



## In profile

**BRAD GENEREAUX**

Product Manager, Enterprise Imaging, Agfa HealthCare

## XERO Viewer – Bridging the imaging gap for the electronic health record

With new features and functionality, the XERO Viewer is adding even more value to imaging across the hospital ecosystem.

“There is a wealth of images being created all over the hospital, and we want to make sure that this wealth is being put to good use,” says Brad Genereaux, Product Manager, Enterprise Imaging, Agfa HealthCare. “If images can’t be accessed, they don’t add value. We want to bring all images to the forefront of the electronic health record (EHR) so clinicians can unlock their potential. By getting the imaging information to where it is needed most, we will increase diagnostic comprehension, decrease unnecessary repeat imaging and, ultimately, significantly improve patient outcomes.”

And that’s what the XERO Viewer\* sets out to do, he says. By unlocking access to all of the patient’s images – not only from radiology or cardiology, but from every image generating department – caregivers can finally see the patient’s entire imaging story. “It makes imaging a real part of the patient-centric healthcare model. What’s more, it brings imaging to all the different players engaged in patient care: people who haven’t been able to see or use images in their workflows will directly benefit. It has never been more true that an image is worth a thousand words. XERO Viewer is a game changer – leveraging the internet revolution to support the physicians and enable them to improve the delivery of patient care!”

### Images where you want them

The XERO Viewer is built on zero footprint technology, and is strictly web-based: it requires no Java, no ActiveX, no Flash, no plug-ins, downloads or installs whatsoever. “All of the image processing is done on the server, so the browser only has to display the images,” explains Brad. While that offers plenty of flexibility for the traditional desktop computer, the advantages are even clearer when using mobile devices.

“More and more, people are using their own mobile devices for work; managing clinical hospital software on these devices is very challenging. Too often we hear how protected patient data has been compromised by the loss of a tablet, phone or laptop. What’s more, mobile technology evolves so fast! Zero footprint means the user doesn’t have to keep up with every new platform: hospital IT departments can keep pace with the changes, resting assured that their viewer is future-protected in this respect. Plus, we are able to enhance the user’s experience using the native controls of the mobile device, like pinch to zoom on the touch screen.”

Zero footprint also allows the XERO Viewer to integrate easily into the hospital’s IT strategy. “It embraces centralized user management: all acts of provisioning – creation, modification, disabling and resetting passwords – are all done by existing hospital systems. So CTOs

can leverage their hospital systems with the peace of mind of knowing that their investments in security and identity control are fully utilized. It just snaps right into the existing security infrastructure.”

### Images how you want them

New features are extending the value of the XERO Viewer even further. “In the previous version of the viewer, the images were ‘reference-only’: you couldn’t use them for diagnosis, because of the impact of the lossy compression used.” Lossy compression produces a much smaller compressed file, more suited for quick, referential viewing. “Now, with the upcoming release of the next XERO Viewer, users will be able to choose Full Fidelity View\* which uses lossless compression, resulting in diagnostic quality when images are displayed.”

Collaboration is enhanced, too, with real-time sharing and chat. “A physician reviewing a patient’s study can interact in real time with other physicians on the system,” Brad says. “She can chat, ask questions – and now, share her screen in real-time with her colleagues. They see the same images, share the same cursor, use the same measuring tools, make mark-ups and more, regardless of whether they are in the same building or across the continent.”

### “It’s their tool”

The XERO Viewer is also making good use of harnessing technologies perfected in other industries, Brad explains. “One example is the new patient-centric, interactive timeline. It looks like the event timelines you might find on news magazine websites, so it’s a familiar concept to clinicians. But it is really a big leap forward in understanding the patient story. Instead of presenting simple textual lists of studies, it offers a rich, thumbnail-enabled, longitudinal view of all of the patient’s images, study by study, over time. The user can choose any two studies, for example, from any point in time and compare them. For caregivers who aren’t intimately familiar with the depths of a radiology PACS (image management) system, this makes image viewing a very natural process.”



## Making a case for wearables

With all the hype about wearable technology\*\*, it isn't yet clear what impact it will have or how it can best be used in any domain. Brad, however, sees real potential for wearables in healthcare and predicts that, for this technology, healthcare might lead the way.

"We have been looking at how to integrate the XERO Viewer with armbands that let you control the viewer without touching the screen. In operating rooms, for example, that would be a huge benefit. Combining a Google\*\* Glass™ wearable computing device with the XERO Viewer could add another brick to building patient safety by backing up the patient ID process. Take a photo of the patient when they check in. Then before any sort of procedure, the caregiver scans the patient barcode and the patient's image pops up so the caregiver can physically see if it is the correct patient.

It's a question of finding the right fit with the wearable technology; but once unlocked, healthcare is poised to become the primary benefactor in the wearables revolution!"

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Other enhancements include being able to view and interact with DICOM ECG waveforms alongside any available reports. Import functionality, called XERO Capture, enables the uploading of patient-centric content right into the EHR, captured on the desktop or from the camera of a mobile device. Another feature is the XERO Exchange Network. “With the XERO Exchange Network, users can query many imaging systems simultaneously, such as a radiology PACS, a cardiology PACS and a VNA, and see all of the studies available for a patient together, creating a true longitudinal record. It can even be used to visualize imaging data together from different hospital sites.”

Yet with all the benefits, the XERO Viewer is so intuitive to use, it is almost invisible to the user. “Robust application programming interfaces (APIs) allow us to customize the viewer as the customer sees fit, so it embeds right into an application like an EHR; users won’t even realize it is separate from their EHR. It becomes their tool. It’s another way XERO is helping to demystify the image viewer and make it more ‘natural’ for non-radiologists. And that’s critical for Enterprise Imaging.”

### Part of the EHR experience

“When we look at the direction of healthcare, towards a patient-centric model, towards collaborative care, the XERO Viewer fulfills a major role. It brings all the players in the patient care continuum closer together, by allowing them to access and collaborate on all of the patient’s imaging studies, no matter where they are. When you have connected hospitals, with one investment in XERO Viewer, clinicians can view, upload and share images, with a natural user experience. XERO Viewer becomes a natural part of the EHR experience, and it puts images where they belong – at the heart of healthcare.”



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\* Pending 510(k) clearance in the U.S. Not available in Canada.

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