

## IDC Innovators

# IDC Innovators: Datacenter Software-Defined Networking, 2018

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THIS IDC INNOVATORS EXCERPT FEATURES: PLEXXI

### IN THIS EXCERPT

The content for this excerpt was taken directly from IDC Innovators: Datacenter Software-Defined Networking, 2018 (Doc # US43436718).

### Why Plexxi Was Chosen as an IDC Innovator

An early entrant in datacenter SDN, Plexxi has achieved distinction as an early proponent of intent-based networking through its flat, scale-out network topology. Moreover, Plexxi was one of the first start-ups in datacenter SDN to perceive a significant opportunity in bringing integrated networking, through key partnerships, to HCI deployments.

Plexxi				
 <b>Founded</b> 2010	 <b>Number of Employees</b> 94	 <b>Headquarters</b> Nashua, New Hampshire	 <b>Number of Customers</b> 50	
 <b>Product Name</b> Plexxi Switch, Plexxi Control, Plexxi Connect	 <b>Founders</b> David Husak, Ephraim Dobbins, and Mat Mathews			
 <b>Profiled Product/Service</b> SDN/IBN	 <b>Funding</b> Through four rounds of funding (to Series D), Plexxi has raised more than \$90 million.	 <b>Typical Deal Size</b> \$250,000		

### IDC Innovator Assessment

- Plexxi positions its network software running on white-box switches as representing hyperconverged networking (HCN): a programmable, workload-driven Ethernet/IP-based datacenter fabric. The Plexxi fabric scales within a single rack, across multiple racks, across pods, and across datacenters (without the need for dedicated spine switches). HCN enables convergence of discrete networks (LAN and SAN) into an intelligent datacenter fabric serving all workloads.
- HCN is integrated with HCI orchestration and management to discover VMs, form VLANs, automatically create an isolated storage network within the network fabric, discover hypervisor security groupings/policies and create their network ACLs, and provide network visualization in an HCI context.
- Plexxi HCN not only is for HCI but is also applicable to enterprises running mixed workloads that require a high-bandwidth, low-latency SDN fabric in an on-premises cloud environment.

## Key Differentiator

Plexxi's HCN is differentiated by its single-tier switch topology, enabling Plexxi switches to connect directly to one another without traversing a leaf-spine hierarchy. The network scales out via top-of-rack (ToR) switches to form a datacenterwide fabric that is controlled by workload intent to enable increased network efficiency, reduced complexity, network consolidation, and greater server and storage utilization. Plexxi was also one of the first SDN vendors to aggressively target the HCI networking opportunity, perceiving HCI's need for a similarly hyperconverged approach to networking.

## Challenges

In pursuing HCN as a complement to HCI, Plexxi must work continuously to ensure that it is seen by its HCI partners as an integral provider of HCI networking. If its HCI partners develop, acquire, or partner with other vendors to obtain networking for HCI, Plexxi could be adversely affected.

## IDC INNOVATORS IN DATACENTER SOFTWARE-DEFINED NETWORKING

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Since emerging from academe several years ago and achieving its earliest deployments at hyperscale cloud providers, software-defined networking (SDN) has evolved and matured as it has extended its reach into enterprise datacenters. As a result, SDN today is less about mechanisms and more about outcomes. It is defined less by its piecemeal components and more by what it accomplishes. Indeed, SDN – and its evolutionary extension into intent-based networking (IBN) – represents an architectural approach to datacenter networking in the cloud era. It is defined by an abstracted architectural model that better aligns network infrastructure with the needs of application workloads through automated (thereby faster) provisioning, programmatic network management, pervasive application-oriented visibility, and where needed, direct integration with cloud orchestration platforms. These capabilities can translate into significant operational savings while providing organizations with the means of faster time to business outcomes and revenue realization. IDC strongly believes that datacenter networks require modernization and transformation. To support digital transformation, datacenter networks must become agile, both architecturally and operationally. They must possess the intelligent automation that will make them "cloud like" and increasingly autonomous.

## TECHNOLOGY DEFINITION

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This IDC Innovators study examines four start-up vendors that provide software-defined networking (SDN) for the datacenter. Datacenter SDN architectures feature software-defined overlays or controllers that are abstracted from the underlying network hardware (switches), offering intent- or policy-based management of the network as a whole. This results in a datacenter network that is better aligned with the needs of application workloads through automated (thereby faster) provisioning, programmatic network management, pervasive application-oriented visibility, and where needed, direct integration with cloud orchestration platforms. These capabilities can translate into significant operational savings while providing organizations with the network agility that can contribute meaningfully to business outcomes and revenue realization.

## IDC INNOVATORS INCLUSION CRITERIA

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An "IDC Innovators" document recognizes emerging vendors chosen by an IDC analyst because they offer an innovative new technology or a groundbreaking business model, or both, and were approved

by the IDC Innovators Review Panel. It is not an exhaustive evaluation of all companies in a segment or a comparative ranking of the companies.

An IDC Innovators document highlights vendors that meet the following criteria:

- In IDC's opinion, the company exhibits innovative technology or a new business model.
- The company has annual revenue <\$100 million at the time of selection.
- Customers are currently using the company's products and services (i.e., the products and services are not conceptual or in the process of being released).
- The product, service, or business model must solve or help to alleviate an IT buyer challenge.

In addition, vendors in the process of being acquired by a larger company may be included provided the acquisition is not finalized at the time of publication of the document. Vendors funded by venture capital firms may also be included even if the venture capital firm has a financial stake in the vendor's company.

## LEARN MORE

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### Related Research

- *Worldwide Datacenter Network Forecast, 2018-2022* (IDC #US42756018, February 2018)
- *Assessing Options for Datacenter SDN* (IDC #US43279017, December 2017)
- *Worldwide Datacenter Software-Defined Networking Vendor Revenue and Market Share, 1H17 and CY16* (IDC #US43282417, December 2017)
- *Market Analysis Perspective: Worldwide Datacenter Networking, 2017* (IDC #US43072517, September 2017)

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