

ConferencingBuyer

TOOLS OF THE TRADE

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Polycom VSX 7000: H.264 So Hot It's Cool, Audio So Cool It's Hot

This month's announcement by Polycom of its VSX 7000 had many in the analyst community puzzled. Without a doubt Polycom made some distinct choices in introducing this entry-level product, which sports some major improvements in audio and video quality. It looks to us like a Lexus capable of more but "dressed down" to a Camry, but hey, what Camry driver is going to complain?

We test drove the VSX 7000 in the showroom, in this case by visiting our respective nearby Polycom offices (Alan in Austin, TX, Marc in Andover, MA) for a series of test calls. We then each carried units of the VSX 7000 to our offices for some Wainhouse Research "quality time" with these babies. Kudos again to Polycom for having the courage to submit to our uncontrolled, mad scientist lab experiments.

In this case the results were nothing less than remarkable.

What it Offers

First, let's describe the unit itself. The VSX 7000 has been positioned as an "entry-level" system along with the single-monitor SP128; the ViewStation EX and FX are now marketed as "mainstream," and the ViewStation 4000 and iPower 9800 as "high performance." (See the October 6 edition of the Wainhouse Research Bulletin for an analysis of the product and its place in the Polycom product line.) The VSX 7000 features:

- Support for IP video up to 2MB and ISDN up to 512k
- H.264 (along with H.263 and H.261) video as well as Siren 14 audio support
- An external sub-woofer/speaker that contains power supply and a bay for an optional Quad BRI connection or eventual serial V.35 connection.
- Redesigned, omni tabletop microphone and built-in speaker on the unit
- Support for 4:3 and 16:9 aspect ratios on display devices.
- Dual-monitor support and dual monitor "emulation" on single-monitor systems.
- An "overhauled" User Interface that allows for extensive customization of colors, menu items, and the Home screen and ringtones, as well as a voice response system that announces numbers as you dial
- A redesigned handheld remote control unit.



What: Polycom VSX 7000
Software Version 5.0

In short: Entry-level group
videoconferencing
system

Results: Remarkable

Who: Polycom

Web: <http://polycom.com>

Price: \$5,999 without options

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Options supported at first release this month include:

- Quad BRI interface (installed in sub-woofer bay)
- 4-port embedded multipoint (MP)
- Visual Concert VSX

Options to be supported in an upcoming release include:

- V.35 interface (installed in sub-woofer bay)
- AES encryption



For anyone who cares about high quality video, it's hot. Basically the H.264 kicks in at 128k to 384k calls, and the best way to describe it is that a 128k call looks as good as an H.263 256k call. A 384k H.264 call looks as good as a 768k H.263 call.

What's Outstanding

The VSX 7000 video and audio quality are outstanding. This is Polycom's first appliance-based system with H.264 video (see the September issue of *ConferencingBuyer* for a technical description of H.264). For anyone who cares about high quality video, it's hot. Basically the H.264 kicks in at 128k to 384k calls, and the best way to describe it is that

a 128k call looks as good as an H.263 256k call. A 384k H.264 call looks as good as a 768k H.263 call. It takes a lot for us to care about video algorithm improvements, but whereas H.263 was much-ado-about-only-a-little when it was introduced back around 1997 or so, H.264 is really going to matter in improving video.

The VSX 7000 is an excellent implementation. Polycom is making a choice to stick with H.263-based ProMotion video at higher data rates for the time being, probably as a means of differentiating the VSX 7000 from the higher-end products, which will be receiving H.264 in upcoming releases. And contrary to the rumors swirling on

late night TV and Wainhouse Research forums, the EX, FX, and VS 4000 will not require hardware upgrades to support H.264, according to Polycom's product managers.

The Siren 14 audio is also excellent. It'll make one forget that full-duplex audio doesn't always feel full-duplex, as we experienced no clipping or "clash" of our voices when we tried to speak at the same time.

Some other things we liked, in no particular order:

- Perpetual preview, which allows for the remote video to remain onscreen during a call even as one drills down through various UI options (except when in the Directory).
- Customizable "Home Screen," where one can modify the menu offerings to include or exclude buttons for Directory, Recent Calls, Data Rates, Multipoint, and other capabilities.
- The "Recent Calls" list that saves the previous 99 calls placed.
- A "Do Not Disturb" option that seems a bit more intuitive than having to find the "Auto Answer" button (which is still available as an option).
- The dual-monitor emulation, which essentially lets one make a single-monitor system dual monitor.
- The embedded MP, which supports mixed H.323 and H.320 calls.
- The IP call connections (as well as ISDN), which were excellent. Polycom is adding video and audio error "concealment" in an upcoming release (an enhancement of their PVEC), but you could have fooled us. Rarely was the packet loss meaningful, and our IP calls were consistently excellent on VPN, DSL, and cable connections.

Wainhouse Research Weird Science Experiments

If you read our review of the ViaVideo in the July issue of *ConferencingBuyer*, you know that one

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particular other Wainhouse Research analyst is capable of creating a Bermuda Triangle of technology. In our case, everything worked fine as we installed the units in our respective offices. In fact, it was easier to install and get up and running with the VSX 7000 than recent experiences we've had with DVD players connecting component video, TiVo's, and wireless LANs. We successfully placed point-to-point and multipoint calls over the public Internet, and the VSX to VSX video calls remained terrific. We successfully placed calls to ViaVideo, ViewStation, and TANDBERG units, and many of those we called commented on the excellent video quality — even though these calls were using H.263. It was while calling the TANDBERG 1000 units described elsewhere in this issue that we discovered that Polycom's and TANDBERG's implementations of H.264 "aren't quite ready to talk to one another" using H.264. That was a disappointment, reminiscent of the "video wars" of the mid-90's, wherein PictureTel, VTEL, and CLI all had "non-standard" standards. Each vendor is doing some fingerpointing; we will uncharacteristically stay quiet except to say that we're all watching to see them deliver interoperable H.264.

Alan and Marc Nearly Come to Blows

Well, not really. We only disagreed on one point, and we're both willing to gentlemanly disagree.

Marc picked out quirks in the handheld remote, such as the inability to press a menu button and immedi-

ately return to full screen far end video when you are deep into a menu. Instead, to return to a view of the far end you must press "Near" (the near camera button) — not exactly intuitive. An "Auto" feature is great for putting the systems to asleep, but as soon as the handheld is put down — the system wakes up again and you need to push

The net net of the VSX 7000 is that it's a solid performer, with the horsepower, video and audio quality, packaging, and UI that will make it a hot property.

"Auto" again. Items Marc liked on the remote were the "Help" button — providing help wherever you are in the systems; a "Keyboard" button that creates an onscreen keyboard for entering system or dialing information; a "Dot" button that allows easy IP addressing (versus the right arrow button on the ViewStation handheld); and, a "Delete" key, which is a great improvement over trying to find a backspace key.

Meanwhile, Alan had no problems with the remote. This remote seems to be best of breed: it packs all the basic functionality one wants in a group videoconferencing system. Like all remotes, a first-time user is going to want to get some familiarity with it. Only one option confused him when he used it the first time; it gets a bit "busy" around the "Near/Far" camera button and he mistook the PiP button for the "Near" button. Handheld remotes will always be the subject of controversy and debate, because people pick them up and expect them to be immediately intuitive. And in the past they've been as big as foot-long hot dogs, with a lot of

sloppy buttons and keys and confusing verbiage. In this case, Alan would argue that this handheld unit is as close to perfect as a handheld could get for a group system.

In terms of the onscreen UI, a handful of items seemed odd. For instance, the "Home" button takes one back to the Home screen even when one is in a call; it was not clear how to return to full screen video during a call if one goes very far into the Menu offerings — thus Alan emulated Marc's search for full-screen video. Turns out it's the "Near" button, which essentially makes the video input full screen.

But these are very minor. The net net of the VSX 7000 is that it's a solid performer, with the horsepower, video and audio quality, packaging, and UI that will make it a hot property. Our prediction: this "better than a Camry, not quite a Lexus" is going to gain traction and, with a little bit of support from Polycom, really help expand the entry-level, small-to-medium size enterprise market. The audio and video quality are so vastly improved — even over the public Internet — it might lead people ambivalent about IP video to jump off the fence and dive in. ♦

ConferencingBuyer

October 2003
 Volume 1 Number 6
 112 Sumner Road,
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 617-975-0297

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