

Keys to Hybrid Learning

THE DESIRED RESULT: SEAMLESSLY LINKING INSTRUCTORS AND STUDENTS ANYWHERE IN THE WORLD VIA WEB-BASED CONFERENCING



TABLE OF CONTENTS

| | |
|---|----|
| What is Hybrid Learning and why is it important? | 1 |
| How to choose a Hybrid Learning technology platform | 4 |
| Hybrid Learning solutions | 5 |
| Hybrid Learning considerations | 10 |
| What's your preferred conferencing platform and operating system? | 16 |
| Cloud-based deployment, management, and monitoring | 19 |
| Action items | 22 |



What is Hybrid Learning and why is it important?

The pandemic accelerated several instructional technology trends that had been slowly gaining traction in recent years; namely, a growing number of remote and hybrid faculty and students and the expansion of web-based conferencing platforms. The rapid evolution of digital connectivity created a need for two distinct learning solutions: "Hybrid" and "Hyflex":

Hybrid Learning – Hybrid learning is a form of learning which combines elements of face-to-face classroom instruction with online instruction. The benefits of hybrid learning are that students learn in a more engaging environment, and the students are not restricted to a certain time or place.

Hyflex Learning – Hyflex learning is an approach to teaching that allows the student to decide how to interact with the course material. Each class session and learning activity is offered in-person, synchronously online, and asynchronously online.

The takeaway? Hybrid learning – with its combination of remote and in-person students who needed to learn effectively – is here to stay.

HYBRID LEARNING IS HERE TO STAY.

THE TRANSITION HASN'T BEEN WITHOUT ITS FRICTIONS



INCOMPATIBILITY Lockdowns arrived suddenly, and many schools had no choice but to cobble together solutions that may have utilized a variety of devices and platforms that didn't "work well" with one another or were too difficult for instructors to use while teaching.



USER EXPERIENCE Faculty with little remote teaching experience may have struggled to teach when using devices or platforms with less-than-intuitive interfaces. Poor audio and video solutions can further impact a professor's ability to teach effectively – whether they're teaching from the classroom, remotely, or at home.



CONNECTIVITY Some educators may have felt frustrated, lonely, or detached from their students and institutions. It's why proper connectivity – which affects both student engagement and accessibility – is so important.



SCHEDULING AND MANAGEMENT Connecting those learning from home or from a remote campus, keeping everyone engaged and on-time, and ensuring there are classrooms and technology ready-to-go for instruction are all critical to educational success.



SECURITY A broad range of devices on a campus or district network, machines accessed by staff and students with limited cybersecurity oversight, and less-than-secure public networks can be potential headaches for a university's IT department. The same holds true for on-campus faculty, guests, and devices – connectivity and access to the network must be carefully managed.



THE SOLUTION

A GREAT USER EXPERIENCE FOR HYBRID LEARNING SPACES

The right remote learning technology seamlessly links educators and students anywhere in the world. While specifics can vary wildly – from the physical footprint of a room to an instructor’s individual needs for, say, sharing content – there are some fundamental considerations when choosing a solution.

- **Is the platform easy to use?** Easy to deploy? Easy to support, monitor, and troubleshoot? Are clear and concise training resources available?
- **Does it include devices that are purpose-built?** Can those devices provide intelligent video, clear audio, localized AV options, intuitive content distribution, and effective video conferencing solutions for accessible and equitable learning experiences?
- **Does the solution include scheduling tools?** Will it ensure that classrooms and instructional technology are available when needed by faculty?
- **Is the solution scalable?** Can you easily add web-based conferencing to existing and new instructional spaces, and support those environments?
- **Is the platform “future-flexible?”** Can it handle upgrades as new technologies are developed?



How to choose a platform for web-enabled conferencing right for the whole campus or district

Next, you'll need to think about your school specific needs.

Ask yourself the following:

- **What types of spaces will best serve your organization?** Perhaps a few student huddle rooms and specific classrooms? Is a large lecture hall or auditorium in the mix? How many rooms do you think you'll need?
- **Will on-premises or cloud functionality best serve your remote and mobile workers?** How can you support – in real-time – every instructor and student?
- **Which paths and topologies will ensure that your district or campus network isn't overloaded?**
- **What kind of operation systems and web-conferencing software platforms will match your needs?**
- **Today's campuses are constantly changing,** so the need for scalable, flexible platforms that grow and change with the ways students expect to learn are key. How can we make the solutions adaptable – future-flexible?
- **What resources are we using to prop up what may be a legacy system?** What are the costs of operating and maintaining those systems as technology advances beyond their capabilities?



HYBRID LEARNING SOLUTIONS

The right platform provides effective solutions for each of three pillars: web-based video conferences, wireless presentation, and scheduling.

ENSURE ALL PARTICIPANTS AN EQUAL EXPERIENCE.

VIDEO CONFERENCING

The right video conferencing solution is key to the success of your Hybrid Learning systems.

Aspects of a system include:



VIDEO – Ensure you have the right camera for the space, whether that lens needs to provide coverage for a room full of people or a single individual at their desk. Make sure that camera is supported by an intelligent video solution with features such as framing and tracking to ensure that all students have an “equal seat” at the table.



AUDIO – Speakers and microphones are just as important as video considerations – arguably even more so. (As long as a pupil or faculty member has audio, they can participate in a hybrid class.) Mics that provide proper coverage for the size of the room, speakers that are free from distortion, and features such as echo-canceling facilitate more natural conversations and effective teaching. Remote students or participants from a single desk or remote learning space may choose a headphone rig with an attached mic, providing for those preferences is more than a morale boost, it can be important if a student is joining the class from a crowded space and needs to shut out ambient noise.



WIRED VS. WIRELESS – Is a teacher presenting from a laptop via a Wi-Fi® connection or are they sharing content via USB and/or HDMI cabling? Does the platform allow for one or both? If the connection is completely wireless, is the Wi-Fi in the space robust and reliable? Are your remote students joining a meeting via Wi-Fi or a cable connection? Have you ensured their connection is reliable as well?



WIRELESS PRESENTATION

Hybrid and Hyflex learning models require the ability to learn or teach from anywhere, whether everyone is in the room, participating remotely, or a combination of the two. You'll need a solution that provides the flexibility to share, present, and host a local or hybrid course from one device. Whether you're in a huddle space, auditorium, or tiered classroom, together with everyone in one location or distributed across time zones, you need a system that efficiently integrates devices for effortless collaboration, presentation, video conferencing, and digital signage throughout your school district.

ROOM SCHEDULING

As Hybrid learning or Hyflex learning becomes the standard, schools must provide the technology necessary to ensure every teacher has a space to teach, collaborate, and conduct independent work and be productive. An effective scheduling system prevents the team from wandering around the building or campus, hunting for a space to work.

Scheduling elements to consider include:



BOOKING – For faculty and administrators, on-campus work consists of a mix of teaching, meetings, and independent work. As educators come and go on different schedules, managing available spaces will be top of mind. Solutions that include both classroom and meeting space bookings are optimum.



AVAILABILITY – A system that can identify the right space and determine if rooms are available for study groups, faculty/student meetings, or teaching help the campus be more efficient; solutions that include an external indicator such as a light, panel, or wall sign let anyone determine if a space is available.



UTILIZATION – To make the best decisions about designing how your campus will be used, you need detailed insights about how spaces are used and by whom. If a system provides the proper data analytics, you'll be able to make more informed planning and budgeting decisions: What type of spaces do we need? How many? Where? To support what activities?



FLEXIBILITY – Does the hardware or infrastructure natively support your preferred scheduling application? If your organizational needs change and you want to change software, you should be able to do so without having to "rip and replace" any of the installed devices.



SCANNING AND SENSING – Does the system include options for badge scanning to start and end a class? Can occupancy sensors be added to the mix to gather usage data?



ROOM CONTROL

LOCALIZED, AUTOMATED AV CONTROL – Does the system allow you to configure the room so the occupancy sensor or scheduling panel, when activated, triggers the room to enter a specific state? For example: Upon entering a classroom, the shades come down, lights increase in brightness, and displays and other devices come out of sleep mode.

INTEGRATION WITH THIRD-PARTY DEVICES – Does the system provide an open platform that automatically recognizes and integrates devices that aren't native to the system? As new technologies become available, having a system that can integrate with other peripherals seamlessly is important – and this is yet another way to ensure that your system is future-flexible.



HYBRID LEARNING CONSIDERATIONS

While spaces and their intended purposes will vary, an important consideration is maintaining a consistent user experience for everyone, no matter their location, while still tailoring the solution to the space.



FACULTY / STUDENT MEETING ROOMS

No matter where faculty, administrators, and students meet – whether it's connecting across campus or to a remote student or professor at home – the solutions need to support web-based conferencing. It's imperative that a remote student feels as connected to a collaborative session or meeting as those who are occupying the same physical space. Schools should consider standardizing on hardware and software solutions to create an ecosystem that delivers consistency, equity, and engagement.



HUDDLE SPACES

Huddle rooms that allow for one to six students are often used for studying, tutoring, or small group sessions. Functionality for wireless presentations as well as the option to collaborate and edit materials are often important in these spaces. The need for a guest to “BYOD” — “bring your own device” — for a presentation enters the equation here, too. As a result, your ecosystem can’t be completely walled-off from these applications, and your collaboration tools should be ready to communicate with a third-party device. (There’s more on this in the next section.)



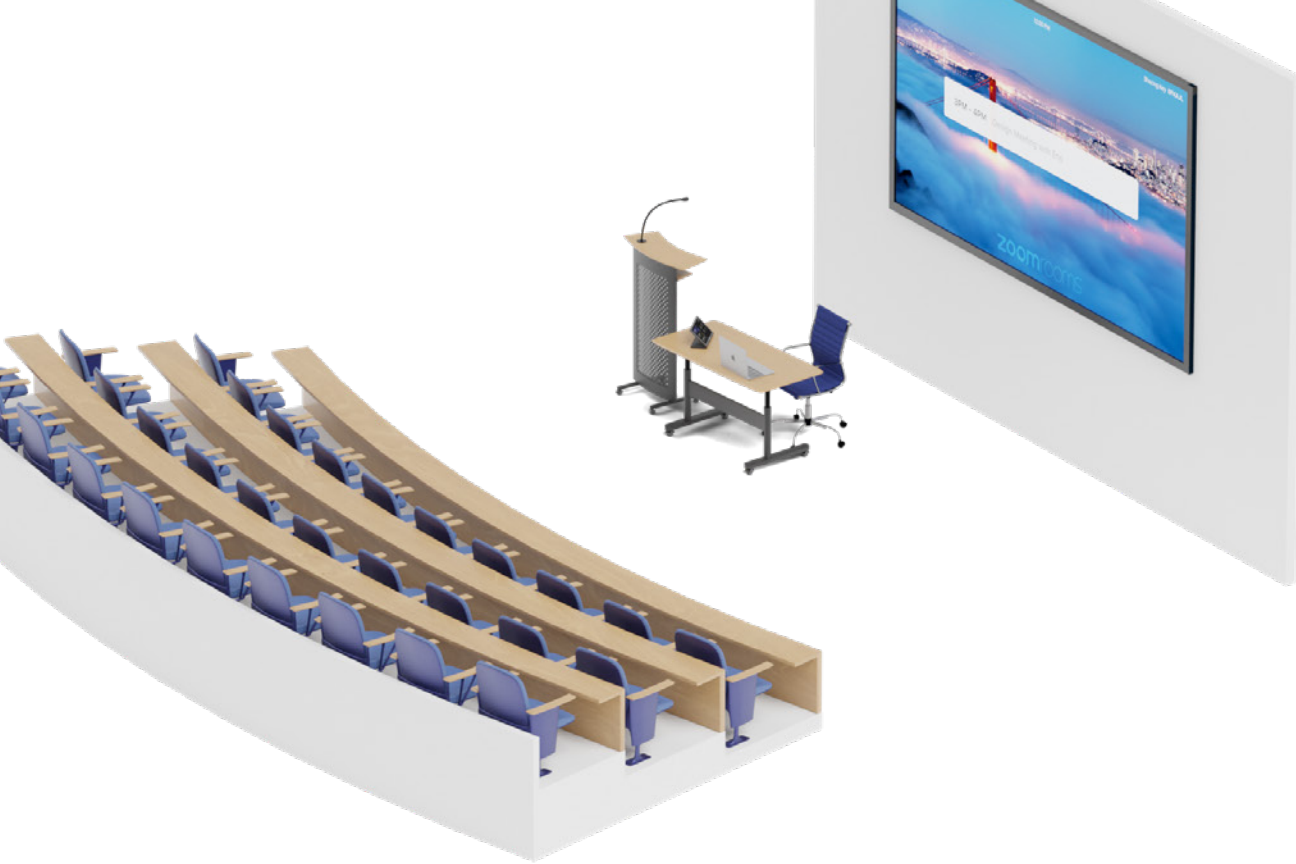
SEMINAR ROOMS

A room that can comfortably seat up to 15 people needs all the functionality of a small classroom, but any video display that's specified should be large enough for ease of viewing for anyone in the room. Audio and video will need special attention in a room of this size — does the mic array completely cover the available space? If sidebar conversations or soft-spoken students or instructors are present, can remote students hear all that's being said? Is there an intelligent video system that gives all virtual participants an "equal seat at the table?"



HYBRID CLASSROOMS

A classroom that typically seats around 30 students needs to use technology to ensure that each attendee can see and hear the teaching material, instructor, and possibly other students. Cameras will need to effectively capture all the participants. Mic solutions may need to amplify the people within the room, not just those who are attending remotely. Tabletop mics can do double duty in this regard, providing amplification for physical and digital attendees. Any speaker solution will need enough power and headroom to avoid distortion.



LARGE LECTURE HALLS AND DIVISIBLE ROOMS

For bigger learning spaces, large displays, instructor mics on lecterns, ceiling mics, and cameras are often a must. Other considerations: Does the presenter need to move about? Will the students in the room be on camera? Again, guest speakers or instructors may BYOD, and seamless connectivity is critical. For rooms of this size and larger, integrated web-based conferencing hardware may be vital. For divisible rooms, it's important to remember that mics, speakers, displays, and connectivity must be appropriately positioned to accommodate the full open space as well as multiple configurations, including each smaller space.



WHAT'S YOUR PREFERRED CONFERENCING PLATFORM AND OPERATING SYSTEM?

Whether your school has standardized on Zoom or a different software for conferencing, finding a solution that's designed to work effortlessly with your preferred platform will maximize room uptime.

A CONSISTENT USER EXPERIENCE FOR ALL YOUR TEACHING AND INSTRUCTIONAL NEEDS.

THINGS TO REMEMBER

Implementing an open platform that is equipped to meet the needs of each space will provide consistency. For example: Your school might have hybrid classrooms, huddle spaces, and large lecture halls. Each of those spaces will need specific solutions to deliver the right user experience, but they should all be easy to operate, so it is important to choose a solution that supports a consistent look and feel everywhere.

Whether you use Zoom™ Rooms or Microsoft Teams® software, or need to support any conferencing software, you should be able to leverage a single interface to facilitate all your collaboration needs. This method will ensure that everything works, that no platform goes unsupported, and that any of your spaces are simple to operate and don't require in-depth knowledge of technology.

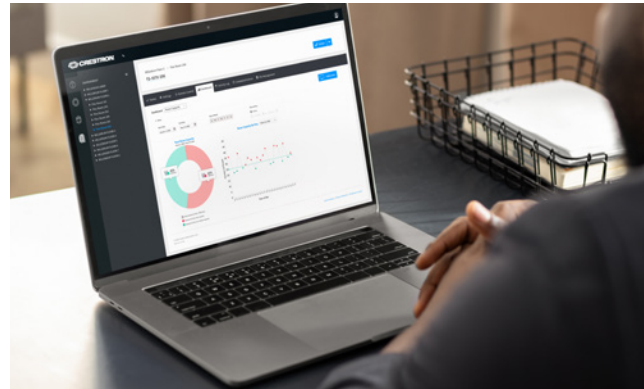
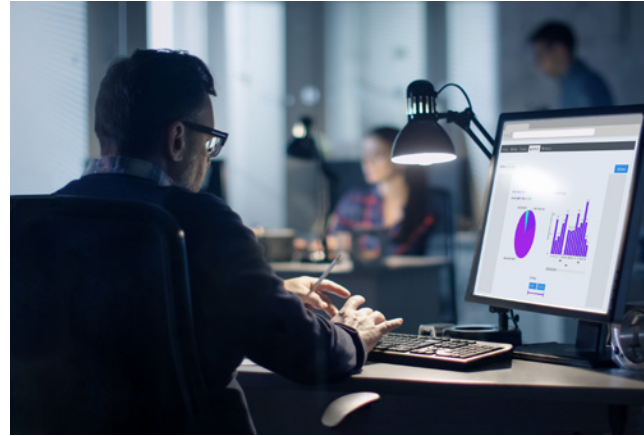
Even if your school district uses Zoom Rooms or Microsoft Teams — and that conferencing platform has been standardized by the IT department — there will be guests who won't necessarily be using your preferred platform. **Can the system support other options with minimal effort?**



ANOTHER CONSIDERATION

Is Windows® your preferred OS? Apple® iOS or OS? Does your faculty and staff use devices with Android™ OS?

Whatever conferencing solution you choose, you'll need to confirm that it integrates well with your OS. Additionally — especially when BYOD users and guest lecturers enter the collaboration — any ecosystem you select needs to function with any type of operating system.



CLOUD-BASED DEPLOYMENT, MANAGEMENT, AND MONITORING

There are a broad range of advantages when a system features cloud-based deployment, management, and monitoring. Here are some questions to consider:

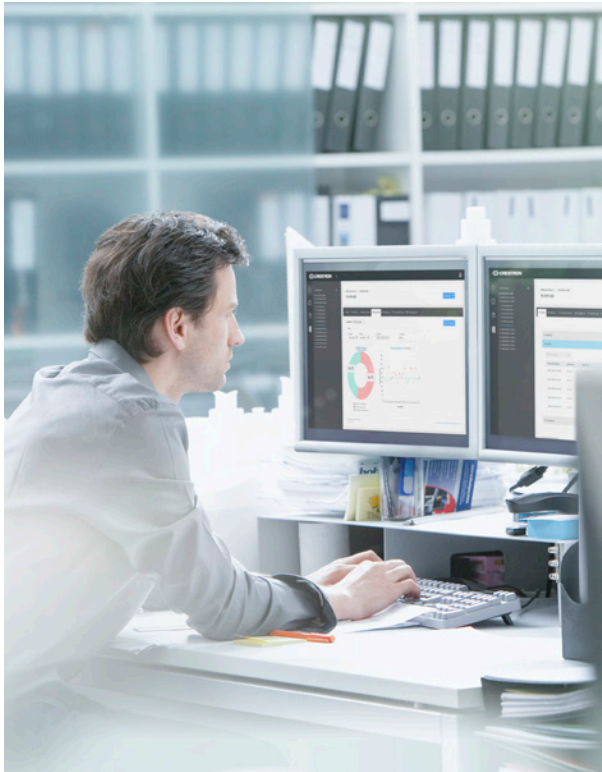
A WELL-DESIGNED, INTUITIVE DASHBOARD CAN MAKE A WORLD OF DIFFERENCE.

CAN THE SOLUTION SUPPORT ROOMS REMOTELY?

There are solutions that send automated, event-based alerts to laptops and mobile devices so you can resolve issues — and if there's a problem, you can take control of devices remotely to troubleshoot and resolve technical issues faster. The last thing anyone on your campus wants is to call the IT Help Desk for assistance in the middle of teaching a class or to have a room going unused because an issue hasn't been reported. Issues that are resolved quickly — from anywhere — make for fewer interruptions.

CAN YOU MANAGE DEVICE LIFECYCLES?

Look for a system that provides a comprehensive view of device lifecycles, which enables you to schedule updates, anticipate needs, and prepare budgets more efficiently. Imagine a system that tracks when licenses will lapse — how can that help you with planning and budgeting? What class interruptions could you avoid if you had complete control of the timing of software and firmware updates? Additionally, a well-designed, intuitive dashboard can make a world of difference for your support team.



HOW SIMPLE IS IT TO MAINTAIN OPERATIONS STANDARDS?

Does the system allow you to establish standard room configurations and remotely deploy them to individual or groups of rooms at the same time? Can firmware and software updates be pushed remotely to individual or groups of rooms or all devices in a room at once? Can you establish class schedules for turning rooms on in the morning, off in the evening, and account for weekends and holidays? You'll also need a solution that can identify threats and breaches, especially on networks with BYOD options.

WHAT DATA CAN BE COLLECTED AND ANALYZED?

There are solutions which automatically collect room and device usage data and generate reports to drive better planning and budgeting. Some systems provide granular info about what technology is used down to individual button presses — including how it is used (e.g., connectivity methods), and how often devices are used.



ACTION ITEMS

The following checklist is meant to help you identify the issues you're facing and choose the right solution. Different schools' needs will vary when it comes to platform and OS preferences, scale, and percentage of remote students and instructors.



STEP ONE ASSESSMENT AND AWARENESS

First, you'll need to understand the challenges you — and the system you choose — will be confronting.

- Students and faculty want the flexibility of learning or teaching from anywhere.
- People want to use personal devices for connecting with others and collaborating.
- As new teaching methodologies emerge, IT pain points will increase.
- The demand for software-based conferencing solutions is surging.
- More Help Desk tickets are identifying compatibility and interoperability problems.

IDENTIFY THE SOLUTIONS THAT WILL HELP YOUR TEAM ADAPT.

STEP TWO DEFINE OBJECTIVES, CRAFT YOUR PLAN

Next, figure out what you need to address.

- Identify the limitations of current methods.
- Examine how technology influences an equitable learning experience for students when learning remotely.
- Conduct a site audit and explore use cases.
- Define your desired outcomes for consistency, performance, and connectivity.
- Outline your institution's objectives and needs for web-enabled conferencing and collaboration solutions.
- Determine if purchasing and provisioning on a monthly SaaS (software-as-a-service) basis is advantageous, versus buying outright or leasing.
- Identify the processes and solutions that will help your technology team adapt.
- Craft a communications and collaboration plan led by a unified vision.
- Find an ecosystem which will yield benefits that extend organically to every learning space and meeting environment across your school district or campus.



STEP THREE IMPLEMENT A SOLUTION

Finally, pick your partner.




- Find an end-to-end partner — preferably with an ecosystem approach that provides a breadth of solutions and services to help you meet your objectives.
- Center a strategy that gives faculty the freedom to choose applications while staying fully interoperable with all tools.
- Choose an open platform approach in which new web-based conferencing tools can be integrated with legacy technologies.
- Select a partner with the open sensibility to natively support third-party solutions, who can deploy and manage every device across the campus or school district.
- Work with a partner who will help keep the learning experience top-of-mind.

“ Crestron technology delivers a consistent user experience throughout our remote teaching spaces, including a standardization of support. No matter the room, our team is able to respond quickly and effectively without any surprises.”

– Bryan Molnar, Lead AV Designer,
Kent State University

Looking for a platform solution that solves all the issues outlined above? With **Crestron Flex**, you can walk into any space confident you'll have the best audio/video experience with access to video conferencing, wireless presentation, and smart room control – from any device. From Hybrid learning spaces, huddle rooms, large lecture halls, to remote campuses, contact us to discover how Crestron Flex helps keep everyone seamlessly and securely connected.

FOR MORE INFORMATION

-  **855.263.8754**
-  **crestron.com/education**
-  **education@crestron.com**