CONSTRUCTION TECHNOLOGY INTEGRATORS

DESIGN BUILD MANAGE

BETTER, STRONGER, FASTER

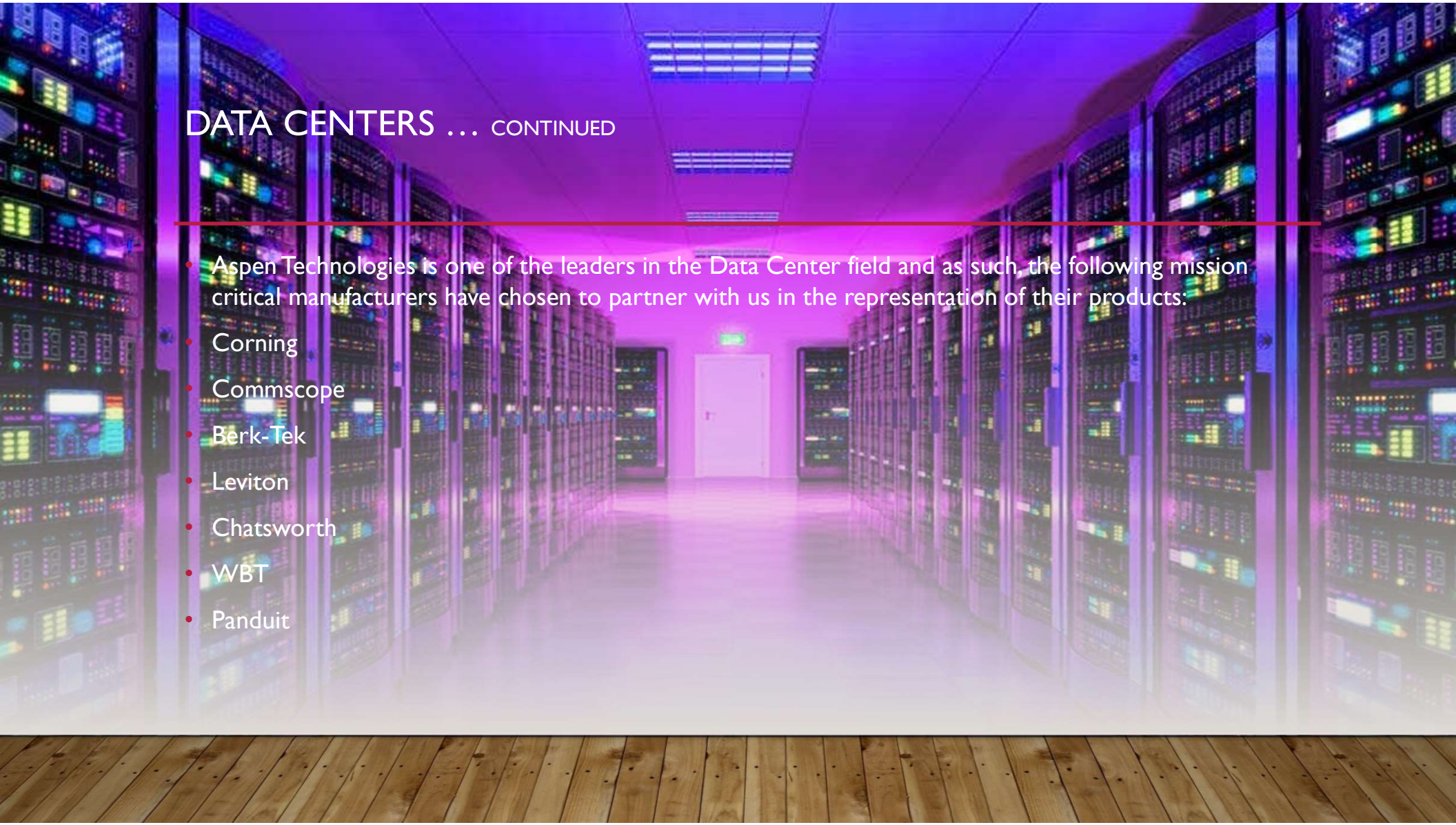
- Aspen Technologies is a technology integrator taking technology in all of the construction segments and integrating them into a single delivery model. Aspen focuses on creating a tailored solution to the end customer goals and user experience to drive productivity and efficiencies. At Aspen, we can Design, Build and Manage your solutions to create even greater flexibility at the greatest value possible. Instead of having multiple vendors to manage Aspen Technologies is the one stop shopping for your technology solutions. See us as a resource and not just a contractor.

TRANSFORMING YOUR BUSINESS THROUGH TECHNOLOGY INNOVATION

- NOC or Data Center design and build
- Integrated A/V Capability and Design
- Integrated access control systems
- Distributed Antenna System
- Structured Cabling
- Electrical design, service, installation, testing
- Unified Communications
- BIM modeling CAD Design
- Smart Building Capability
- Wired and Wireless Networking
- Network Design and Build
- Sound Masking
- IT Architect

DATA CENTERS:

- Aspen Technologies is redefining our clients' expectations of a data center infrastructure contractor as our approach is that of a solutions provider, not simply a plans and specs contractor. The unique mix of engineers, project managers, installation team and certified relationships with all of the major data center product manufacturers provides our customers with expertise to leverage throughout the entire data center build process.
- Aspen Technologies understands the unique properties of a zero-defect facility, the importance of leveraging space requirements with the need for speed, services and hig-density traffic. We stay on top of the industry's ever advancing solutions of build design, air flow, fiber solutions and pathway construction. The importance of a company's security is understood and we have the confidence of many of the world's largest data center players as their choice for infrastructure and electrical contracting.
- In mission critical infrastructures, all components must operate each and every day, without exception or incident. Speed to market, increased efficiency, sustainability and reliability are crucial. Failure is not an option. These implementations demand a highly specialized and experienced infrastructure team. Data centers require unique operational attention long after initial construction is complete, and our post-construction services are designed specifically to address those needs.



DATA CENTERS … CONTINUED

- Aspen Technologies is one of the leaders in the Data Center field and as such, the following mission critical manufacturers have chosen to partner with us in the representation of their products:
- Corning
- Commscope
- Berk-Tek
- Leviton
- Chatsworth
- WBT
- Panduit

AUDIO VISUAL COLLABORATIONS

- Aspen Technologies is at the forefront of the ever-changing world of sophisticated audio/visual systems. We extend our valuable time and training resources to the latest advances in these products to provide our clients the sophistication required to confidently configure and service these complex integrated solutions. Dramatic improvements in quality and cost-effectiveness have made IP-based audio/visual systems crucial to teaching and learning, workgroup collaboration, client presentation, public communications and entertainment.
- Our subject matter experts design and install highly innovative presentation systems, video conferencing, collaborative education, digital signage, home entertainment and home automation systems. In a world of technology, no field is expanding as rapidly as the transmission of information now through sight and sound. We are experts in keeping our clients dialed into the solutions that best fits their needs.

AUDIO VISUAL COLLABORATED SYSTEMS

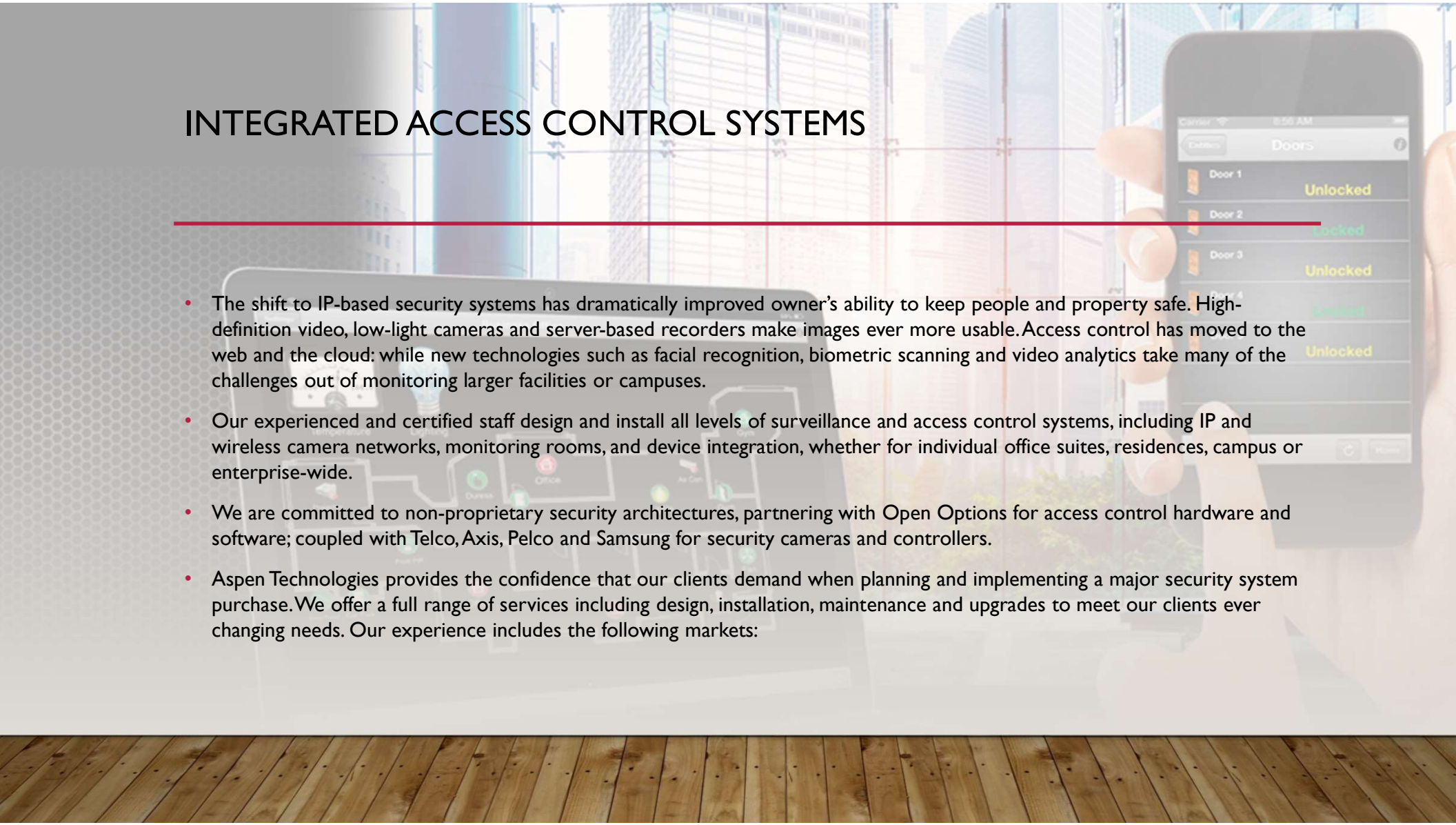
EXTENDED IMPLEMENTATIONS

- Conference Rooms
- Training Rooms
- Ballroom Presentations and Sound
- Video Conference
- Building Automation
- Sound Masking
- Educational AV Solutions
- Stadium Solutions

TECHNOLOGY PARTNERS

- Crestron
- Control 4
- Samsung
- Shure

INTEGRATED ACCESS CONTROL SYSTEMS



- The shift to IP-based security systems has dramatically improved owner's ability to keep people and property safe. High-definition video, low-light cameras and server-based recorders make images ever more usable. Access control has moved to the web and the cloud: while new technologies such as facial recognition, biometric scanning and video analytics take many of the challenges out of monitoring larger facilities or campuses.
- Our experienced and certified staff design and install all levels of surveillance and access control systems, including IP and wireless camera networks, monitoring rooms, and device integration, whether for individual office suites, residences, campus or enterprise-wide.
- We are committed to non-proprietary security architectures, partnering with Open Options for access control hardware and software; coupled with Telco, Axis, Pelco and Samsung for security cameras and controllers.
- Aspen Technologies provides the confidence that our clients demand when planning and implementing a major security system purchase. We offer a full range of services including design, installation, maintenance and upgrades to meet our clients ever changing needs. Our experience includes the following markets:

INTEGRATED ACCESS CONTROL SYSTEMS ….CONTINUED

- Aspen Technologies is an industry leader with the latest Access Control product lines. We believe in open architecture, enterprise-class, feature-rich systems that integrate credential-based access, intrusion detection and video security for a unified management and administration experience. Providing the solution that best fits our client needs is where we excel. Often times, a 100% web based, IP networked system requires no software installation or client license fees. Flexible system architecture allows for a range of applications from single sites to globally distributed physical security management systems. Our solutions also integrate with legacy access control system, allowing for easy transitions and upgrades.
- Aspen Technologies supports those solutions with solid state design products, browser-delivered system management, intuitive user interface and ability to integrate with other best-of-breed reader manufacturers. Some of the benefits are as follows:
- Seamless Integration
- Web Interface
- Expandable System
- Customizable Monitoring Displays
- Automated System Management
- Events and Reporting
- Data Management
- Identity Management
- Legacy System Upgrade

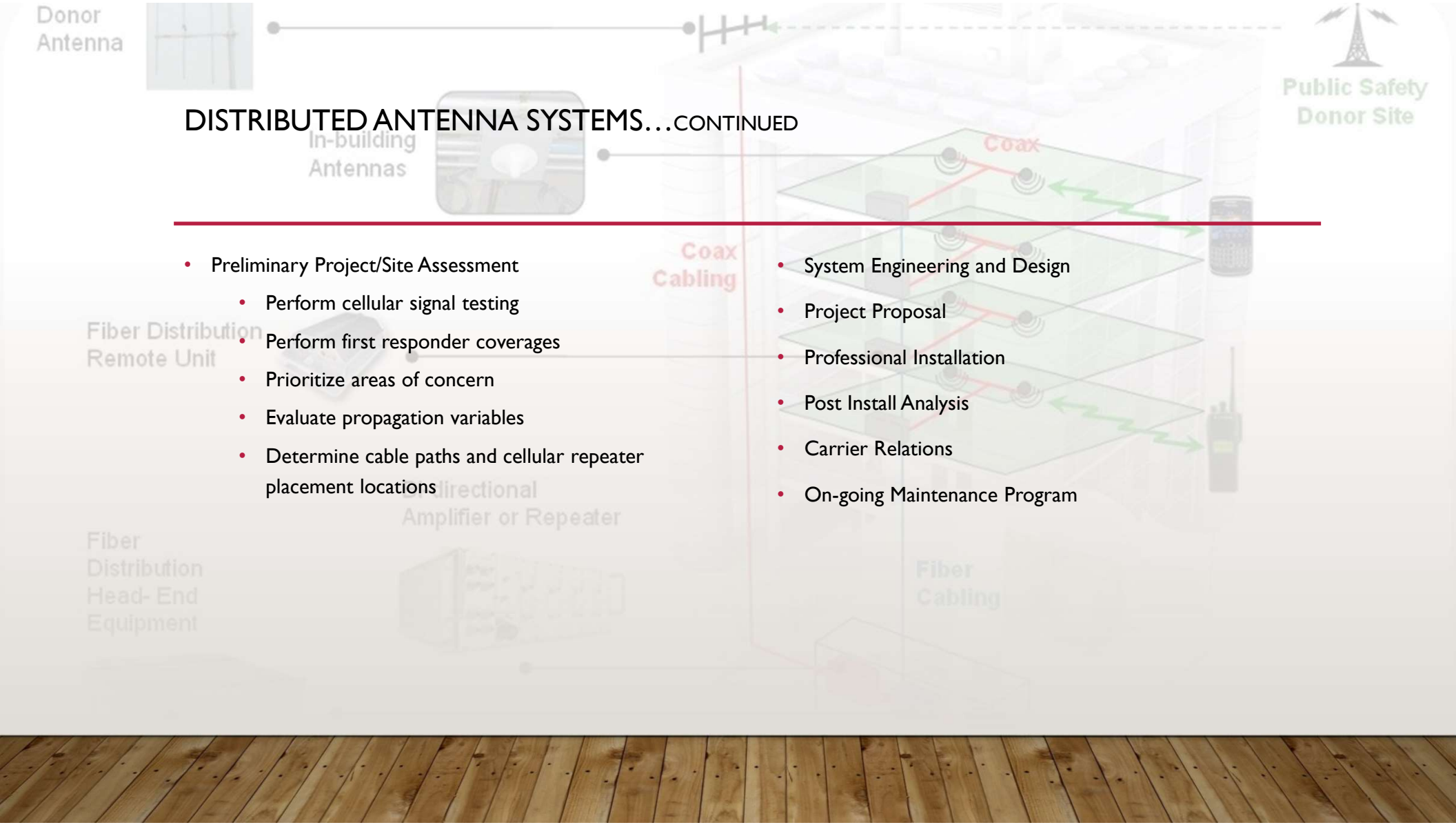
VIDEO SURVEILLANCE

- Intelligent video surveillance systems are essential to a fully integrated security system by providing another level of security reinforcement to protect your business assets and most importantly your most valuable assets your employees.
- We are proud to offer cost effective video surveillance systems to our clients through volume purchased, yearly manufacturer purchase agreements as well as integrated system design assistance. Our large selection of intuitive and easy to operate video surveillance systems include: IPHD cameras, storage and video management software all the way to a full NOC design for 24 hour monitoring with the ability to remotely view, communicate, control and manage through a web client on your mobile device allows the functionality to meet our clients' needs.
- We pride ourselves on working closely with the customers wants and needs and extending those delicate but important details to the manufacturers specialized system design engineers to ensure the best products are selected to perform the needs of each customer specifically.

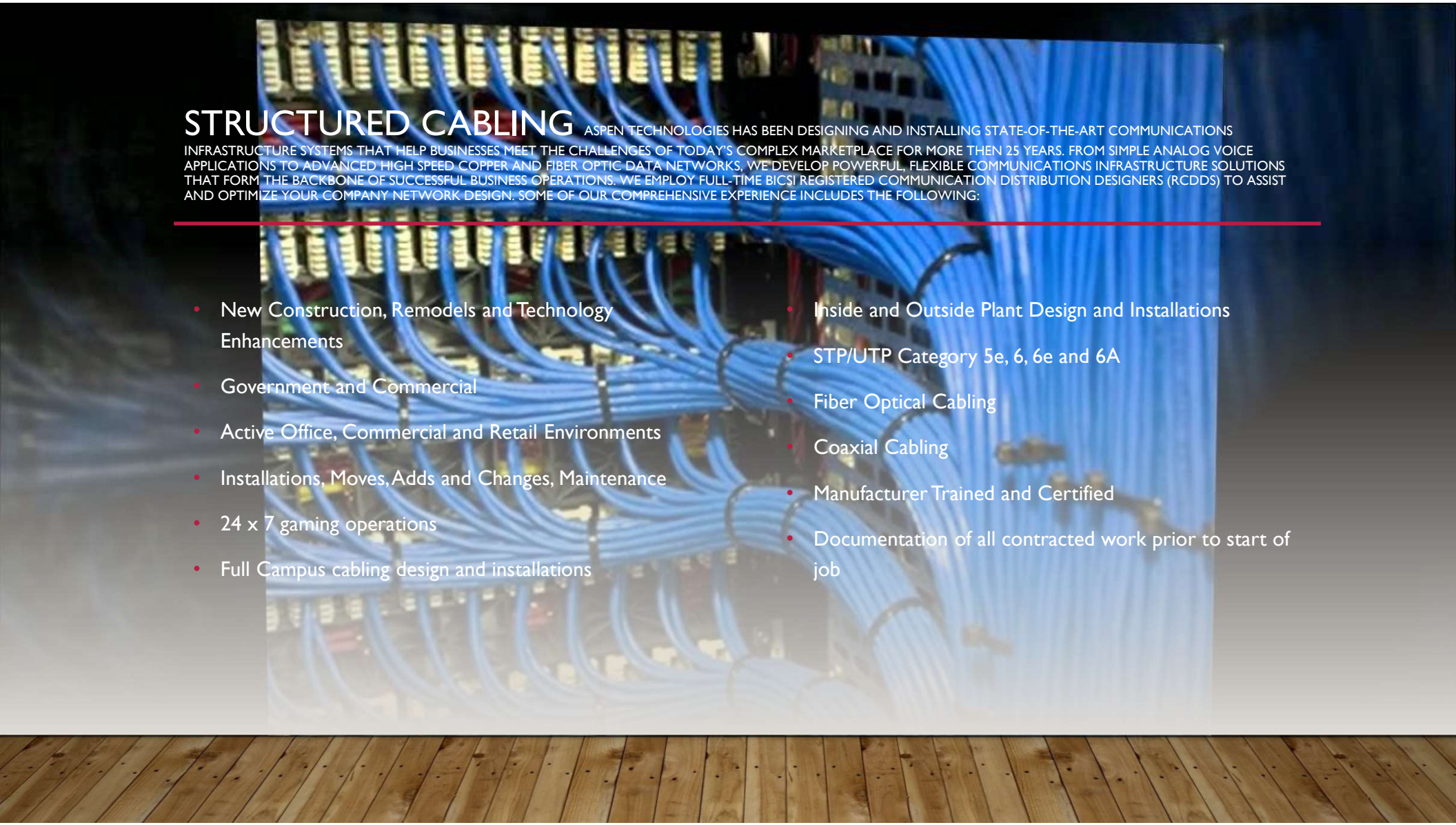
DISTRIBUTED ANTENNA SYSTEMS

- With our efficient internal methods of gathering site performance information and a very structured process to use that information to know what interferences or signal skew objects we need to work around to provide you the complete -75 Mhz coverages you will require, you can then rely on us to provide professional and stress free solutions for all your signal repeating needs as well as any city or state required coverage guidelines necessary to get you compliant with their ever-changing laws and regulations.
- Some of the processes we perform to insure a clear and smooth process are, but not limited to:
  - Signal usage verifications for required bandwidths you need to rebroadcast
  - Coordination with city, state and municipality departments
  - Architecture coordination to ensure proper installations are not conflicting with other trades or utilities
  - Carrier coordination for cellular needs where necessary or requested
  - First responder relationship coordination to ensure quick and easy progress to pass inspections where C of O is needed
  - Active component information details to assist with asset tracking and cost segregation needs

DISTRIBUTED ANTENNA SYSTEMS…CONTINUED



- Preliminary Project/Site Assessment
  - Perform cellular signal testing
  - Perform first responder coverages
  - Prioritize areas of concern
  - Evaluate propagation variables
  - Determine cable paths and cellular repeater placement locations
- System Engineering and Design
- Project Proposal
- Professional Installation
- Post Install Analysis
- Carrier Relations
- On-going Maintenance Program



STRUCTURED CABLING

ASPEN TECHNOLOGIES HAS BEEN DESIGNING AND INSTALLING STATE-OF-THE-ART COMMUNICATIONS INFRASTRUCTURE SYSTEMS THAT HELP BUSINESSES MEET THE CHALLENGES OF TODAY'S COMPLEX MARKETPLACE FOR MORE THEN 25 YEARS. FROM SIMPLE ANALOG VOICE APPLICATIONS TO ADVANCED HIGH SPEED COPPER AND FIBER OPTIC DATA NETWORKS, WE DEVELOP POWERFUL, FLEXIBLE COMMUNICATIONS INFRASTRUCTURE SOLUTIONS THAT FORM THE BACKBONE OF SUCCESSFUL BUSINESS OPERATIONS. WE EMPLOY FULL-TIME BICSI REGISTERED COMMUNICATION DISTRIBUTION DESIGNERS (RCDDS) TO ASSIST AND OPTIMIZE YOUR COMPANY NETWORK DESIGN. SOME OF OUR COMPREHENSIVE EXPERIENCE INCLUDES THE FOLLOWING:

- New Construction, Remodels and Technology Enhancements
- Government and Commercial
- Active Office, Commercial and Retail Environments
- Installations, Moves, Adds and Changes, Maintenance
- 24 x 7 gaming operations
- Full Campus cabling design and installations
- Inside and Outside Plant Design and Installations
- STP/UTP Category 5e, 6, 6e and 6A
- Fiber Optical Cabling
- Coaxial Cabling
- Manufacturer Trained and Certified
- Documentation of all contracted work prior to start of job

ELECTRICAL NEEDS AND SERVICES

- Aspen Electric was established on the principle of providing unparalleled service and quality workmanship with a focus on understanding each of our client's unique needs. Our target market is focused on providing our customers solutions to their individual electrical requirements that promotes a partnership approach to grow our relationship. We are positioned to handle all your electrical needs, from a basic electrical repair, to major projects within your facilities.
- Aspen Electric Provides Comprehensive Services Such as:
- Electrical Repairs and Maintenance as well as full scale projects
- Electrical Design, Construction and Tenant Improvements
- LED Lighting Upgrades, Retrofits, Energy Audits and Utility Rebates and Infrared Scanning
- Switchgear Preventative Maintenance
- Lighting Maintenance and Repairs
- Power Monitoring and Load Studies
- Light Control Design, Installation and Upgrades
- Manufacturing Facilities Electrical Installations
- Data Center Critical Power Installation, Repair and Maintenance
- Commercial/Industrial Property man

SOUND MASKING SYSTEMS

- The addition of natural or artificial sound into an environment to cover-up unwanted sound by using auditory masking. This is in contrast to the technique of active noise control. Sound masking reduces or eliminates awareness of pre-existing sounds in a given area and can make a work environment more comfortable, while creating speech privacy so workers can better concentrate and be more productive. Sound masking can also be used in the out-of-doors to restore a more natural ambiance.
- Complete Designs from head end to each speaker location is done in coordination with the manufacturers engineers to ensure a full and balance system for your companies needs. All systems come with a complete set of one line diagrams for all active and passive equipment.
- Systems are all designed to be scalable and can expand or shrink as your needs change and coverage areas grow.

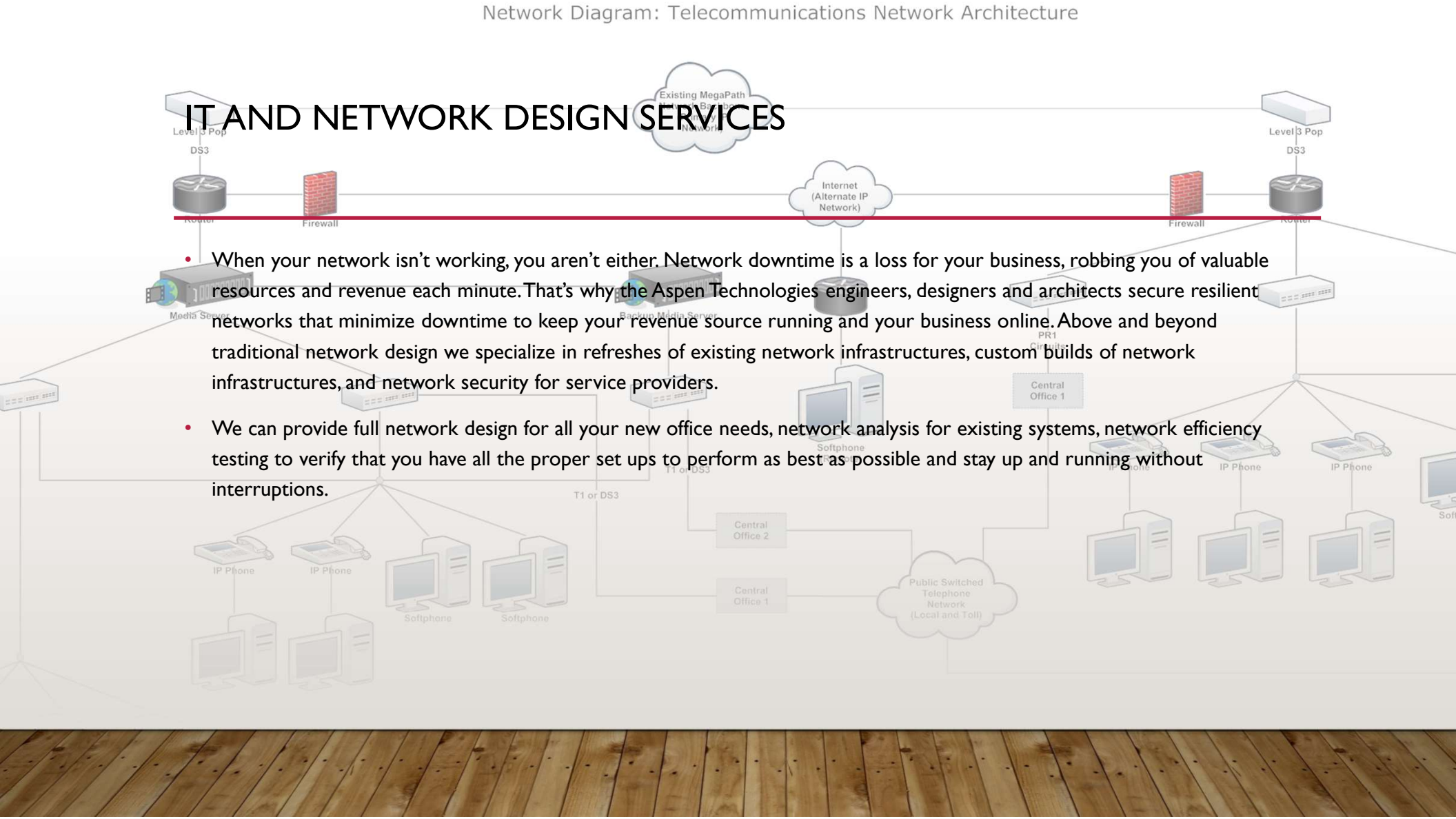
BUILDING MANAGEMENT SYSTEMS (BMS) OR SMART BUILDINGS

- For aging and outdated buildings, SmartBT can completely revamp inefficient systems and replace outdated modules. We use leading edge components that improve existing efficiency, recover lost heat and energy, and link uncoordinated systems through central controls that make energy use smart.
- We automate the process, we save you money, we make your customers happier, and we make your equipment last longer. We do this by providing a single control point for building automation systems, energy management systems, tenant services metering, and critical systems monitoring.
- Full control of all variable office automation systems all networked into one easy to manage and monitor control system. Allow your business to be as efficient as possible and minimize your monthly maintenance expenses by keeping a continued pulse on all mechanical systems and needed maintenance to run smoothly and last longer.

WIRED/WIRELESS NETWORKS

- To be ready for digital transformation, a network must be prepared to meet the demands of emerging technologies and services. Important are **scale** and **speed**, **cloud integration**, simplicity and security. **The Internet of Things.** Beyond mobile devices and notebooks, an organization needs to build its wireless infrastructure to handle countless smart devices from printers to conference rooms.
- **Flexibility.** A strong wireless network allows an organization to adapt to emerging technologies and service integrations.
- **Simplification.** Installing a wireless network system reduces the need for problematic cables. A robust wireless network can reach beyond cables and allow for flexible access points, resulting in increased agility.
- **Scalability.** You can custom configure wireless infrastructures to grow with your organization as the demand for bandwidth increases.

IT AND NETWORK DESIGN SERVICES



- When your network isn't working, you aren't either. Network downtime is a loss for your business, robbing you of valuable resources and revenue each minute. That's why the Aspen Technologies engineers, designers and architects secure resilient networks that minimize downtime to keep your revenue source running and your business online. Above and beyond traditional network design we specialize in refreshes of existing network infrastructures, custom builds of network infrastructures, and network security for service providers.
- We can provide full network design for all your new office needs, network analysis for existing systems, network efficiency testing to verify that you have all the proper set ups to perform as best as possible and stay up and running without interruptions.

ARCHITECT/DESIGN/DRAWINGS

- Aspen Technologies handles the network infrastructure and IT functions of a relocation or new build out. This includes everything from the design aspect to the ongoing management of IT systems as well as IT consulting around workplace relocation and migration processes. As IT Architect, Aspen owns the design of the following technology components:
- In this capacity, our Lead bridges the gap between traditional corporate real estate transactions and processes, and the gap between how technologies run in a corporate setting. Aspen Technologies is the bridge between corporate real estate and corporate technology.
- An IT Architect is essential from the beginning of a construction project in order to stay on time and within budget.
- An office relocation or large corporate build out has a variety of components and vendors that play various roles throughout the test-fit, design development, and construction processes. Each respective party has a different purpose and deadline to meet. Having a Lead IT Architect involved from the beginning of a project is essential to planning and staying on budget. In this role, our Lead ensures all components confederate at the right time within the project to ensure the delivery of the high ROI your organization is looking for.

ARCHITECTS/DESIGN/DRAWINGS… CONTINUED

- Electrical * Structured Cabling * Data Center/NOC * DAS •Unified Communications System (UCS) • Unified Collaboration Integration (UCI) • Indoor and Outdoor Wireless LAN (IEEE 802.11 WLAN) • Wide Area Network (WAN) • Local Area Network (LAN) • Network Security (IEEE 802.1X) • Network Design • Integrated Audio/Visual
- Each of our consultants is a seasoned professional who understands the technology and trends in his own field, but is able to work effectively with architects, engineers, other consultants and integrators to make sure you get the best possible results.
- Our collaborative approach puts your goals and vision first. We will work closely with you to understand your needs, and only then start on your project.
- Our services include technology audits, peer review, standards development, infrastructure design, system design, construction administration, and commissioning.

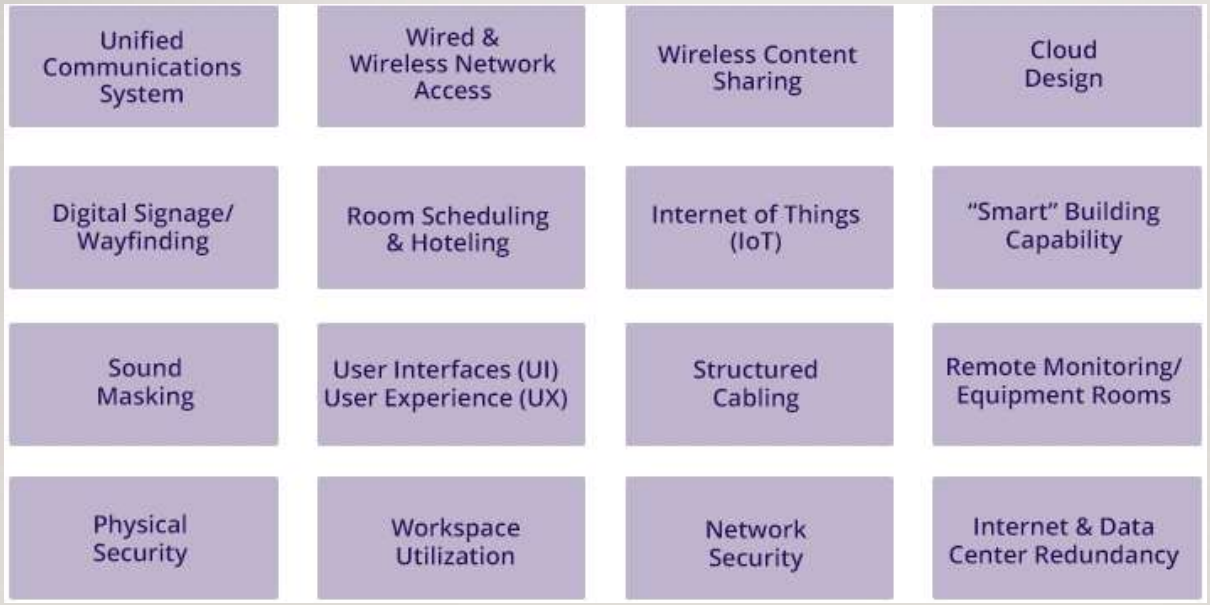
UNIFIED COMMUNICATIONS - THE SUBJECT MATTER EXPERTS HERE AT ASPEN TECHNOLOGIES CAN DESIGN THE RIGHT COMMUNICATION SOLUTION FOR OUR CLIENTS, FROM AN OFFICE OF THREE TO A NATIONAL OR WORLD-WIDE SMALL TO MEDIUM SIZED ORGANIZATION OF 10,000 OR MORE

- Unified Communications
- Mobility
- Conferencing
- Remote and Home Workers
- Messaging
- Cloud based phone systems
- VPN network set up and monitoring
- Contact Center Performance
- Multi Channel
- Omni Channel
- Virtualized Communications
- Cloud Hosted IT Solutions
- 24 x 7 network monitoring
- Software inventory and maintenance options

UNIFIED COMMUNICATIONS… CONTINUED

ASPEN TECHNOLOGIES IS ONE OF THE LEADERS IN THE IP TELEPHONY ARENA AND AS SUCH, THE FOLLOWING MANUFACTURERS HAVE CHOSEN TO PARTNER WITH US IN THE REPRESENTATION OF THEIR PRODUCTS:

- AVAYA
- Plantronics
- Tetra nVX – Cloud Based
- Tetra sVX – Microsoft
- Tetra cVX – Cisco
- Large variety of Hosted solutions platforms

IT TEST FIT

COMPREHENSIVE TEST FIT TO ENSURE ALL IT SYSTEMS ARE WOVEN INTO THE DESIGN. THIS ENSURES AN OPTIMAL FINAL RESULT FOR YOUR USERS. WHEN PERFORMED AT THE OUTSET OF A PROJECT, THE IT TEST FIT ENSURES TECHNOLOGY IS DESIGNED RIGHT AND UNEXPECTED PROJECT COSTS DON'T EMERGE. IF YOU'RE FAMILIAR WITH HOW IT COMPANIES WORK, YOU MIGHT NOTICE THAT WE TAKE CHARGE OF MORE TECHNOLOGY STACKS THAN THE OTHERS. THAT'S HOW WE DO IT.
THE IT TEST FIT GIVES A VIEW OF HOW THESE FACETS WILL BE INTEGRATED INTO THE BUILDOUT.