



The Hybrid Workplace

THE IT MANAGER'S GUIDE TO CREATING
AND MANAGING THE BEST VIDEOCONFERENCING
EXPERIENCE NEAR AND FAR



The New Reality.

The good news for IT managers is that since March 2020, with business continuity plans in place, an entire global workforce became conversant about conducting and participating in meetings via videoconferencing. Through the help of patient IT staff, workers used their laptops and multiple videoconferencing platforms, tolerating bad audio and poor video quality because it was good enough for home use for what was thought would be a limited time.

Surveys are being done fast and furious to predict what the return to work — or return to office (RTO) — will look like and prepare for the overall impact on business and on the IT department. In its 2021 Outlook for the US Technology Industry¹, Deloitte reported that **“support of remote workers has increased IT workloads by 37% due to VPN and videoconferencing issues, bandwidth constraints, password reset requests, and various messaging issues.”**

It is estimated that post-pandemic between 30 percent and “the vast majority” of employees will work remotely for some part — if not the full week — creating a truly hybrid workforce. Respondents of Deloitte’s CFO Signals: Q2 2020² survey reported that, by the end of 2021, “up to 30% of the US workforce is expected to work

remote ‘frequently.’” The Gartner for HR, Remote Work After COVID-19³ report delivered a more sweeping assessment: **“The vast majority of organizations plan to permanently shift to more remote work after COVID-19 recovery.”**

Some employees’ draw to RTO may be hastened by the fact videoconferencing from a laptop or mobile device isn’t a good enough technology for the long run. In the US Work from Home Survey 2020⁴ conducted by Gensler Research Institute, more than **40 percent of respondents listed “access to technology” and the “ability to focus on their work” as key reasons for wanting to return to the office.**

Gensler Research Institute’s, US Workplace Survey 2020, Summer/Fall⁵, stated, “For those with the ability to choose where to work, respondents who are currently opting to return to the office are doing so because it’s where they are most productive.”

For the hybrid workplace to succeed, digital parity must be achieved between in-office and remote workers, providing the same meeting experience. The IT outlook for 2021⁶ produced by International Data Corporation (IDC) said that, “supporting hybrid workforces and ensuring that remote and work-from-home (WFH) employees have the same sets of connectivity and productivity tools as their



in-office counterparts will be essential to long-term success.” In a recent IDC survey, 42 percent of technology decision makers indicated their organizations plan to invest in technology to close the digital transformation gap. “The pandemic created a business necessity for increasing technology investment and accelerating digital transformation timetables,” said Meredith Whalen, chief research officer at IDC.

The IDC report made two key predictions:

- “By 2022, an additional **\$2 billion will be spent on desktop and workspace** as a service by Fortune Global 2000 (G2000) companies, as 75 percent of them incorporate employees’ home network/workspace as part of the extended enterprise environment.”

- “By 2023, 75 percent of the Fortune Global 2000 (G2000) will commit to providing **technical parity to a workforce that is hybrid** by design rather than by circumstance, enabling them to work together separately and in real-time.”

As IT managers prepare for the hybrid workforce and RTO, it is essential to provide

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videoconferencing solutions to support communication and productivity.

In 2019, Bose — the company known worldwide for its outstanding premium audio products and solutions — launched the Bose Work initiative to address the need for high-quality conferencing.

Understanding today’s digital infrastructures and the need for videoconferencing solutions that are easy to deploy, manage and monitor, Bose develops solutions for every meeting space size, ensuring the highest quality audio and video — near and far.



This is My Meeting.

Workers preferring to use their own devices and software is a trend that has been several years in the making and is sure to be cemented after the 12- to 18-months or more of the WFH experience. The Bring Your Own Meeting (BYOM) approach to productivity stems out of a simple desire: to be able to walk into a meeting room, and easily and quickly launch a presentation or videoconference from a personal laptop using whatever conferencing platform is preferred.

“We expect an uptick in BYOM, where workers are using their devices to launch whatever it is they would have done at home,” says Martin Bodley, director and global head of Bose Work at Bose Professional. “Similarly, there will be a big push to video- and audio-enable more spaces within buildings because there will always be several remote participants. Even when most people go back to the office, there will need to be a hybrid workflow.”

As workers return to the office, they will not want to use the old “conference room computer” and upload a presentation hoping the software and fonts they used are available or have to plug a personal laptop into a codec

and display and hope it will work. “They’re going to want to continue to work the same way they have been working from home when they get back to the office,” states Bodley. “They’re not going to want to use in-room solutions or have to touch a screen.” These are among the pain-points the AV/IT industry has heard from office workers for years, and conversely, these scenarios are nightmares for IT departments juggling much more than the uptime of meeting room equipment.

The Bose Videobar™ VB1 all-in-one USB conferencing device was developed to solve several problems in huddle rooms and small- to medium-sized videoconferencing meeting spaces. Answering the need for ease-of-use BYOM, single-cable connectivity means there’s no need for separate audio and video cables at the table. Users simply plug in their laptop and launch virtually any UC platform they desire; plus the Bose VB1 has the added benefit of being certified with Microsoft Teams, seamlessly integrating with popular third-party cloud services including Zoom and Google Meet.

The Bose VB1 connects to the existing



*Martin Bodley, director and global head
of Bose Work at Bose Professional*

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network infrastructure, making it easy for IT managers to deploy, configure, manage, monitor and troubleshoot whether there is one or one thousand Bose VB1 devices.

As part of its Technology Partner Program, Bose has partnered with Barco to offer a wireless meeting room solution and HP to offer a streamlined in-room experience.

“Barco’s expertise in wireless conferencing

solutions provides the capabilities needed for a full-room solution and complements the VB1’s capabilities,” says Bodley. The Bose VB1 is ClickShare Certified, ensuring interoperability with Barco technology. In addition, the HP Elite Slice G2 – Audio Ready provides an intuitive interface. “These alliances create solutions that reduces wires, saves space and delivers a premium meeting experience,” he adds.

Creating Parity.

Creating parity between in-office and remote participants has been cited as one of the most important success factors for the new hybrid workforce. The only way to ensure this is to provide solutions that can create an environment where in-office and remote participants feel like they are together in the same room.

“At one point, it was okay to say, ‘Yes, I can understand what they said. It’s intelligible,’” Bodley notes. “We’ve gone beyond that so people near and far say, ‘It feels real. It feels natural.’”

A lot of videobar systems have narrowband audio or limited-bandwidth audio. “The VB1 uses a wider-bandwidth audio, which captures more of the fullness and the natural feeling of your voice, which allows you to say, ‘Yeah, I know what Marty sounds like in person, and this sounds like him.’ You feel like you’re with that person that you’re familiar with.”

One of the main problems reported with many videobar systems is that remote participants can’t hear people sitting at the back of the room, those who speak while moving around the room or even if they turn their head sideways. “Voice pickup is a very challenging thing to do in a natural way, especially in rooms,” Bodley says. “We’ve incorporated a very sophisticated digital microphone array technology that is broadband, along with echo cancellation and audio processing that allows everyone in the room to be heard clearly and naturally.” Six beam-steering microphones automatically focus on voices in the room and reject noise. These types of technologies are usually only used in higher-end installed audio systems with a dedicated digital signal processor box. It’s all about Bose being able to capture people’s voices with clarity, while removing room reverb, keeping people’s voices identifiable.

Don’t overlook the obvious — Bose is known for its outstanding audio quality. “We are very good at dispersing audio uniformly around a room, using the same acoustic design principles that we put into all of our products,” Bodley states. “The VB1 has the unique Bose audio experience that comes from our home theater soundbars.” Unlike most soundbars designed

*Stephan Ilberg,
strategic
partnerships
and business
development
for Bose Work*



for conferencing, the Bose VB1 delivers a robust multimedia experience.

Every element of the Bose VB1 was designed and engineered to deliver a premium quality, shared space experience. The 4K ultra-HD camera with auto-framing allows remote participants to see and understand the presenter, whiteboard, flipchart or other in-room objects. Bose designed the camera, hand-selecting the glass lens, and wrote algorithms for auto-framing so that if one person is in the room, it will zoom in and crop around that person, and when a second person enters later, it will auto-frame so that both are in view. This processing is done within the electronics in the Bose VB1 rather

The Bose VB1 comes in at a price-point that makes it viable to put into many home offices.



Bose Noise Cancelling Headphones 700 UC equip users for better collaboration with an adaptive four-microphone pickup system isolates voice from surrounding noise.



Bose Noise Cancelling Headphones 700 UC with Bose USB Link Bluetooth Module.

than upstream in a PC. The benefit of internal processing is that there will be a consistent auto-framing behavior across Zoom, Microsoft Teams or other conferencing platforms.

The Far Side

The Bose VB1 comes in at a price-point that makes it viable to put into many home offices, creating the ultimate shared experience with in-office participants.

One of the biggest complaints from conference call attendees is not being able to clearly hear meeting participants. Another common complaint is that meeting participants can hear ambient noise from the home environment — whether it's a barking dog, children or the neighbor cutting the lawn.

Staring at a computer on videoconferences all day has everyone experiencing video fatigue. But bad quality audio is a major contributing factor. It becomes even more fatiguing if the mind is continuously trying to concentrate on what people are saying.

Everyone knows Bose makes outstanding noise canceling headphones for various consumer use, provides headsets to NFL coaches, and even provides high-performance aviation headsets for pilots. Last year, Bose announced its Noise Cancelling Headphones 700 UC enabling people to work better wherever they are and specifically supporting the needs of remote workers. "The meeting experience is only as good as your weakest link," Bodley says. "If you have someone calling in on a poor performing headset whose mic isn't picking up and it's not canceling the noise;

or they can't hear and they're missing what's being said or asking to repeat what someone said; or the equipment is not doing a great job at separating the voices within the room; or there's too much reverb and there's echo — all of these things contribute to a bad meeting experience, lower productivity and higher meeting fatigue."

"The NCH 700 UC has an extremely advanced microphone array technology built into it," Bodley continues. "We get rid of background noise through a combination of processing and array technology. We also do a great job on the playback using the world's best noise cancelling to remove you from the noisy environment by putting these headphones on, all while giving an incredible playback experience."

These innovations are continuously evolving and the NCH 700 UC is about to get a game-changing firmware update. "We approach everything from the stellar audio experience because you can have a meeting without video," says Stephan Ilberg, strategic partnerships and business development for Bose Work. "We just rolled out a software solution called PinPoint™, which is a noise filtration algorithm." If someone is working from home and there's a dog barking in the background, or other ambient noises, PinPoint will not transmit the sound to the far-end. The technology came from Bose Research and uses AI to learn what additional sounds can be removed from the background. "The audio experience creates an immersive environment of what should be heard and not for what's necessarily around you," Ilberg says.

Designed with IT Managers in Mind.

Whether you have ten meeting spaces in one building or 10,000 around the world, managing in-room devices and knowing each room's health is critical. Add home office devices to the mix, managing and troubleshooting create headaches to the nth degree.

Standardization and certifications are music to the IT manager's ears. The Bose Videobar VB1 is certified by Microsoft Teams, and is pending certification for Google Meet, and Zoom.

Microsoft's telemetry data provides IT managers with information to remotely manage and troubleshoot the Bose VB1 located in the enterprise or a home office. "Today, the home office is an extension of the corporate office," Ilberg says.

"With the VB1 for small- to mid-size spaces, combined with our solutions for larger rooms such as the ES1 ceiling audio solution, provides IT with a standard they can roll out at scale." Ilberg continues, "Scalability with standard components will become critically important as more videoconferencing spaces are installed."

Easy Setup and Training

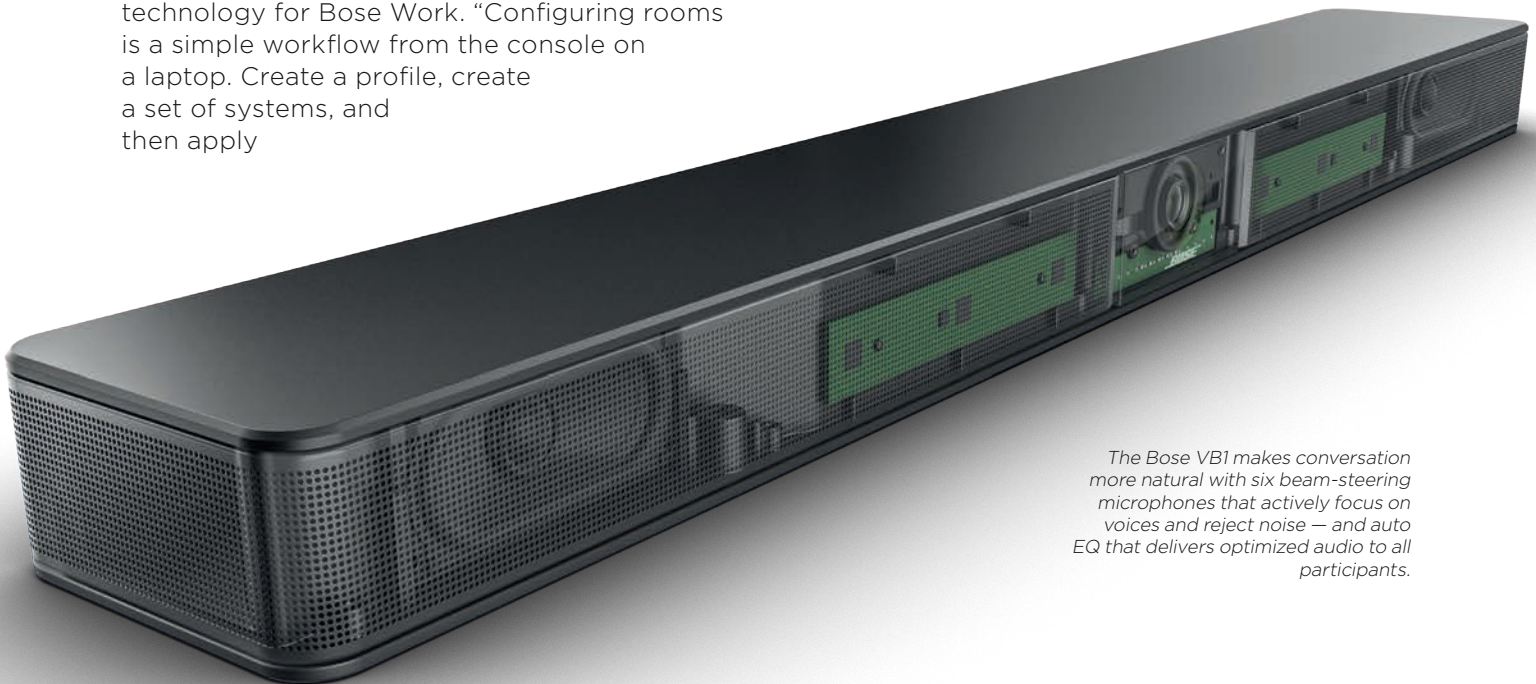
Launched with the Bose VB1 is the Bose Management App. "Once the VB1 is connected to the network, you ping the device from a laptop and use our management tool for setup," explains Jon Schau, emerging technology for Bose Work. "Configuring rooms is a simple workflow from the console on a laptop. Create a profile, create a set of systems, and then apply

*Jon Schau,
emerging
technology
for Bose Work*



that profile to that set of systems so that you can go away and do something else. When you return, all of the VB1 devices are configured."

The Bose VB1 can be put into any small- to medium-sized space and any shape without additional configuration. One of the cool features takes advantage of the 16 beam-steering microphones and provides the flexibility and option to adjust the "hunter beam" for different room shapes.



The Bose VB1 makes conversation more natural with six beam-steering microphones that actively focus on voices and reject noise — and auto EQ that delivers optimized audio to all participants.



The 4K ultra-HD camera with autoframing allows everyone to see and understand the presenter, whiteboard, flipchart, or other in-room objects — and feel more like they're together in the same room.



The Bose VB1 connects to a laptop via single USB cable to VB1 and in-room display, eliminating clutter, and use your choice of meeting platforms — Zoom, Microsoft Teams, Google Meet, and more. Configure easily with Bose Work Configuration software, available as an app or via web browser; and manage remotely with Bose Work Management software which displays real-time status and allows for easy single-unit or system-wide changes.

“You don’t want to manage every space differently, but you may have certain spaces that are in the corner of an open room or offices with closed doors that you’ve converted into small meeting spaces or even others that are more open. Each one of those could be configured individually, or if you had 50 similar room types, you could configure them all the same with the beam and create exclusion zones,” Schau says.

On the flip side, if the Bose VB1 is plug-and-play, Schau suggested some might say they don’t have the time to configure each room type, so you just let the system do its job — which it does quite well.

Employee Training Must Be Easy

Recall that Deloitte reported that support of remote workers increased IT workloads by 37 percent when the workforce was sent home to work. As companies prepare office spaces to include more videoconferencing, end-user training must be easy. “Pre-pandemic, the majority of people had never used Zoom or any other videoconferencing platform,” Schau shares. “90 percent of that training is now done for 80 to 90 percent of the population.”

Schau is not suggesting that there wouldn’t need to be some simple instruction, but using the Bose VB1 is plug-and-play for employees. “The BYOM model and how it dovetails in with the new work world is really simple: it’s quality, it’s management, and it’s the ease of use — all in one.”

The Bose Videobar VB1 is ideal for rooms up to 20 feet long.

Anatomy of Videoconferencing Spaces.

From huddle spaces, small meeting rooms to fully integrated meeting areas to the remote office and work from anywhere, we outline the elements necessary to achieve the best audio and video experience near and far.

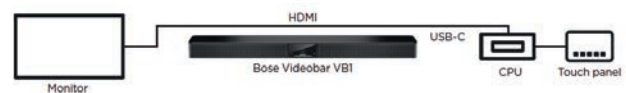
Huddle Spaces

For huddle spaces, the Bose Videobar VB1 cleans up the conferencing experience with an elegant low-profile design. It connects via a single USB cable, reducing clutter, and can be mounted easily in a variety of ways with the included table stand and wall-mount kit, or with a mounting accessory (sold separately).



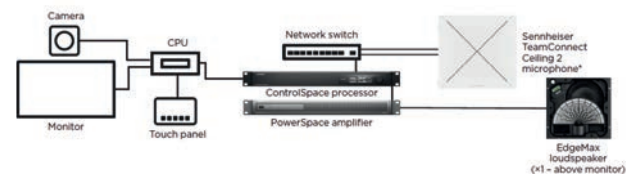
Medium-sized Conference Rooms

In medium-sized conference rooms — and even in acoustically challenging rooms with glass walls — the Bose Videobar VB1 makes conversation natural. Six beam-steering microphones actively focus on voices and reject noise, and auto EQ delivers optimized audio to all participants.

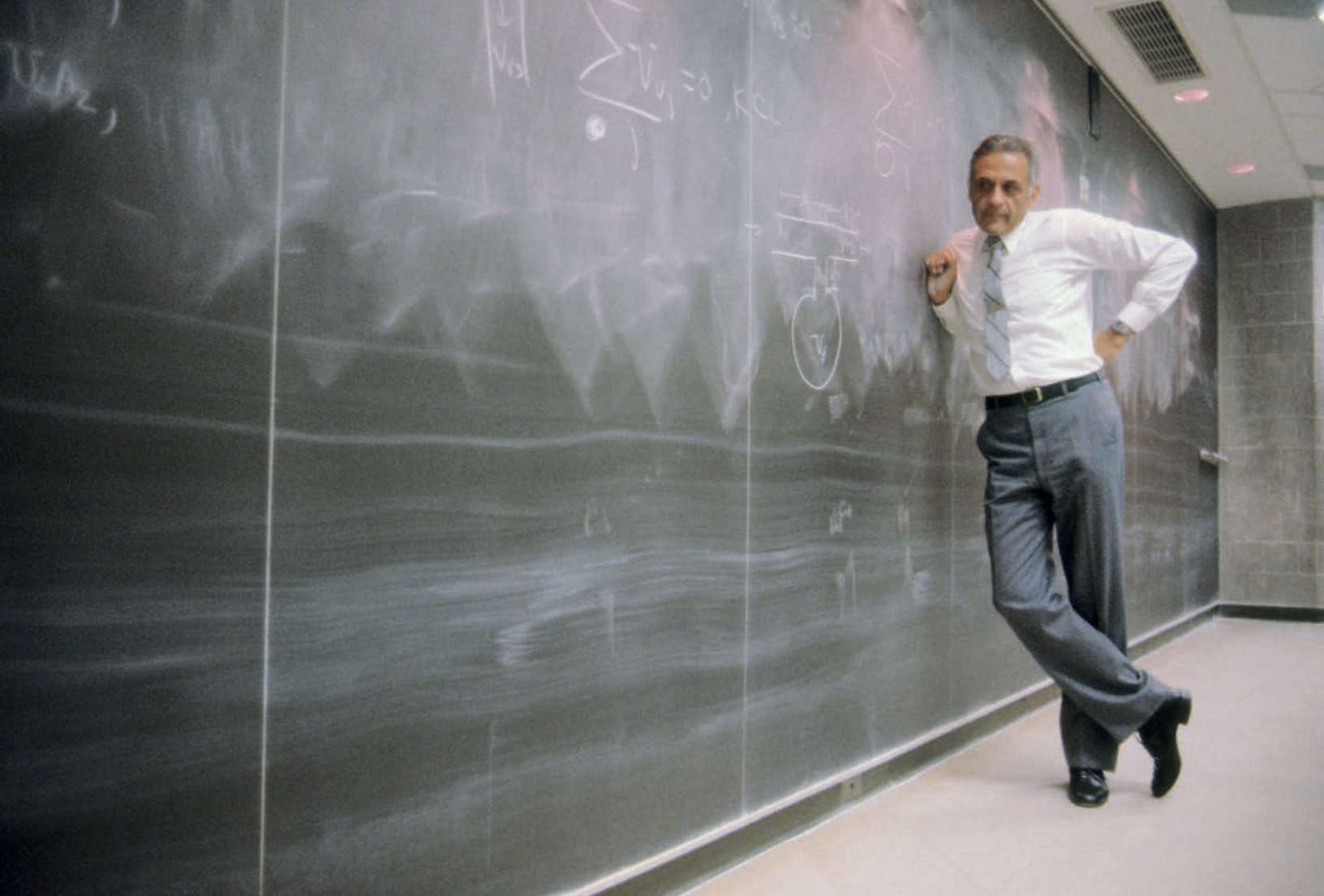


Integrated Meeting Rooms

The Bose ES1 ceiling audio solution* is a fully Microsoft Teams and Zoom Certified solution, ready for quick deployment and configuration of the electronics, reducing installation time. And it's more than fully integrated — it's truly integrated. Completely out of the way and with fewer devices on walls or tabletops, meeting participants can stand, sit, or move around the room freely with the confidence that they'll hear and be heard. With the ES1 system, it's easier for teams to focus on ideas, move projects forward, and work better, together.



*Bose and Sennheiser products sold separately.



Our Founder, and our Brand.

Nearly 50 years before voice intelligibility in videoconference meetings became an issue needing to be addressed, Dr. Amar Bose was applying his work with psychoacoustics — the study of how sound is perceived — in the development of the first direct/reflecting speaker. Dr. Bose saw that other speakers had specs that only measured how they made his music sound, not how he heard it.

In a lecture at MIT, Dr. Bose once gave the following example: “You can put engineers in a room and give them the task of lowering distortion, and they will do this merrily for years. But there’s a basic question: does this mean anything with respect to perception? The distortion — though you can read it on meters — maybe isn’t audible. Well, if it isn’t audible, what are you doing that’s worthwhile here except

achieving some particular engineering goal?” Today, this continues to be the very foundation of how Bose creates all its audio solutions — from consumer to the enterprise.

A Trusted and Influential Brand

Worldwide, Bose is among the most recognizable and trusted consumer audio brands and is known for its premium audio experience.

In a summary statement of the IHS Markit, 2017 Automotive Premium Audio Consumer Analysis⁷ Bose was identified as the most influential audio brand among all countries surveyed (excluding China). “Brand is an incredibly important aspect of the premium audio experience,” says Brad Gottschalk, analyst, automotive infotainment systems at IHS Markit.

“For some consumers, brand is identified as the mark of quality when it comes to audio systems,” he states. According to the report, Bose has a large lead in this area in almost every region, meaning that among consumers who are looking for a premium audio experience, Bose is the name that carries the most weight.

Bring Your Own Premium Meeting Experience

As the workforce returns to the office, either full-time or hybrid, they will be wedded to their preferred electronic devices, laptops and favorite conferencing platforms. Various surveys have found one of the top reasons cited for workers wanting to return to the office is the need to access to premium quality videoconferencing experience. The bring your own meeting trend will be forever solidified.

The Bose Videobar VB1 delivers the premium audio and video experience that new era workers and executives expect; and provides IT managers with a scalable, flexible, easy to deploy, manage and monitor solution for one or up to thousands of meeting spaces, enterprise wide. The Bose Noise Cancelling Headphones 700 UC deliver the highest quality audio reception and unrivaled voice pickup to ensure remote workers have parity with in-office meeting participants.

We’re entering a paradigm shift where businesses will bridge the gap from a traditional to a hybrid enterprise of bringing the home into the office. This is where the power of the Bose brand will have a significant impact and become equivalent to being seen clearly and understood fully, while working wherever you need.

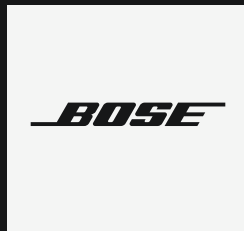
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Dr. Amar Bose

Resources

- 1: Deloitte, 2021 Outlook for the US Technology Industry
- 2: CFO Signals: Q2 2020
- 3: Gartner for HR, Remote Work After COVID-19
- 4: Gensler Research Institute, US Work from Home Survey 2020
- 5: Gensler Research Institute, US Workplace Survey 2020, Summer/Fall
- 6: International Data Corporation (IDC), IT Outlook for 2021
- 7: IHS Markit, 2017 Automotive Premium Audio Consumer Analysis

Click to view a 360 degree presentation of the Bose Videobar VB1.



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