

Using a Universal Connectivity Grid for More Flexible and Cost-efficient Cabling

In an increasingly connected workplace, the architecture of today's telecommunications cabling is quickly evolving. Networks designed to support a handful of workstation-based applications must now support a litany of distributed devices, which may include Wi-Fi, security, access control, space and energy management, and lighting.

IT and Facilities managers must consider new strategies for creating a cabling infrastructure that is flexible, robust and cost efficient. One of the most promising approaches involves the use of the Universal Connectivity Grid (UCG) based on the zone cabling concept. CommScope has developed this Tip Sheet to give you a basic overview of the UCG approach and a few ideas of how to put it to work for you.

What is a Universal Connectivity Grid?

UCG is an evolved approach to horizontal zone cabling—dividing the usable floor space into a grid of evenly sized service areas, or cells. Horizontal cabling runs from the telecommunications room (TR) to a consolidation point located within each cell. The consolidation point supports the various system devices within its cell.

Once in place, the infrastructure provides a flexible pipeline that can handle changes, growth and upgrades cost-effectively and well into the future.

Figure 1 shows a grid with uniform square cells. Figure 2 shows the use of a consolidation point to provide connectivity to each cell in the grid.

Tips for success

- Consolidation points should be at least 15 meters (50 feet) from the TR and sized based on the number of ports needed, the number of supported endpoint devices per UCG cell, as well as an additional 20 to 25 percent for future capacity needs
- Uniform recommended UCG cell size is 60' x 60'. Where Wi-Fi is the primary access method, or in high-density user areas, consider using smaller 40' x 40' cells with 20-meter zone cords
- Horizontal cabling should use the Category 6A standard
- When deciding which grid or planning approach to use, consider the following:
 - Cabling for large meeting areas and open transitional spaces—such as lobbies and waiting areas—should adhere to the UCG grid for all ceiling connectivity
 - Cabling for open-office spaces can use the grid for ceiling connectivity or workstation cabling
 - Small conference rooms may utilize the nearest consolidation point or be treated as individual cells depending on size and overall layout.



Figure 1: Illustration of grid with uniform square cells

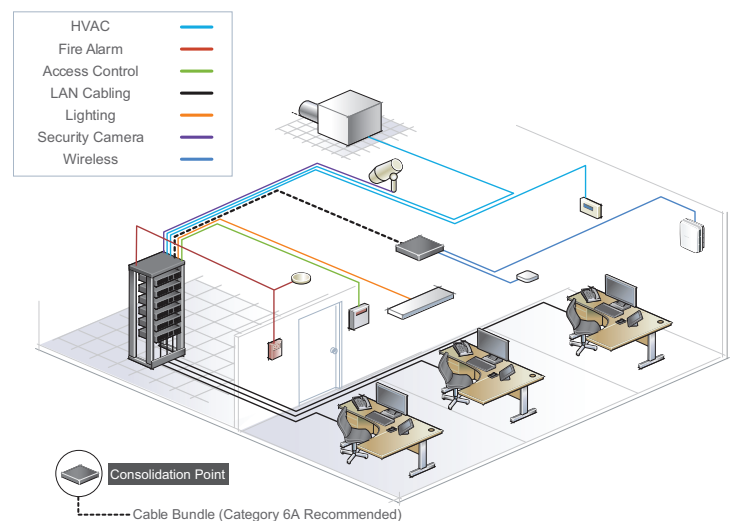


Figure 2: Illustration of the use of consolidation points for flexible connectivity within each cell

Learn More

CommScope is here with the information you need to make the right choice for your structured cabling needs. Find more detailed information on the Universal Connectivity Grid, and how you can put it to work for you, here. Or feel free to contact one of our CommScope SYSTIMAX® Enterprise experts.