

Delivering On Next Generation Data Center Agility

A converged network delivers:

- A truly flat (single tier) architecture
- Seamless scale-out capabilities
- Data and application workload awareness
- Workflow integration with virtualization and storage
- Operational efficiency gains
- Lower capital costs
- Lower operational costs
- Increased Security

Plexxi is a pioneer of next-generation networking products and solutions that enable organizations to operate at the speed of business. Plexxi's products – Plexxi Connect, Plexxi Control and Plexxi Switches create a unified system that delivers the industry's first converged data center network. Plexxi switches converge traditional multi-tier architectures into a single network tier optimized for east/west data center traffic patterns. Plexxi Control centralizes management, control and visualization of the physical and virtual data center environments as well as delivering data and application workload awareness into the network. Plexxi Control can, in real time, dynamically change the network topology to ensure data and application workloads have the resources they need to be successful. Plexxi Connect provides an integration platform for the network and third party tools like vCenter from VMware and OpenStack. An implementation of Plexxi Switches, Plexxi Control and Plexxi Connect defines a system approach where workflows between the network and third party tools can be integrated and automated in ways never before possible.

An agile data center from Plexxi consists of three defining characteristics that set it apart from all other networking solutions on the market.

1. A truly flat (single-tier) architecture that can be globally managed and dynamically provisioned
Traditional leaf-spine topologies were beautifully designed to support north/south traffic patterns prevalent in the days when users and applications were static. However, modern and highly virtualized data centers require support for massive, unpredictable east/west traffic patterns that come from machine to machine (storage and compute) communication. For these new types of traffic patterns a truly flat, single-tier network is required.
2. A simple-to-deploy scale-out network model
Storage and compute have evolved rapidly over the last several years, yet networking architectures have remained unchanged. Today, scaling-out applications and storage is fast and easy, yet scaling traditional networking is slow, manually intensive, operationally burdensome and an impediment to data center agility. In contrast to costly traditional networking approaches with over

provisioned spines, Plexxi enables network capacity to be easily added, as needed, in small increments and in line with budgets. With a truly scale-out network from Plexxi, the configuration of new switches is automated; you simply need to plug in the cables. The addition of new Plexxi switches in a scale-out model increases fabric capacity and resiliency, as well as introduces more data path options for better application performance.

3. Data and application workload awareness

With traditional networks, applications were “poured” into a static infrastructure with the hope there was enough network capacity to meet their needs. When users complained due to poor application experience, IT spent precious budget dollars to build another, more expensive, multi-tier and static network. In contrast to this traditional approach, a Plexxi network begins with the needs of the individual data and application workloads. Integration and awareness between the network and virtualization domains enables the association of workload and network resources into Affinity groups. Workflow orchestration ensures workloads have the best, lowest latency and highest bandwidth path through the fabric in real time. Network capacity is optimized for each individual workload providing a better user experience.

An Agile Data Center solution from Plexxi is application-aware and delivers a dynamic topology to ensure data and application workloads get the resources they require for a positive user experience every time. The solution is easier to deploy and manage, takes up less rack space, uses less power and requires less cooling than traditional networking approaches. An Agile Data Center from Plexxi increases agility, improves operational efficiency, provides an elastic pool of network resources and delivers workflow integration between the physical and virtual data center environments. With Plexxi, your data center has the performance and scalability needed to meet your current and future virtualized application and storage needs.

The rise of virtualization and 3rd platform scale out applications has placed a new set of demands upon the data center network. To the user it must appear deterministic and fluid with any-to-any connectivity, making resources available on demand for the task at hand. Traditional networking solutions cannot fill the need – they either must be over-provisioned with expensive, every-to-every connectivity, or they must rely on non-deterministic oversubscription. The result: a chasm between the physical network and the virtual cloud. Plexxi has bridged that gap.

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Simply a Better Network.™

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