# NETWORKED MEDIA SYSTEMS

### THE CONCEPT OF A NETWORKED MEDIA SYSTEM IS SIMPLE:

It's any audio and/or video equipment that communicates over an organization's Ethernet network.

Networked Media Systems (NMS) are the natural evolution away from isolated systems, and are designed to maximize system resources while simplifying system administration. Leveraging the existing network infrastructure for both audio and control signals means that a ready-built path already exists to send those signals anywhere in the building, resulting in a superior audio experience for conferencing, paging, and sound reinforcement that's also cost effective and flexible.

Networked Media Systems can support multiple types of solutions simultaneously. For example, a facility could have paging throughout a floor or building, conferencing in the meeting rooms, and sound reinforcement in the auditorium, all operating simultaneously and running on the corporate network, typically within VLANs.



# POSSIBLE CONFIGURATIONS

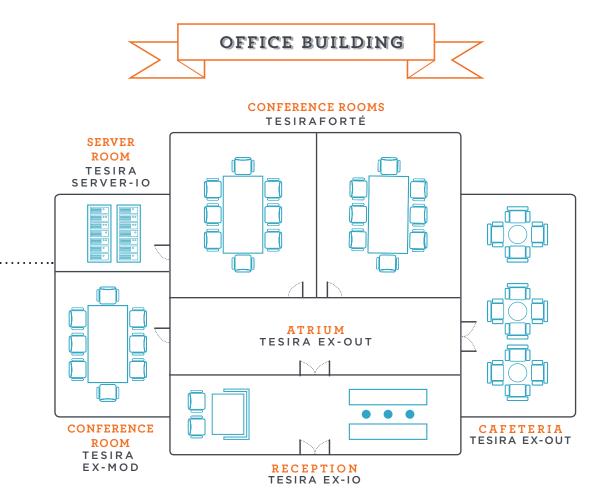
There are many. Here are two:



# **CENTRALIZED NMS**

Centralized Networked Media Systems are designed to be cost effective, efficient, and scalable. With a centralized system, all of the DSP is in one physical location, such as a central AV rack or a server room. Housing the DSP in an unoccupied space makes maintenance easier and upgrades less time consuming. Expansion into new areas is also simplified by the need to install I/O endpoints only.

Biamp's Tesira<sup>®</sup> family excels in centralized Networked Media Systems. Tesira SERVER supports up to 8 DSP cards per chassis, and two Tesira SERVERs can also be designed as a redundant pair, carrying identical processing and card configurations. A Tesira system can integrate with other audio devices that run CobraNet<sup>®</sup> or Dante<sup>™</sup>. In fact, Tesira allows you to seamlessly run both CobraNet and Dante alongside AVB. All three protocols can operate simultaneously, and even within the same Tesira SERVER-IO chassis. Smaller installations not requiring as much DSP may be well suited for TesiraFORTÉ: four models with fixed I/O configurations, and optimized for specific applications.

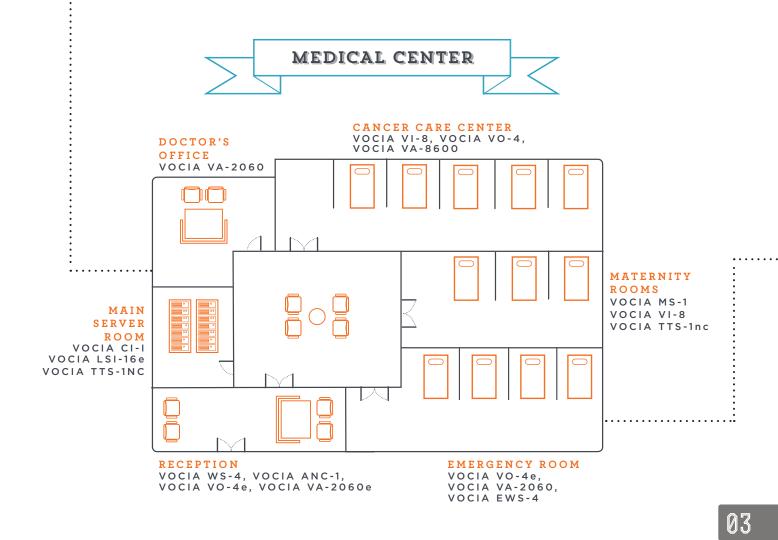




# **DECENTRALIZED NMS**

A decentralized Networked Media System, like Biamp's Vocia<sup>\*</sup> family, places DSP at all of the endpoints, and distributes the demand for DSP across the network, sharing resources between devices as needed rather than routing all signals through a single point, which means there's no single point of potential system failure. The decentralized model is zone-based, and each zone can be optimized for different scenarios – background music, paging, or even sound reinforcement - resulting in a more efficient system with nearly limitless possibilities. Endpoints can be installed anywhere on the system, creating a self-monitoring web of "smart" devices. The result is a substantially lower total cost of ownership, plus reduced installation time and effort.

This configuration is also ideal for critical paging systems, which have rigorous standards for system availability and operation in times of emergency. If any device fails, the remainder of the decentralized Networked Media System will continue to function properly.

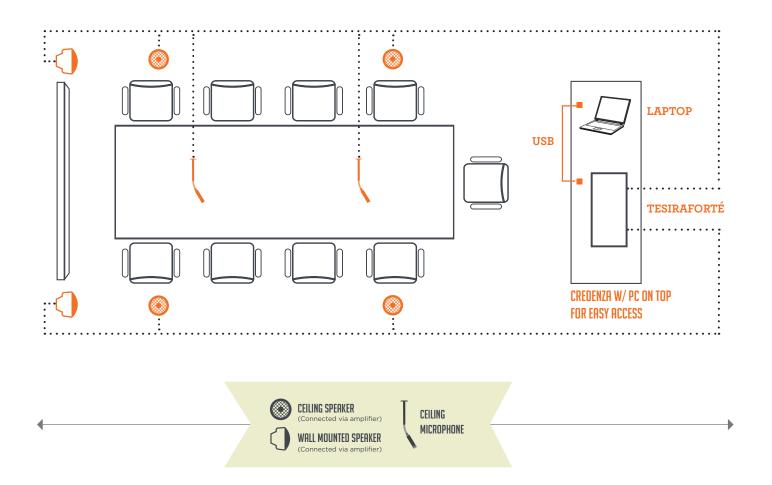




#### CONFERENCING

A good conferencing solution is vital to every company, regardless of its size. Networked Media Systems can be integrated with a company's VoIP system, providing additional signal processing to deliver crisp, echo-free audio every time. If a company is using soft codecs like Lync<sup>\*</sup> or Skype<sup>™</sup>, a laptop can be connected to our USB interface in plug-and-play fashion, making it easy to enhance the audio of your conversations.

#### TESIRAFORTÉ AT WORK IN A CONFERENCE ROOM

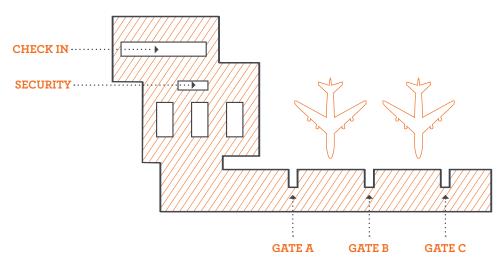


# be implemented with Networked Media Systems:

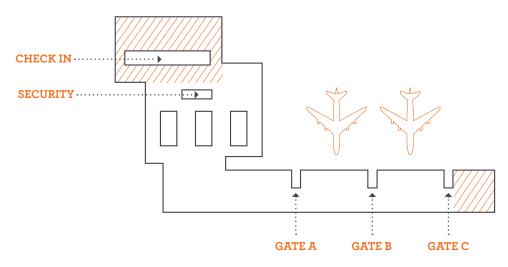
## PAGING

Paging or mass notification is a requirement for most public buildings, and Networked Media Systems are excellent for this application. Instead of resorting to the obsolete and distracting "all call" approach, you can use zoned paging to broadcast messages only to those who need to hear them. Integrating paging with ambient noise compensation allows the paging volume to adjust up or down automatically according to the space's ambient volume. This ensures pages are always audible and intelligible – which is crucial in times of emergency – without being overly loud.

#### ALL CALL APPROACH



#### ZONED APPROACH

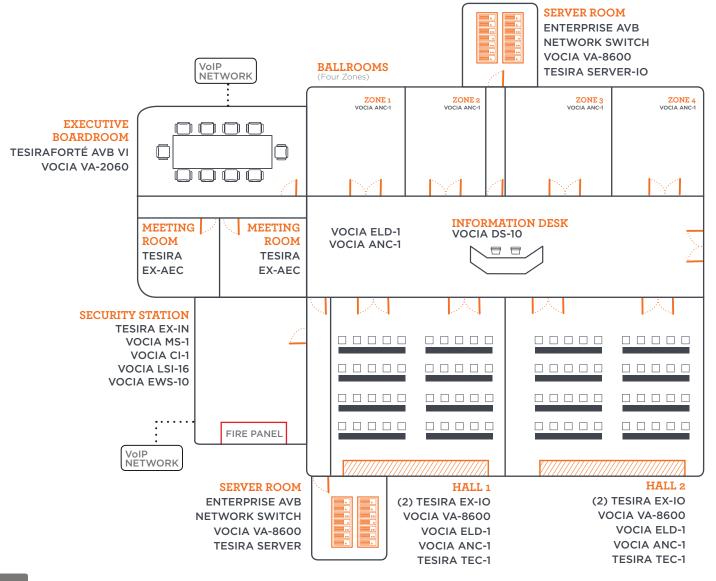






#### **INTEROPERABILITY**

With Networked Media Systems, solutions are interoperable, allowing you to pass audio like background music from one system to another. In large facilities like a Convention Hall, Networked Media Systems can run multiple solutions simultaneously, keeping pace with rigorous event schedules and a constantly changing environment. Tesira and Vocia work together as a hybrid Networked Media System, combining features from both centralized and decentralized systems to provide unmatched networked audio while leveraging hardware across platforms and reducing equipment costs significantly. The system is expandable, with easy upgrades and hardware replacements that don't compromise functionality.



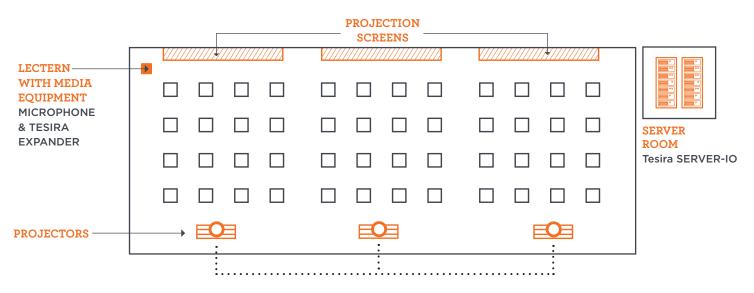




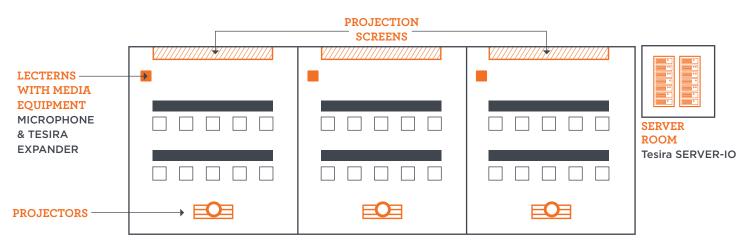
# **ROOM COMBINING**

As business continues to evolve, the concept of a pre-defined space is disappearing. Instead, spaces that are multipurpose or multi-use are becoming more prevalent, and Networked Media Systems are particularly adept at supporting situations requiring quick and robust reconfiguration capabilities.

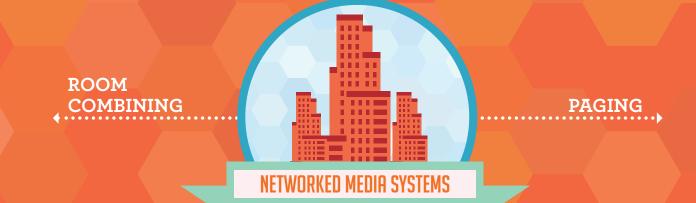
#### **BEFORE: ONE LARGE MEETING ROOM**



#### **AFTER: THREE TRAINING ROOMS**







INTEROPERABILITY

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