and its customers' datacenter environments was historically handled by multiple, often overlapping, software products that were spread across multiple internal teams at the company.

These disparate products and teams – ranging from data collection to integration, analysis and end-user interfaces – are now centrally managed under a new Global Management Systems group. The group is led by the industry and company veteran Patrick Quirk, who reports directly to Vertiv's CEO.

In addition to software, the new Global Management Systems group manages communications hardware, such as sensors, communications cards, data gateways and OEM-embedded firmware (including KVM and server-processing tools). These IT management products were originally acquired with Emerson Network Power's acquisition of Avocent but the technology has not until now been fully integrated with the company's datacenter products.

In recent years, the company has been focused on a software-seeding strategy to better leverage its DCIM platform, Trellis. This strategy to embed Trellis code into Vertiv's equipment, ranging from prefabricated modular datacenters to discrete cooling and power supplies, will be ramped up in the coming months, according to Vertiv.

A goal is to make its equipment more intelligent using a consistent software architecture (enabling consistent installation and support). In some cases, the software can enable remote control – turning equipment off and on, load shifting, and so on. Collected data such as equipment performance, energy usage and environmental conditions can then be fed into, aggregated and analyzed by the broader Trellis DCIM platform.

In addition to shipping lightweight Trellis components with its equipment, the company also provides an API and has developed an application framework to enable third-party services and applications to be built around the Trellis Application Framework platform.

There will also be ongoing investment in the core Trellis DCIM platform. In the second half of 2017, Vertiv plans to release Version 5.0 of Trellis that will include new features for colocation providers. It is also readying to release a hosted SaaS version of Trellis in H2.

451 Research believes that, in time, the Trellis Application Framework, a library of lightweight, open source Trellis DCIM components, will form the basis of a major Trellis rewrite. TAF has the same UI as the core Trellis DCIM platform, but it is not based on the Oracle 11g platform – making TAF applications far more lightweight. The use of open source components can ease adoption (reducing costs, footprints, operating systems, for example) and, moreover, will free users from being tied to Oracle 11g.

## COMPETITION

Large electrical equipment suppliers in the datacenter arena include Schneider Electric, Legrand, Huawei, Siemens, ABB, Eaton and GE. Smaller, increasingly competitive players include Delta Group and S&C Electric. There are also a number of specialists, including Geist for power distribution, CommScope and Panduit for datacenter connectivity and Cummins and Caterpillar for generators.

Vertiv, Schneider Electric and specialist Nlyte Software lead the DCIM market, and compete against rivals such as ABB, Baselayer Technology, Eaton, Panduit, Siemens and Sunbird Software.

All of the major datacenter technologies providers have had cause at various times to consider how their data-center (and especially their IT and software) offerings fit into their giant parent companies, where an electrical generation or transmission deal, for example, can dwarf the annual sales of many IT products together. Vertiv will likely expand into adjacent segments, including industrial IoT, smart buildings and smart cities, where many of its large datacenter-sector rivals are also competing.

## SWOT ANALYSIS

### STRENGTHS

Vertiv has a large installed base, several strong brands and a broad global footprint. As an independent company, it is becoming more focused, agile and competitive.

### WEAKNESSES

Some might view Vertiv's software strategy as being too proprietary, despite its APIs and despite it being open to third-party developers.

### OPPORTUNITIES

The datacenter sector is adopting a growing range of 'smart equipment' as it slowly but surely moves toward more software-driven (and ultimately automated) critical systems. There is also an opportunity for DCIM providers to extend their technology into industrial IoT, smart cities, smart buildings and other energy management areas.

### THREATS

All large incumbents in the datacenter technologies sector are vulnerable to lower-cost and/or innovative competition. The threat from more nimble or innovative players, in particular, may intensify as some major buyers such as hyperscale datacenter operators seek alternatives to 'the usual suspects.'