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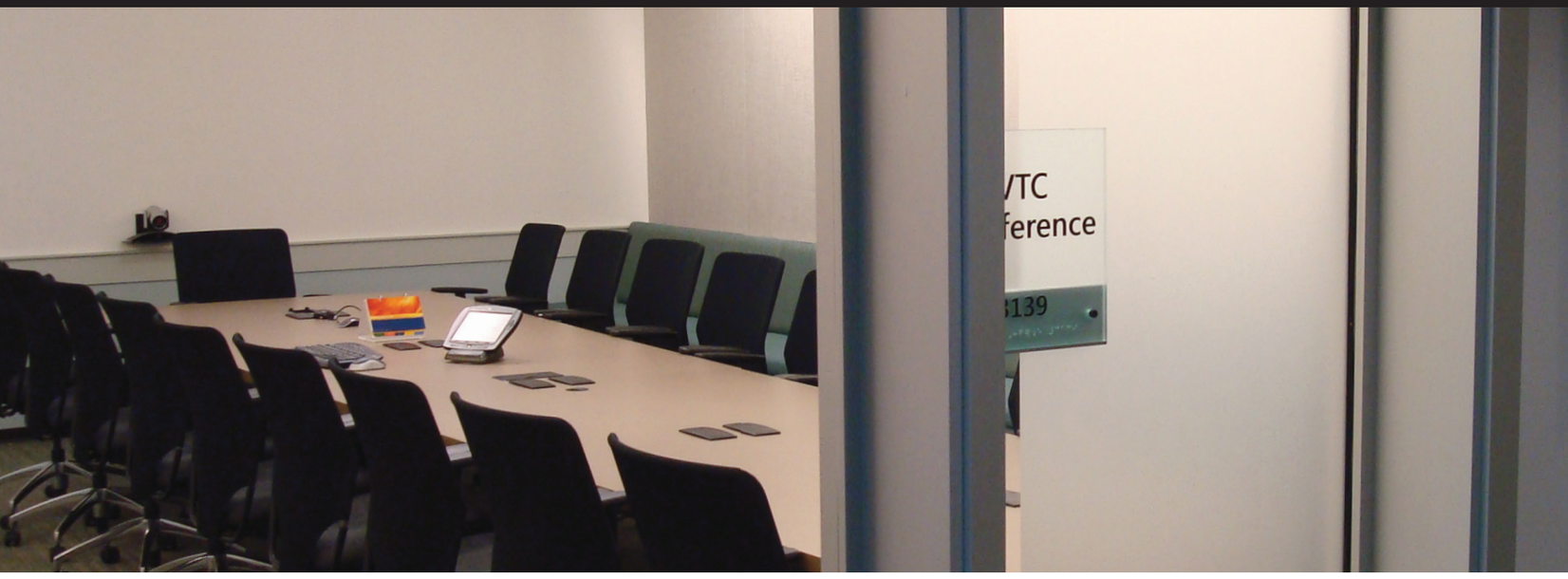
CASE STUDY | CORPORATE



Microsoft improves workspace design and room utilization with Crestron

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Background

As Microsoft grew into the software giant it is today, its global facility managers struggled with conference room availability issues. Even with 3,400 conference rooms in North America alone, users would seize whatever rooms they could find. Attendees for scheduled meetings found themselves in dispute with others, and scheduled rooms would go empty when organizers cancelled meetings but didn't update the calendar. Considering the costs associated with building and equipping these rooms, the Microsoft Real Estate and Facilities (RE&F) team determined that a technology standard and room management processes were necessary to ensure maximum efficiency and meaningful cost controls.

For room management, RE&F established two business requirements. The first was to display room scheduling information on touchpanels mounted outside conference rooms, using Microsoft Exchange as the engine. With Hallway Display, users could instantly reserve a room right from the touchpanel; Exchange would, in turn, update the room schedule in Outlook®. The second requirement was Remote Device Management (RDM). The goal of RDM was to gain the ability to troubleshoot and correct user error centrally from the Service Desk, reducing technician dispatches and ultimately the number of personnel required; monitor systems and detect/ correct device outages before they became an issue for meeting attendees, and business intelligence reporting on usage of room and devices.

To attain these goals, Microsoft undertook an exacting review of all available vendor solutions. Beyond high-performance hardware and software, Microsoft required an industry partner that would collaborate, innovate, and adapt to changing conditions. Ultimately, Crestron was chosen as the one company that could offer the level of flexibility, integration and results required by Microsoft.

Microsoft standardized on Crestron as its global enterprise management solution, and the relationship between the two companies grew into one of reciprocal customer, vendor, and partner. Due to the success of this partnership and the expertise that each brings to the table, Crestron and Microsoft are now working together to engineer and co-develop new technologies that will drive the marketplace and benefit the AV industry.

The Challenge

Microsoft had originally established that, for a 275,000 square foot building, there would be seven small meeting rooms (accommodating 8 people), 22 medium-sized rooms (14 people), six large (16-20 people) and two extra large conference rooms (40 people). But something about the formula wasn't working: even with the ability to book rooms in Outlook, people would hold impromptu conferences in any empty room. This frequently disrupted legitimately scheduled meetings, resulting in groups spending valuable time searching for another place to convene.

Rooms that were booked without an end date often went unused, and once meetings were actually underway, they could be brought to a halt by user error or device malfunctions. Attendees for scheduled meetings found themselves in dispute with others, and scheduled rooms would go empty when organizers cancelled meetings but didn't update the calendar. Without a management solution with reporting capabilities, the lost time and productivity were immeasurable.

To stop the erosion of productivity, Microsoft RE&F needed to implement a networked room scheduling system, ensure efficient use of both rooms and devices, and have informational resources to evaluate results. The RE&F specification required Hallway Display and Remote Device Management (RDM).

The Solution

After evaluating all available vendor solutions, Microsoft standardized on Crestron hardware and software products across its enterprise, including iLux® for lighting and shade control, MPCs (wall mount media presentation controllers) for in-room device control, TPMC-8L touchpanels for Hallway Display and Crestron Fusion RV® to fulfill the RDM (Remote Device Management) requirement. As the software bridge between the MPCs and Exchange, Fusion RV enables room scheduling from touchpanels, remote asset management, and provides the reporting tools and usage data RE&F employs to redefine conference space standards at Microsoft, including the technology installed in conference rooms and the number of room types built in a new Microsoft office building. Crestron DigitalMedia™ (DM) was implemented to manage and distribute HDMI with HDCP with legacy analog support, all in a cost effective, single-cable solution.

Due to the Microsoft/Crestron collaboration, several advanced Fusion RV features were developed. For example, when scheduling a meeting, all a user needs to do is choose the meeting type (Discussion, Presentation, Audio Conference, Videoconference, or Multipoint) to automatically configure the associated AV systems and lighting. Fusion RV has also been very closely integrated with Microsoft Exchange, so that Microsoft end users do not need to change any of their existing workflows

when booking meetings. Fusion RV uses SQL Server as a backend, allowing Microsoft to create their own customer reports using their familiar “SQL Server Reporting Services”.

In the event of a “no show,” the Crestron control system will trigger the deletion of a meeting from the calendar. If it is a recurring meeting and there have been a few consecutive “no shows,” the control system will remove the whole series, providing an accurate representation of room availability in Exchange as well as usage statistics in Fusion RV.

The development of a multi-server, distributed Fusion RV architecture makes it possible to utilize Fusion RV on a regional basis with global access; avoid any single point of failure, and spread work between two or more servers to get optimal resource utilization, maximize throughput, and minimize response time.

Room devices can be configured directly through Fusion RV, such as when a projector is replaced or a videoconference unit is added. By installing the appropriate drivers in Fusion RV, the control system program can hook into a new asset, no programming required. The Hallway Display scheduling architecture that enables the display of multi-room calendars on touchpanels mounted outside each room was also prompted by Microsoft.

Gaining a standard hardware/software solution and a way to evaluate room usage enabled Microsoft to implement specific design guidelines for each type of conference room, streamlining purchasing, installation, operation and maintenance. Additionally, RE&F analyzes room usage data provided by Fusion RV to identify true business needs (from a building, energy consumption and space planning perspective) and adopt superior metrics by which significant, cost-saving decisions can be made.

The Results

Fusion RV-generated reports showed that, based on usage patterns, Microsoft was building too many medium- to large-sized rooms and not enough small ones. In response, RE&F changed their formula to accommodate more small rooms, increasing efficiency and gaining substantial cost savings.

Conference room distribution metrics providing by Fusion RV showed 71% of actual meetings hosted eight people or less. Given this information, the configuration was changed to meet the demand of the user community. The new mix reduced total building costs by $14,800, because smaller rooms cost less to build.

Standardization on Crestron hardware and software has resulted in savings in many areas, including programming charges, negotiated hardware pricing, maintenance and personnel. Prior to standardization, the average cost of programming an “Enhanced Collaboration” room was $4,000 per room. After standardization, RE&F deployed 65 Enhanced Collaboration rooms with the same program in fiscal years 2008 and 2009, and the initial savings were $260,000 ($4,000 per room).

1,920 standard conference rooms followed, resulting in another $960,000 savings ($500 per room). With the remote device management provided by Fusion RV, RE&F realized a savings of $200,000 in annual labor and operating expenses in FY 2009.

The Outcome

Microsoft and Crestron mutually benefit from their unique customer, vendor, and partner relationship.

Microsoft business requirements have shaped Fusion RV software development and helped make it the powerful, feature-rich program it is today. Microsoft has influenced the development of Crestron hardware products as well, including the DM-TX-300 transmitter, which supports multiple signal types and replaces three traditionally

separate pieces of equipment – the analog video, digital video, and USB extenders. Crestron has helped Microsoft develop best practices by providing hardware and software solutions for every room and every application. Crestron integration and control of Windows Media Center is driving Microsoft acceptance in the home automation market.

Due to the Microsoft/Crestron relationship, the beta version of Exchange 2010 was in the hands of Crestron software engineers well in advance of the public release. That access, along with direct conversations between the Exchange developers and Crestron engineers, ensured compatibility between Fusion RV and Exchange 2010.

Crestron was one of only four selected Gold Partners requested to participate in the annual Microsoft Global Exchange in July, 2008. Kimberly Ishoy, Director of World Class Selling, Microsoft Corporation, stated, "We are excited to showcase the Crestron partnership with Microsoft for our global sales force, to demonstrate what world class partnership looks like."

All Crestron Touchpanel Media Centers (TPMCs) feature Windows Embedded operating systems, which deliver unprecedented touchpanel functionalities and capabilities, including built-in Web browsers, support for streaming wireless media, annotation capabilities, and on-screen viewing of standard MS Office applications such as PowerPoint, Word and Excel.

Both Microsoft and Crestron have exceptional engineering staffs and resources, each with unique skills and expertise. Today, these two engineering teams are collaborating to develop innovative new technologies which will result in co-branded products that will redefine digital content delivery. The benefits of this partnership reach far beyond these companies. It will drive the consumer, commercial and professional residential marketplaces, and significantly expand the AV industry.

Conclusion

Microsoft was experiencing inefficient room allocation and a lack of asset management that was negatively impacting productivity. Beyond high-performance hardware and software, Microsoft required an industry partner that would collaborate, innovate, and adapt to changing conditions. Ultimately, Crestron was selected as that partner. Microsoft standardized on Crestron hardware and software solutions across its global enterprise and is achieving measurable ROI. Microsoft business requirements continue to influence product development at Crestron.

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Crestron and Microsoft are technology leaders now working together to develop future digital media innovations. This productive partnership is the true convergence of IT and AV, destined to create new opportunities and deliver the next generation of enterprise management and communications solutions to the global marketplace.