Simplify Large-Room Audio

How to Scale Collaboration for Hybrid Work and Education without the Cost and Complexities of Pro AV

FROST & SULLIVAN VISUAL WHITEPAPER

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Reimagining Technology for a Hybrid World

The permanent shift to hybrid working and learning has enabled people to be productive from anywhere. It has also significantly altered how people connect with each other. Team collaboration was simpler when all employees were in one location. Hybrid work changes the game—collaboration among dispersed teams is riddled with complexities. Technology is playing a vital role in addressing these new challenges and reshaping the future of work and education across the globe.

A recent Frost & Sullivan survey shows that 90% of organizations are supporting hybrid work in some capacity. As a result, most meetings have at least one remote participant. Business leaders and IT managers have a new mandate—they must fully harness the power of advanced audio-video collaboration to empower everyone in their organization, regardless of where they work. Specifically, they must ensure that remote working and learning is not a compromise—everyone should have access to high-quality collaboration tools.

THE FUTURE OF WORK AND EDUCATION IS DIGITAL AND DISTRIBUTED.
The time has come to look beyond traditional pro AV solutions and invest in scalable, manageable, and cost-effective collaboration tools that are foundational to effective team interaction and productivity.

Four Pillars of Successful Technology Implementation

SIMPLE
The pressure on IT teams is mounting. With demands to do more with less, IT wants radical simplicity that enables quick installation, hassle-free management, and faster help when users need it.

HIGH QUALITY
Effortless, natural communication boosts engagement and productivity. The technology must ensure that everyone, remote or in-person, is seen and heard clearly.

ADAPTABLE
Workplace strategies will remain fluid. The technology you invest in today must be future-proof to evolve as your organization's needs change.

COST-EFFECTIVE
Collaboration is fundamental to the new way of working. Organizations want to scale technology and enable every space for high-quality audio and video, without breaking the bank.

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Forces of Change

Working and learning from anywhere and the resulting digital transformation have opened immense opportunities and, at the same time, created new challenges.

35% of the global desk-worker population is hybrid, a 5-6x increase from the pre-pandemic number.

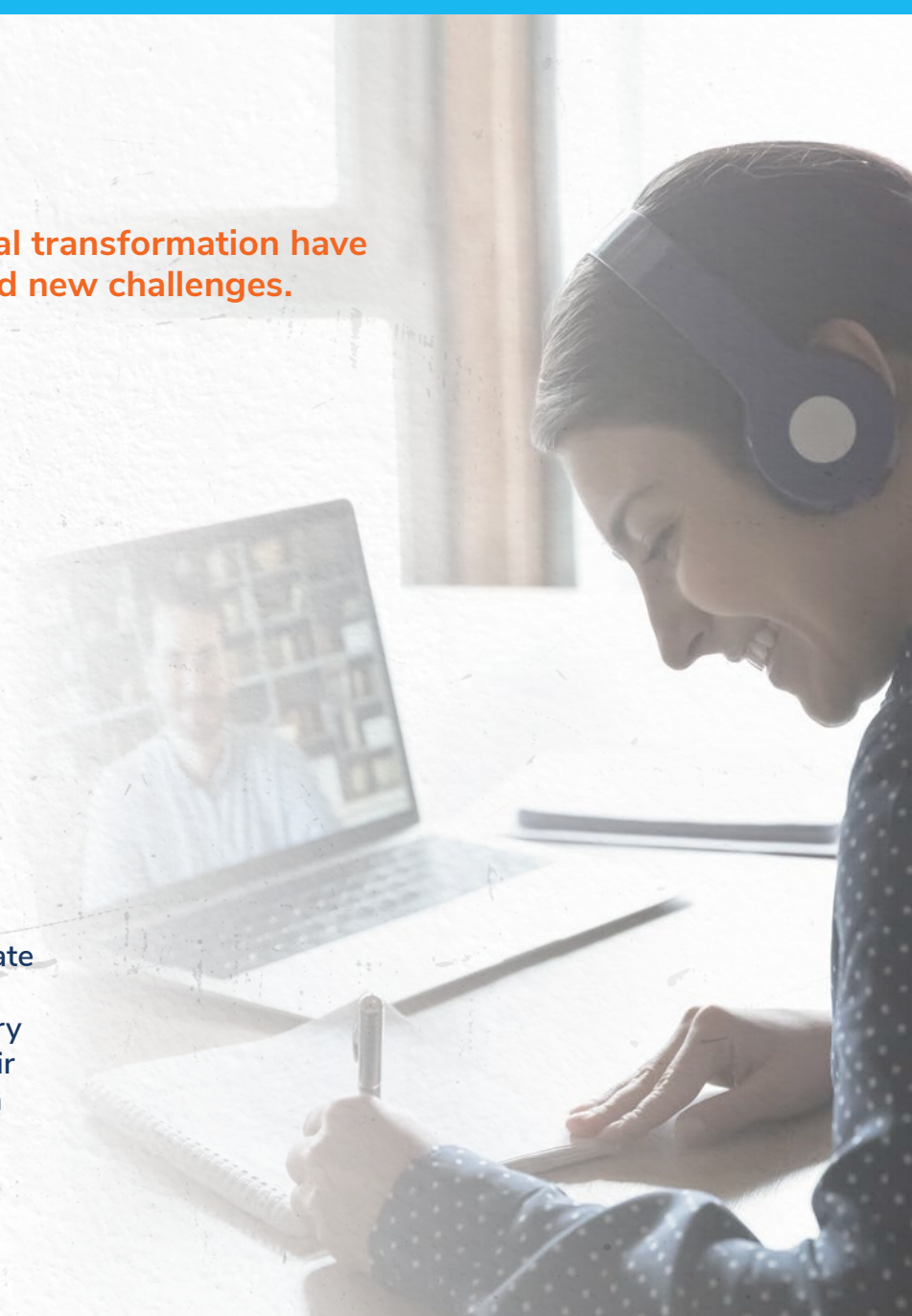**92%** of IT decision-makers consider hybrid work a business priority.

54% of organizations cite driving growth and improving employee satisfaction as key benefits of investing in advanced collaboration solutions.

77% of employees suffer from meeting fatigue when working remotely.

73% of meeting participants feel disadvantaged when joining remotely compared to in person.

92% of IT decision-makers consider ease of technology management important in their collaboration tools purchase.

38% of the universities indicate that a mix of online and in-person course delivery will be the model at their institution by more than 80% of the students surveyed prefer at least some of their classes to take place online.

(Source: Frost & Sullivan Annual IT Decision-makers Survey, February 2023; Anthology and UNESCO 2022 survey of Global University Mindsets and Student Expectations)

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Collaboration at Scale—Searching for an Alternative to Pro AV

Businesses and educational institutions worldwide are investing heavily in technology to support hybrid working and learning. This has placed new demands on IT teams to scale audio, video, and content collaboration across their organization while balancing other priorities.

The broad availability of plug-and-play devices that require minimal IT intervention or support has benefited technology enablement in small rooms and huddle spaces. Conversely, deployments in large spaces—such as large meeting and training rooms, flex spaces, and higher-ed classrooms—are riddled with complexities.
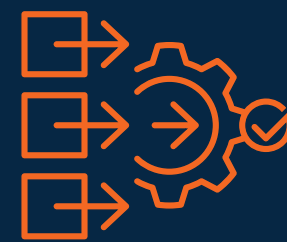
Pro AV systems have historically been the only option for large rooms, but they often require complex and customized installation, set-up, and management. They are also expensive and, therefore, not aligned with current requirements to scale solutions across the organization. The sheer size of a large meeting space or classroom leads to complexities with audio pickup and delivery, camera views, and optimized content display. All of this creates significant challenges for IT in terms of cost efficiencies, procurement, installation, configuration, and management.

There is a growing need for simple yet scalable solutions in large spaces that eliminate the cost and complexities of traditional pro AV and enable easy management of all rooms, without sacrificing performance.

57% of the IT decision-makers report insufficient budgets as a key challenge that they expect to face during the next three years.

54% say that the inability to scale or lack of flexibility with existing communications and collaboration solutions will be a key concern during the next three years.

Source: Frost & Sullivan Annual IT Decision-makers Survey, February 2023

Optimizing Large-Room Audio

Preparing for hybrid working and learning requires transforming every room from a plain technology-devoid space to a vibrant, collaboration-rich environment. Specifically, crystal clear seamless audio is a prerequisite for the success of any business meeting or classroom session.

The rapid adoption of unified communications and collaboration (UCC)-enabled audio in the last several years presents new challenges for IT teams. What used to be a technology supported by AV specialists has become a digital technology deployed and managed by IT. Constrained by time and resources, IT teams need audio that is optimized for hybrid meetings and is simple to install and manage, particularly in large spaces.

Potential Problems with Large-Room Audio

Poor audio coverage often leaves "dead zones" where remote participants cannot hear in-room attendees, a significant roadblock to inclusive and high-quality experiences.

IT heavy lifting requires external specialists to install and set up multiple components including speakers, cameras, microphones, DSPs, switchers, and amplifiers.

Ambient noise from HVAC systems and hallways strains the audio experience and may require specialized installations away from unwanted sound sources.

Device management hassles require IT admins to go from room to room to monitor and adjust audio settings.

Crosstalk, where two or more people speak at the same time, contaminates the experience for remote participants.

Rigid designs and fixed installations do not adapt to changing space layouts and configurations.

More than **ONE IN TWO IT decision-makers (54%)** state that an IT skills shortage and training requirements are key challenges they expect to face in the next three years.

The Power of High-Quality Audio—Allow Every Voice To Be Heard

Multi-component pro AV solutions that require costly and customized installation, integration, configuration, maintenance, and management are not scalable for today's hybrid workplace. Innovative advancements in next-generation audio technologies that deliver the desired performance without the costs and complexities of traditional pro AV systems are paving the way for engaging and equitable collaboration while also making IT's job easier.

BENEFITS TO USERS

▶ **Intelligent Audio:** Full-room coverage allows remote participants to hear everyone clearly.

▶ **Engaging Meetings:** Remote participants feel fully included and are at par with in-room attendees for effective, natural communications.

▶ **Seamless Integration:** Integrations with leading meeting platforms give users more choice while supporting the organization's budget and security stance.

▶ **High-performance Spaces:** Intelligent audio, video, and content collaboration supports varied use cases efficiently and with business-grade professionalism.

BENEFITS TO IT

▶ **Simplicity at Scale:** Simple and frictionless installation and setup allows the organization to scale and quickly reap the value of its investments.

▶ **Flexibility:** The solution adapts as organizations reconfigure physical spaces to accommodate changing hybrid working and learning needs.

▶ **Cost Efficiencies:** High-quality audio in larger spaces can be implemented at a fraction of the cost of customized, multi-component systems.

▶ **Anywhere, Anytime Manageability:** Cloud-based tools allow centralized monitoring and management without the need for room-to-room visits.

▶ **Full Stack Administration:** Best-of-breed choices allow deploying a robust full-room solution with unified management, regardless of the video device or cloud meeting platform in use.

▶ **Camera Tracking:** Integration with third-party cameras and intelligent audio tracking switches the video to active speakers, giving remote participants a better experience.

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Hybrid work and education are here to stay; IT must be better equipped to enable the future.

As a technology leader, your top mandate is to facilitate better communications and collaboration throughout your organization. Do not get caught up in complex AV systems that are challenging to install and manage and expensive to scale. Lead instead with transformational leaps in technology that is **ROBUST, SIMPLE, MANAGEABLE, FLEXIBLE, AND COST-EFFICIENT**.

The Nureva Way

Nureva leads with the notion that robust audio is fundamental for any communication experience to be effective. For large meeting spaces and classrooms, Nureva's game-changing innovations ensure an easy path for IT to scale faster and more cost-efficiently.

Full-Room Coverage

Unlike traditional audio conferencing systems that use beamforming mic arrays, Nureva's Microphone Mist technology takes a groundbreaking approach that fills a room with thousands of virtual microphones, so remote participants can hear clearly.

Easy Installation

With a solution that is available at a fraction of the cost of customized, multicomponent systems, IT teams have fewer components to install—one microphone and speaker bar for most rooms and two for larger spaces that can be installed on the wall in less than an hour. A continuous autocalibration feature allows faster start up and automatic recalibration if the space is reconfigured later.

Compatibility with Leading Platforms

Certifications with Microsoft Teams, Zoom, and Barco ClickShare and integrations with Logitech, Cisco Webex, Google Meet, and other leading platforms offer plug-and-play simplicity. Nureva's Developer Toolkit provides a suite of APIs that enable complementary solution providers to utilize its device and room data. For example, the sound location device API provides data that third-party cameras can use to steer the video toward active speakers in the room, enabling remote participants to easily follow conversations.

Cloud-based Management

Unlike traditional pro AV that requires room visits for device management, Nureva's Console Direct allows IT to remotely check the health of all devices, including third-party cameras; adjust audio settings such as volume, bass, treble, noise, and echo reduction; install firmware updates; and view room analytics and usage data.

Adaptability and Sustainability

The ability to easily upgrade software and firmware without the need for total hardware replacement allows customers to stay current with their technology while supporting the growing need for sustainability.

Advanced Audio

Nureva has differentiated its advanced audio capabilities in the market:

▶ Microphone Mist technology fills a room with thousands of virtual microphones for full audio coverage, allowing people to communicate naturally.

▶ Intelligent Sound Targeting limits the persistent noise from fans and HVAC systems.

▶ Auto-calibration supports flexible room spaces and use cases so there is no need to move or re-aim the mics.

▶ Voice Amplification Mode amplifies the audio of the in-room presenter while other voices in the space can still be picked up for the benefit of remote participants.

Nureva leads with a focus on designing products that prioritize the needs of IT over those of AV. It lets the technology do all the heavy lifting so IT teams can focus on building a flexible future. Nureva's audio solutions are easy to install, set up, and maintain—an expectation in an IT-centric world.

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CALL TO ACTION

The last few years have proven that the future of work and education demands flexibility. As businesses embrace work-from-anywhere and educators and students seek the benefits of flexible learning, it will be up to IT leaders to decide how they will restructure to enable a hybrid future.

Today, there is no dearth of advanced, sophisticated audio conferencing systems that will satisfy even the most discerning organizations. Yet implementing these technologies can present several obstacles, particularly if your budget and timeframe are constrained. In addition, today's dynamic climate creates the possibility that your organization's hybrid work and learning strategy will shift, impacting your meeting room and technology needs.

To prepare your organization for potentially disruptive shifts, lead with a technology-driven transformation that keeps everyone connected and allows you to scale with the least amount of time, effort, and money.

To get started, strategize with a six-step journey:

▶ Transform all spaces with high-quality audio and video that allows users to communicate naturally.

▶ Ensure all technology investments support ease of installation and management to minimize the need for IT and AV assistance.

▶ Lead with a flexible, agile approach that supports evolving workplace plans and changes in space configurations.

▶ Future-proof your investments with products that integrate seamlessly with leading collaboration platforms.

▶ Empower IT with actionable data and analytics to make decisions that improve operational efficiency.

▶ Engage employees better by investing in technologies that ensure greater equity and inclusion.

For more information on Nureva's large-space solutions, visit **https://www.nureva.com/**

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GROWTH IS A JOURNEY. WE ARE YOUR GUIDE.

For over six decades, Frost & Sullivan has provided actionable insights to corporations, governments and investors, resulting in a stream of innovative growth opportunities that allow them to maximize their economic potential, navigate emerging Mega Trends and shape a future based on sustainable growth.

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