

# Manufacturing Plant - Communications Architecture Project

## Customer profile:

- Industry sector: Automotive Manufacture
- Number of Employees: 2500
- Number of Branches: 30 new sites in North America.
- Key critical success factor(s):
  1. Managed Service provider for new plant
  2. Must be cost effective to provide state of the art solution with limited expense
  3. Provide service up to 2000 IP end points. Voice, Voice Mail, Audio Conference Bridge
  4. Onsite support

## Design challenge:

- Project would take 6-9 months before go-live date
- Project was only an estimate of what was needed at the time of the RFP
- Site-survey was not possible before design was completed
- Needed connectivity to corporate locations in two other states

## Implementation challenges:

- Had to provide service during construction phase of plant. Phased-in approach required 9 months from start to finish.
- A temporary system had to be in place for users to communicate until the main system could be installed during the construction phase of the plant.
- Training new personnel – how to use the new telephony functionality. RTS developed a training schedule that would allow for multiple classes throughout the project.
- New technology was implemented that required employees to learn how to use its capabilities.

## Key solution components:

- Over 1200 ports installed and operational to support voice traffic
- Avaya Aura Communication Manager 5.2.1
- Core Survivable Enterprise Communication Manager
- Aura Session Manager SIP
- Media Gateways: G350 or G430 to handle digital and analog requirements inside the plant where distance was an issue.
- Sonexis Conference Bridge – 150 Ports

### **Future proofing design elements:**

- Avaya Session Manager to reduce complexity and management
- Integration with Modular Messaging and Audio Conferencing apps
- Allow for future growth to 4000 stations.

### **Results/Transaction loads:**

- Installed 1100+ stations over a 9 month period.
- Onsite RTS personnel worked with IT staff and project team
- 5 year contract

Modular Messaging is a powerful standards-based unified messaging platform designed for single or multi-site global enterprises. Modular Messaging offers exceptional scalability (4-288 ports , up to 40,000 mailboxes) and a superior feature package of call answering, voice messaging, and **optional** speech capabilities (speech access and speech to text). Messages are accessible anytime, anywhere from a wide array of access devices including telephones, fax machines, email inbox, or PC graphical user interfaces. Modular Messaging delivers flexibility and choice in the best messaging productivity tools to improve customer satisfaction.

### **Description**

RTS provides 7 X 24 support for 1100+ users for Voice, Voice Mail, Audio Conferencing, Video, wireless access points, MAC's. Pricing is based on a per-user fixed cost to the customer.

Avaya Aura™ Communication Manager software is the open, highly-reliable and extensible IP Telephony foundation on which Avaya delivers Intelligent Communications to enterprises large and small. Communication Manager effectively scales from less than 100 users to as many as 36,000 users on a single system and to more than one million users on a single network.

For the Plant, Communication Manager runs on a Linux-based, stateful failover media server pair of S8730's, providing centralized call control for a resilient, distributed network of media gateways and a wide range of analog, digital, and IP-based communication devices. It also has several advanced applications built-in, including mobility applications, call center features, advanced conference calling, E911 capabilities, and access to over 700 features.

Communication Manager is the foundation for building complete enterprise communication networks by supporting SIP, H.323 and other industry-standard communications protocols over a variety of different networks. This protocol support provides centralized voice mail, and attendant operations across the entire plant, including multiple locations.

Resiliency and survivability are designed to provide no single point of failure, with complete, near instantaneous, stateful failover of Communication Manager from LDF1 to LDF2 by providing complete redundancy of server and gateway hardware and software at both LDF data centers.

# Overall Telephony Diagram

