



What is QSX?

The Polycom QSX system allows users to instantly share a live view of a computer screen with remote locations simply by dialing a Polycom conference phone. It's an easy and secure screen sharing solution that anyone can use.

With QSX, there's no need to learn new applications, upload documents, pay monthly service fees, or pre-schedule.

It's Voice+Content™ without any of the usual hassles.

The core of the QSX system is a small base unit appliance that connects to user interfaces in the conference room (VGA source, Conference phone, and VGA display) and to both the phone network (PSTN) and the IP LAN.

How does QSX work?

QSX allows for content sharing with other locations that have QSX systems as well as sharing with remote participants that have Web browser access but do not have their own QSX system.

For both modes of use, the meeting starts simply by dialing the conference phone as you would for an ordinary phone call.

For other QSX room participants, the QSX units automatically identify each other over the phone line. QSX uses standards-based Low Profile Signaling Protocol (LPSP) to send system information over the phone line. The signal is embedded in the standard audio frequency band. Once they have identified each other (typically 15-30 seconds from when the audio call connects), they automatically establish H.239 content sharing channel over the LAN. One of the QSX units assumes the role of the MCU (Multipoint Controller) for the current content sharing session.

Web viewer meeting participants join the content session by going to the Web address provided by a QSX meeting host and entering the meeting password. A QSX site will see the meeting Web address and password on an "Info" screen on their local display when the call is established, or can pull it up on demand by pressing the "Info" button on the Content Controller or the SoundStation VTX 1000™ softkey. By default, a unique meeting password is generated every time the conference phone establishes a new call. If desired, administrators can configure QSX to use a consistent pre-set password.

Web viewer access does not require any application downloads, service fees, or special configuration. Simply launch a standard Web browser and go. Web viewer browsers supported: For

Windows® 2000 and XP, Internet Explorer 6.0 and higher and Netscape® 7.1 and higher. For Mac® OS 10, Safari™ 1.2.4 and higher.

Do I need Java to utilize the Web viewer feature?

The QSX Web viewer requires the Java Plug-in to be enabled before it will function properly. Go to Control Panel > Java Plug-in configuration to enable this plug-in. Most browsers already have this Java plug-in. In the instance that the plug-in is not installed, go to the following link: <http://java.sun.com/products/plugin/downloads/index.html> and obtain the appropriate plug-in. This is a one-time download of a Java Plug-in for the browser in use. The Java Virtual Machine (JVM) version required: Microsoft VM for Java 5.0 and higher, or Sun® Java 1.4.2_04 and higher.

Does QSX stand for anything?

QSX stands for quick share exchange.

Which Polycom conference phones does QSX work with?

QSX works with any new or existing Polycom analog wired conference phone including: VoiceStation™, SoundStation®, SoundStation Premier®, SoundStation2™, and SoundStation VTX 1000.

The QSX 300 allows for direct connection to the SoundStation VTX 1000. In this configuration, the content sharing user controls are incorporated as soft key buttons on the LCD of the conference phone. The SoundStation VTX 1000 must have software release 1.6 or higher in order for the solution to work.

The QSX 400 is perfect for any of Polycom's wired, analog conference phones including VoiceStation 100, original SoundStation and SoundStation Premier, SoundStation2, and SoundStation VTX 1000 (must be at software release 1.6 or higher). The QSX 400 ships with a QSX Content Controller as part of the VGA cable assembly that connects to a presenting computer. The content controller provides a sharing and info button to the user in rooms where the conference phone does not have an integrated user interface capability to content sharing.

QSX does not support SoundStation IP, SoundStation Premier 500D/550D, and SoundStation2W at this time.

Polycom QSX Frequently Asked Questions

Does QSX need to be connected to a Polycom conference phone?

Yes, the QSX needs to be connected to a Polycom conference phone in order for it to work. QSX content sharing is enabled when the conference phone is on an active call.

Do I need a QSX in every location to use QSX?

No, a QSX system is only required at the meeting host and presenting location(s). Other locations on the voice conference call can easily view the content from a standard Web browser without any downloads, any service fees, or any advance setup. Any time a conference phone connected to a QSX makes a phone call the room is enabled to instantly share content with anyone on the call – even if there are no other QSX systems.

Do you need to have a conference phone in every location to do a QSX meeting?

No, only locations with a QSX system require a Polycom conference phone.

How many sites are supported with QSX?

QSX can support up to 5 sites with QSX and 10 sites using a Web browser. The host counts as one of the 5 QSX sites.

Does it work through a conferencing bridge? (audio and content)

Yes, QSX is fully operable through in any audio call setup. The phone call can be point to point, through a conferencing service, PBX or through an internal conferencing bridge.

Is QSX secure?

QSX is a highly secure content sharing solution. There are six aspects of the system which together provide for excellent security.

- 1) Self contained solution which is easy to fully deploy behind the firewall and other network security tools.
- 2) Voice conference calls can be configured to require passcodes for participation.
- 3) Content between QSX units is AES encrypted.
- 4) Unique Random six digit password generated for each phone call.
- 5) Web view password exchange is encrypted
- 6) Content format exchange is single frame screen capture. There is no file or application stored or sent to a remote site. This means content viewers cannot download, or easily repurpose content.

What is the difference between Polycom QSX, Visual Concert™ and ImageShare™?

QSX is a Voice+Content tool. It allows the sharing of content on a regular audio phone call. Visual Concert and ImageShare allows for People+Content™ – sharing of content on a video conference. QSX has Web browser access capability..

Will QSX work in place of Visual Concert or ImageShare?

No, QSX is a separate solution designed to connect to Polycom conference phones. It does not replace Visual Concert or ImageShare and cannot be used as a substitute.

How does QSX compare to Polycom WebOffice™ software?

QSX is an appliance based approach vs. WebOffice which is an enterprise software based approach.

QSX provides a conference room solution vs. WebOffice as a desktop hosted solution solution. QSX provides live content for everyday meetings.

How does QSX compare to Web conferencing?

QSX is a complement to Web conferencing. QSX is perfect for everyday and ad-hoc meetings where Web conferencing works best for scheduled, formal meetings. As a result, QSX is the perfect addition to companies that need to share content with remote sites, yet Web conferencing isn't practical or cost effective. Whether the meetings are scheduled everyday or they occur ad-hoc, QSX allows users to share information without compromising security on-line or by having to send the information over e-mail. QSX is affordable, easy to use, and the perfect solution capable of supporting a broad deployment within a corporation.

What type of connections do I need in my conference room and/or office to make QSX work?

QSX connects to user interfaces in the room and connects to the network and power outlet.

From a user interface perspective, the QSX base connects to a) conference phone, b) local VGA display, and c) VGA output of presenting computer. (QSX ships with VGA cable assembly to connect to computer).

From a network perspective, QSX connects to the PSTN network through the conference phone wall or floor module. QSX also connects to the IP network through a standard CAT 5 cable. QSX ships with its own external power supply.

What is the best way to install QSX?

QSX is designed for quick setup and flexible installation options. The QSX base can easily mounted under the conference table, on the wall, or placed in an equipment rack. The base unit ships with mounting brackets.

In many cases it will be most convenient to install the QSX under the conference room table. The majority of the cables and connections to the QSX base unit are available in the area of a typical conference room table without having to re-work the room.

Does the QSX need special configuration before it is used?

No, the QSX ships pre-configured to the most common user preferences. It can be used out of box without any additional configuration. Each QSX has its own Web-based administrative page to provide a convenient way to customize settings if needed. QSX is preconfigured for DHCP; thus, will obtain an IP address automatically. No initial setup is required.

How much bandwidth does it use?

QSX uses bandwidth dynamically depending on available network capability, the type of content, and the number of locations participating.

Between QSX systems, the total peak bandwidth utilization for the meeting will not exceed 1 MB. Web viewers will not use more than 256 kb per location.

Will it work with DSL, what is minimum recommended bandwidth?

We do not recommend setting up a QSX base unit with a DSL connection. The minimum recommended bandwidth for a QSX base unit is 384 kbps.

QSX does support Web viewer in locations provisioned by typical DSL data rates. The minimum recommended bandwidth for a Web viewer participant is 56 kbps.

Will it work across the firewall?

Qsx provides a configuration option to enable Web viewers from outside the firewall to view content sharing. This is a feature that must be enabled from the Qsx admin Web page. From the admin page, you can assign a static internal IP address as well as the Network Address Translation (NAT). Once enabled, the NAT will appear on the "Info" screen as the "External IP" address. The "Internal IP" address will also be presented on the Info screen. Web viewers from outside the firewall join the meeting the same way as other Web viewers. Qsx can support meetings with some web viewers inside the firewall and others outside the firewall over HTTP.

How can I manage Qsx units?

Each Qsx has its own Web-based admin page with a full set of configuration options and diagnostics. In addition, Qsx is compatible with Polycom Global Management System™ release 7.01 under the V-series heading. Thirdly, Qsx has a serial port to provide a local in room diagnostics and management capability.

Is the product software upgradeable?

Yes, Qsx is software upgradeable over the Web at www.polycom.com/voice software or through Global Management System. The software upgrade process for Qsx is very similar to the upgrade process for the Polycom VSX™ line of video conferencing systems.

Will Qsx work if we are using an audio bridge or a voice conferencing service?

Yes, Qsx works the same in any audio call setup. The only requirement is that there is an analog Polycom conference phone connected to the Qsx base.

Does Qsx provide audio bridging capability?

No, Qsx provides multi-point content capability. It does not replace your ordinary voice conferencing service or bridge.

Does Qsx support VoIP?

Qsx is not compatible to be directly connected to a VoIP conference phone at this time. However, Qsx Web viewers can dial in from any type of phone VoIP, digital, mobile, or analog.

What are the details on the LPSP signaling to establish the automatic connection?

LPSP works like a low bit rate modem. It operates at 100 bits/ second and sends 64 bit message strings. The message includes 1) a request for any other Qsx systems on the call to identify themselves, 2) identification that there is a content sharing system available, 3) the IP address of the system, 3) session password, and 4) MCU resolution message.

A Qsx system will initiate LPSP messaging after a 15-60 second delay from going off hook. A Qsx will send LPSP messages continuously for a period of 60 seconds. If it detects another Qsx in the call it will direct the Qsx to establish an IP based H.323 connection. If no Qsx is detected, LPSP will time out.

If Qsx units join the call late, it will send its LPSP message out and thereby is able to connect to any pre-existing Qsx units in the call.

What happens if the MCU location drops off the call?

A surviving Qsx on the call automatically will take over the MCU role if the pre-existing one leaves the meeting. The hand off occurs seamlessly without having to re-initiate the conference.

Is this a standards-based system?

Yes, Qsx is based on Polycom leading adoption of industry standards. For Qsx to Qsx connections the content connection is made using H.323 protocol. The content format is H.263 and is compliant with the newest H.239 content sharing standards. Qsx uses http:/ to send content to web viewers. The content for Web viewers is encoded in an adaptive JPEG format.

What is the content performance of Qsx system?

Speeds of 3-8 frames per second are typical for Qsx to Qsx links. For Web viewers frame rates of 0.5-1 frames per second are representative.

What are the limitations in terms of content type?

Any content that is viewable on a computer can be shared using the Qsx system. In addition, content from other devices which have VGA output ports (i.e. document cameras) can be shared using Qsx.

Can you have multiple sites presenting within a meeting?

Yes, any location with a Qsx system can take over the presenting role in the meeting simply by pulling up content on their computer and pushing the "Share" button on the table. Locations can instantly switch presenter role back and forth throughout the meeting. However, there can only be one presenter at any given time.

What happens to Web viewers when presenter changes?

The Web viewer will automatically get redirected to the new presenting Qsx if a new location becomes the presenter. Web viewers do not need to login again in order to see the content from the next location.

Can users collaborate on documents using Qsx?

Qsx is a great solution for working on a live document with other remote participants. With the Qsx the presenter can input changes on the fly and everyone else immediately sees the revisions. Qsx does not allow for multiple locations to simultaneously input text changes into a document.

Can I present if I am a Web viewer?

At this time Web viewers do not have capability to present during a meeting.

Does the Qsx send the audio from a file or application on a computer to remote sites?

No, Qsx does not transmit computer based audio content through the content channel. Audio from a presenting computer will get transmitted through the Polycom conference phone which is attached to the Qsx Base.

Does Qsx support audio from my PC?

No, not at this time.

Is Qsx interoperable with People+Content?

While the protocols and standards are compatible, at this time Qsx does not fully support interoperability with People+Content solutions.

Can Qsx be used with the SoundStation VTX 1000 and VSX solution?

No, not at this time.

Polycom QSX Frequently Asked Questions

Can I record meetings with the QSX?

QSX does not have a built in recording or archiving feature. However, recording applications on a presenting computer can be used during a QSX meeting if needed.

How much bandwidth does QSX take up?

QSX allocates a maximum of 1 MB for the H.323 connection. Additional QSX units that join the meeting can share this bandwidth. If there are 2 QSX units on the call, then 512 KB is allocated to each connection.

In a Gatekeeper configuration, QSX will request 1 MB. It will scale down the connection based on what is allocated by the Gatekeeper. The actual amount of bandwidth used will depend on the content. There may be a maximum of 300 KB of data that is transmitted when a slide transition with large graphics occurs in a PowerPoint® application. This transmission is "bursty" in nature and occurs on the initial transition only.

Each Web viewer connection is allocated 256 KB, up to a maximum of 2 MB.

What are the part numbers? How much does QSX cost?

North America Part Numbers and MSRP:

Description	Part Number	MSRP (subject to change)
QSX 300 systems for SoundStation VTX 1000 conference phones		
QSX 300 Single Unit	2200-45001-001	\$1,299
QSX 300 + SoundStation VTX 1000 Bundle	2200-45340-001	\$2,998
QSX 300 Twin Pack	2200-45302-001	\$2,498
QSX 400 systems for all other analog wired Polycom conference phones (VoiceStation, SoundStation, SoundStation Premier, SoundStation2, SoundStation VTX 1000)		
QSX 400 Single Unit	2200-45000-001	\$1,599
QSX 400 + SoundStation2 Ex Bundle	2200-45460-001	\$2,198
QSX 400 Twin Pack	2200-45402-001	\$3,098

For additional details please refer to the following documentation:

- QSX Data Sheet
- QSX Setup Guide
- QSX User Admin Guide
- QSX Quick Tips

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