CFM/OIT DESIGN GUIDE TEMPLATES FOR CRITICAL TELECOMMUNICATIONS SPACES IN CLINICAL AND NON-CLINICAL ENVIRONMENTS

DEVELOPED BY:
DATA CENTER AND INFRASTRUCTURE ENGINEERING
<table>
<thead>
<tr>
<th>REV.</th>
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<td>1.0</td>
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NOTE:

THERE SHALL BE A MINIMUM OF ONE ENTRANCE ROOM PER BUILDING.

A TELECOMMUNICATIONS ROOM OR EQUIPMENT ROOM (DATA CENTER) CAN SERVE AS AN ENTRANCE ROOM.

GROSS FLOOR SPACE SERVED (FT²)

<table>
<thead>
<tr>
<th>WALL LENGTH FOR ENTANCE FACILITY TERMINATION</th>
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<tr>
<td>&lt;10,000 FT²</td>
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<td>120</td>
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WALL SPACE REQUIREMENT

REQUIRED TERMINATION WALL SPACE FOR AN ENTRANCE ROOM IN A TR OR ER PER THE CHART BELOW:

<table>
<thead>
<tr>
<th>FLOOR SPACE REQUIREMENT</th>
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<tr>
<td>ADDITIONAL FLOOR SPACE SHOULD BE PROVIDED FOR FACILITIES WITH GROSS SQUARE FOOTAGE PER THE CHART BELOW:</td>
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<tr>
<td>HEALTH CARE FACILITY ENTRANCE ROOMS SHALL BE 170 SQ FT</td>
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GENERIC FLOOR PLAN FOR ENTRANCE ROOM (ONE SERVICE PROVIDER)

GENERIC FLOOR PLAN FOR ENTRANCE ROOM (TWO SERVICE PROVIDERS)

GENERIC FLOOR PLAN FOR HEALTHCARE ENTRANCE ROOM

TELECOMMUNICATION ENTRANCE ROOM NOTES
NOTE:

THERE SHALL BE A MINIMUM OF ONE TELECOMMUNICATIONS ROOM (TR) PER FLOOR.

THE EQUIPMENT ROOM CAN SERVE AS A TR. ADDITIONAL ROOMS SHOULD BE PROVIDED WHEN:
A) THE FLOOR AREA TO BE SERVED EXCEEDS 3000 M² (20,000 FT²);
B) THE HORIZONTAL DISTRIBUTION DISTANCE TO THE WORK AREA EXCEEDS 50 M (164 FT).

FLOOR SPACE REQUIREMENT:
1. MINIMUM OF 80 SQ FT FOR A 1 RACK TR
2. ADD AN ADDITIONAL 20 SQ FT PER ADDITIONAL RACK
3. MINIMUM OF 120 SQ FT FOR A HEALTH CARE FACILITY TR

1. TELECOMMUNICATION ROOM NOTES

2. GENERIC FLOOR PLAN FOR HEALTH CARE FACILITY TELECOMMUNICATIONS ROOMS

3. GENERIC FLOOR PLAN FOR TELECOMMUNICATIONS ROOMS (ONE RACK REQUIREMENT) (TELECOMMUNICATIONS SPACE SUPPORTING NETWORK DISTRIBUTION TO WORK AREA OUTLETS)

4. GENERIC FLOOR PLAN FOR TELECOMMUNICATIONS ROOMS (TWO RACK REQUIREMENT) (TELECOMMUNICATIONS SPACE SUPPORTING NETWORK DISTRIBUTION TO WORK AREA OUTLETS)
GENERIC FLOOR PLAN FOR NETWORK SUPPORT CENTERS (EXTRA SMALL DATA CENTER)

GENERIC FLOOR PLAN FOR HEALTH CARE FACILITY EQUIPMENT ROOM (NETWORK SUPPORT CENTER/EXTRA SMALL DATA CENTER)
1. GENERIC FLOOR PLAN FOR SMALL DATA CENTERS - DATA CABLE TRAYS
PROJECT:
OIT DESIGN GUIDE TEMPLATES
PROJECT #: N/A

FILE:
OIT_ Design Guide_Templates-12272018-v1-0.vsd

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SHEET TITLE:
Small Data Center - Power

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SHEET:
9 OF 32

GENERIC FLOOR PLAN FOR SMALL DATA CENTERS - POWER DISTRIBUTION
Generic Floor Plan for Medium Data Centers
Medium Data Center - Data Cable Trays

GENERIC FLOOR PLAN FOR MEDIUM DATA CENTERS - DATA CABLE TRAYS
GENERIC FLOOR PLAN FOR MEDIUM DATA CENTERS - POWER DISTRIBUTION
GENERIC FLOOR PLAN FOR LARGE DATA CENTERS
Large Data Center - Data Cable Trays

GENERIC FLOOR PLAN FOR LARGE DATA CENTERS - DATA CABLE TRAYS
Large Data Center - Power

GENERIC FLOOR PLAN FOR LARGE DATA CENTERS - POWER DISTRIBUTION
X-Large Data Center - Data Cable Trays

1. GENERIC FLOOR PLAN FOR EXTRA LARGE DATA CENTERS - DATA CABLE TRAYS
X-Large Data Center Power

1.0 TYP

\textbf{GENERAL FLOOR PLAN FOR EXTRA LARGE DATA CENTERS - POWER DISTRIBUTION}
POWER FEED UNIT WITH CURRENT MONITOR TO SUPPORT 225 AMPS FOR EACH SERVER ROW. POWER CALCULATIONS TO BE PERFORMED BY OTHERS.

208V 3 PHASE POWER BUS BAR

POWER BUSWAY TAP WITH DUAL BREAKER WITH TWO 3 DROP CORDS (WITH STRAIN RELIEF) WITH L21-20R FOR HIGH-DENSITY CABINETS. TWO PER BUSWAY.

POWER BUSWAY TAP WITH SINGLE BREAKER 3 DROP CORD (WITH STRAIN RELIEF) WITH L21-20R FOR STANDARD-DENSITY CABINETS. 10 PER BUSWAY.

TYPICAL POWER BUSWAY COMPONENTS FOR SERVER ROWS

CHATSWORTH CONNECT PDU; VERTICAL; MONITORED; L21-20 PLUG; THREE PHASE; 120/208V INPUT; 20A; (30) C13 (6) C19 OUTLETS; 208V OUTPUT; 3 X 2P 20A HYDRAULIC MAGNETIC BREAKERS; LCD; ETHERNET, USB, AND ENVIRONMENTAL SENSORS PORTS; IP AND SERIAL MONITORING; IP CONSOLIDATION (PDU LINKING); TOOL-LESS MOUNTING; 70.5'L (1791 MM) X 2.2'W (56 MM) X 2.2'D (56 MM)

REQUIRES ONE (1) L21-20R

208 VOLT PDU FOR EQUIPMENT POWER - TO BE ENERGIZED BY ZONE PDU

THIS DESIGN PROVIDES DIVERSE POWER INPUTS FOR ACTIVE EQUIPMENT BY SPLITTING THE SOURCE POWER ACROSS TWO INPUTS ON THE ZONE PDU. EACH INPUT WILL SUPPORT TWO EQUIPMENT-FACING PDUs. EACH SERVER CABINET WILL CONTAIN A MINIMUM OF TWO EQUIPMENT-FACING PDUs - EACH WILL BE ENERGIZED BY SEPARATE ZONE PDU INPUTS.

POWER SCHEMATIC FOR POWER RACK- LEVEL REDUNDANCY

HIGH DENSITY - TWO L21-20 DROPS PER BUSWAY

STANDARD DENSITY - ONE L21-20 DROP PER BUSWAY
THE CORRECT SPECIFICATION FOR THE PDU IS TO ENERGIZE IT FROM TWO POWER SOURCES. POWER INPUTS SHOULD ORIGINATE FROM TWO INDEPENDENT POWER SOURCES. EACH INPUT WILL USE IDENTICAL SPECIES: WYE (3-WIRE) CONFIGURED, 208V, 30A, THREE-PHASE, TERMINATING IN A NEMA L21-30R LOCKING RECEPTACLE. THE NEUTRAL CONDUCTOR SHOULD BE UPGRADED ONE GAUGE TO MATCH THE UPGRADED NEUTRAL-conductORS IN THE PDU UNITS. THE NEUTRAL “UPGRADING” SHOULD IDEALLY BE CONTINUED IN THE POWER DISTRIBUTION SYSTEM BACK TO THE UPS OR TRANSFORMER WINDING POLE. THIS INCREASES THE EFFICIENCY OF THE POWER DISTRIBUTION SYSTEM AND SUPPRESSES HARMONICS IN THE SYSTEM.

TYPICAL ZONE PDU UNIT WITH REAR DETAIL AND ADAPTORS REQUIRED FOR VERTICAL PDU

280 VOLT PDU FOR EQUIPMENT POWER - TO BE ENERGIZED BY ZONE PDU

POWER SCHEMATIC FOR POWER RACK - LEVEL REDUNDANCY

SUBZONE TO ZONE PDU CONNECTION MAP FOR TYPICAL (12 RACK) SERVER ROWS

NOTE:

TWO DESIGN PROVIDES DIVERSE POWER INPUTS FOR ACTIVE EQUIPMENT BY SPLITTING THE SOURCE POWER ACROSS TWO INPUTS ON THE ZONE PDU. EACH INPUT WILL SUPPORT TWO EQUIPMENT-FACING PDUs. EACH SERVER CABINET WILL CONTAIN A MINIMUM OF TWO EQUIPMENT-FACING PDUS - EACH WILL BE ENERGIZED BY SEPARATE ZONE PDU INPUTS.

HIGH DENSITY

HIGH DENSITY
This design provides diverse power inputs for active equipment by splitting the source power across two inputs on the zone PDU. Each input will support two equipment-facing PDUs. Each server cabinet will contain a minimum of two equipment-facing PDUs - each will be energized by separate zone PDU inputs.

NOTE:
- L21-30R “A” side requires a 208V, 30A, three-phase whip terminating in a NEMA L21-30R locking receptacle. The neutral conductor should be upsized one gauge to match the upsized neutral conductors in the zone PDU units.
- L21-30R “B” side requires a 208V, 30A, three-phase whip, terminating in a NEMA L21-30R locking receptacle. The neutral conductor should be upsized one gauge to match the upsized neutral conductors in the zone PDU units.

POWER SCHEMATIC FOR POWER RACK - LEVEL REDUNDANCY
TYPICAL EOR ELEVATION FOR TEN (10) CABINET ROW (MEDIUM, LARGE, X-LARGE DESIGNS)

STANDARD DENSITY EQUIPMENT DISTRIBUTOR ELEVATION FOR CABINETS OR PATHWAY RACKS (MINIMUM REQUIREMENT)
TYPICAL TEN (10) RACK CONSOLIDATED MDA. FIVE (5) RACKS PER SIDE TO SUPPORT FIVE (5) SERVER ROWS PER LARGE and MEDIUM DESIGNS
TYPICAL TWO (2) RACK PER SIDE MDA. TWO (2) RACKS TO SUPPORT TWO (2) SERVER ROWS PER SMALL DESIGNS.
TYPICAL WORK AREA OUTLET FACEPLATE WILL BE INSTALLED WITH CATEGORY 6A COMPONENT-COMPLIANT UTP MEDIA INTERFACE CONNECTORS (RJ45). EACH CONNECTOR WILL BE TERMINATED TO HIGH QUALITY CATEGORY 6A HORIZONTAL CABLE WHICH WILL TERMINATE IN THE TELECOMMUNICATIONS ROOM AS SPECIFIED ELSEWHERE IN THIS DESIGN PACKAGE.

ALL HORIZONTAL UTP SHALL BE CATEGORY 6A AND TERMINATED TO T568B.

TYPICAL FACEPLATE WILL BE INSTALLED WITH TWO (2) RJ45s. HIGH DENSITY FACEPLATES WILL BE INSTALLED WITH FOUR (4) RJ45s.

NOTES:

TYPICAL WORK AREA OUTLET FACEPLATE WILL BE INSTALLED WITH CATEGORY 6A COMPONENT-COMPLIANT UTP MEDIA INTERFACE CONNECTORS (RJ45). EACH CONNECTOR WILL BE TERMINATED TO HIGH QUALITY CATEGORY 6A HORIZONTAL CABLE WHICH WILL TERMINATE IN THE TELECOMMUNICATIONS ROOM AS SPECIFIED ELSEWHERE IN THIS DESIGN PACKAGE.

ALL HORIZONTAL UTP SHALL BE CATEGORY 6A AND TERMINATED TO T568B.

TYPICAL FACEPLATE WILL BE INSTALLED WITH TWO (2) RJ45s. HIGH DENSITY FACEPLATES WILL BE INSTALLED WITH FOUR (4) RJ45s.

NOTES:

ALL LABELING SHALL BE ANSI/TIA/EIA 606C COMPLIANT. BLACK LETTERING ON WHITE FIELD. MACHINE PRINTED. FURTHER GUIDANCE ON ADMINISTRATION MAY BE SPECIFIED IN OTHER SECTIONS OF THIS DESIGN PACKAGE.
TYPICAL ENCLOSURE TOP VIEW WITH FOUR (4) BRUSHED BRONZE CABLE OPENINGS (SIMILAR OPENINGS IN TOP WITH VERTICAL EXHAUST DUCT)

41.3" OR SIMILAR (48" MAX)

TYPICAL ENCLOSURE SIDE VIEW

23.6" (24" NOMINAL)

TYPICAL ENCLOSURE FRONT

TYPICAL ENCLOSURE SPECIFICATION

TYPICAL SERVER CABINET DETAIL

NOTE:

SERVER CABINETS MAY ONLY HOUSE SERVER AND STORAGE EQUIPMENT AND SUPPORTING PATCH PANELS. SERVER CABINETS MAY NOT HOUSE TELECOMMUNICATIONS (NETWORK) EQUIPMENT.

CF/2102/49 P-series TeraFrame Gen 3 Cabinet System with accessories installed (o-rings excluded)

Configurations include the following components:

Item Number Description Qty.

Item Number 19910-009 - 1 Door, TeraFrame, Front, Assembly, 23.6" (600 mm) W x 45 BM (1100 mm) D, Glacier White (1)

Item Number 19910-010 - 1 Door, TeraFrame, Front, Assembly, 23.6" (600 mm) W x 45 BM (1100 mm) D, Glacier White (1)

Item Number 19910-011 - 1 Lock Kit, 2-Piece, keyed, Rear Door, 45 BM (1)

Item Number 19910-012 - 1 Top Panel, 2-Piece, Brush, 23.6" (600 mm) W x 43.3" (1100 mm) D, Glacier White (1)

Item Number 19910-013 - 1 Side Panel, 6 SLIDE, 43.1" (1100 mm) D x 45 BM (1), Glacier White (2)

Item Number 19910-014 - 1 Kit, Common Parts, (1) TeraFrame, (1) White (1)

Item Number 19910-015 - 1 RDU Bracket, Assembly, 0.7" (17 mm) W x 3.9" (100 mm) D x 2.4" (60 mm), Black (1)

Item Number 19910-016 - 1 Cabinet Kit, Two Point Lock, Two Fixed, 3/4" (16 mm) W x 2" (51 mm) D x 2" (51 mm) H (1)

Item Number 29005-001 - 1 Air Duct, 6 SLIDE, 23.6" (600 mm) W x 45 BM (1)

Item Number 19910-017 - 1 Bottom Panel, White, 23.6" (600 mm) W x 43.1" (1100 mm) D, Glacier White (1)

Item Number 29120-001 - 1 Finger Cable Manager On Cover (2)

UEC141 - This cabinet and all included accessories are UL Listed. Listed under the MMH category per the UL2246 Standard.

NOTE: SERVER CABINETS MAY ONLY HOUSE SERVER AND STORAGE EQUIPMENT AND SUPPORTING PATCH PANELS. SERVER CABINETS MAY NOT HOUSE TELECOMMUNICATIONS (NETWORK) EQUIPMENT.
1. **Project**: Department of Veterans Affairs
   - **Drawn By**: Kevin Grzelka, CTDC
   - **Checked By**: DOC

2. **Sheet Title**: TYPICAL TELECOMMUNICATION CABINET
   - **Type**: CHATSWORTH NFBH-113N-C42-1
   - **Print Date**: Dec 27, 2018

3. **NOTICE**: TELECOMMUNICATION CABINETS ARE PURPOSE BUILT TO PROVIDE AMPLE ROOM FOR CABLING NEEDS OF THE HORIZONTAL DISTRIBUTION AREA AND THE MAIN DISTRIBUTION AREA AND MAY BE USED IN LIEU OF TELECOMMUNICATION CHANNEL RACKS FOR THIS PURPOSE. TELECOMMUNICATION CABINETS MAY NOT BE USED IN TELECOMMUNICATION ROOMS.

4. **Specifications**:
   - **Height**: 60" (1524 mm)
   - **Width**: 24" (609 mm)
   - **Depth**: 30" (762 mm)
   - **Weight**: 375 lbs (170 kg)

5. **Features**:
   - **Isometric View**: Includes front panel open and closed.
   - **Isometric View with Double Doors**: Shows views of the cabinet with double doors closed and open.

6. **Notes**:
   - Telecommunication cabinets are purpose built to provide ample room for cabling needs of the horizontal distribution area and the main distribution area and may be used in lieu of telecommunication channel racks for this purpose. Telecommunication cabinets may not be used in telecommunication rooms.

7. **Diagram Details**:
   - **Front View Dimensions**
   - **Isometric View with Double Doors**

8. **Tables**:
   - **Material Specifications**
   - **Depth with Doors**

9. **Additional Information**:
   - **Telecommunication Cabinets**
   - **Network Cabinet Configuration**

10. **Version**: OIT Design Guide Templates - 12272018 - v1.0 vsd
**Cable Lashing Manager**

Cable Lashing Manager creates a simple vertical pathway for multiple cable bundles and has multiple attachment points for securing cables using CPI Saf-T-Grip® Straps or zip ties. Use to support network cables along the sides of the cabinet.

- Attaches to the frame, adjusts in depth independent of the equipment mounting rails
- Two sizes: Slim and Wide
  - Slim manager is 5½” (130 mm) and has three vertical columns of attachment points for 1.5” (38 mm) diameter cable bundles, 5½” (130 mm) cable fill area
  - Wide manager is 9½” (240 mm) and has five vertical columns of attachment points for 1.5” (38 mm) diameter cable bundles, 9½” (240 mm) cable fill area
- Includes: Bracket and installation hardware, order Saf-T-Grips or cable ties separately
- Material: Steel; Select part number to match usable height and color of the cabinet

### Full Height Dual PDU Bracket

Full Height Dual PDU Bracket supports two vertical PDUs side-by-side and has multiple slots for CPI Saf-T-Grip® Straps or tie wraps to secure cords to the bracket.

- Attaches to the frame, adjusts in depth independent of the mounting rails
- Available in two widths: Dual and Wide
- Dual bracket is 4½” (121 mm) and supports two PDUs up to 2.2” (56 mm) side-by-side
- Dual bracket supports most eConnect PDUs and power strips side-by-side
- Wide bracket is 5½” (147 mm) and supports two PDUs up to 2.7” (69 mm) side-by-side
- Wide bracket is required to mount two 6-breaker eConnect PDUs (series P/N FX-3XXX) side-by-side
- Tool-less mounting on 28” (711 mm), 61.25” (1565 mm) or 64.75” (1645 mm) centers
- Includes: brackets, installation hardware, order Saf-T-Grips or cable ties separately
- Material: Steel; Select part number to match the usable height and color of the cabinet

### Telescoping Cable Manager

Telescoping Cable Manager attaches to the sides of the front and rear equipment mounting rail providing a front-to-rear or vertical pathway for cables along the side of the equipment.

- Attaches to and adjusts in depth with mounting rails, fully compatible with Front Air Duct and Side Intake Duct
- Two smooth, plastic L-shaped spools support cables
- Spools on 3½” (90 mm) max are 3½” x 2.8” (89 mm x 71 mm)
- Spools rotate and lock in 90-degree increments and can be adjusted to manage horizontal or vertical cable runs
- Includes: cable manager, five cable spools, hardware
- Material: Steel, plastic spools
- Select part number to match the color of the cabinet

### TYPICAL TELECOMMUNICATION CABINET ACCESSORIES

When telecommunication cabinets are used in lieu of telecommunication channel racks special accessories are required to be installed to allow for proper cable management within the cabinet. Some typical examples are listed on this page, but are not all inclusive. Cable management accessories should match the cable management needs of your structured cabling plan and patching requirement.
NOTE: TELECOMMUNICATION CHANNEL RACKS ARE REQUIRED IN ALL TELECOMMUNICATION ROOMS. TELECOMMUNICATION CHANNEL RACKS OR TELECOMMUNICATION CABINETS MAY BE USED IN THE HORIZONTAL AND MAIN DISTRIBUTION AREAS.

MIGHTY MD 20 CABLE MANAGEMENT RACK
30" CHANNEL DEPTH, 7 HIGH, WHITE FINISH OR EQUIVALENT

DIMENSIONS:
- USABLE HEIGHT: 45RU
- DEPTH (US): 30
- HEIGHT (US): 7
- WIDTH (US): 23.75"
- STATIC LOAD CAPACITY: 2000 LBS
- SQUARE HOLE

TYPICAL RACK DIMENSIONS AND SPECIFICATIONS

FRONT AND REAR HEAVY DUTY PERFORATED SECURITY DOOR (OR-MM2072-2PDHD-W) (OPTIONAL)

P/N: OR-MM2072-2PDHD-W

6" WIDE VERTICAL CABLE MANAGEMENT

P/N: OR-MM20VMD706 (OR EQUIVALENT)

M20 VERTICAL CABLE MANAGEMENT "CASE", WITH DOOR, 6.45" x 10.26" x 76.94" WHITE

CAPACITY: 350 CATEGORY 6 PATCH CORDS OR 245 CATEGORY 6A PATCH CORDS
LARGER VCM AUTHORIZED IN ACCORDANCE WITH CABLING REQUIREMENT

SECURITY DOOR FRONT MOUNTING HARDWARE (OR-MM2024DMFHWD-W)

SECURITY DOOR REAR MOUNTING HARDWARE (OR-MM2024DMRHD-W)

PDU MOUNTING BRACKET KIT (TWO KITS PER RACK)
P/N: OR-MM20POPUMB102W-W

NOTE: TELECOMMUNICATION CHANNEL RACKS ARE REQUIRED IN ALL TELECOMMUNICATION ROOMS. TELECOMMUNICATION CHANNEL RACKS OR TELECOMMUNICATION CABINETS MAY BE USED IN THE HORIZONTAL AND MAIN DISTRIBUTION AREAS.
## Telecommunications Media and Interfaces Specification

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<th>Secondary Attribute</th>
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<td>Copper Patch Panels</td>
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<td>2</td>
<td>Fiber Distribution Panels</td>
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<td>3</td>
<td>UTP (Horizontal and First Level Backbone)</td>
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<td>4</td>
<td>Fiber (Horizontal and First Level Backbone)</td>
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<tr>
<td>5</td>
<td>UTP Patch Cords</td>
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<tr>
<td>6</td>
<td>Fiber Patch Cords</td>
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### Copper Patch Panels
- **Performance Category**: Category 6A (10 GBE)
- **Position Count**: 48
- **Form Factor**: Angled
- **Size**: One Rack Unit
- **Color Coding**: Black
- **Cassette Capacity**: 6 Cassette
- **Cassette User Interfaces**: LC Pair Connectors or 8 Fiber MPO
- **Cassette Backbone Interfaces**: MPO

### Fiber Distribution Panels
- **Performance Category**: Category 6A (10 GBE)
- **Performance Specifications**: Meets or exceeds TIA-EIA-568-C.2-10, TSB-135.
- **Cassette User Interfaces**: LC Pair Connectors or 8 Fiber MPO
- **Cassette Backbone Interfaces**: MPO
- **Form Factor**: One (1) RU

### UTP (Horizontal and First Level Backbone)
- **Performance Category**: Category 6A (10 GBE)
- **Performance Specifications**: Meets or exceeds TIA-EIA-568-C.2-10, TSB-135.
- **Jacket Color**: Blue (Horizontal), White (1st Level Backbone)
- **Size**: One Rack Unit
- **Color Coding**: Black
- **Performance Characteristics**: OM4 Laser Enhanced 40 GBE 50/125 Multimode

### Fiber (Horizontal and First Level Backbone)
- **Performance Category**: Category 6A (10 GBE)
- **Performance Specifications**: Laser optimized 50/125 μm fibers with effective modal bandwidth of at least 4,700 MHz.km at 850 nm
- **Jacket Color**: Aqua
- **Media Connector**: Pre-terminated with MPO, Type A
- **Bundling**: Loose Tube
- **Strand Count**: 12 or 24
- **Mode**: Multimode

### UTP Patch Cords
- **Performance Category**: Category 6A, 26-Gauge, Stranded
- **Performance Specifications**: Center Tuned to Horizontal Media
- **Jacket Color**: Blue
- **Termination Method**: Factory Pre-Terminated

### Fiber Patch Cords
- **Performance Category**: OM4 Laser Enhanced to 40 Gigabit Ethernet (GBE)
- **Performance Specifications**: OM4
- **Mode**: Multimode
- **Jacket Color**: Aqua
- **Media Connector**: Pre-terminated with Duplex LC