Philips tele-ultrasound

Now systems can do more than scan

Easily reach the people who need you

Ultrasound experts are looking to technology to solve the challenge of providing care access to diverse populations, while also managing staff shortages and variable levels of expertise that contribute to inefficiency and a higher rate of repeat exams.

Collaboration Live delivers real-world value

A tele-ultrasound solution available on select cart-based, portable and handheld Philips ultrasound systems, Collaboration Live is designed to improve access to care, bringing remote decision support to the primary care outpatient clinics, emergency first responders, hospital inpatient imaging departments and many other locations so you can improve workflow inefficiencies, enhance patient and staff satisfaction and drive better outcomes.

Collaboration Live allows you to securely share images directly* from the ultrasound system to mobile devices or computers so teams can view images simultaneously, regardless of location. Clinicians can even give control of system functions, allowing remote experts to guide the exam.

Extend your team without expanding it

Collaboration Live
Ultrasound

- Extend access to care — Text
- Voice
- Image
- Video
- Extend consistency of care
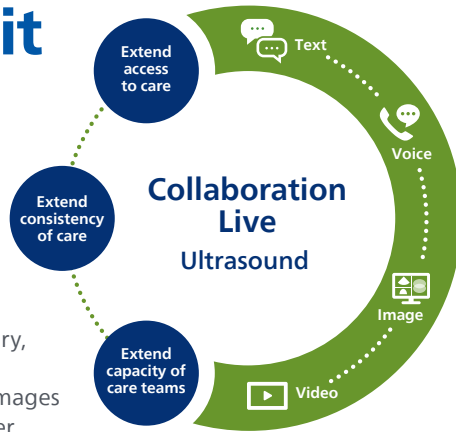- Extend capacity of care teams

Extend access to care

All patients deserve a high level of care, regardless of location or care setting. Collaboration Live supports new paths of care delivery, extending access to quality care. With real-time access to patient images on a mobile device or web browser, and the ability to meet via text or video, physicians can consult with both sonographers and patients in the exam room.

Extend consistency of care

Collaboration Live helps you achieve the same standard of care throughout your organization. Clinicians can use Collaboration Live to connect with colleagues for real-time guidance, decision support on complex exams and training on care protocols.

Extend the capacity of care teams

Deploy the right expertise when and where you need it to elevate care while also conquering staffing challenges. Remote guidance and decision support allow you to eliminate time wasted in switching physical locations, as well as limit exposure to infectious patients, while increasing productivity and improving the experience for your care teams and patients.

Reduced healthcare costs, improved access to care and increased revenue

Recent studies determined that the use of Collaboration Live

Increased revenue
by 44%[1]

Reduced exam time
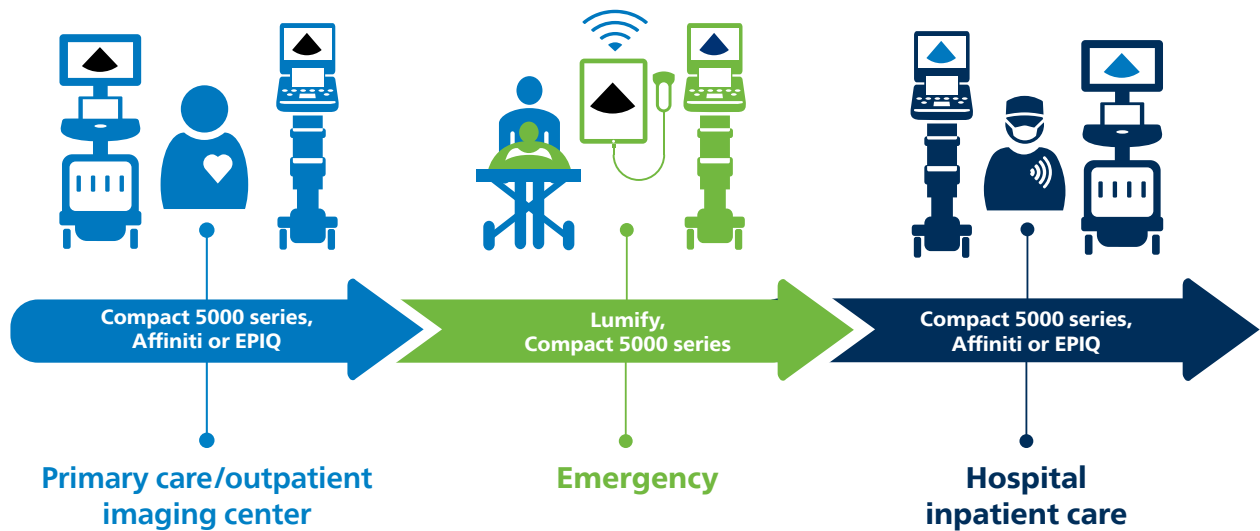# by 57%[2]

Resulted in
100% of patients
reporting that felt they had better access to healthcare delivered through Collaboration Live[3]
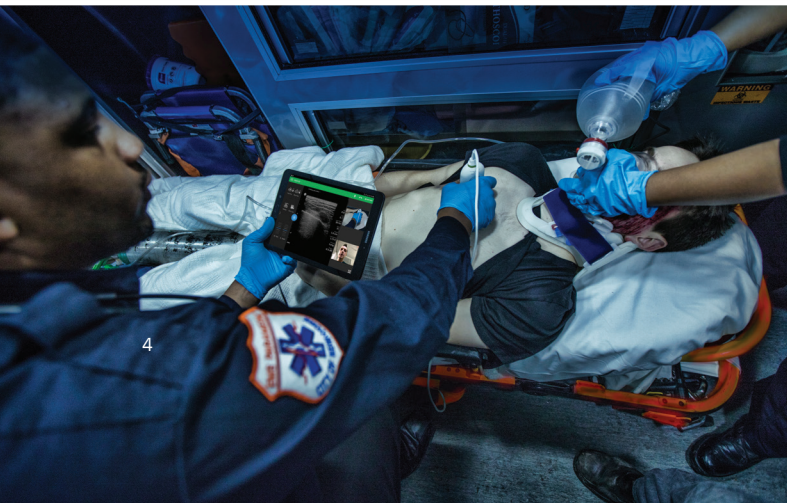

3

Easily stay connected
throughout the patient journey

At every stage in the patient journey, Collaboration Live helps your team coordinate care.

Compact 5000 series, Affiniti or EPIQ	Lumify, Compact 5000 series	Compact 5000 series, Affiniti or EPIQ
Primary care/outpatient imaging center	**Emergency**	**Hospital inpatient care**

Give patients access to your team's full expertise, regardless of location

- Your point-of-care team can share critical images and information from the ambulance, before they reach the hospital

- Sonographers have on-demand access to experts who can virtually "look over the shoulder" and guide exams

- Physicians can guide ultrasound during surgery – without entering the surgical suite

- Experts on-the-go can connect directly to ultrasound systems from their mobile devices for peer-to-peer consultations

- You can enhance the patient and staff experience while ensuring the standardization of care
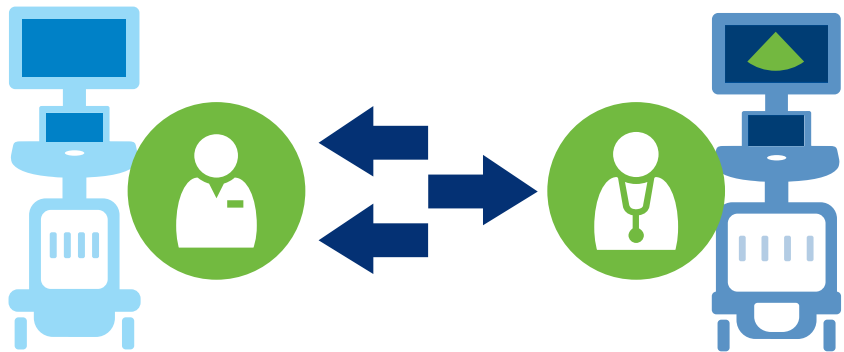
Connect
with colleagues

Collaboration Live with multi-party* lets you connect up to six participants on a call. You can even connect system to system so you can give and get support from your colleagues during an ultrasound exam.

A quick look can provide guidance and reassurance during the exam, enhancing the imaging experience for clinicians and patients.

Tele-ultrasound capabilities evolving to meet imaging needs

Collaboration Live is now available on your EPIQ, Affiniti, Compact 5000 series and Lumify systems, opening the door to a world of tele-ultrasound applications. With tele-ultrasound growing across our portfolio, you can institute new ways of working that enhance patient care and efficient workflow. No matter where you use Collaboration Live, you can be assured of Philips quality imaging and ease-of-use.

	Lumify	Compact 5000 series	Affiniti	EPIQ
Talk	•	•	•	•
Text		•	•	•
Screen share	•*	•	•	•
Remote control *,†			•	•
Remote diagnostic quality*			•	•
Asset sharing†		•	•	•
Multi-party*			•	•
System-to-system connection*			•	•
Windows client	•	•	•	•
Mac OS with Chrome and Edge browsers*	•		•	•
iOS*	•		•	•
Android*	•			•

* Requires 7.0.5 or higher. Diagnostic use and remote access via mobile device or browser requires VM 9.0 or higher. Multi-party and system to system connect require VM 10.0 or higher.
† Available with Windows client only.

Compatibility, security and connectivity

Ultrasound system peripheral support

Collaboration Live supports the use of a USB headset and USB webcam. These peripherals are not required but can be used to enhance the overall experience. A universal USB driver supports connectivity of these devices and, while Philips does not guarantee support for all USB-based headsets and webcams, it is expected that most USB headsets and webcams will work with Collaboration Live.

Collaboration Live remote device requirements

Windows PC requirements must be met in order to successfully install and use the Collaboration Live remote application Reacts on a Windows-based laptop or PC.

Windows 10 or higher
Processor base frequency of 1.8 GHz or higher
Minimal 4 GB RAM
Minimal 75 MB of available disk space
Minimal screen resolution 1366 X 768 pixels
Camera and microphone (USB or built-in)

Web browser for EPIQ and Affiniti users*
To use the Reacts features on the web, the web browser must meet these requirements:
• Google Chrome web browser version 59 or higher

iPhone or iPad*
• iOS 13 or higher
• Compatible mobile phone or tablet

Android devices*
• Android OS 9 or higher
• Compatible mobile phone or tablet

Security

Audio/video and instant messaging exchange encryption
Audio/video communications are established via WebRTC protocol and utilize the DTLS-SRTP security context to encrypt and decrypt streams from end to end.

This context uses a separate channel for signaling that runs only under TLS security, increasing the security of the key exchange. Key exchange is kept separate from the reading of streams.

Every connection and session uses unique keys. For environments where peer-to-peer connections are not possible, Philips hosts on-premise TURN services that act as a relay server to connect parties when only outbound connections are allowed. The DTLS-SRTP allows secure end-to-end protected sessions over either UDP or TCP, with UDP as the most performant and less bandwidth-consuming alternative.

Stream connectivity

Collaboration Live will prioritize UDP over TCP when UDP is allowed, resulting in a more optimal streaming experience.

Implementation of WebRTC prioritizes stream onnections is as follows:

1. P2P UDP   2. P2P TCP   3. TURN UDP   4. TURN TCP

If an institution's firewall allows P2P via UDP and/or P2P via TCP, the stream connection will be established in P2P. If an institution's firewall blocks P2P connections, the stream will try to connect TURN UDP with DTLS, and if that is not possible, will resort to connecting via TURN TCP with TLS encryption. Text messaging is always transmitted via the signaling service and is thus secured with TLS.

*See the chart on page 6 for compatibility requirements.

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References

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