COMMSCOPE[®]

Hospitality Reference Architectures High performance fiber and copper solutions



2020 DESIGN GUIDE | 1ST EDITION

COMMSCOPE°

Hospitality Design Guide

CommScope offers a broad range of wired and wireless connectivity solutions for the hospitality environment. We have developed the following recommended architectures for our hospitality clients to act as a basis of design or starting point for your project. Our recommended architectures are designed for maximum flexibility, reliability and support of emerging technologies for a best in class guest experience. We understand every project is unique, our team of Field Application Engineers can work directly with you and your team to determine your specific design requirements.



Fiber to the room

Bandwidth for the best guest experience & architected for operational efficiency

Fiber-to-the-room delivers the unbeatable bandwidth of fiber to each hotel suite to maximize bandwidth potential and offer the most future proofing.

Singlemode or multimode fiber spans from the main equipment room/MDF or the telecommunication room/IDF to each guest room to the RUCKUS H510 Wi-Fi access point with Fiber Backpack. The RUCKUS H510 access point has four integrated copper ports to support wired connections and with the RUCKUS IoT module, CommScope can provide the Bluetooth and Zigbee short range wireless connectivity that supports in-room technologies like smart lighting, door locks, thermostats and mini-bars.

There are several methods for deploying fiber-to-the-room. Property layout, size and location of IDF's, common space requirements and cellular coverage needs should be considered when determining the best fiber-to-the-room architecture for your project.



Structured cabling supports 10G to the room for future network upgrades. Up to 100G to the room with singlemode fiber.





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Fiber to the Room

Primary CommScope solutions included

In the room:

- Multimode OM4 or singlemode fiber cable
- H510 Wi-Fi access point + Fiber Backpack, (includes four copper ports)
- IoT module for H510 access point, BTLE and Zigbee connectivity
- Category 6A UTP solution from H510 to wired devices
- ERA DAS, UAP Universal Access Point (typically located in common space)

IDF:

- Multimode OM4 or singlemode fiber cable
- HD fiber shelf with fiber adapter panels
- ICX 7150 (1/10G links to the core) or ICX 7550 fiber access switch (1/10/40/100G links to the core and redundant power supplies)
- ERA DAS transport extension unit (TEN)

MDF:

- Multimode OM4 or singlemode fiber cable
- HD fiber shelf
- ICX 7850 fiber CORE switch
- IoT management suite
- SmartZone network controller
- CloudPath for simple secure Wi-Fi access
- ERA DAS Central Area Node (CAN)













Fiber to the Floor - Copper to the Room

High performance fiber and copper solutions for the ultimate in guest experience and operational ease

Copper-to-the-room is a great option for your refresh or new build when distance limitations are not a concern and when performance and ease of use are top priority. With copper speeds up to 10G, your guest room bandwidth needs are covered for years to come.

Singlemode or multimode fiber spans from the main equipment room/MDF to the telecommunication room/IDF. Category 6A copper is ran to each guest room to the RUCKUS H510 Wi-Fi access point. The RUCKUS H510 access point has four integrated copper ports to support wired connections and with the RUCKUS IoT module, CommScope can provide the Bluetooth and Zigbee short range wireless connectivity that supports in-room technologies like smart lighting, door locks, thermostats and mini-bars. For larger suites with more wired connections you can utilize the RUCKUS ICX compact switch in conjunction with the RUCKUS H510 access point. Additionally, if within 90 meters, you can run category 6A cables directly to your wired devices in the guest rooms and consolidate your access layer switches in your IDF's.





Fiber to the Floor - Copper to the Room (including ERA DAS for cellular coverage)

Structured cabling supports 10G to the room for future network upgrades. Up to 100G to the room with singlemode fiber.





Fiber to the Floor - Copper to Device (including ERA DAS for cellular coverage)

Copper to the Room

Primary CommScope solutions included

In the room:

- Category 6A UTP solution from IDF to H510 access point
- H510 Wi-Fi access point + Fiber Backpack, (includes four copper ports)
- IoT module for H510 access point, BTLE and Zigbee connectivity
- Category 6A UTP solution from H510 access point to wired devices
- ERA DAS, Universal Access Point (UAP) (typically located in common space)

IDF:

- Multimode OM4 or singlemode fiber cable
- HD fiber shelf with fiber adapter panels
- Category 6A UTP patch panel
- ICX 7150 (1/10G links to the core) or ICX 7550 copper access switch (1/10/40/100G links to the core and redundant power supplies)
- ERA DAS Transport Extension Unit (TEN)

MDF:

- Multimode OM4 or singlemode fiber cable
- HD fiber shelf
- ICX 7850 fiber CORE switch
- IoT Management Suite
- SmartZone network controller
- CloudPath for simple secure Wi-Fi access
- ERA DAS Central Area Node (CAN)



Operational Technology

Operational technologies are critical to guest experience, guest and employee safety and the financial performance of your property. Modern water systems, mechanical systems, electrical and safety and security systems all connect to the network to provide up-to-date building data to improve operational efficiency and interoperability between systems. This means your network must be available throughout your facility both indoors and out. Not all systems and devices connect to the network in the same way; some connect via a network cable, others connect over Wi-Fi, Bluetooth, Zigbee, and even cellular networks. Making sure your building has various connectivity mediums available is important to ensuring your property will be able to support the latest operational technologies. Because your building operations are so critical to your building performance and guest and employee safety, ensuring your network is reliable, scalable and secure is now priority one for building operators.

From your security, safety, door and access control systems, digital signage, smart TV's, intelligent lighting, modern POS, common area guest Wi-Fi and cellular coverage, and smart phone concierge services, CommScope has your employees and guests covered from the lobby to the guest rooms to the workout room, the courtyards, back-of-house and throughout your conference center. Whether you are deploying a fiber-rich network or copper-rich network, CommScope is the only manufacturer that has all the solutions to support the various architectures and technologies for your hospitality property.



CommScope Universal Connectivity Platform

Hotel Campus, Long Distance Stacking with a Distributed Aggregation/ Core



Common Areas

Your lobby and common areas are your guest's first in-person experience at your property and with your brand. As with your online experience and guest room appointments your brand values are represented in these common spaces and technology plays an important part.





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CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com

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