

## Professional Structured Cabling for Top Quality Results

Mellanox Professional Services team offers exemplary structured cabling services consisting of caging and suite, building, or campus cabling infrastructure installations.

Let us deploy your cable plant so you can enjoy a **professional, high-quality** outcome with superior value and satisfaction.

### Why choosing Mellanox Delivery Team?

Cabling solutions are often taken for granted. However, most major Server and Network vendors representing the majority of the performance computing market emphasize that their devices will never reach their full potential if the cabling plant is not implemented properly.

The Mellanox Services team has a comprehensive understanding of data center standards, cabling objectives, and Mellanox and non-Mellanox components. The Mellanox Services team has vast experience of engagement with large clusters with many vendors; an experience that has been leveraged to deliver cable plant installations that are deployed with the highest standards allowing for maximal network performance, ease of maintenance, and error free operation.

By retaining Mellanox Services to deploy your solution, our team of experts enables you to focus on your core business while we do the heavy lifting. Our all-inclusive Professional Services offerings reduce time to production, saving you time and money, and increasing your ROI.

### By choosing Mellanox Services you will get:

- Fast Standards-based deployment and accurate installation, expansion and changes.
- High performance and high bandwidth with scalability
- A dedicated technical delivery manager
- A dedicated technical onsite FSE
- Quick escalation to Tier 2 and Tier 3 support for those rare occasions
- Case summaries
- Management of installations of software updates
- Real-time health monitoring and diagnostics
- Additional customized services, development services, and more
- High capacity and density specialization
- Initial investment protection
- High quality, reliability, and scalability

## What do we do?

- Planning  
Any well-planned network should begin with a logical network design and a physical network design. Mellanox services will prepare all design documents to ensure that all your servers, Ethernet switches, InfiniBand switches, and storage are accounted for. We will also review the physical network design: floor plans, rack elevations, infrastructure details and detailed cable Information including physical cable routes, lengths, and spares.
- Selecting Cables  
Mellanox Services will provide cable recommendations; generally fiber cables are employed for inter-rack runs due to their ability to traverse greater distances and smaller diameter. Intra-rack cables will most often be passive copper cables as they are less costly and ideally suited to shorter runs.
- Selecting Racks  
For large multi-tiered fabrics with high-density Core/Director switches it will be necessary and required to house the chassis in its own rack; we recommend sourcing extra wide racks.
- Selecting Cable Management  
Cable management comes in different sizes; Mellanox will work with you to review manufacturers specifications. We recommend sourcing large enough systems to account for the great number of cables and diameters.
- Document network connectivity design - Point to Point (p2p)

When employing Mellanox Services to deploy cabling, our team will work to create comprehensive p2p documentation consisting of a list of all cables to be implemented, a source and destination and bundling matrix describing every cable end point, and labeling information – as described in details below:

- Cable Inventory  
While planning the cable implementation, various intricacies of the logical and physical design will dictate the sourcing of many different cables of different lengths and types; the p2p will detail this information.
- Labeling Information  
It is critical that all cluster elements have unique names to ensure all are connected per the design. Hence, the cable labeling should reflect the designations representing origin components and destination components, including the port the cable should connect to, cable type and length details

**Package Offerings**

Mellanox offers several differently sized deployment packages; each package offers the same level of Service.

**The information within this outline is a high-level outline of the Cable implementation packages Mellanox Global Professional Services may provide during a delivery; actual Services provided will be described in a Statement of Work.**

**For more information please contact your Account Manager.**

## Experts in Data Center Structured Cabling

A data center cabling design is different from residential or commercial building cabling design. Some of the most important areas of consideration are:

- **High Cable Densities:** data center cabling will typically have a very high cable density; hence the implementation should be scalable and easy to maintain.
- **Cable Management:** high-density cable plants can lead to challenges with installation, expansion, and changes. Proper cable management with special attention to bend radius is required in a data center.
- **Air Flow:** poor airflow is a major concern in data centers. Proper cable plant design and management aim to address these environmental concerns and prevent issues.
- **Cabling may be copper or fiber** which depends on the interface of the equipment to which it is connected. Typically structured cabling services allow for dark fiber (unused strands) to be run along with the active fiber.