

REPORT REPRINT

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Chatsworth thinks outside the cabinet to provide more integrated datacenter systems

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The company is facing pressure from datacenter operators to develop more converged systems and simplified rack-level management. It is responding by integrating cabinets and power management products, but how far up the stack can it go?

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The business of IT rack systems is being disrupted as more datacenter customers, particularly enterprises and colocation providers, are looking for streamlined purchasing of datacenter equipment and management software. Increasingly, customers are seeking fully integrated and in many cases customized racks and power distribution units (PDUs). In response, Chatsworth Products (CPI) has adopted more of a converged systems approach that includes a broader portfolio of integrated systems, datacenter management software and engineering design services that leverage its competencies in enclosures, cabinets, rack power distribution and containment systems. The company is also aiming to simplify the management of datacenter white space with intelligent PDUs, DCIM software and remote access control for improved cabinet-level management.

THE 451 TAKE

CPI is leveraging its engineering and manufacturing model to provide simplified rack-level purchasing and management and the option for greater flexibility via customized designs. The risk that it faces is that 'customized' in technology terms can (very generally) translate into longer lead times and lower margins. The company is focused on offsetting this risk with its modular design approach (to keep lead times in check) and with scale as it increases its overall share of components and software per rack. CPI's experience in integrated racks could also present it with opportunities in micro-modular datacenters - particularly in edge and Internet of Things (IoT) deployments - that require ruggedized enclosures, more intense power and environmental monitoring and management, and secure access control. Other larger datacenter suppliers and IT OEMs are also strategically investing in converged systems and micro-modular datacenters complemented by a wide array of services. As a relatively smaller player, CPI may need to find strategic partners or explore M&A options in the micro-modular arena.

CONTEXT

Chatsworth Products began as an employee buyout of Harris Corp's Dracon Division in June 1991, and it remains 100% employee-owned. The Agoura Hills, California-based company started with 90 employees and has since grown to about 600 worldwide, with 25 R&D engineers. Its core product lines include enclosures, IT cabinets and rack power distribution for the IT and telecom sectors. CPI's go-to-market strategy is to sell primarily through distributors and resellers, and it also maintains some ODM/OEM relationships.

The company does not disclose its financials. We estimate annual sales of \$100-200m, driven mostly by its cabinet and enclosure business (approximately two-thirds of revenue), with power distribution generating about one-third of sales. By market, we estimate CPI's revenue breakdown at roughly 60% in datacenters and 40% telecom.

We believe that enterprise and colocation providers drive most (roughly 80%) of revenue, with enterprise weighted slightly higher, and that cloud/hyperscale customers account for the remaining 20%. CPI notes that its enterprise sales were tracking about in line with our 451 Research forecast for enterprise datacenter growth (low single digits, according to 451's Datacenter Monitor), but that its sales into the colocation and cloud sectors were exceeding our outlook for those markets, which we forecast at an 8% and 18% CAGR through 2020, respectively.

The Americas represents about 70% of CPI's revenue, with the remainder roughly evenly divided between the EMEA and Asia-Pacific regions. Europe in particular is a strategic growth area for CPI. Outside of its headquarters in the US, the company has three operational sites in New Bern, North Carolina; Chatsworth, California; and Georgetown, Texas (including a 10,200-square-foot R&D center). The company also has offices in Canada, China, Mexico, the UK and the United Arab Emirates. It has manufacturing facilities in Germany and China in addition to three in the US. CPI reports that it is increasing its manufacturing capacity globally to help enable faster and more cost-effective delivery of its products.

STRATEGY

Datacenter customers increasingly prefer full-service providers or Sis, as opposed to internally stitching together complex systems from different vendors. In some cases, this includes pre-integrated or prefabricated modular systems. CPI notes that its employee ownership structure is a competitive strength: it helps foster a customer-focused workforce. The company concentrates on engineering a growing range of pre-integrated products that span cabinets and enclosures, power distribution, physical access control, and monitoring and management software (which it white-labels from Sunbird Software). The goal is to significantly shorten planning and deployment times, increase operational efficiency, and simplify rack management for customers.

CPI also highlights its engineer-to-order strategy and ability to integrate rack components with competitive lead times. Its power products are approximately 75% standardized and 25% customized, while customization for its cabinet offerings is about 50%. The company says customization orders are rising across the board.

PRODUCTS

CPI's product portfolio consists of airflow containment systems, cabinets and enclosures, industrial enclosures (for harsh environments), cable management, cable runway and trays, environmental monitoring and security, grounding and bonding products, KVM systems, power management, rack systems, seismic protection systems, wall-mount systems, and zone and wireless enclosures. Integrated cabinets can be pre-installed at its own factories or by SIs and others.

The company offers a line of intelligent PDUs under its eConnect brand. Using a single network connection, its intelligent PDUs enable remote management at the cabinet level for power monitoring, environmental monitoring and physical access control. The monitored eConnect PDU has a built-in web browser interface and integrates with CPI's Power IQ for eConnect DCIM software (see details below). The eConnect PDU is also compatible with most third-party DCIM systems. Its eConnect PDUs are available in over 330 standard configurations.

CPI's Secure Array IP consolidation technology can cluster up to 32 PDUs (16 cabinets with two PDUs per cabinet). Cabinet-connected locks and environmental sensors can also share the Secure Array single network IP address – minimizing the number of network drops and networking costs. Secure Array uses standard Ethernet cables and enables features such as outlet grouping, data logging, threshold alarms and PDU cloning. For failover capability, users can add a second IP address to the cluster. CPI can integrate the network wiring of the PDUs in its factory.

The company offers secure access to cabinets and enclosures via its electronic locking systems. Its eConnect Electronic Access Control (EAC) is a networked electronic lock for cabinets that works with its eConnect PDUs and eliminates the need to power and network the lock separately. The eConnect EAC also integrates with third-party DCIM software.

CPI resells customized OEM-branded DCIM software from Sunbird called Power IQ (PIQ) for eConnect. The DCIM software integrates out of the box with CPI's eConnect rack-mounted PDUs and eConnect EAC, and is compatible with other third-party intelligent PDUs. Its features include the auto-discovery of rack PDUs, capacity forecasting, remote power on and off outlets, and monitoring of power and environmental data against pre-established thresholds. PIQ for eConnect can also be deployed as a stand-alone DCIM monitoring service. CPI's agreement is not exclusive as Sunbird has a similar technical integration and sales partnership with Raritan in which Raritan resells Power IQ alongside its PX intelligent rack PDUs.

Environmental, power and security monitoring are provided by CPI's Remote Infrastructure Management (RIM) system, which includes both appliances and sensors. RIM systems can also connect to building management systems.

COMPETITION

In power distribution, CPI competes with suppliers such as Eaton, Geist, Panduit, Raritan (a subsidiary of Legrand), Schneider Electric, Server Technology, Vertiv and others. Server Tech has been particularly successful with its engineered-to-order strategy. In the cabinets and enclosures, cable management, cooling containment and converged rack systems markets, CPI vies with Eaton, Legrand, Panduit, Rittal, Schneider Electric, Vertiv and others. In the cabinet and PDU sectors and in custom product designs, Delta Group is a rival but to somewhat of a lesser extent as it focuses more on the open compute arena (where CPI does not participate) and the hyperscale segment.

SWOT ANALYSIS

STRENGTHS

CPI is structurally organized and has the in-house engineering capability to deliver rapid customized cabinet and PDU designs. It focuses on pre-integrated infrastructure spanning racks, PDUs, secure access, and remote monitoring and management.

WEAKNESSES

The company is a relatively small supplier with a datacenter portfolio and related services that are not as extensive as some of its larger infrastructure competitors.

OPPORTUNITIES

The datacenter market is demanding more efficient, integrated rack systems and simplified rack-level management. Industrial enclosures and power management technologies should find new opportunities in edge and IoT datacenter deployments that will require higher-rated, ruggedized enclosures and near-real-time monitoring.

THREATS

Bigger datacenter infrastructure rivals with wider portfolios and in some cases broader supply chains and manufacturing capabilities are strategically increasing their converged system offerings that are complemented by a wide array of services.