

Article

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Create FHIR REST Client

Add a credential to login the FHIR REST interface - in this case only consider a basic authentication

The screenshot displays the InterSystems Management Portal interface. The top navigation bar includes the InterSystems logo, the title 'Management Portal', and user information: 'Server CNVMKLAU10', 'Namespace KLDEMO', 'Switch', 'User kate', 'Licensed To Sales Engineers_Adv.Server_IAM', and 'Instance II'. Below the navigation bar, a 'Welcome, kate' message is shown next to a 'View:' toggle. The main content area features a left-hand navigation menu with icons and labels for 'Home', 'Health', 'Analytics', 'Interoperability' (highlighted with a red box), 'System Operation', 'System Explorer', and 'System Administration'. To the right of the 'Interoperability' menu item is a sub-menu with options: 'Configure' (highlighted with a red box), 'Build', 'View', 'List', 'Monitor', 'Manage', 'Interoperate', and 'Test'. Further to the right is a list of system components, each with a circular icon: 'Production', 'Production EXTensions Components', 'Business Partners', 'Credentials' (highlighted with a red box), 'Schedule Specs', 'Data Lookup Tables', 'System Default Settings', 'Purge Data Settings', 'Enterprise Systems', 'Public-Service Registry' (highlighted with a grey background), 'External-Service Registry', and 'Message Bank Link'.

The screenshot shows the InterSystems Management Portal interface. At the top, there is a navigation bar with the InterSystems logo, the text "Management Portal", and links for Home, Health, About, Help, and Logout. A "Menu" button is in the top right. Below the navigation bar, a status bar displays: Server CNVMKLAU10, Namespace KLDEMO, User kate, Licensed To Sales Engineers_Adv.Server_IAM, and Instance IRISHEALTH. The main content area is titled "Interoperability > Credentials" and "Credentials Viewer". On the left, a text box explains that credentials are authorization keys for connecting to external systems and that the table shows currently defined credentials. In the center, a table lists credentials with columns for ID, User name, Password, and Business Partner. The "IRIS_FHIR" credential is highlighted. On the right, a form for editing the "IRIS_FHIR" credential is shown, with fields for ID, User Name, Password, and Business Partner. The form is highlighted with a red border. Below the form are "New", "Save", and "Remove" buttons.

InterSystems
IRIS Data Platform

Management Portal

Home Health About Help Logout

Menu

Server CNVMKLAU10 Namespace KLDEMO [Switch](#) User kate Licensed To Sales Engineers_Adv.Server_IAM Instance IRISHEALTH

Interoperability > Credentials

Credentials Viewer

Credentials are your authorization keys to connect to systems and applications outside IRIS.

The table shows all the credentials currently defined for this namespace. You can use the form on the right to create, edit, or delete credentials.

ID	User name	Password	Business Partner
HS_Services	HS_Services	xxx	
IRIS_FHIR	kate	xxx	
mssql	sa	xxx	

ID
IRIS_FHIR
Identifier for this item

User Name
kate
User name used to connect to external system

Password
Password hidden. Click to enter new password
Password used to connect to external system

☐ Show typing

Business Partner
Name of Business Partner Profile associated with this item
[Business Partners Configuration Page](#)

New Save Remove

Add Service Registry - in this case only consider a basic authentication

- setup a HTTP service
- input the Path to the FHIR Server
- input the URL to the FHIR service
- use the credential profiled



Server CNVMKLAU10 **Namespace** KLC

Welcome, kate



Home



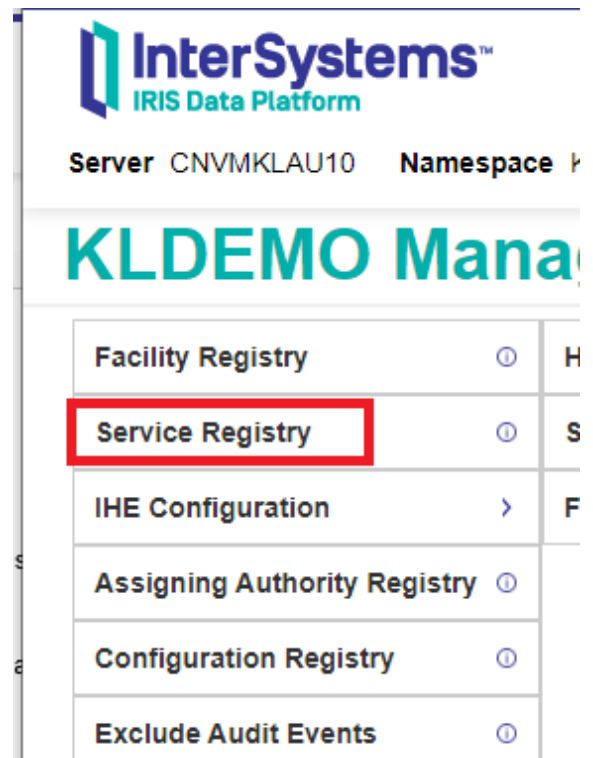
Health



Analytics



Interoperability



The screenshot shows the "Add Service" dialog box. The "Name" field is set to "FHIRRepoExt" and is highlighted with a red box. The "Service Type" dropdown is set to "HTTP" and is also highlighted with a red box. The "Type Specific Settings" section contains several fields: "Host" is set to "http://localhost/" and "Port" is set to "52773", both highlighted with a red box; "URL" is set to "http://localhost:52773/MyEndpoint/r4" and is highlighted with a red box; "HTTPCredentialsConfig" is set to "IRIS_FHIR" and is highlighted with a red box. The "Save" button at the bottom right is also highlighted with a red box. A note at the bottom left states "* indicates required field".

Add a "HS.FHIRServer.Interop.HTTPOperation"

InterSystems Management Portal

Server: CNVMKLAU10 | Namespace: KLEMO | User: kate | Licensed To: Sales Engineers_Adv.Server_IAM | Instance: IRISHEALTH

Interoperability > Production Configuration - (KLEMO.PKG.FoundationProduction)

Production Configuration

Start Stop

Sort: Name | Status | Number | View: [List View]

Production Running

Services | Processes | Operations **Click here**

BUSINESS OPERATION WIZARD
Add a new Business Operation to this Production.

All Operations | HL7 Output | X12 Output | Workflow

Operation Class: HS.FHIRServer.Interop.HTTPOperation

Operation Name: HS.FHIRServer.Interop.HTTPOperation

Display Category: [Dropdown]

Comment: [Text Area]

Enable Now ☒

Cancel OK

Choose the Service Name

Home | Health | About | Help | Logout | Menu

IRISHEALTH

Sort: Name | Status | Number | View: [List View]

Legend | Production Settings | Operations

HS.FHIRServer.Interop.HTTPOperation

Settings | Queue | Log | Messages | Jobs | Actions

Apply

Search: [Text Box]

Class Name: HS.FHIRServer.Interop.HTTPOperation

Description: This business operation takes a FHIRServer Interop request, formulates a FHIRServer HTTP RestClient object and invokes an HTTP request using the client object.

Adapter Class Name: [Text Box]

Adapter Description: [Text Box]

Business Partner: [Dropdown]

Basic Settings

Enabled ☒

ServiceName: FHIRRepoExt

Pool Size: 1

Additional Settings

Schedule: [Text Box]

Pool Size: 1

HS.FHIRServer.Interop.HTTPOperation

Test the FHIR Client

The screenshot displays the InterSystems Developer Workbench interface for configuring a FHIR REST client. The top navigation bar includes a search icon, sorting options (Name, Status, Number), and view toggles (List, Grid, Split). The main content area is divided into two panes. The left pane, titled 'Production Settings', shows a list of operations under the 'Operations' tab, with 'HS.FHIRServer.Interop.HTTPOperation' selected and highlighted by a red box. The right pane, titled 'HS.FHIRServer.Interop.HTTPOperation', contains several tabs: 'Settings', 'Queue', 'Log', 'Messages', 'Jobs', and 'Actions'. The 'Actions' tab is highlighted by a red box. Within the 'Actions' tab, there are two main sections. The first section, labeled 'Test', contains a 'Test' button and the text 'Test this item', both highlighted by a red box. The second section, labeled 'Start', contains a 'Start' button and the text 'Start this item if temporarily stopped'.

HS.FHIRSERVER.INTEROP.HTTPOPERATION
Production KLTCREST.TestProduction

Request Type: HS.FHIRServer.Interop.Request

Request Details

HSMInVersion:	
HSCoreVersion:	
%ClearFields:	
Request TimestampUTC:	2023-03-13 03:25:56
Request SessionApplication:	
Request RequestMethod:	GET
Request RequestPath:	/Patient/RN000000223
Request QueryString:	
Request IsRecursive:	<input type="checkbox"/>
Request BaseURL:	
Request IfNoneMatch:	
Request IfModifiedSince:	
Request IfMatch:	
Request IfNoneExist:	
Request Prefer:	JSON
Request RequestFormatCode:	JSON
Request ResponseFormatCode:	
Request SessionId:	
QuickStreamId:	

Invoke Testing Service

Test Results

Cancel OK

Trace the test result

HS.FHIRSERVER.INTEROP.HTTPOPERATION

Production KLTCREST.TestProduction

Request Type: HS.FHIRServer.Interop.Request

☒ Request Details

☒ Test Results

Session Id: 54 [Visual Trace](#)
Request Sent: 2023-03-13 14:43:57.043
Response Received: 2023-03-13 14:43:58.875

HS.FHIRServer.Interop.Response

<ObjectId>	27
HsMinVersionError	
HsCoreVersion	
Response.Json	
Response.Status	200 OK
Response.ResponseFormatCode	JSON
Response.ETag	
Response.LastModified	
Response.Location	
Response.Id	
Response.VId	
Response.IsPrettyOut	
QuickStreamId	T2
CharSet	UTF-8
ContentType	application/fhir+json

Cancel OK

VISUAL TRACE

Session ID: 54 [Legend](#) [Printable Version](#) Go to Items 1-3 Items per page 40 Show events ☒ Show internal items ☐ Apply Filter None Previous Page Next Page Previous Session Next Session

Services	Processes	Operations
EnsLib.Testing Service	EnsLib.Testing Process	HS.FHIRServer.Interop HTTPOperation

Visual Trace diagram showing a sequence of events: (1) 2023-03-13 14:43:57.043 (Initial Request), (2) 2023-03-13 14:43:57.058 (Request), and (3) 2023-03-13 14:43:58.875 (Response). The 'Request' event is highlighted with a red box.

Header Body Contents

View Full Contents View Raw Contents

Expand All

```
<?xml version="1.0" ?>
<!-- type: HS.FHIRServer.Interop.Request id: 25 -->
<Request xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Request>
    <TimestampUTC>2023-03-13T03:42:26Z</TimestampUTC>
    <RequestMethod>GET</RequestMethod>
    <RequestPath>/Patient/RN000000223</RequestPath>
    <IsRecursive>false</IsRecursive>
    <Username>kate</Username>
    <Roles>$all, $DB_HSCUSTOM, $DB_HSLIB, $HS_DB_HSSYS, $HS_DB_KLIMPORT</Roles>
    <RequestFormatCode>JSON</RequestFormatCode>
    <ResponseFormatCode>JSON</ResponseFormatCode>
  </Request>
</Request>
```

VISUAL TRACE

Session ID: 54 [Legend](#) [Printable Version](#) Go to Items 1-3 Items per page 40 Show events ☒ Show internal items ☐ Apply Filter None Previous Page Next Page Previous Session Next Session

Services	Processes	Operations
EnsLib.Testing Service	EnsLib.Testing Process	HS.FHIRServer.Interop HTTPOperation

Visual Trace diagram showing a sequence of events: (1) 2023-03-13 14:43:57.043 (Initial Request), (2) 2023-03-13 14:43:57.058 (Request), and (3) 2023-03-13 14:43:58.875 (Response). The 'Response' event is highlighted with a red box.

Header Body Contents

View Full Contents View Raw Contents

Expand All

```
<?xml version="1.0" ?>
<!-- type: HS.FHIRServer.Interop.Response id: 27 -->
<Response xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Response>
    <Status>200 OK</Status>
    <ResponseFormatCode>JSON</ResponseFormatCode>
  </Response>
  <QuickStreamId>T2</QuickStreamId>
  <CharSet>UTF-8</CharSet>
  <ContentType>application/fhir+json</ContentType>
</Response>
```

[#Business Operation](#) [#FHIR](#) [#Interoperability](#) [#REST API](#) [#InterSystems IRIS for Health](#)

Source URL: <https://community.intersystems.com/post/create-fhir-rest-client>