



# HSPC | Sandbox

**Building and Testing SMART on FHIR Apps with HSPC Sandbox 2019**

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# Objectives

- Understand HSPC mission
- Review HSPC developer resources
- Gain experience in HSPC sandbox platform\*

\* Assume basic familiarity with of FHIR, SMART on FHIR, CDS Hooks

# HSPC Members

- **Benefactors:** Veteran's Administrations, Intermountain Healthcare, Louisiana State University Health
- **Associates:** Vigilanz, Motive, Regenstrief Institute, Allscripts, Cerner, OSEHRA, PCPI, JCS

# OUR MISSION

Improve health by creating a vibrant, open ecosystem of interoperable platforms, applications, and knowledge assets.

# OUR VISION

Be a provider-led organization that accelerates the delivery of innovative healthcare applications that improve health and healthcare.

# OUR GOALS

- Support **reliable sharing of a variety of knowledge content** to support clinical decisions and processes
- Provide a **Vendor Neutral Marketplace** for healthcare
- Create **standards based models and terminology** that support **semantic interoperability**
- **Support conformance and certification testing** to ensure true semantic interoperability

# The HSPC Developers Program



You build amazing health apps. We've got the tools to help.



# HSPC | Developers



## HSPC Developers Portal

The resources needed to jump start any health app project: guides, tutorials, code samples, open source libraries, dev forums, etc.



## HSPC Sandbox

A personal instance of a SMART on FHIR platform in the cloud, complete with tools and sample data to help developers build and test health apps



## HSPC Gallery

HSPC's Gallery shows off some of the best SMART on FHIR applications. Browse or even take them for a spin with our live demo feature.



# HSPC Sandbox Platform

## Free FHIR Server

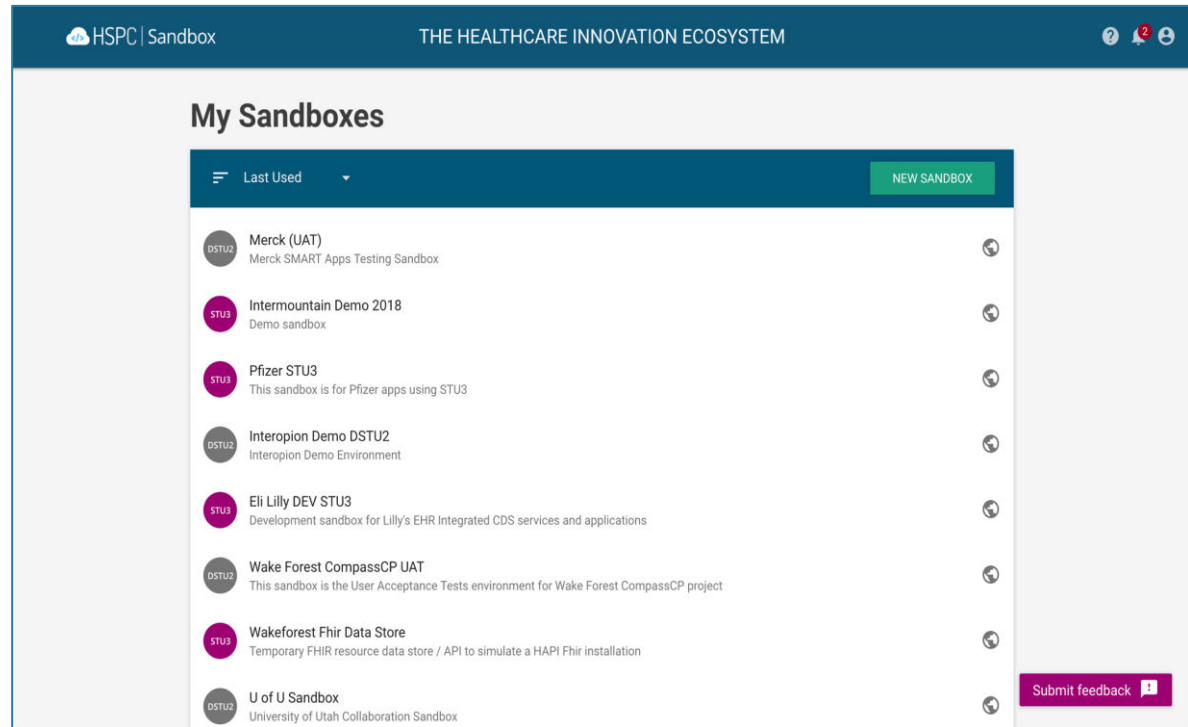
Sandboxes are available with personal DSTU2, STU3, and R4 FHIR Servers for development and testing that are free and on-demand.

## Tools and Simulators

Build your app quickly and easily with our SMART Launch Tool and EHR Simulator. Add CDS Hooks with our CDS Hooks sandbox integration.

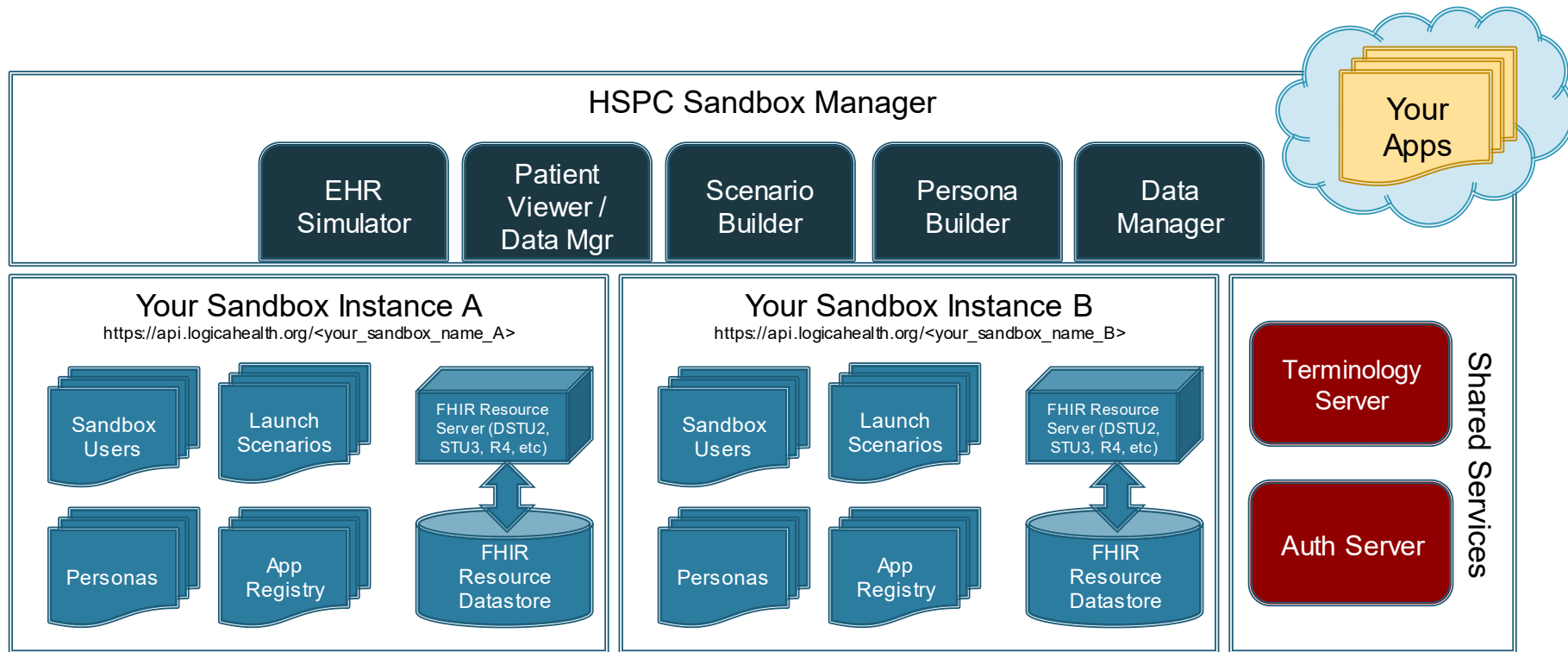
## Teams and Collaborations

Invite others to join your sandbox to share your FHIR data and your app registrations.



The screenshot displays the HSPC Sandbox Platform interface. At the top, the header includes the HSPC logo, the text "HSPC | Sandbox", and "THE HEALTHCARE INNOVATION ECOSYSTEM". On the right side of the header, there are icons for help, notifications, and user profile. The main content area is titled "My Sandboxes" and features a "Last Used" dropdown menu and a "NEW SANDBOX" button. Below this, a list of sandboxes is shown, each with a colored circular icon indicating its type (DSTU2 or STU3), a title, and a brief description. The sandboxes listed are: Merck (UAT) - Merck SMART Apps Testing Sandbox; Intermountain Demo 2018 - Demo sandbox; Pfizer STU3 - This sandbox is for Pfizer apps using STU3; Interopion Demo DSTU2 - Interopion Demo Environment; Eli Lilly DEV STU3 - Development sandbox for Lilly's EHR Integrated CDS services and applications; Wake Forest CompassCP UAT - This sandbox is the User Acceptance Tests environment for Wake Forest CompassCP project; Wakeforest Fhir Data Store - Temporary FHIR resource data store / API to simulate a HAPI Fhir installation; and U of U Sandbox - University of Utah Collaboration Sandbox. A "Submit feedback" button is located in the bottom right corner of the interface.

# Platform Architecture



# Sandbox

- Fully functional FHIR server, data manager, app launcher
- Vendor-neutral reference implementation environment
- Not appropriate for production use
- Support non-PHI data only (no HIPAA support)
- Limited support, no SLA

# Concept definitions

- **Sandbox User** – actor who has account on the HSPC platform and has access to sandbox environments
- **Persona** - fictional EHR user who launches an application (practitioner or patient)
- **Launch Scenario** – repeatable app launch context that encapsulates a persona, patient(s) context, and a specific app

# Demo of HSPC Sandbox Platform



 HSPC | Sandbox

2905

Users

1251

Sandboxes

# HSPC Web Resources

- Website: [hspconsortium.org](https://hspconsortium.org)
- Developer Website: [developers.hspconsortium.org](https://developers.hspconsortium.org)
- Sandbox: [sandbox.hspconsortium.org](https://sandbox.hspconsortium.org)

# Questions

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