# Public Test Servers

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## Introduction

This page lists FHIR servers that are publicly available for testing. These are public services provided by volunteers and HL7 makes no representations concerning their safety or reliability.

In order to avoid spam etc., the servers are generally password protected. A contact is provided to get a password.

BTW: List of publicly available test data (some of these test servers preload some of this data):

- [Base: What is in the specification]
- [Smart on FHIR test data]

For servers specifically for Connectathons see Connectathon Test Servers.

## Status

The status of publicly available FHIR servers is monitored using UptimeRobot at [https://stats.uptimerobot.com/9DArDu1Jo](https://stats.uptimerobot.com/9DArDu1Jo). If you would like a publicly available FHIR server added to the UptimeRobot status page, email [Sean McIlvenna](mailto:1).

## Servers

Note that these servers are testing servers. They may be sporadically unavailable, and as the FHIR specification is a moving target, they may not always implement the latest version, or do so correctly.

  - Supports all resource types, all operations, xml + json
  - Implementation details: open source - see [2]
  - Supports Smart on FHIR

- HSPC Sandbox
  - [http://sandbox.hspconsortium.org](http://sandbox.hspconsortium.org)
  - Free DSTU2 and STU3 open sandboxes with tools for managing data. Both personal and team sandboxes available.
  - Supports both open and SMART on FHIR OAuth2 access
  - Supports app registration for SMART on FHIR apps
  - Supports all resource types, all operations
  - [http://hspconsortium.org/](http://hspconsortium.org/)
  - [https://healthservices.atlassian.net/wiki/display/HSPC/Healthcare+Services+Platform+Consortium](https://healthservices.atlassian.net/wiki/display/HSPC/Healthcare+Services+Platform+Consortium)

- Firely Server (formerly Vonk) - .NET based FHIR Server by Firely
  - Demo servers
    - Stable
      - This test instance runs on MongoDB and therefore can do batch but not transaction. (Transactions are supported on SQL Server.)
      - [https://server.fire.ly](https://server.fire.ly) (STU3 + R4)
    - SMART on FHIR + Bulk Data Export
      - [https://sql.server.fire.ly/](https://sql.server.fire.ly/)
      - See [https://fire.ly/ebook-how-to-test-firely-server-on-inferno/](https://fire.ly/ebook-how-to-test-firely-server-on-inferno/) on how to interact with the authorization server.
    - Experimental
      - [https://labs.server.fire.ly/](https://labs.server.fire.ly/) (Including R5 support)
    - Functionality
      - Generic FHIR Server, for all types of resources, all search parameters, xml + json
      - Supports validation (for example: POST /Patient/$validate, with a Patient resource in the body) and many plugins.
    - Download your own instance - More information - Documentation

- HAPI FHIR Reference Server
  - Supports all resources and many FHIR features including Subscriptions, Terminology Services, etc.
  - Fully open source (Apache 2.0 License)
  - Project information: [http://hapifhir.io](http://hapifhir.io)
  - Endpoints:
    - Web UI: [http://hapifhir.org](http://hapifhir.org)
    - DSTU2 Endpoint: [http://hapifhir.org/baseDstu2](http://hapifhir.org/baseDstu2)
    - STU3 Endpoint: [http://hapifhir.org/baseDstu3](http://hapifhir.org/baseDstu3)
    - R4 Endpoint: [http://hapifhir.org/baseR4](http://hapifhir.org/baseR4)
• R5 Endpoint: http://hapi.fhir.org/baseR5

• Bulk Data Reference Server
  • Supports FHIR Bulk Data Access Implementation Guide
  • Fully open source (Apache 2.0 License)
  • Project information: https://smarthealthit.org/smart-h7-bulk-data-access-flat-fhir/
  • R4 Endpoint: https://bulk-data.smarthealthit.org/

• Spark - Open source test server developed by Firely, maintained by Kufu.
  • C# reference implementation, WebApi 2.0 library, Mongo DB for storage and search.
  • The service endpoint is at https://spark.incendi.no/.
  • Supports DSTU 2, STU3, R4.
  • Supports all resource types, all operations, xml + json
  • Open source: [3]

http://nprogram.azurewebsites.net - Rik Smithies/NProgram test server (STU 3)
  • patient, organization, diagnostic report, read only, xml + json (C#)
  • DSTU 2 here http://fhir-dstu2-nprogram.azurewebsites.net/

  • read-only implementation, C#, self-host web server, SQL Server DB - Facade on CIS
  • R4: 'Medical Director CIS' http://demo.oridashi.com.au:8305
  • STU3: 'Medical Director CIS' http://demo.oridashi.com.au:8298
  • DSTU2: 'Best Practice CIS' http://demo.oridashi.com.au:8290
  • DSTU2: 'Medical Director CIS' http://demo.oridashi.com.au:8291

• Pyro
  • Documentation: https://pyrohealth.net/
  • Pyro Server’s FHIR STU3 endpoint: https://stu3.test.pyrohealth.net/fhir
  • Implementation: Generic STU V3.0.1 FHIR Server, all resource types, .NET (C#), MS SQL or PostgreSQL
  • Supports: All search parameters, _includes, _revincludes, Search chaining, Conditional (Create, Update, Delete), History and Transaction bundles
  • Pyro Server’s FHIR R4 endpoint: https://r4.test.pyrohealth.net/fhir
  • Implementation: Generic R4 V3.5.0 FHIR Server, all resource types, .NET (C#), MS SQL or PostgreSQL
  • Supports: All search parameters, _includes, _revincludes, Search chaining, Conditional (Create, Update, Delete), History and Transaction bundles

https://launch.smarthealthit.org/
  • Open-source app launcher + HAPI-based FHIR server

http://worden.globalgold.co.uk:8080/FHIR_a/hosted_demo.html - Robert Worden / Open Mapping Software
  • Patient resource, read-only
  • Illustrates building a FHIR server on any existing application, any resource, by mapping to the application database
  • Tools to do this now available free, evolving

https://health-samurai.io/aidbox - Health Samurai’s FHIR server as a service with free layer, register and create a new server in 1 click
  • Local development installation by Docker
  • Supports all resource types, all operations, json + xml + edn + transit + yaml, All FHIR versions
  • Based on fhirbase (https://www.health-samurai.io/fhirbase)
  • Supports SQL on FHIR
  • Implementation: PostgreSQL, JVM (clojure), Kubernetes
  • OAuth 2.0, OpenID Connect, SCIM
  • Access Policies
  • Custom Resources & First Class Extensions
  • Terminology Service
  • Extensible with Custom Operations by Aidbox SDK

• Cerner’s Sandbox
  • See our developer / API documentation for the resources that this server supports at http://fhir.cerner.com
  • Supports both open and OAuth 2 access
  • Contact us on our Google group for any issues or access to the OAuth 2 protected endpoints

Endpoints (DSTU2):
  • Open - https://fhir-open.cerner.com/dstu2/28f2-1e24-41c8-b71b-0e701af7583d
  • With OAuth 2 Provider access - https://fhir-ehr-code.cerner.com/dstu2/28f2-1e24-41c8-b71b-0e701af7583d
  • With OAuth 2 Patient access - https://fhir-myrecord.cerner.com/dstu2/28f2-1e24-41c8-b71b-0e701af7583d

Endpoints (R4):
  • Open - https://fhir-open.cerner.com/r4/28f2-1e24-41c8-b71b-0e701af7583d
  • With OAuth 2 Provider access - https://fhir-ehr-code.cerner.com/r4/28f2-1e24-41c8-b71b-0e701af7583d
  • With OAuth 2 Patient access - https://fhir-myrecord.cerner.com/r4/28f2-1e24-41c8-b71b-0e701af7583d

http://open.epic.com/Interface/FHIR - Epic’s Sandbox
  • Supports a subset of resource types, read-only
  • Runs against a functional Epic database
  • Includes online test harness for quick syntax checking
  • Contact open@epic.com for more information

• AEGIS WildFHIR - resource repository data has been reset with the FHIR spec example resources as of 6:30pm ET June 26 2020
  • R4 Official v4.0.1 - http://wildfhir4.aegis.net/fhir4-0-1
    • Test client interface: http://wildfhir4.aegis.net/fhir4-0-1-gui
    • Supports the FHIR R4 Official (v4.0.1) version
• Supports all resource types and standard operations, including batch, validate and json/xml patch, excluding transaction; search supports chained parameters, include and revinclude; support for conditional read/update/delete, create/update return preference and _summary parameter

• STU3 Official v3.0.2 - http://wildfhir3.aegis.net/fhir3-0-2
  • Test client interface: http://wildfhir3.aegis.net/fhir3-0-2-gui
  • Supports the FHIR STU3 Official (v3.0.2) version
  • Supports all resource types and standard operations, including validate and json/xml patch, excluding transaction; search supports chained parameters; support for conditional read/delete, create/update return preference and _summary parameter

• DSTU2 Official v1.0.2 - http://wildfhir2.aegis.net/fhir1-0-2
  • Test client interface: http://wildfhir2.aegis.net/fhir1-0-2-gui
  • Supports the FHIR DSTU2 Official (v1.0.2) version
  • Supports all resource types and operations, including validate, excluding transaction; support for conditional read, create/update return preference

• Telstra Health http://sqlonfhir-r4.azurewebsites.net/fhir - Telstra Health
  • Supports all resource types, but not all operations
  • .NET (C#) implementation on SQL Server Azure
  • great support for Questionnaires, and some SDC capabilities

• http://health.gnusolidario.org:5000 GNU Health FHIR server
  • Supports read, validate and search for Patient, DiagnosticReport, Practitioner, Procedure, Observation, Condition, FamilyHistory
  • DSTU1
  • A Flask app. It's connected to the GNU Health community server database. Consequently, it's possible to create and update patients, doctors, etc. through the GNU Health frontend and the changes should be reflected on the FHIR server (indirect write support, I suppose).
  • I think our goal is to use the FHIR server as an adapter for non-GNU Health EHRs and users, since we already have synchronization between instances. But, there are other interesting possibilities, too.
  • I’m updating the code frequently and it’s still in the dev stages (e.g., adding new resources frequently).
  • Documentation is here: https://en.wikibooks.org/w/index.php?title=GNU_Health/Using_the_FHIR_REST_server

• https://stu3.ontoserver.csiro.au/fhir - CSIRO’s Ontoserver - STU3 (FHIR 3.0.1)
• https://r4.ontoserver.csiro.au/fhir - CSIRO’s Ontoserver - R4 (still in beta)
• Supports Terminology Services
• CodeSystem, ValueSet, ConceptMap, StructureDefinition, and Bundle with read, create, update, delete, search
• $expand, $lookup, $validate-code, $validate, $closure, $translate, and $batch
• Specialised support for SNOMED CT, and LOINC

• http://fhir.i2b2.org/open/ i2b2 FHIR server - DSTU21
  • Supports read and search for Patient, Observation, Condition, Medication
  • DSTU21
demo calls see: http://fhir.i2b2.org
• Connected to demo server at https://www.i2b2.org/webclient/

• https://tw171.open.allscripts.com/FHIR - Allscripts Touchworks Sandbox (OAuth)
  • DSTU 2.0 (v1.0.2) version of FHIR
  • Supports the resource types required for the Common Clinical Data Set, currently read-only
  • Supports OAuth validation
  • Supports SMART on FHIR
  • Runs against Allscripts Touchworks 17.1 test server
• Please review our developer / API documentation at https://developer.allscripts.com/Content/fhir/content/Pro171_Sandbox/
• Contact Jeffrey Danford for more information about this endpoint
• Contact Gunther Meyer for OAuth setup

• https://pro171.open.allscripts.com/FHIR - Allscripts Professional Sandbox (OAuth)
  • DSTU 2.0 (v1.0.2) version of FHIR
  • Supports the resource types required for the Common Clinical Data Set, currently read-only
  • Supports OAuth validation
  • Supports SMART on FHIR
  • Runs against Allscripts Professional 17.1 test server
• Please review our developer / API documentation at https://developer.allscripts.com/Content/fhir/content/SCM163CU3_Sandbox/
• Contact Jeffrey Danford for more information about this endpoint
• Contact Gunther Meyer for OAuth setup

  • DSTU 2.0 (v1.0.2) version of FHIR
  • Supports the resource types required for the Common Clinical Data Set, currently read-only
  • Supports OAuth validation
  • Supports SMART on FHIR
  • Runs against Allscripts Sunrise 16.3 CU3 test server
• Please review our developer / API documentation at https://developer.allscripts.com/Content/fhir/content/SMC163CU3_Sandbox/
• Contact Jeffrey Danford for more information about this endpoint
• Contact Gunther Meyer for OAuth setup

• http://twdev.open.allscripts.com/FHIR - Allscripts STU3 Sandbox (OAuth)
  • STU 3.0 (v1.8.0) version of FHIR
  • Supports the resource types required for the Common Clinical Data Set, currently read-only
  • Supports OAuth validation
  • Supports SMART on FHIR
  • Runs against Allscripts Touchworks 17.1 test server
• Please review our developer / API documentation at https://developer.allscripts.com/fhir
http://52.72.172.54:8080/fhir/home - Michigan Health Information Network (open)
- 1000s of realistic test patient records

- DSTU2, read-write for most resources
- STU3, read-write for most resources
- R4, read-write for most resources
- Open DSTU2 end-point: https://fhir.careevolution.com/apitest/fhir
- Protected (SMART-on-FHIR) DSTU2 end-point: https://fhir.careevolution.com/Master.Adapter1.WebClient/api/fhir
- Protected (SMART-on-FHIR) STU3 end-point: https://fhir.careevolution.com/Master.Adapter1.WebClient/api/fhir-stu3
- Protected (SMART-on-FHIR) R4 end-point: https://fhir.careevolution.com/Master.Adapter1.WebClient/api/fhir-r4
- All three endpoints support bulk data export

http://fhir.nestvision.com (NestVision, a Chinese medical IT company, for Chinese implementers)
- NEST-FHIR: a free FHIR testing platform. Functionality starts with client conformance testing against a FHIR STU3 server, via any rest extensions on chrome browser, and will become a full functional testing platform later.

- FHIR STU3 v1.8
- JSON and XML
- The SMART Genomics API is built on top of SMART on FHIR

Kaji - https://kaji.healthforge.io
- Supports STU3
- General purpose server supporting all resources, most search parameters, xml & json
- Tech stack: Scala, PostgreSQL, Kubernetes

- Promotes HL7 FHIR development in Vietnam

- Basic authentication: username = Connectathon, password = Connectathon_052020
- FHIR R4
- JSON and XML
- Terminology server with terminologies SNOMED CT, LOINC, EDQM Standard Terms, all FHIR-defined code systems ...
- Support ECL for SNOMED CT
- Resources: CodeSystem, ValueSet, ConceptMap, NamingSystem, TerminologyCapabilities
- Interactions: read, vread, update, delete, create
- Common parameters: _id, _profile, _security, _text, _content, _list, _format, _query, _filter
- Common search parameters: _lastUpdated, _has, _type, _id
- Common search result parameters: _sort, _count, _include, _revinclude
- Operations on CodeSystem (GET & POST): lookup, validate-code, subsumes
- Operations on ValueSet (GET & POST): expand, validate-code
- Operations on ConceptMap (GET & POST): translate, closure

NLM's HAPI FHIR servers (reset weekly):
- https://lforms-fhir.nlm.nih.gov/baseR4
- 4.7 million Observations from 2048 patients (deidentified): tag: "ri-10k"
- Also has generated data and sample resources from FHIR

Helios FHIR Server
- http://r4.heliossoftware.com/fhir - open sandbox
- Supports R4 read and write for all FHIR Resource types
- JSON and XML support
- Helios Software

Meld Sandbox
- https://meld.interop.community/
- Supports DSTU2, STU3, R4 and will support R5 in the future
- Sandboxes can be created, and shared with other users
- It supports SMART on FHIR applications and registration
- It supports both open and closed endpoints using Oauth 2.0
- https://interop.community/

Edifecs FHIR Server
- Supports R4
- Supports SMART on FHIR flow
- Supports OAuth 2.0
- Details and first steps: contact artem.sopin@edifecs.com to get the document

- **Optum:**

- **UPMC (FHIR R4 Server):**
  - https://www.upmchealthplan.com/interop/ (sign-up and information)

- **Athenahealth:**
  - Onboarding Instructions with public sandbox https://docs.athenahealth.com/api/guides/onboarding-overview
  - List of supported FHIR APIs https://docs.athenahealth.com/api/fhir-apis?f=fhir
  - Support for DSTU2 and R4
  - Support for SMART on FHIR (standalone and EHR launch)