

The Intersection of Consumer Demands & Wireless Technology:

A Roadmap to the Lifecycle of a DAS Project



Presented By:



Calendar of Events



CommScope Overview

- **>\$3 Billion in Revenue**
- **Presence**
 - 100+ Countries Served
 - 20+ Manufacturing Facilities
 - 11,000+ Employees
- **Average \$100 Million annually in Research & Development**
- **Over 2700 Patents**
- **Markets Served: Wireless, Enterprise, Broadband**
 - **#1 in Merchant RF Solutions for Wireless Network Infrastructure**
 - Microwave Antennas, Base Station Antennas, Cables, Distributed Coverage & Capacity, Merchant RF Subsystems
 - **#1 in Structured Cabling/Connectivity Solutions**
 - Copper Based Solutions, Fiber Based Solutions
 - **#1 in Coaxial and Fiber Optic Cables for HFC Networks**
 - Trunk Cable, Drop Cable



Vision Technologies Overview

- Integrated Technology Delivery™
- Revenue exceeding \$90 Million in 2014
- Unique IP Centric Company
- Design & Engineering Services:
 - DAS
 - IP Surveillance
 - PON
 - Audio Visual
 - Wireless
 - Structured Cabling
- Certified: CIBET, RCDD, PMP, RCWD, CM-BIM
- In-house CAD Team
- “Company Behind the Company” Business Model
 - We only succeed when you succeed!
- National Delivery
- 350+ Employees, 22 states
- Service-Disabled Veteran-Owned
- GSA Connections II Prime Contractor, Schedules 70 and 58i, Sch. 84 pending



Introduction to your Presenter

Ron Plecas

Manager, IBW Channel Sales, CommScope

Ron has been engaged in the in-building wireless marketplace for 14 years. His knowledge and expertise stem from working for carriers, integrators and manufacturers. Ron's current position within CommScope has allowed him to wear several hats. His roles have included business development, technical support for wireless carriers, and channel management for in-building wireless partners.



Introduction to your Presenter

Rick Baldasarre
Solutions Architect, Vision Technologies

Rick has over 30 years of experience in the IT industry working for both manufacturers and integrators. He has been involved in the total lifecycle of system deployments. His portfolio of DAS projects includes high-end hospitality venues over 2 million square feet, 35+ story high-rise office buildings and multi-building campuses.



Today's Agenda

- **Last Session Review**
- **Why the need for a Partner?**
- **CommScope VAR Requirements**
- **Key Attributes for Selecting a DAS Partner**
- **Project Deployment**



Session Review: DAS Basics

DAS Overview:

- Explanation of Terms
 - Passive vs. Active
- DAS Components
 - Carrier Interface (Bringing Signal In)
 - Distribution of the signal
- The Wireless Service Providers are stakeholders in the process regardless of who is paying for the solution.
- Considerations
 - Who is responsible for the deployment of a DAS?
- April 21st Presentation:

<https://cc.readytalk.com/play?id=36wizb>

Why Partner?

- **Commercial Systems use Licensed Frequency**
 - Ownership: Wireless Service Providers (WSPs)
- **Public Safety Systems are critical in emergency situations**
 - This is the wrong time to discover the System isn't properly designed and installed
- **Special & costly tools are required to do it **RIGHT!****

CommScope VAR Qualifications

- **DAS process is complicated and requires specific skill set**
 - This is NOT “Plug-and-Play”
 - Highly Complex
- **Requirements Include:**
 - Strong RF Expertise
 - iBWAVE Certification
 - CommScope IBW Certification
 - Understanding of Carrier requirements
 - Wireless Service Provider Relationship
 - Past Performance: Carrier Approval



CommScope VAR Qualifications

- **Financial and Manpower Commitment to DAS Marketplace**
 - Technical Resources
 - Sales Resources
 - Ability to determine customer requirements
 - Certified on OEM Equipment to insure warranty coverage
 - Investment in required testing equipment
- **Post Sales Support**
 - Service Contract
 - NOC

CommScope VAR Qualifications

- **Few Companies Qualify... Why?**
 - Some attempt to subcontract pieces they are not able to accomplish on their own
 - Some attempt to push off carrier approval piece on the end user/client
 - Some ignore the carrier approval piece and low ball quotes
- **Poor deployment methods are bad business for an OEM**

DAS Partner

Key Attributes for a Successful and Trusted Partnership:

- Corporate Culture
- Engineering Expertise
- Support
 - Pre & Post Award



Key Attributes: Culture

- **Responsibility**
 - Ownership
 - Execution
 - Responsiveness
- **Partnership**
- **Integrity & Trust**



Key Attributes: Engineering

- **Engineering Depth**
 - **Employees vs. Contractors/1099**
 - **Pre-sales, Design, Field/Installation**
- **Manufacturer Certified**
- **Design Certified**
- **WSP Savvy**
 - **Requirements knowledge & approvals**
- **Industry Knowledge**
- **Maintenance and Support**

Key Attributes: Support

- **Sales & Project Support Staff**
 - Requirements & Solutions Development
 - Installation & Logistical Support
 - Documentation; Proposals, Project & As-Built
- **Investment in the Proper Tools**
 - Design
 - Installation
 - Survey and Performance
- **Maintenance and Support**
 - Ease of Access & Availability- Web-based/Call in
 - Warranty; Break/Fix Service Contracts
 - NOC; Monitoring; Remote Access

Project Deployment

- **DAS Solutions utilize many wires**
- **Turn-Key Solutions Require:**
 - **RF Engineering**
 - Design, Configuration, Test, Validate & Document
 - **Low Voltage Cabling**
 - Installation, Termination, Test, & Document
- **Smooth Deployments Require:**
 - **Teamwork, Communication and Trust**

Responsibility Matrix

RF Engineering

- High Quality RF Design
- Carrier Coordination
- DAS Setup & Testing
- Activation of RF Signal Sources
- System Verification

Low Voltage

- Cable Rough-in (Cat 6A, Coaxial & Fiber)
- Terminate & Test
- Coverage Antenna Installation
- Rack / Wall mount DAS Equipment

Summary

- **Key Attributes for a Successful Partnership:**
 - Solutions Focus
 - Technology Focused Engineering
 - Project & Program Management Experience
 - Partnership Mentality
 - Service and Support Capabilities
 - Responsive
 - Communicates
 - Past Experience & Performance

Our Next Session

Needs Analysis: Conducting An On-site Survey

June 23, 2015

Previous Sessions:

<https://cc.readytalk.com/play?id=36wizb>

More Information:

<http://www.das-cell.com>

<http://www.commscope.com/Solutions/Wireless-Solutions/>

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