

# DATA CENTER FABRICS OVERVIEW

## (½ DAY)

Building a new data center fabric? Trying to evaluate different vendors? Considering tighter integration with virtualization platforms or converged storage?

This vendor-independent workshop will:

- Give you an overview of data center fabric principles and common requirements;
- Describe typical data center fabric architectures and vendor-specific solutions implementing them;
- Identify benefits and drawbacks of common data center fabric architectures;

## TOPICS COVERED

The workshop focuses on these data center fabric requirements:

- End-to-end layer-2 and layer-3 transport;
- Converged storage requirements, including Data Center Bridging (DCB) and Fibre Channel over Ethernet (FCoE) support;
- Optimal transport with layer-2 and layer-3 multipathing;
- Redundant server connectivity with Multi-chassis Link Aggregation (MLAG);
- Virtualization awareness;
- Simplified provisioning and management.

The typical data center fabric architectures described in the workshop include:

- *Independent management, control and data plane* – Multi-chassis Link Aggregation (MLAG) solutions (Arista, Cumulus, Dell Force10) and large-scale bridging solutions from Brocade and Cisco;
- *Centralized management, independent control and data planes* – Cisco ACI, Brocade VCS Fabric.
- *Centralized control plane, distributed data planes* - Cisco VSS, HP IRF, Juniper Virtual Chassis and Virtual Chassis Fabric, OpenFlow-based solutions;
- *Centralized data plane* – Cisco port extender architectures

## TAKEAWAYS

After attending this workshop you'll be able to:

- Identify common data center fabric criteria and requirements;
- Evaluate vendor architectures and identify their benefits and drawbacks;
- Select the data center fabric solution meeting your requirements.

## AVAILABILITY

Data Center Fabrics Overview is a half-day on-site workshop. The workshop can be extended by in-depth technical details or discussions of customer's specific design challenges.

## WHO SHOULD ATTEND

This workshop targets architects and designers who are planning, designing or building next-generation data centers. It will also help server, virtualization, security and networking engineers understand the limitations of data center fabrics and the options made available with the emerging software-defined technologies.

## ABOUT THE AUTHOR

Ivan Pepelnjak, CCIE#1354 Emeritus, is an independent network architect, book author, blogger and regular speaker at industry events like Interop, RIPE and regional NOG meetings. He has been designing and implementing large-scale service provider and enterprise networks since 1990, and is currently using his expertise to help multinational enterprises and large cloud- and service providers design next-generation data center and cloud infrastructure using Software-Defined Networking (SDN) and Network Function Virtualization (NFV) approaches and technologies.

Ivan is the author of [several books covering data center technologies](#), highly praised [webinars](#), and dozens of [data center](#) and [cloud](#)-related technical articles published on [his blog](#).