

# SCHEDULING SYSTEMS FOR A/V & VC RESOURCES



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## Contents

Overview .....	3
Industry Drivers .....	3
Product Segments.....	4
Basic Applications .....	4
Product Trends .....	5
Reservation Service Levels .....	7



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## Overview

Deploying an automated scheduling system (also known as a reservations system) within an enterprise can yield many improvements in efficiency and cost savings and can boost the performance of A/V and conferencing resources, as well as that of the ancillary services. An automated reservation system can help:

- Improve (internal) customer service - End-users will appreciate faster reservation confirmations, improved accuracy, and enhanced risk management. In addition, problems such as double booking can be completely avoided.
- Improve efficiency and cost effectiveness - Centralization allows a single reservations manager to process an entire multi-location meeting without having to divide the request into multiple reservations. This saves both time and money and decreases the need for reservations staff in many locations. It also saves time and money for those responsible for providing related meeting services, such as catering and audiovisual aids.
- Improved reporting and performance indicators – Mid- and upper-level managers can use an automated system to gain access to the detailed usage information and performance indicators necessary to properly cost-justify internal A/V and conferencing investments.

Virtually all organizations, and most individuals, use one or more reservation systems. Large, high volume transaction companies, such as hotels, airlines, and car rental agencies, depend upon reservation systems to properly allocate their limited resources to their many clients. Medium-volume businesses, such as Doctors' and Dentists' offices, rely upon reservation systems to schedule appointments for their patients. Many individuals use reservation systems, sometimes called personal information managers or PIMs, to track their daily appointments.

This report focuses on a specific type of scheduling system designed to enhance the efforts of audio-visual and conferencing departments and support groups. Wainhouse Research has structured the A/V and conferencing reservation software systems industry into three segments; local, enterprise, and service provider solutions.

## Industry Drivers

The current technology and business environment will drive the scheduling software market in several ways:

- Demand for centralized scheduling solutions within the enterprise will increase substantially because of the cost/benefits the solutions offer, especially to larger and global concerns.
- We expect to see continued consolidation within this market. Company consolidation will continue as the predominant players acquire other vendors and/or products, enabling them to include additional features and functions under their existing product umbrella. Product consolidation will stem from attrition of local and homegrown solutions.
- Organizations will convert from managed to self-serve and hybrid scheduling structures in order to bring down costs, reduce overhead, and push responsibility out to individual workers.
- More on-line service offerings (scheduling bureaus) will reach the market. Services will provide easier-to-use and more functional user interfaces, overall system capabilities, and reporting solutions.
- Systems that use cell-phones, PDAs, and other interfaces to communicate with users and support staff on traditional conferencing endpoints will become common

- Systems will provide additional reports specifically geared toward cost calculation and usage tracking.
- Reservation systems will be integrated with network and device management systems. Communication between these two key business tools will improve the efficiency and performance of conferencing support teams and will improve the accuracy of automatically generated reports and statistics.

## **Product Segments**

The A/V and conferencing scheduling system market includes the following three product segments; local, enterprise, and service provider solutions. In addition, the solutions within each segment may support one or more of the following applications; A/V scheduling, conference scheduling, device control and management, media scheduling, food service scheduling, and other tangential functions.

### **Segment #1: Local Solutions**

Local solutions are intended for use by a limited number of staff within a single location. In fact, these solutions are often utilized by only one person within the company – perhaps a single employee, central scheduler, administrative assistant, or secretary.

Examples of local solutions would be an individual's PIM loaded on a specific user's local computer or a custom-programmed Microsoft Access database tracking the schedule for a handful of shared conference rooms. Local solutions are usually inexpensive to purchase (or create internally) and do not require extremely powerful hardware or dedicated servers to host the application.

### **Segment #2: Enterprise Solutions**

Enterprise solutions are made to service multiple users in more than one location simultaneously. To accommodate this demand, enterprise solutions are typically based on a powerful database engine such as Oracle or SQL Server. In addition, these types of systems involve either a single shared database of information or multiple strategically located databases that replicate (or synchronize) at frequent intervals. Enterprise solutions are the primary focus of this report.

### **Segment #3: Service Provider Solutions**

Service provider solutions are an enhanced version of enterprise solutions that are designed to support the scheduling requirements of more than one company within the same database. Although the ability to support multiple companies within the same database seems like a relatively minor enhancement to the enterprise solution model, one must consider that each of the supported end-user companies may have a different data structure, may follow a different billing model, and may require different monthly reports. Therefore, the service provider solution must allow customization of a variety of features and functions for each end-user company.

## **Basic Applications**

Solutions within all three product segments may support one or more basic applications.

### **Application #1: A/V scheduling**

As the core application for this market space, A/V scheduling includes the reservation and scheduling functions for audio-visual and meeting room facilities, portable or shared audio-visual equipment, and support technicians.

### **Application #2: Conference Scheduling**

For the purposes of this report, a conference is a meeting involving two or more locations. Examples of conferences include audio conferences, videoconferences, and web conferences. Conference scheduling systems not only provide the capabilities described in application #1 (A/V scheduling), but they also allow more than one facility to be involved in a meeting or event. The more advanced conference scheduling systems allow the users to specify, in detail, the specific A/V requirements for each location involved in the conference.

### **Application #3: Device Control and Management**

Some reservation and scheduling systems provide basic or advanced device control and management functionality. This function can be as basic as initiating a video call or as advanced as controlling the end-points, network switching, and bridges involved in a multi-site videoconference. Products that provide device control often include scheduling and reservation capabilities for network switches and centralized devices including audio and video bridges, gateways, and gatekeepers.

### **Application #4: Media Scheduling**

In recent years, many companies have deployed globally accessible media storage and streaming systems. These systems include video encoding and streaming capabilities and provide 24 x 7 access to a wealth of audio and video content. To help organizations centralize their A/V and content management, some reservation systems are able to interface and control content management and delivery systems. Such a system, for example, would allow a user to request video encoding (i.e. digital recording / archiving) for his meeting along with his other A/V and conferencing requirements.

### **Application #5: Tangential Applications**

There are many additional and somewhat tangential applications that reservation system vendors have added to their products to provide additional benefits and value to their end-users. Perhaps the most popular one is food service scheduling which enables coordination of A/V requirements and food requests for a particular meeting. These include inventory management, maintenance tracking, problem management and tracking, security and badge printing, and event coordination and management. Because of the detailed information required for these functions, service providers do not typically include these capabilities in their scheduling bureau offering.

## **Product Trends**

Several trends are shaping the future of the conferencing and A/V reservations software and services industry..

- *Full service (managed) to self-service (on-demand)*  
Thanks to the vast number of services available on the web, today's users have become more self-sufficient than ever. Eager to exploit all possible cost savings, many organizations are shifting their internal reservations functions from a full service model with dedicated reservations and scheduling staff to an on-demand, or automatic service model.
- *Local only to multi-location (a.k.a. multi-site) meetings*  
The increasingly global nature of today's business and educational environment has prompted an increase in the number of multi-location meetings. In addition, corporate efforts to limit travel spending have further accelerated this trend.

- *“Business hours” to 24 x 7*  
The global nature of today’s business environment means that at almost any time of the day or night, on virtually any day (including Saturday and Sunday), work is in progress. Therefore, conferencing and A/V support has become a 24 x 7 business.
- *Central cost accounting to usage based billing*  
In the past, in an effort to avoid costly and unnecessarily complex accounting procedures, organizations would consider many services to be a part of the central cost base. However, the trend toward tighter cost control and increased spending accountability has led companies to implement usage based billing for many services, including conferencing and A/V.
- *The Demand for Cost Justification*  
Companies that previously deployed audio-visual and videoconferencing equipment often *believed* that such investments were cost justified. They accepted that a detailed payback analysis was not readily available, and justified their purchases using the soft benefits including saved time and enhanced availability and convenience. However, today’s corporate managers expect a detailed schedule of the costs, potential savings, and ROI offered by technology investments. As the central source for all usage information, the central reservation system is expected to provide this information.
- *Individual to converged services*  
Enterprise users receive various support services from their internal support staff including scheduling, A/V support, videoconferencing, food services, security, and more. Realizing that these services are all a part of meeting activities, many companies have converged these services under a single support group.
- *Dedicated Rooms to General Use Rooms*  
In the past, and largely due to the complex nature and high cost of conferencing and audio-visual equipment, organizations had little choice but to dedicate certain meeting rooms for A/V and conferencing only. Today, it is more common to designate meeting rooms for general use. The shared nature of these spaces places an additional burden on reservations and support staff because more users have access to these meeting spaces.
- *Remote Management and System Control*  
The proliferation of IP networks throughout the enterprise has paved the way for remote management and system control. These capabilities have allowed companies to centralize their highly skilled resources in a limited number of support centers. In addition, system control capabilities have decreased the need for in-meeting support for A/V and videoconference meetings. Many solutions, specifically the enterprise reservation systems, include some degree of remote management and system control capability. This trend in turn has increased the demand for enterprise and service provider solutions.
- *Interfacing with Microsoft Outlook™ and Lotus Notes™*  
The majority of corporate employees utilize a centrally deployed personal information manager (PIM) such as Microsoft Outlook™ or Lotus Notes™. These employees depend on these applications to track their appointments, business and personal contacts, and their emails. To help users maintain their appointment calendar in a single location, some reservation systems are able to interface with Outlook and/or Notes.

## **Reservation Service Levels**

### **Non-Centralized Service**

Non-centralized service is the level of service available in enterprise organizations that do not utilize a central reservations solution. These organizations are able to offer a limited level of support for their user communities and typically deploy a large number of dedicated or shared reservation managers to compensate for the lack of technology tools.

### **Full Service**

In the full service model, an organization deploys a central reservation system to a globally deployed staff of dedicated or shared reservation managers. Under this model, end-users and their support staff (i.e. administrative assistants, secretaries) do not have direct access to the central reservation solution. The full-service model provides end-users with a turnkey solution allowing them to avoid having to learn another software application. However, the full service model is characterized by high labor costs related to the need for dedicated reservation managers throughout the enterprise. In addition, each reservation in the full-service model requires a significant amount of time. Furthermore, end-users are often not satisfied with the service and support offered via the full-service model. End-users report that being forced to depend upon the accuracy, work ethic, and availability of dedicated reservation managers is counter-productive in many situations.

### **Managed Service**

Under the managed service model, organizations provide end-users, receptionists, and reservation managers with direct access to the central reservation system. Therefore, end-users and their assistants can enter their reservation and meeting requests directly into the central information database and modify their requirements on the fly should the need arise (i.e., the room is booked already). Deploying the managed service model in a large organization can be expensive due to the user-licensing fees charged by many solution providers. However, the fact that most of the solutions include a web-browser interface means that giving access to a large user community should not involve significant IT support costs.

Under the managed service model, the information entered by the end-users is only considered a request for support. Until a dedicated reservation manager or support manager approves the end-users request, the meeting is not confirmed. Although this does allow support managers to exercise an element of control and “reality checking”, the end-users are not able to complete their transaction independently.

The managed service model is efficient because the end-users enter their own requirements. In addition, errors *may* be reduced because end-users are charged with the majority of the data entry into the system. In order to properly support users with this model, support managers must ensure timely (perhaps 15-minute) response to reservation requests. Otherwise, the end-users will become impatient and call the support staff requesting confirmation, thereby eliminating the efficiency gains.

### **Self-Service**

The self-service model provides end-users with full and direct access to the central reservations system. Under this model, the end-users make their meeting requests and confirm their own meetings. Therefore, as long as the resource information contained in the system is accurate and up-to-date and contains conflict-prevention capabilities, and assuming end-users have a basic understanding of their real requirements, a dedicated reservation support staff is not required. This is especially effective in serving geographically-dispersed meeting requests.

However, the fact that end-user meeting requests are confirmed without being reviewed by support staff means that the end-users have full control over the globally deployed resources and rooms. This provides significant convenience, but can also lead to misuse, abuse, and even honest mistakes. For example, under this model, an end-user *might* reserve unnecessary or even duplicate equipment, which means that these resources would not be available to other users. For this reason, most organizations that adopt the self-service model deploy a limited number of staff to periodically review reservations looking for potential problems.

### **The Hybrid Service Model**

Many organizations adopt a hybrid service model in an effort to maximize benefits while controlling costs and risk. For example, an organization might follow the self-service model for local meetings (i.e. meetings involving only a single room with basic audio/visual requirements), but follow the managed-service model for videoconferences and other more complex requirements. Wainhouse Research believes that more organizations will adopt similar hybrid service models in the near future as they seek to minimize staffing requirements and maximize responsiveness and end-user control.

	<b>Non-Centralized</b>	<b>Full Service</b>	<b>Managed</b>	<b>Self-Service</b>
<b>Software Cost</b>	Limited	Low (Few Licenses)	High	High
<b>Labor Cost</b>	Very High	High	Moderate	Low
<b>Responsiveness</b>	Low	Moderate	Moderate	High
<b>End-User Control</b>	None	None	Moderate	High
<b>Accuracy</b>	Low	Low	High	Moderate

**Figure: Service Model Characteristics**

### **About Wainhouse Research**

Wainhouse Research ( [www.wainhouse.com](http://www.wainhouse.com) ) is an independent market research firm that focuses on critical issues in the multimedia communications, videoconferencing, teleconferencing, web conferencing, and streaming media fields. The company conducts multi-client as well as custom research studies, consults with end users on key implementation issues, publishes white papers, newsletters, and market statistics, and delivers public and private seminars as well as presentations at industry events.

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