

VA



U.S. Department
of Veterans Affairs



Extended Reality Playbook

VHA XR Network
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Disclaimer: No VA endorsement of products or companies is intended by the content in this Playbook.



What is Extended Reality?



Extended Reality (XR) is an inclusive term for augmented reality (AR) and virtual reality (VR). While there are examples of AR use in VA, VR is currently the most common form of XR in use with Veterans and staff.

Augmented Reality (AR): the real world with a digital overlay. The real world is central, with the digital overlap enhancing the experience (ex. [Medivis](#), [GigXR](#)).

Virtual Reality (VR): there's no interaction with the real world. The user is fully enclosed in the virtual experience. The *most* immersive (see [Diffusion Marketplace XR Community](#)).



VHA XR Network's **Introductory Guide to**

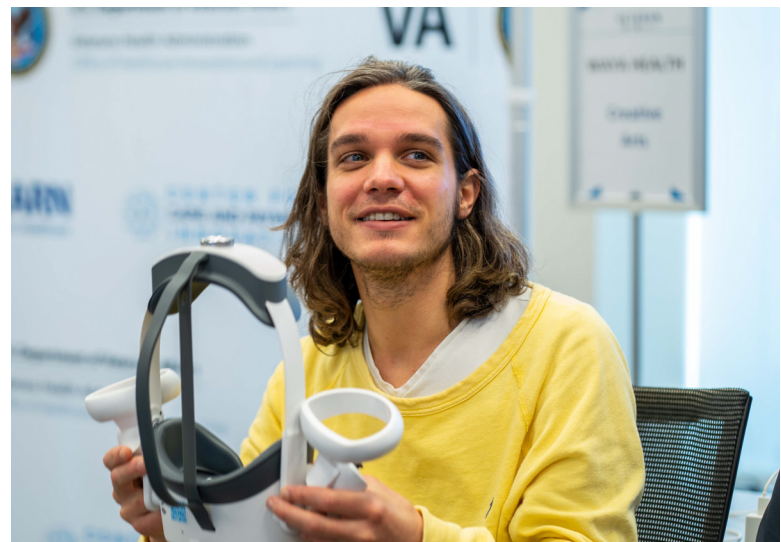
Extended Reality (XR) includes further descriptions of the two. VR is still the most common patient-facing immersive technology in VA, though there are examples of AR use. Currently, AR is most often used for employee-facing training. If you have more questions, don't hesitate to [reach out](#).





What is the VHA XR Network?

The VHA Office of Healthcare Innovation and Learning established the VHA Extended Reality (XR) Network to share resources, lessons learned, successes, and failures. Since its inception, the VHA XR Network has enlisted VA facilities, frontline staff, and administrators across the country in conversations and efforts related to XR use in VA. To date, VHA XR Network has launched numerous multi-site pilots assessing XR use cases such as falls risk assessment, neurological risk assessment, pain management, anxiety, PTSD, physical and occupational therapy, creative arts therapy, and employee education; with Center for Development and Civic Engagement, facilitated donation of XR equipment to more than 35 VA sites; and created a thriving Community of Practice and other community gatherings.



A Good Place to Start

Often, those interested in collaborating with VA ask about opportunities to present to VA staff. The following are examples of potential opportunities for presentation:

XR for Veterans and VA (General Use)

Not currently open for external presentations

4th Wednesday of every month, 1-2pm ET

XR and Mental Health

2nd Tuesday of every month, 11am-12noon ET

XR for Employee Well-being

4th Thursday of every month, 1-2pm ET

XR for Pain Management

2nd Thursday of every other month, 2-3pm ET

Bi-Monthly Happy (to talk about XR) Hour

Quarterly, 12-1pm ET

[Let us know](#) if any of these calls interest you or your team.





Determine the Problem

This will help guide your market research and, if you need us, help us help you. Determining who, where, and what you want to impact will help guide software and hardware chosen.

Choose the Right Fit

One place to start is the **Introductory Guide to Extended Reality (XR)**. There is an abundance of XR content in the world and *it changes rapidly!* As you learn and discover, we hope you will share that with the XR Network and help grow the Community.

If you have any questions, please [reach out](#). We can help brainstorm platforms that may suit your needs, help you through the procurement process, share lessons learned, and hear about all the incredible work you are doing!

Identify XR Champions

When considering using XR in direct patient care, we recommend that it be led by individuals licensed and trained to perform patient assessments. Because there are a few precautions and even contraindications with XR, this ensures patient safety.

The champion(s) will be the main points of contact for a particular department or even for the Medical Center or Outpatient Clinic. Once the Champion(s) is/are trained in set up, trouble shooting, Veteran exclusion criteria, and safety, they may also want to multiply themselves by training others.



Procurement, Collaborations & Donations

Procurement

Facilities can use existing funding or special purpose funding to purchase XR hardware and software or a combination platform. Don't hesitate to [reach out](#) if you are interested in connecting with a particular vendor, need examples of procurement/contracting documents, or guidance, etc.

Phases/Timeline of Contracting	
Requirement Definition	i.e., Determined Actionable
Market Research	5-7 Days
Solicitation	10-20 Days
Evaluation	5-10 Days
Award	4-6 Days

1. If the XR device will be used to collect VA Sensitive Data, you will need to complete VA Form 6500 and have an ISSO and Privacy Officer sign off on the form.
2. Once a contract is awarded, the process will begin for actual acquisition and delivery of hardware/software.
3. Once on station, devices must be entered into Enterprise Equipment Request (EER) and seen by biomed. They *may* also need to be evaluated by OIT and/or others. This can be approached on a case-by-case basis, based on system requirements.
4. **Total: 24-43 Days once pkg deemed ACTIONABLE** (see table)





Pilots

Through the VHA XR Network, pilots may be available for various use cases. These pilots usually last six (6) months to two (2) years and are typically at no financial cost to the facility.

Donations

An external entity may donate a number of XR devices to a facility, VISN, or the VHA XR Network. In the case that donations are made to the VHA XR Network, communications will be made to the entire Community to gauge interest.

Research Funding

Researchers may apply for grant or other research funding to test and use XR technologies. Any Research funding would be subject to usual Research regulations.



Standard Operating Procedures (SOP) and Other Guidance

The VHA XR Network Teams site has a variety of resources available including:

- o CPRS Templates: *Be sure to obtain verbal consent from a Veteran for using XR.*
- o Cleaning instructions
- o Step-by-step guide for new XR programs
- o Consent for taking photos/videos and/or using quotes from Veterans, caregivers, and/or other employees: (VA Form 10-3203)

Templates and Outcome Measures

To understand the usability, feasibility, and benefits of the XR program you are implementing, it helps to track outcomes and/or use. There are many CPRS Templates (and Cerner templates in process) available that can be shared between Clinical Application Coordinators via VISTA. If you don't see a template for the use-case you are planning for, [let us know](#).

Additionally, clinicians may utilize validated questionnaires regarding use and barriers. Some sites use a short questionnaire before and after use to determine

differences in pre- and post-XR metrics (e.g., pain intensity, anxiety, depression, etc.). These measures can help demonstrate the added value to help encourage buy-in from all stakeholders (Think: future support and funding!).

If your XR program will be employee-facing, documentation may not be necessary. Though data collection may still be helpful.



Creating Encounters

For Veteran-facing programs, encounters may be required as part of the clinician's typical visits or may be required in areas where encounters are not normally entered by clinicians (i.e., inpatient areas).

If utilizing XR as a mode of Complementary and Integrative health (CIH) modalities, it may be beneficial to require encounters under a clinic for the modality provided for national "credit."

If using XR in an area where encounters are required for patient interactions, continue to use the same encounter process that may be supplemented by specific note titles and/or health factors signifying use of VR (reminder: Health factors are currently only available for VR specifically).





Training

The majority of platforms are intuitive and require minimal guidance. Mostly, clinicians need to be aware of any particular precautions and contraindications to use. Every facility should have a plan for ensuring clinicians are trained on these safety considerations.

IT

Different devices have different requirements. We are currently working with OI&T to get devices and software approved for VA network connectivity where it's necessary and/or beneficial.

If you have questions or trouble with connectivity, let us know. Some sites have had success asking their local IT for a mobile hotspot. Additionally, some vendors provide hotspots as a part of standard procurement.

Biomed

It is BioMed's preference to be able to track devices by adding an EE number. Logistics and BioMed at your facility may be able to help navigate this process. If not, [let us know](#).

Security

While XR devices vary in cost, they are resources that must be protected. For security purposes, please keep the device in a locked cabinet, cart, or secured in another way when not in use. RFID or other asset management may also be beneficial in case the device is misplaced. [Reach out](#) more suggestions on how to secure devices.



Screen-Casting

Some of the XR vendors have the option to screen cast. This allows providers to see the same images a Veteran is seeing in real-time. This function is particularly helpful for Veterans who may have initial difficulty with navigating the XR environments, or those with functional and/or cognitive limitations, as it allows the clinician to help guide them.

[Let us know](#) if you'd like to learn more about screen-casting, as it varies device-to-device and platform-to-platform.

VA Video Connect (VVC) and At-Home Use

Currently, most facilities using XR across VHA are using XR on-site. Soon, we hope to see more at-home use. We are in the process of engaging key stakeholders at the National level to develop a smooth pathway for at-home use.

Can XR be used for VVC?

Not yet, but we are working on that too! For Veterans to be sent home with or shipped XR devices, a facility, VISN, or national policy must be in place to cover responsibility for the loan of VA-owned equipment as well as lay out the procedure for forms to sign, shipping, inventory management, and training.

If you are interested in using XR for Veterans at home as a supplement to VVC visits and/or if you have interest in helping create these pathways, [let us know](#)!



Thank you!

Thank you for being excited about implementation of XR! We believe in developing a culture of innovation within VHA, and this technology has endless possibilities.

Please keep us updated on progress and let us know if we can help you overcome barriers. Also, we love sharing and

highlighting successes through various platforms, both internal and external to VA! If you are interested in sharing your work, either via a presentation or through written communication, [let us know!](#)