



## CommScope® and Cisco® - The ideal connectivity system for multilayer directors

- SYSTIMAX InstaPATCH 360 Ultra High Density Solution
- SYSTIMAX InstaPATCH Cu®
- Cisco MDS 9500 and Nexus 7000 Series



Cisco MDS 9500 Series  
Multilayer Director



Cisco Nexus 7010 Data  
Center-Class Switch\*

## Why CommScope for multilayer director connectivity?

Data center managers need high performance infrastructure solutions to handle high-volume, business-critical hosting and backup needs. The essential nature of these applications require:

- extreme service reliability
- quick changes, additions and expansion
- high performance
- easy migration to future technologies
- high density
- long-term cost effectiveness, including installation, administration, scalability, warranty and maintenance

The SYSTIMAX data center connectivity solution is designed to meet the following needs:

- handle fiber data rates from 1 Gbps through 100 Gbps, including 10/40/100GbE and 16G FC
- handle copper data rates up to 10/100/1000/10/GBASE-T
- be quickly and efficiently reconfigured to support serial and parallel data transmission
- meet security, electromagnetic and environmental challenges
- be configured for high-density and to alleviate overcrowding in cabinets and save valuable data center floor space

### SYSTIMAX Data Center Connectivity Solution for the Cisco MDS 9500 and Nexus 7000 Series

CommScope and Cisco, recognizing the benefits that this system provides for data center managers, have partnered to create a uniquely integrated solution for the Cisco MDS 9500 and Nexus 7000 series. This InstaPATCH 360 enabled solution provides a number of advantages for data center managers, including:

- self-contained director connectivity in a single cabinet or rack, providing isolation from day-to-day management
- integrated trunk mounting with shelf and rack brackets
- provides a structured cabling system for equipment connectivity
- adds flexibility and reduces legacy issues with direct connect patch cords under floor
- single-mode and multimode modules accommodate mixed fiber types
- less cable under floor improves air movement
- follows TIA/EIA 942 and 606B standards for cross connection points
- a separate cross-connect area for port mirroring designated for physical layer moves, adds, or changes
- scalability to support Cisco MDS and Nexus 7000 directors, allowing for a single enclosure director rack or cabinet to contain up to two MDS 9513, 9509, or Nexus 7010 directors, or five 9506 switches

CommScope and Cisco gives data center managers the ideal integrated connectivity system solution: the SYSTIMAX InstaPATCH 360 Ultra High Density Solution, InstaPATCH Cu Solution and Cisco MDS 9500 and Nexus 7000 Series Multilayer Directors.

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CommScope is a Solution Developer in the Cisco Developer Network program.

## Fiber

- SYSTIMAX 360 Ultra High Density fiber shelf supports up to 864 fibers in 1U space using MPO connectors and 144 fibers using duplex LC connectors
- Director-side connectivity can support up to 1024 duplex LC ports (2048 fibers) using three 1U InstaPATCH 360 UHD shelves using MPO-LC array patch cords
- Cross-connect hardware can contain up to 192 duplex LC or 128 MPO (1536 fibers) in one 4U 360MP-4U modular panel
- Uses standard SYSTIMAX InstaPATCH 360 Array and fiber patch cords, ruggedized fanouts, Modules and Trunks for connectivity; no special cables, enclosures or panels are required
- Supports the various Cisco fiber card configurations from 12, 16, 24, 32 and 48 ports for low to high density applications
- InstaPATCH 360 single-mode and multimode modules accommodate mixed fiber types
- Trunk cables' round design reduce OD per fiber count, with no preferential bend issues
- Trunk cables contain integrated strain relief and breakout is field-configurable

## Copper

- SwitchPack II supports rapid deployment to insert up to 12 CAT6A cords at one time
- InstaPATCH CU cables and cords are bundled for easy installation and cable management
- GigaSPEED X10D Category 6A cable diameter is 0.285" allowing for higher densities without impacting cooling
- M4800 and M4800A copper panels support up to 48 Category 6A cables in a 1U space
- MGS600 modular outlets snap directly into CommScope modular panels

## The CommScope Advantage

The advantages that CommScope brings to this connectivity solution are myriad, including:

- Supports LazrSPEED 50µm multimode and TeraSPEED zero water peak single-mode to allow scale to higher data rates
- Supports Category 6 and 6A copper connections up to 4 connection points at 100M
- All fiber modules are based on LazrSPEED 550 low-loss and TeraSPEED fibers to provide headroom for future system upgrades
- 12-fiber MPO connector-based modular design for simple connections
- 12-copper SwitchPack2 design allows for single snap connections and the ability to remove individual cords
- Intelligence ready hardware for easy reconfiguration for moves, adds and changes at cross connect area
- factory terminated and tested for instant field connections with guaranteed quality and performance
- developed by CommScope Labs and backed by the best-in-industry SYSTIMAX warranty

The combination of InstaPATCH 360 and InstaPATCH Cu used in conjunction with Cisco MDS 9500 and Nexus 7000 series of data center switches makes for an ideal, cost-effective solution for multilayer directors, with low-maintenance hardware and headroom and flexibility for future expansion and reconfiguration.



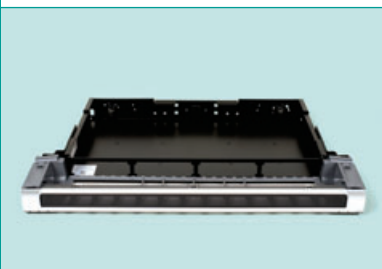
## Product ordering and configuration - Fiber

### Step 1 : Choose the modular shelf

#### Modular shelves, installed at cross-connect



InstaPATCH 360 MP-4U Panel



SYSTIMAX 360 Modular Shelf



InstaPATCH 360 Module



SYSTIMAX 360 G2 Adapter Panel



3603D-1U-UP w(3) 3603M-48LC-LS A

Material ID	Description	Product Code
760103150	360G2 1U Fixed modular cassette shelf, accepts 4 MOD cassettes	360G2-1U-MOD-FX
760103085	360G2 1U Sliding modular cassette shelf, accepts 4 MOD cassettes	360G2-1U-MOD-SD
760103168	360G2 2U Fixed modular cassette shelf, accepts 8 MOD cassettes	360G2-2U-MOD-FX
760103143	360G2 2U Sliding modular cassette shelf, accepts 8 MOD cassettes	360G2-2U-MOD-SD
760101055	360G2 4U Fixed modular cassette shelf, accepts 12 MOD cassettes	360G2-4U-MOD-FX
760101071	360G2 4U Sliding modular cassette shelf, accepts 12 MOD cassettes	360G2-4U-MOD-SD
760106617	1U Panel, accepts 4 360DM or 360DP components	360MP-1U 360MP
760113001	Angled 360MP 1U Panel Angled, accepts 4 360DM or 360DP components	360MP-1UA
760120287	360MP 4U Panel, accepts 16 360DM or 360DP components	360MP-4U
760117564	UMB - 360 InstaPATCH Universal Mounting Bracket Kit, accepts up to 4 modules	N/A
760074047	InstaPATCH®Plus In-line Adapter Housing MPO(f)-MPO(m) with two MPO adapters	N/A

### Step 2 : Choose the modules

#### Factory terminated modules, installed at cross-connect

Material ID	Description	Product No.	Fiber Count	Fiber Type
760109884	InstaPATCH 360 Module, 24LC-LS	360DM-24LC-LS	24	50µm
760109892	InstaPATCH 360 Module, 24LC-SM	360DM-24LC-SM	24	Single-Mode
760109926	InstaPATCH 360 Module, 12LC-LS	360DM-12LC-LS	12	50µm
760109934	InstaPATCH 360 Module, 12LC-SM	360DM-12LC-SM	12	Single-Mode
760107524	360 Distribution Panel 8 MPO	360DP-8MPO	96	All Fiber Types
760107516	360 Distribution Panel 6 MPO	360DP-6MPO	72	All Fiber Types

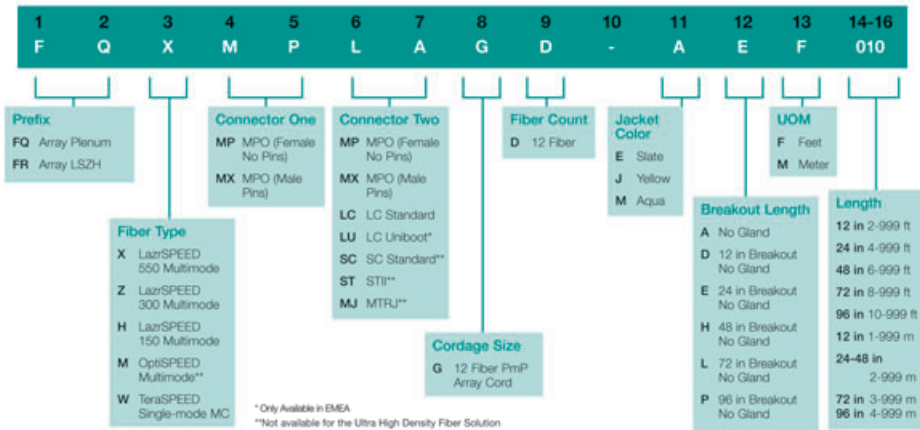
### Step 3 : Choose the modular shelf and MPO panels

#### Ultra High Density Fiber shelves, installed at director equipment cabinet

Material ID	Description	Product No.	Fiber Count	Fiber Type
760117564	UMB 360 InstaPATCH Universal Mounting Bracket Kit, accepts up to 4 modules	360-UMB	N/A	N/A
760074047	InstaPATCH® Plus In-line Adapter Housing MPO(f)-MPO(m) with two MPO adapters	N/A	N/A	N/A
760110999	UHD Fiber Shelf, 1U, Empty	3603D-1U-UP	N/A	N/A
760111013	InstaPATCH 360 UHD Module 48f LC LazrSPEED	3603M-48LC-LS	48	50µm
760111039	InstaPATCH 360 UHD Module 48f LC TeraSPEED	3603M-48LC-SM	48	Single-mode
760111153	UHD Adapter Panel, 24xMPO	3603P-24MPO	288	All
760112003	Fiber Cord Management Sleeve	CMS-2-02	N/A	N/A
Pre-Loaded Shelves				
760136457	UHD Fiber Shelf with 3 InstaPATCH 360 Ultra High Density Modules, 48 fiber, LC, LazrSPEED, Polarity Alpha	3603D-1U-144LC-LS-A	144	Multimode
760136465	UHD Fiber Shelf with 3 InstaPATCH 360 Ultra High Density Modules, 48 fiber, LC, LazrSPEED, Polarity Beta	3603D-1U-144LC-LS-B	144	Multimode
760136432	UHD Fiber Shelf with 3 InstaPATCH 360 Ultra High Density Modules, 48 fiber, LC, TeraSPEED, Polarity Alpha	3603D-1U-144LC-SM-A	144	Single-mode
760136440	UHD Fiber Shelf with 3 InstaPATCH 360 Ultra High Density Modules, 48 fiber, LC, TeraSPEED, Polarity Beta	3603D-1U-144LC-SM-B	144	Single-mode
760136473	UHD Fiber Shelf with 3 InstaPATCH 360 24 Port MPO Adapter Panels	3603D-1U-72MPO	864	All

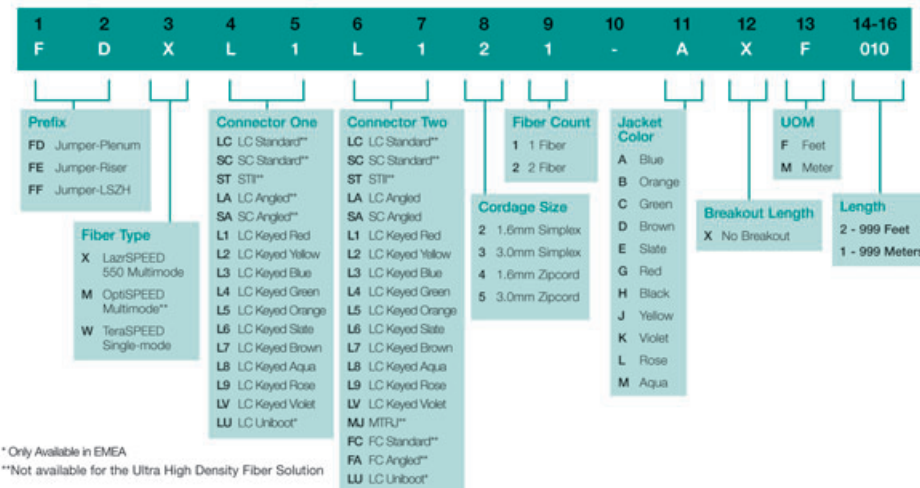
## Step 4 : Choose fiber array cords

### InstaPATCH 360 Array Cords Configurator



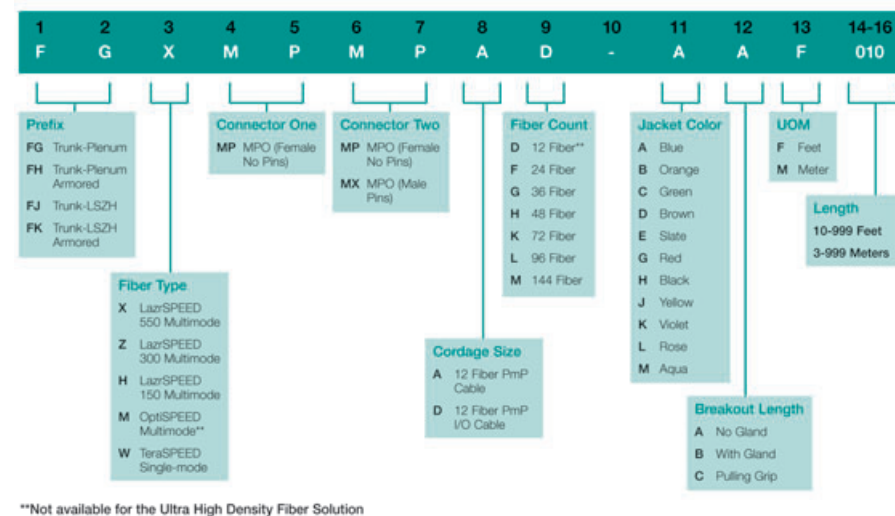
## Step 5 : Choose fiber patch cords

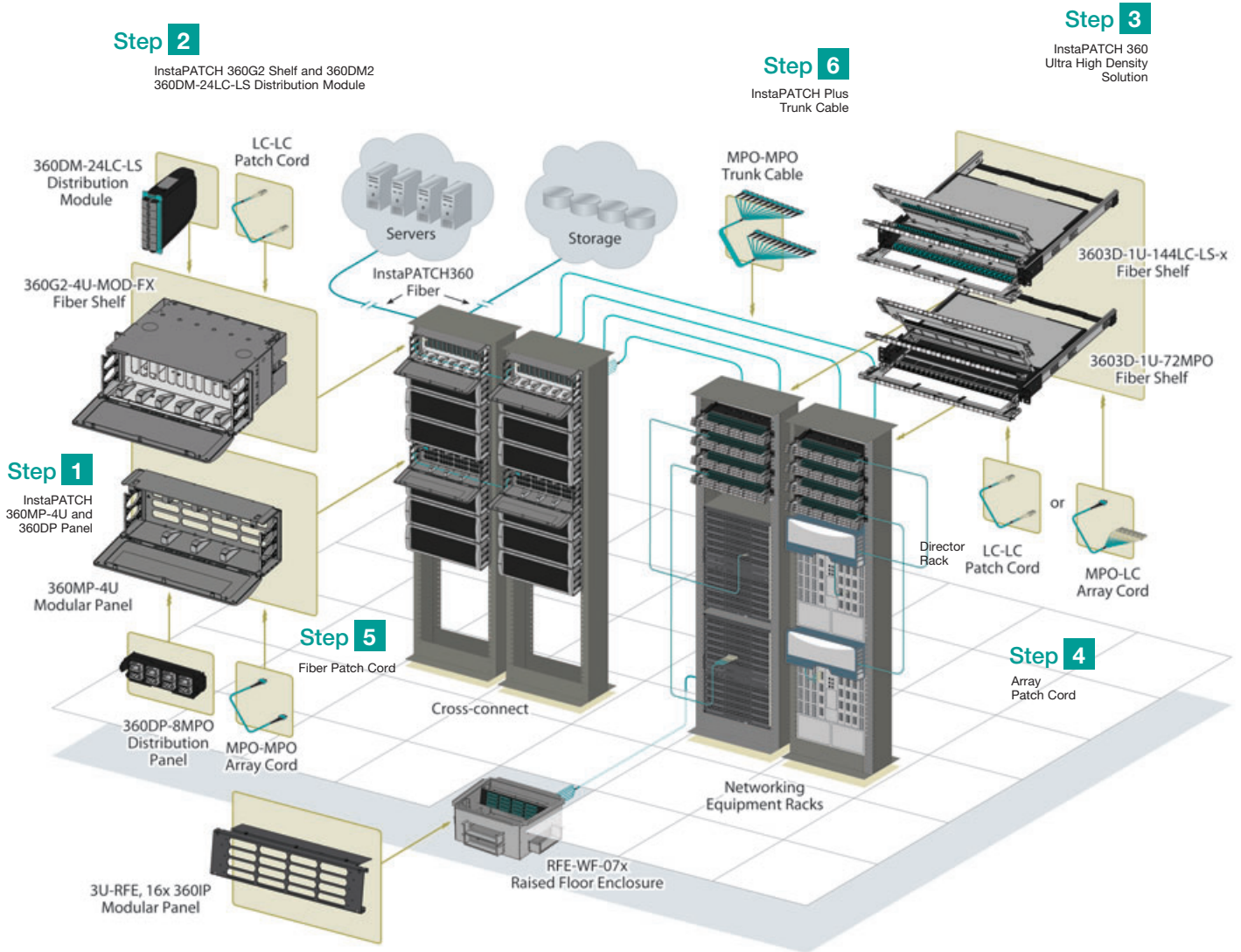
### Fiber Optic Patch Cords Configurator



## Step 6 : Choose pre-terminated trunk cables and trunk extensions

### InstaPATCH 360 Pre-terminated Trunk Cables Configurator





**InstaPATCH 360 at a glance:**

- pre-terminated hardware
- pre-terminated backbone trunk cables
- standard fiber patch cords
- easy installation and system maintenance
- future upgrade paths to parallel connectivity
- no special polarity requirements
- supports a range of connector types and fiber speeds

## Product Ordering and Configuration - Copper

### Step 1 : Choose Modular Panel

Modular panels, installed at the cross-connect

Material ID	Description	Product Code
760104273	360 Modular Panel, 24 Port	360-MOD-1U-24
760108894	360 1100GS5 24-Port Patch Panel	360-1100-GS5-24
760108902	360 1100GS5 48-Port Patch Panel	360-1100-GS5-48



SYSTIMAX 360 Modular Panel

### Step 2 : Choose High Density Modular Panel

High Density modular copper panels, installed at equipment director cabinet

Material ID	Description	Product Code
760105429	M4800 1U Modular Panel, 48 Port,	For Category 6A and Category 6
760104307	M4800 1U Modular Panel, 48 Port,	For Category 5e
760109744	M4800 1U Angled Modular Panel, 48 Port,	For Category 6A and Category 6
760109736	M4800 1U Angled Modular Panel, 48 Port,	For Category 5e
760104737	360-RCM-RM	360 Rear Cable Management (Rack Mountable)



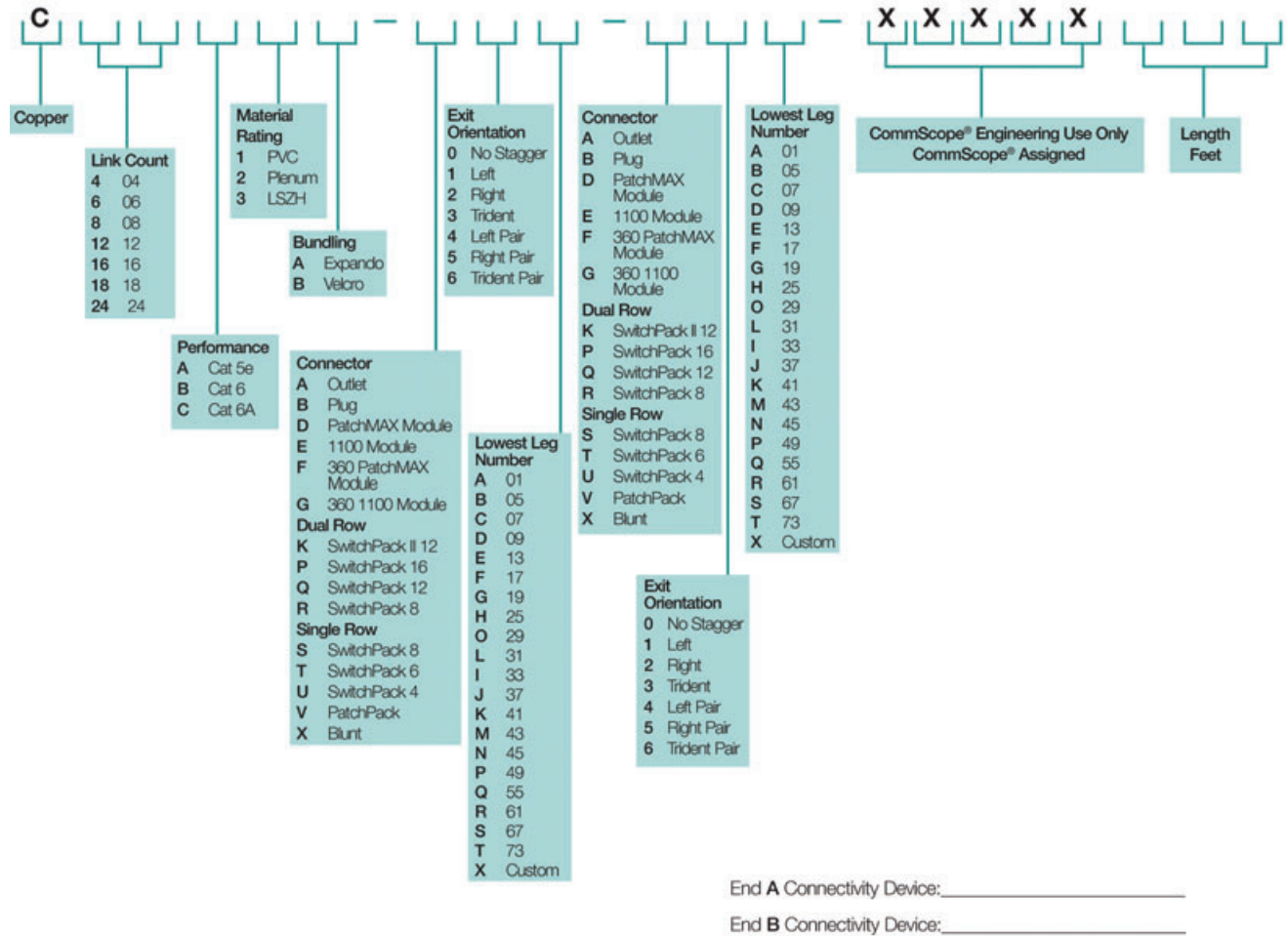
SYSTIMAX 360 M4800 Modular Panel



Product Ordering and Configuration - Copper continued

**Step 3** : Choose the pre-terminated cable harness between the cross-connect and equipment rack

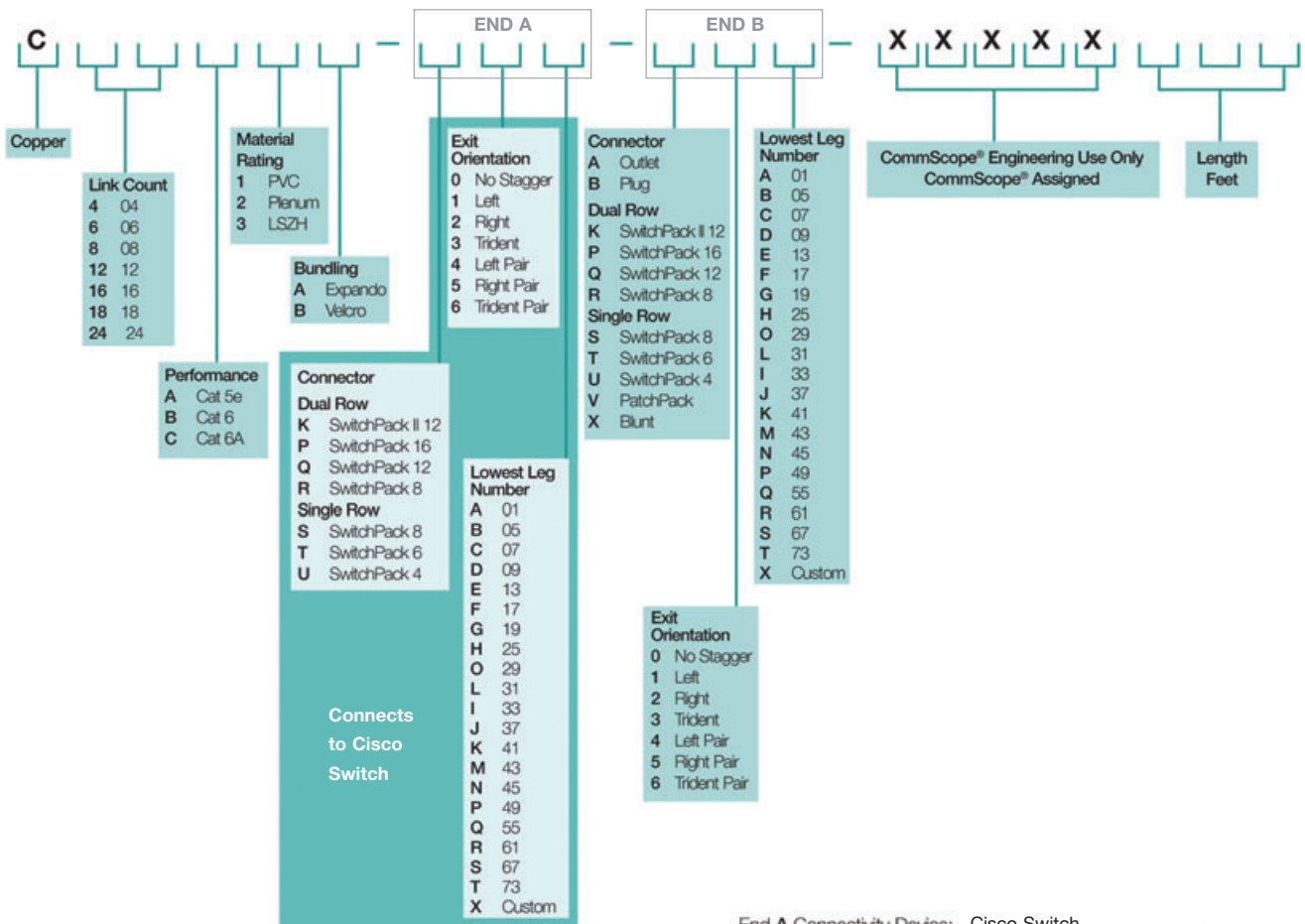
The Copper Cord Assembly Identifier is an excellent tool for customers to identify each module of a cord/cable assembly





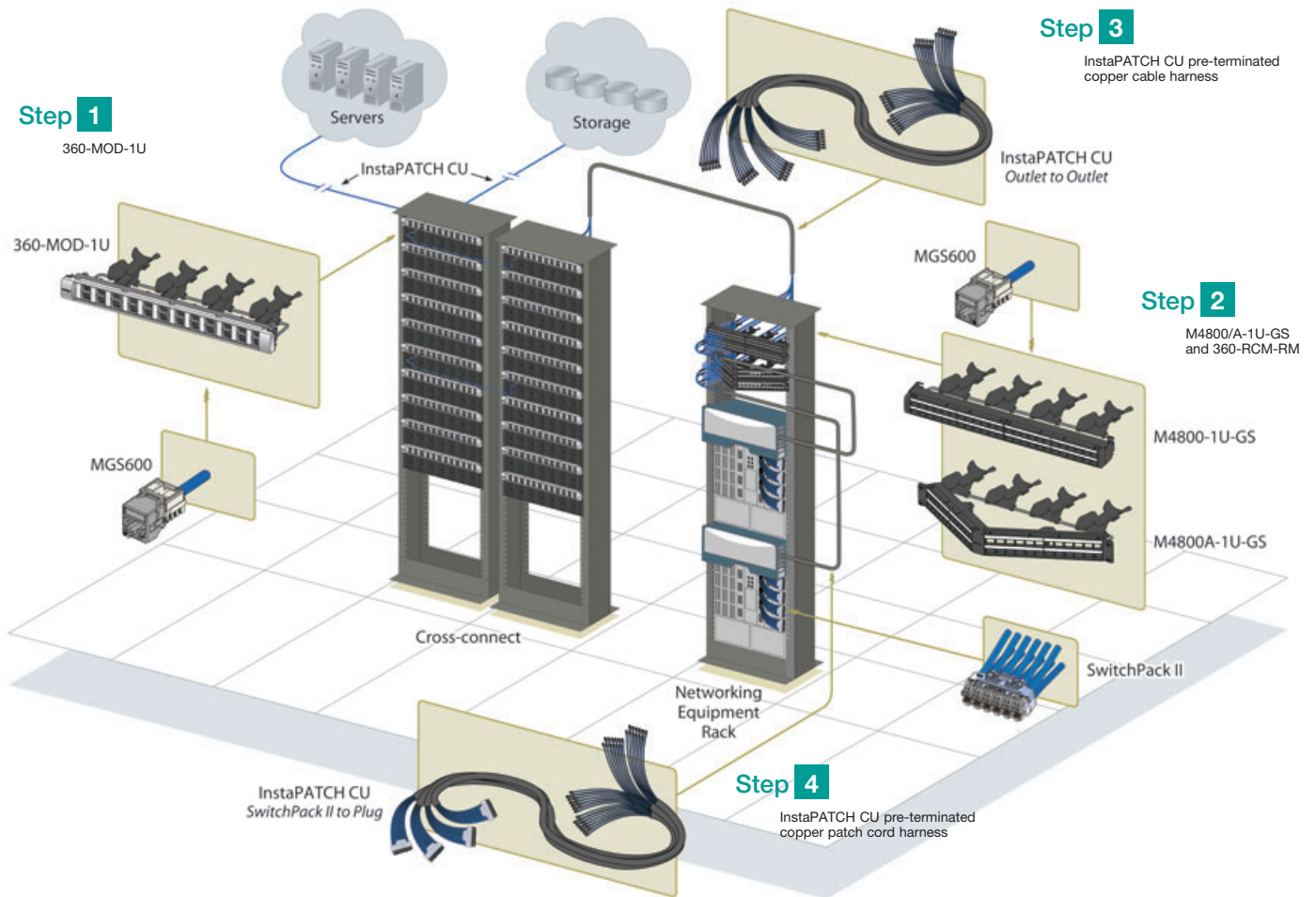
Product Ordering and Configuration - Copper continued

Step 4 : Choose the pre-terminated patch cord harness with SwitchPack II



End A Connectivity Device: Cisco Switch

End B Connectivity Device: Patch Panel



**InstaPATCH Cu at a glance:**

- pre-connectorized copper cable harnesses for your data center infrastructure needs
- high-density, factory connectorized, factory tested, modular UTP connectivity systems
- designed to support locations, such as data centers, that require high density, rapid deployment and high performance



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