



WHITE PAPER

COLLABORATION TECHNOLOGY IN SMALL SPACES

Making the Case for a New Style of Workplace

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Two universal trends are redefining how and where we do business: The need to optimize floor space and the need to accommodate the increasingly mobile workforce. This combination of factors is forcing organizations to re-assess how they balance personal and collaborative work spaces in their facilities. Fortunately, conference room collaboration technology can be an ideal solution by enabling organizations to convert their smaller spaces into more productive areas for collaborating. This white paper describes this phenomenon and provides some simple steps you can take to make your small spaces more productive.

CONTENTS

WHY SMALL SPACES?	3
THE MOBILE WORKFORCE	3
NEW WORKPLACE DEMANDS	4
DEFINING THE HUDDLE SPACE	5
TECHNOLOGY IN THE HUDDLE SPACE	6
PERCEIVED COST ISSUES WITH HUDDLE SPACES	7
PERCEIVED FUNCTIONALITY ISSUES WITH HUDDLE SPACES	8
EQUIPPING THE BASIC HUDDLE SPACE	9
EQUIPPING THE MANAGED HUDDLE SPACE	10
MORE CAPABILITIES	11
FINANCIAL BENEFITS OF HUDDLE SPACES	12
PRODUCTIVITY BENEFITS OF HUDDLE SPACES	13
TAKE ACTION	14
LEARN MORE	14

WHY SMALL SPACES?

Real estate is the second largest expense item for most organizations. As a result, optimizing floor space has become a leading concern among organizations fighting for a competitive edge and seeking a balance between personal work space and collaborative spaces.

One result of efforts to optimize floor space has been the growth of open office environments. While open environments are not a new phenomenon, in many companies they have become the norm over the past decade. In the early 2000s, the average square footage allocated to an employee was 250. A decade later, that average had dropped to 190, a 27% decrease.

This is noteworthy, because an organization capable of decreasing their overall square footage per employee is making a direct contribution to their bottom line.

Simply converting offices to cubicles is not the only way organizations reduce their square footage. Another key contributor to greater efficiency is the emergence of the mobile workforce, that expanding group that conducts the majority of their work outside the office.

THE MOBILE WORKFORCE

It has taken at least two decades for 'telecommuters' to officially become a mobile workforce due to the lack of viable technology and network bandwidth required to properly support it. Mobile workforce technology falls into two broad categories: The mobile devices used to consume content, and the AV presentation technologies that enable collaboration over distances.

Everybody knows that the use of mobile devices is skyrocketing. A recent study showed that the typical mobile worker now carries 3.5 mobile devices, up from 2.7 the previous year. Most workers carry a smartphone, tablet and laptop. Over 40% of workers carry a separate phone for personal use. Some carry e-readers, digital cameras or handheld video games. And the list continues to grow: There are now more mobile devices on Earth than people!

The typical mobile worker carries 3.5 mobile devices.

NEW WORKPLACE DEMANDS

So what's the relevance of all this to the deployment of AV technology? The continued drive toward floor space optimization combined with the advent of the mobile workforce has led to three key workplace trends:

Trend 1

DEMAND FOR QUIET SPACE

Workplaces may be open, but people still need quiet places to work, speak on the phone and collaborate in a small group.



Trend 2

OVERUSE OF CONFERENCE ROOMS

Conference rooms that were once easy to book are now constantly utilized, even by smaller groups that don't need all the capabilities or space in a larger room.



Trend 3

DEMAND FOR TECHNOLOGIES THAT BRIDGE DISTANCES

With more of the workforce going mobile, there's explosive demand for technologies like web conferencing and video conferencing.



One of the most effective ways to capitalize on these trends is to deploy technology that enables people to jointly review content and collaborate over distances in spaces where smaller groups of people gather. These small spaces are generally called "Huddle Spaces," "Huddle Rooms," or "Breakout Spaces" and are rapidly becoming the venue where organizations target their AV expenditures.

The mobile workforce: yes, it's here!

3.3 million

U.S. employees who consider home to be their primary place of work

80%

Growth in teleworkers since 2005

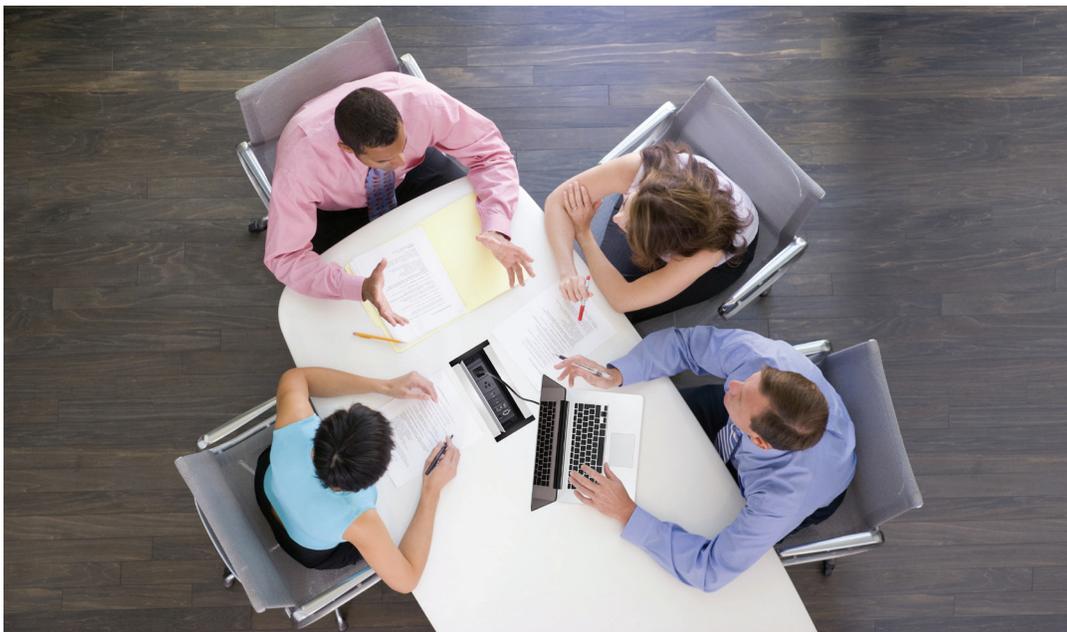
60%

Workers who say they don't need to be in the office to be productive

2.7

Mobile devices carried by the typical mobile worker in 2011

DEFINING THE HUDDLE SPACE



A huddle space is any small area where people gather for a meeting. A typical huddle space contains 2 to 6 chairs, a table and a dry erase board but it can be virtually any space where people collaborate: A quiet corner of the company cafe, an architectural nook in a long hallway, or even a break room.

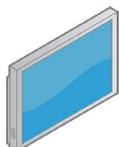
Now that many companies are optimizing their floor space in their existing facilities, they are converting walled offices into meeting spaces. In new buildings, many companies are designing these walled spaces as shared spaces from the start.

Huddle spaces can be designed to accommodate any type of meeting, although they tend to be the venues of choice for ad-hoc meetings, conference calls and webinars. They can serve as war rooms during a long-term project or for drop-in rooms for visitors. Some organizations dedicate certain rooms to specific work groups so they can keep key work materials in the room from day to day.

TECHNOLOGY IN THE HUDDLE SPACE

Regardless of room size, technology in huddle spaces must perform essentially the same functions as technology in large conference rooms and board room, albeit at different levels of complexity. That's because people accustomed to collaboration technology in larger rooms expect a similar experience in smaller rooms.

The equipment typically found in a collaborative space – including a huddle space – includes some of the following:



Display

A display or projector for showing content. In a huddle space, this is typically an LED or LCD display mounted on the wall.



Architectural Connectivity

An architectural connectivity solution makes it simple for meeting attendees to connect to the room display or projector from their laptops, tablets and mobile phones. This is typically installed in the conference table for easy access.



Central Controller

A central controller, video switcher or combination for controlling and managing content and devices. These devices work behind the scenes and are typically considered the brains of the AV system.



Keypad or ControlPad

A user interface allows attendees to easily control the technology being used. In a huddle space, this is typically a keypad with a basic set of buttons that control the display and source devices. Another popular user interface is the ControlPad, which combines the user interface and central controller into a single unit.



Presentation System

A presentation system that enables attendees to access content from the web or cloud based storage to share in the meeting.



Management Software

Software for centralized monitoring and maintenance of AV systems.

As you would expect, the technology deployed in a huddle space is more basic than a conference room or boardroom, while offering a similar user experience. It is typically simpler to install, operate and maintain. Fortunately, recent advances in AV technology have made it very cost-effective to deploy this type of presentation technology in huddle spaces.

PERCEIVED COST ISSUES WITH HUDDLE SPACES

Historically, room AV equipment was not seen as cost-effective for smaller spaces. A presentation switcher or control panel designed for a corporate boardroom is typically overkill for a huddle space, from both a cost and functionality perspective. Similarly, purchasing a \$10,000 videoconferencing system for a huddle space would be highly impractical and outside the range of most budgets. This is why huddle spaces have traditionally contained very little to no technology: Until now, it has been difficult to justify the investment. Fortunately, major changes have taken place to make technology much more affordable in small spaces. Three of the most relevant trends are:

Trend 1

WEB CONFERENCING

Thanks to conferencing applications like Skype and Lync, organizations can conduct web conferences without requiring the substantial investment in a video conferencing system. This is particularly relevant to the small meetings that take place in a huddle space that don't require the sophistication of an enterprise videoconferencing system.



Trend 2

MODULARITY

Some novel technologies have been developed for Huddle Spaces like the ControlPad, which combines the UI and controller into a single cost-effective device, and the Presentation System (like Enzo from AMX), which eliminate the need for a PC in the room and reduces installation cost.



Trend 3

CONFIGURATION VS. PROGRAMMING

One huge hurdle for smaller rooms in the past has been the cost of programming the AV system. Fortunately, new software solutions such as Rapid Project Maker from AMX can eliminate programming and allow even non-technicians to configure a complete solution in less than an hour. This can result in savings of up to 50% of a room's AV expenditure.



PERCEIVED FUNCTIONALITY ISSUES WITH HUDDLE SPACES

The second common complaint about purchasing AV presentation equipment for small rooms is that it isn't necessary. Some organizations feel that they need nothing more than a display that attendees can directly connect their laptops. In such a scenario, meeting attendees plug in and unplug different devices as the meeting progresses.

To put it mildly, this “pass the cable” tactic seldom goes well, for four reasons:

Reason 1

THE UNIVERSE HAS EXPANDED FAR BEYOND THE LAPTOP

The days of relying exclusively on a laptop to present content are over. At the same time, a single display is woefully inadequate to handle content from other sources like USB drives, smartphones, tablets and the web.

Reason 2

MEETINGS USUALLY INCLUDE MULTIPLE CONTENT SOURCES

– It's highly inefficient to switch between devices by passing a cable back and forth, especially when those devices have different resolutions and connector types.

Reason 3

IT'S INEFFICIENT TO CONDUCT A WEB CONFERENCE WITH MULTIPLE PARTICIPANTS FROM A SINGLE LAPTOP

Laptop cameras were designed for one-on-one communication, so it's often impossible to situate a laptop where the camera can view all participants.

Reason 4

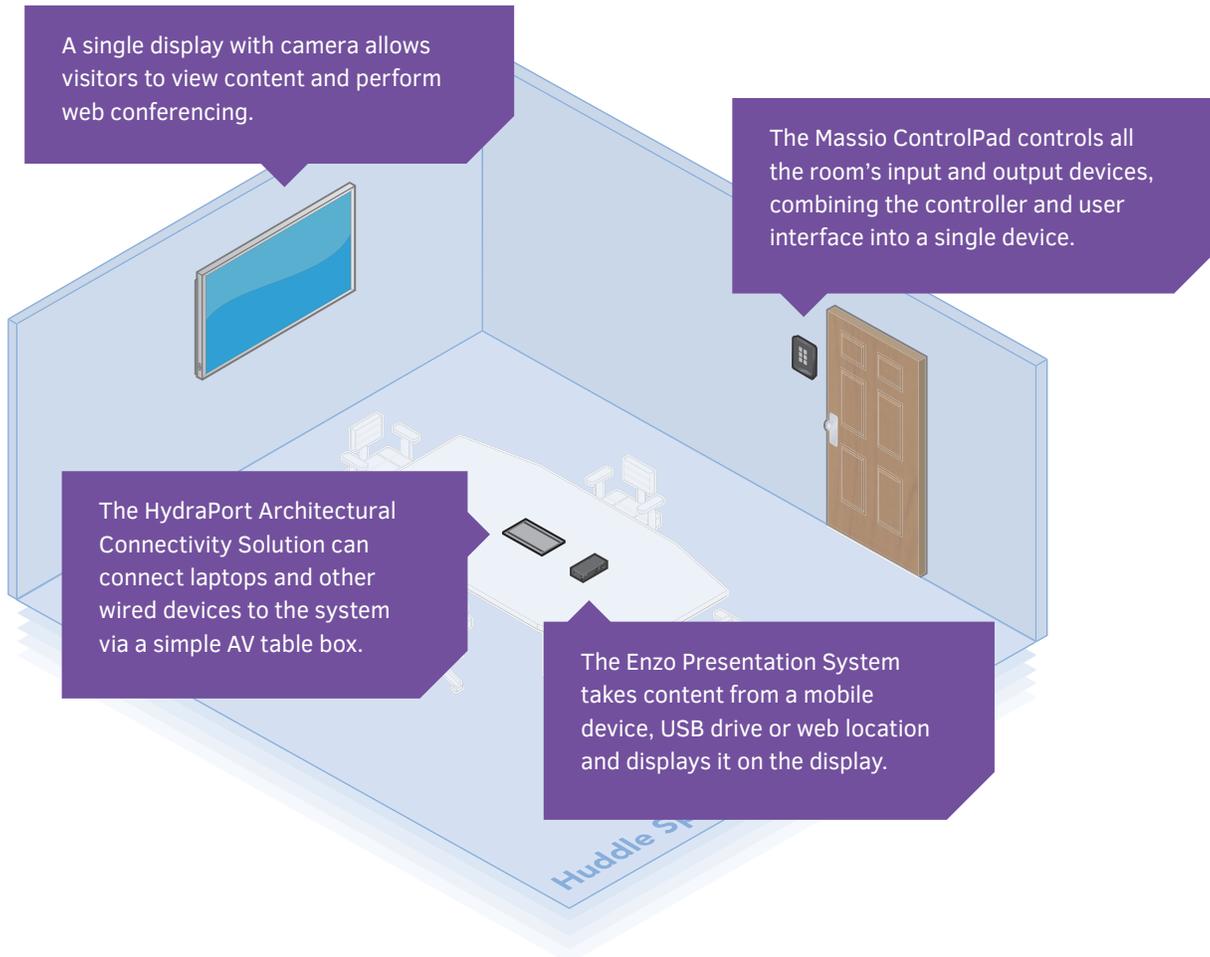
TECHNOLOGY IS CONSTANTLY EVOLVING

Over time, devices, connectors and content change rapidly, and standalone displays are simply not equipped to manage this evolution.

To summarize, the evolution of mobile devices, the breakthrough of web conferencing and recent advances in collaborative technology make the need for a simple solutions for technically managing huddle spaces more necessary than ever before. We will now discuss the best ways to outfit huddle spaces with the right AV technology to make these spaces incredibly productive.

EQUIPPING THE BASIC HUDDLE SPACE

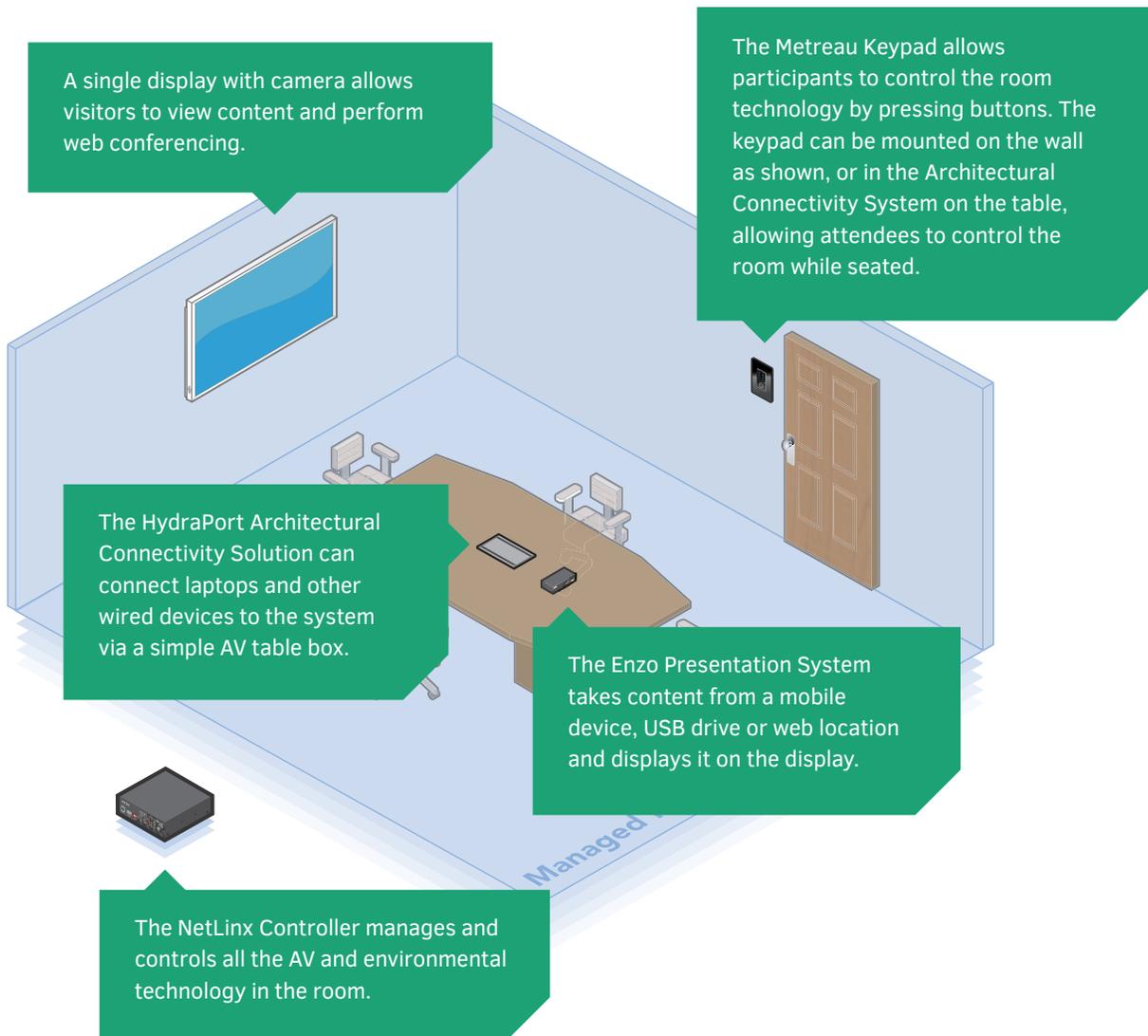
The most cost-effective AV solution for small spaces is the Basic Huddle Space. This room configuration has a core set of features that allows users to display content and collaborate simply and effectively. Primary system components include:



A basic huddle space is where attendees want to walk in, press a button or two, and start the meeting with no hassle or delay. This streamlined approach suits these smaller spaces well, providing attendees with the right amount of technology, and an easy way to control it.

EQUIPPING THE MANAGED HUDDLE SPACE

The next step up in smaller spaces is the Managed Huddle Space. The managed huddle differs from the basic huddle by supplying a separate user interface and controller, enabling the room to accommodate more source devices and to switch among these devices directly from the table. Primary system components include:



Basic and managed huddle spaces are designed to provide an effective collaboration environment for the absolute lowest cost. The technology in these rooms is designed to support two of the most important meeting activities — sharing content and collaborating over the web. By minimizing the total number of system components, and by eliminating programming costs, it is possible to furnish and install a room without breaking the budget.

MORE CAPABILITIES

A conference room AV solution enables more than just the meeting collaboration activities discussed earlier. The right solution can make your organization more productive by supporting centralized scheduling and monitoring, and by deploying sensors to automate the room environment.

SCHEDULING: Some conference rooms and boardrooms are equipped with scheduling panels that display the room's schedule and availability outside the room. These panels are mounted in the wall or on the glass outside the conference room, and interface with an organization's calendaring system to display the room's up-to-date schedule.

Scheduling panels are not as commonly seen for huddle spaces, due to cost reasons. However, as part of the ongoing trends we've discussed earlier in this White Paper, smaller spaces are now schedulable in the same way larger spaces are. But most organizations lack an easy and cost-effective way of letting users know what the schedule is for that space, especially since many of the uses of a huddle space are for ad-hoc meetings.

One unique solution to providing scheduling support for huddle spaces is AMX's Quick Response Scheduling product, which is the most cost-effective scheduling solution available. Quick Response Scheduling features an acrylic sign with a QR code mounted outside the room, which a visitor scans with their mobile device. This takes them to a web page that displays the room's schedule and availability.

MONITORING AND MAINTENANCE: As mentioned previously, today's modern AV equipment must be able to be managed exactly like any other device with an IP address. Software like AMX's Resource Management Suite (RMS) provides a platform for 24x7 monitoring of AV assets, and can save money by monitoring energy utilization and extending the useful life of equipment in any room, regardless of size or complexity.

OCCUPANCY AND RFID SENSORS: Adding sensors to huddle spaces is a great way to save money and can also provide some creative ways to automate the AV equipment. When an occupancy sensor recognizes the room is empty, the system will power down lights and other selected equipment. Sensors can also automate the space by triggering macros that tailor a room's technology to its user base. For example, when someone enters the room, a macro could power up the AV system and put a specific web location up on the display.



AMX Modero S Series
Scheduling Panel



Lutron Clear Connect™
Occupancy Sensor

FINANCIAL BENEFITS OF HUDDLE SPACES

It can initially be difficult to envision how investing in conference room AV technology can save money. After all, how can spending \$7,500 to outfit a huddle space actually benefit the bottom line?

The answer is that an investment in an efficient and reliable AV presentation system can lead to quantifiable cost savings in four areas:

COST SAVINGS 1 MINIMIZING TRAVEL

By effectively communicating over distances by web conference, organizations can significantly reduce travel expenditures. Given the cost of business travel, it would take only three or four trips to fully pay for the investment in AV technology for a huddle space.



COST SAVINGS 2 NO HARDWARE VTC

It is more cost-effective to equip a huddle space with state-of-the-art AV technology when you don't have to purchase an enterprise video conferencing system. By using popular web conferencing apps like Skype or Lync, you can avoid investing in a video conferencing codecs and afford to install web conferencing in all your conference rooms.



COST SAVINGS 3 OPTIMIZING FLOOR SPACE

As discussed above, being able to open the floor plan and use more space for collaboration allows organizations to reduce their second highest cost, real estate.



COST SAVINGS 4 NO PC TO SUPPORT

Another hidden benefit of deploying a new generation AV system in a huddle space is that the equipment can be monitored and maintained over the IT network. With the right strategy, organizations can eliminate the need for a PC in those rooms, leading to significantly reduced support costs.



PRODUCTIVITY BENEFITS OF HUDDLE SPACES

In addition to the financial benefits of technology in huddle spaces, it's obvious that it will also lead to improved collaboration. But does this really mean that people will be more productive?

The answer is a resounding "yes." Research and advisory firm CEB surveyed over 23,000 employees across multiple industries and were able to derive three primary insights about the impact of improved collaboration on the work environment.

First, they found that collaborative work environments have higher employee retention. People like working together, and when they feel like they are part of a team, no matter where they live in the world, they're more inclined to stay where they are.

They also discovered that collaboration has an outsized impact on team performance. When everyone is onboard with the same goal, they work harder to achieve it.

Finally, they learned that collaborative work environments foster innovation. Collaborative technology allows your best people to brainstorm together across any distance, so good ideas don't die in regional silos.

Improving the collaborative work environment clearly enhances performance, innovation and employee retention. As well, room AV technology is a key enabler for the mobile workforce described earlier.

To fully take advantage of the mobile workforce, an organization's technology must be optimized to enable the ability to work remotely. This need will only increase, resulting in even greater demands for people to communicate over longer distances. This is one of the most essential and most frequently overlooked benefits of AV technology in smaller spaces: The elimination of distance.

Collaborative work environments have higher employee retention.

Collaboration has an outsized impact on team performance.

Collaborative work environments foster innovation.

TAKE ACTION

AMX suggests a five step process for deploying the ideal AV solution for your smaller spaces:

- **Assess** your existing facility and its floor plan. Determine how many existing spaces are candidates for collaborative technology.
- **Plan** how you might be able to optimize the balance between personal and collaborative spaces by making some simple changes to your office layout. Could you free some additional collaborative space by modifying your personal offices and cubicles?
- **Categorize** your candidate spaces in terms of levels of technical need. Are some spaces candidates for basic huddle technology and some for managed huddle spaces?
- **Contact an AMX Solutions Advisor** who can help guide you through the process of determining the optimal strategy for your organization. Solutions Advisors are not sales people, their objective is to align your organizational strategy with the best possible AV plan. You can reach a Solution Advisor using the link above, and they are available via chat, phone and email.

LEARN MORE

To learn about how AMX's award-winning solutions can help your organization optimize your AV investment in smaller spaces, we invite you to explore [our website](#) and [contact one of our Solutions Advisors](#).

[The LEARN section](#) includes a wealth of general resources on the AV industry, as well as Product Guides covering most major AMX products. In particular, you might be interested in some of our most common solutions for huddle spaces:

- **Enzo:** Describes the amazing “always on” content management device discussed in this White Paper.
- **Resource Management Suite (RMS) Overview:** Describes our software package for real-time remote monitoring of AV assets, as well as the QR Scheduling application.
- **AMX Modero® S Family and AMX Modero X® Family:** Describe the industry's most awesome lineup of control panels.
- **HydraPort®:** Describes our configurable architectural connectivity products.

The PLAN section includes an interactive tool that allows you to visualize the typical conference room and huddle space configurations that AMX offers. It also includes the ability to explore which room configuration is best suited to your needs.

The HARMAN logo consists of the word "HARMAN" in white, uppercase, sans-serif font, centered within a dark teal rectangular background.

About AMX by HARMAN

Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets.

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