COMMSCOPE®

SYSTIMAX® Solutions

CommScope Intelligent Building Infrastructure Solutions (IBIS)

Questions & Answers

Q.	What is an Intelligent Building?
A.	An intelligent building can be defined as *"one which provides a productive and cost effective environment through optimization of its four basic elements."* These basic elements consist of the structure, systems, services and management, as well as the inter-relationships between them. Intelligent Buildings help building owners, property managers and occupants realize their goals in the areas of cost, comfort, convenience and safety, combined with long term flexibility and marketability. CommScope Intelligent Building Infrastructure Solutions (IBIS) helps to achieve this goal by providing a common cabling platform for the telecommunications, office and building automation functions. With CommScope IBIS, you can cost effectively install and easily manage your current and future high technology systems and services.
Q.	**What is CommScope IBIS?**
A.	CommScope IBIS is a set of cabling and connectivity products that are integrated as a system using specific engineering design rules. It is an advanced, integrated copper and fiber optic networking solution that supports multiple applications. CommScope IBIS is a modular, flexible and fully documented building cabling network that connects voice, data, video and low-voltage building automation devices for cost effective implementations. Designed by CommScope Laboratories, it provides solutions for architects, building owners, commercial realtors, contractors, consultants, developers, facilities managers, and property management firms. The dynamic characteristics of CommScope IBIS allows you to adapt to changing tenant needs while at the same time reducing the on-going life cycle and operational costs associated with the structure. CommScope IBIS provides a complete line of products, such as copper and fiber cabling and connectivity and supporting hardware. CommScope IBIS is designed to meet and exceed existing and future requirements for high bandwidth applications and provide a unified cabling solution for modern building projects.

Q.	How can CommScope IBIS benefit my company?
A.	CommScope IBIS can benefit your company by allowing your organization to standardize on one cabling system for virtually all your low-voltage requirements. This includes voice, data, video and building automation applications. By integrating these systems onto a single common cabling platform, you can lower construction costs, optimize operational expenditures, and have one project team for the installation of all services. This will eliminate dealing with multiple contractors while consolidating the installation process. By completing the voice and data cabling, along with the building automation cabling in the construction phase, tenants and end users can readily take advantage of the new cabling system. This enables occupants to move into a new facility in less time, which equates to more money saved. Administration and maintenance costs are also reduced since there is only one cabling system.
Q.	**When installing building automation systems, I don't know where my voice and data points will be located. How can the building be cabled for voice, data and building automations at the same time?**
A.	Our experienced CommScope Engineers and BusinessPartners can help you design a complete system based on the usage and size of the floor areas. This method can allow the cabling to be installed prior to knowing where the end user will be located. This can not only save time for costly design reviews, but allows you to install cabling prior to the completion of the finished surfaces or placement of ceiling and furniture grids. It basically eliminates the rush and problems caused by trying to place cable when the facility is ready for occupancy. Remember, early planning is the key to flexibility and full integration, which results in lower construction and operational costs.
Q.	**How can cabling a building with CommScope IBIS help to save money on future system changes and upgrades?**
A.	The life expectancy for telecommunication systems is 3-5 years; office automation systems are changing every 2-3 years and building automation systems are evolving every 5-7 years. If your cabling system has to be replaced every time you change one of your systems, your cost of upgrades will be dramatically increased. CommScope IBIS has been designed with an "Open System Architecture" and utilizes an International Standards Organization (ISO) specified 8-pin modular outlet for practically all low-voltage services. This makes administration as easy as plugging and unplugging devices and simple cross connect changes in the Telecom Closet. The CommScope R&D team is actively involved with helping to set standards for voice and data cabling with organizations such as the ISO and TIA/EIA. CommScope IBIS uses the same subsystem (subsystems include the equipment room, riser, administrative closet, horizontal, and workstation, and campus) approach that has been adopted by the TIA/EIA 568 and 862 standards, thus assuring that as applications and technology evolve, the installed cabling base will support them. Today, most building automation systems are cabled for their immediate requirements, with no thought for tomorrow. All cabinets are hardwired and not susceptible to change. With the subsystem approach CommScope IBIS, upgrades and rearrangements can be easily accomplished with minimal cabling expense.

Q.	**My company has offices worldwide and we are trying to standardize our operation in order to contain and lower costs. Will I be able to use the CommScope IBIS approach in offices that are not located in the country of my headquarters location?**
A.	CommScope IBIS has been successfully installed in practically every country in the world, and is supported by our sales offices, labs and manufacturing units around the world. In addition, we have agreements with over 2000 Business Partners throughout the world for CommScope IBIS, insuring a competitive environment for your cabling needs. Ultimately, the appropriate local or country codes will determine whether or not CommScope IBIS can be utilized for your building automation applications.
Q.	**Are there any standards for cabling low-voltage devices in building automation applications? Does CommScope IBIS meet these standards and why is it important that a cabling system adhere to a national standard?**
A.	Yes, there are country specific and international standards. CommScope IBIS meets and/or exceeds the various standards such as TIA/EIA 568, ISO 11801, and TIA/EIA-862 (Building Automation Systems Cabling Standard for Commercial Buildings). In addition, CommScope Labs researchers are members of many standards organizations, providing input and speaking on behalf of our customers. Meeting a national standard is indicative of quality, consistency, and assurance to the customer that the manufacturer is dedicated to providing the best possible product free of defects and capable of meeting a given set of specifications. Standards compliance also insures support for multiple applications.
Q.	**What are advantages for the customers if they decide to implement CommScope IBIS?**
A.	• A unique application design process • A wide range of fiber optic and UTP copper technology • High speed and bandwidth transmission capability • Flexibility of design and application • Multi-vendor compatibility • Compliance with industry standards • 20 Year Extended Product Warranty • 20 Year Applications Assurance • Ease of administration • A proven system used in building automation applications

Q.	What are the customer benefits of installing CommScope IBIS?
A.	The following are considered to be of particular value to building owners, administrators, and Facility managers: 1. Cost containment, attracts tenants, offers high bandwidth application infrastructure for data, CAD/CAM, video, surveillance, environmental systems, etc. 2. Maximum flexibility in the positioning of communications equipment in any location. 3. The ability to continue to increase the functionality of technology and applications without concern for cabling transmission limitations. 4. Assurance that the installed system meets all codes, guidelines and industry standards. 5. The comfort that only the CommScope Assurance Program can provide. 6. CommScope IBIS can satisfy all these concerns, and more. Our objective is to demonstrate at all levels of the decision making process, that money can be saved, flexibility optimized and innovative methods supported by the technology provided.
Q.	**Why did we develop CommScope IBIS?**
A.	CommScope IBIS was developed because technology innovation is driving in building sub-system integration and visionary customers have recognized this evolution and asked for it. Our expertise in networking technology prompted the development of CommScope IBIS. It is designed in accordance with engineering specifications to support a customer's present and future communication needs, and play a major role in evolving standards. It is also designed to easily handle network growth, changes, and administration by the customer with patch cords and simple record keeping. "As needed" wiring may be a less costly alternative initially, but it will severely restrict the flexibility of applications and technology. It will cost substantially more in the long run due to cabling changes, installing of more or different cables, and labor required to track and implement changes.
Q.	**What are the products that make up CommScope IBIS?**
A.	CommScope IBIS products include a complete portfolio of copper and fiber cabling and connectivity. The exact mix may vary for each application. All CommScope IBIS products have been manufactured to meet all CommScope Laboratories engineering requirements and were designed to support building automation systems and applications.
Q.	**Is CommScope IBIS really an open system architecture?**
A.	An open system architecture is one that is flexible enough to support multi-vendor environments. It means that CommScope IBIS will support equipment from all major vendors. The goal of CommScope IBIS is to encourage the establishment of standards for all distribution environments on a global basis, and insure an infrastructure capable of multiple uses and support for many different applications, both standards based and proprietary.

Q.	**Does CommScope IBIS have any assurance or product warranties?**
A.	Yes, CommScope IBIS provides a 20 Year Extended Product Warranty and Application Assurance for registered CommScope IBIS installations. This unique Extended Product Warranty ensures against product defects for all passive CommScope IBIS components, while the Application Assurance covers the applications that the installed system is designed to support. Under this program, upon completion of CommScope IBIS installations, customers are provided with a numbered certificate registering the installation. The certificate provides the customer with the confidence that the installed applications are supported by CommScope IBIS. This program, backed by the world renowned technological leaders, CommScope Laboratories, supports a customer's decision to protect their investment by installing CommScope IBIS.
Q.	**How will CommScope IBIS permit a builder, architect, or engineering consultant to reduce initial building construction costs?**
A.	All developers continually seek out cost reductions to maximize profit and stay competitive. Concurrently, all investors look to maximize return on their investment in the short, as well as long term. CommScope IBIS provides investment protection, reduced maintenance costs, better utilization of building cable assets, faster implementation of building automation systems, standards compliance and easier infrastructure management. The initial construction savings will result primarily from lower material and labor costs. These cost savings will be generated through more efficient installation via CommScope IBIS information outlets (IO) which are patented for easier installation. These alone can produce substantial labor savings. In addition, only copper and fiber communications cabling will be pulled for all low voltage needs, including communication closets cross-connects. Non-system cabling requires separate crews and separate cables for each vendor application. This leads to scheduling difficulties and 'finger pointing' if a crew from one vendor accidentally cuts the cable for a different application.
Q.	**What advantages does CommScope IBIS provide when reconfiguring cabling for an existing tenant's work area or future tenants with new cabling needs?**
A.	In both cases, advantages center around quick service provisioning for occupants and tenants whether they are simple moves and changes for basic voice/data/video or reconfiguring of outlets for security or environmental applications. In fact, the system is so easy to maintain and reconfigure that an in-house individual with minimal training is able to perform these tasks. The building also commands premium rent because of the value it offers tenants in deploying technology and systems.
Q.	**What are the benefits of having building automation applications, which only need low data rate connectivity, on the same cabling platform as high performance data and communications applications?**
A.	The purpose of CommScope IBIS is to handle both high and low speed applications. A low speed application on a given outlet today may be changed the next day to handle a high performance application for the same or a different user.

Q.	Why should I go through the effort of changing how I design my buildings?
A.	CommScope IBIS does not require any change of building design. CommScope IBIS offers building designers a "systems" approach to low voltage infrastructure that is easy to install, administer and maintain. It adds value to the building and protects investment. What's important is that the designers come together early in the process and work together in the initial design stages.

Q.	When is copper wiring, fiber optic cabling and coaxial cabling most appropriate?
A.	UTP is the preferred media for the last leg of most signal transmissions. This is known as the horizontal run and is usually from a wiring closet to a desk, office, or classroom. Standards bodies specify UTP transmission at a distance to 100 meters, and at this distance, virtually any signal can be transmitted. For greater distances, such as between buildings within a campus, from equipment rooms or computer centers to wiring closets, or between wiring closets, fiber optic cables are often used. CommScope IBIS does not utilize coaxial cabling (although it can be interfaced to CommScope IBIS).

Q.	What are the capabilities and limitations of transmitting video over UTP copper cable, as opposed to the use of coaxial cable or fiber optic cable ?
A.	UTP has proven to be capable of transmitting high quality video signals in most buildings. Baseband (single channel) color signals are supported on UTP by CommScope IBIS for distances up to 1500 feet. Products to support RGB and true broadband (multiple channels) color signals on UTP are also available. Coaxial and fiber optic cables remain the media of choice for long distance video transmission and for backbone video feeder systems.

Q.	What are the performance implications of mixing structured cabling system components from different vendors?
A.	Each vendor designs and manufactures its products in different, and sometimes unique ways depending upon factors such as patents, tooling, and the electrical characteristics that are being optimized. As a result, when products from different vendors are mixed in a transmission link, the optimal characteristics of one product may be diminished by another product with lower performance. The overall performance is dominated by the weakest product in the link. CommScope IBIS products, and products certified by our world renowned labs, have all been designed and tested to complement each other and provide the highest overall channel performance possible.

Q.	How can moves and changes be administered in CommScope IBIS?
A.	CommScope IBIS was designed to simplify moves and changes so that customers with basic training can accomplish these tasks. The record keeping is done by the customer as well. To aid customers in this task, CommScope developed products such as iPatch. This product intelligently senses and manages the infrastructure, generates and tracks work orders for faults, moves, adds and changes, and eases maintenance and patching clutter.

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