

UMA Implementations

This page gathers information about implementation efforts and interest, along with interoperability testing plans. Maciej Machulak is the UMA group's implementation coordinator. Key existing implementations that we know about are noted below, in alphabetical order of the project or organization.

- [ForgeRock](#)
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ForgeRock

UPDATED The company [ForgeRock](#) (also at [@ForgeRock](#)) has an [Identity Platform](#) that includes an [implementation of UMA 2.0](#), with both an "UMA Provider" (authorization server component) and an "UMA Protector" (resource server component), targeted at individual consent and data sharing use cases. The case studies [Users Managing Delegated Access to Online Government Services](#) and [Aggregating and Sharing Pension Information](#) were based on POCs performed with earlier versions of the ForgeRock Identity Platform.

Gluu

The company [Gluu](#) (also at [@GluuFederation](#)) hosts the OXAuth open-source project, to which it has contributed an [UMA component](#). The main use case for this implementation is enterprise usage; see the [Enterprise UMA case study](#), the March 2014 "UMA for the Enterprise" [webinar slide s](#) and [recording](#), [Gluu's UMA page](#), and its [YouTube channel](#) for more info.

Gluu has also implemented a crowdfunded [Apache server plugin](#) that enables web apps in an Apache container to be UMA-protected.

Gluu has also proposed an "OX UMA claim profile"; for more information, see the [Third-Party Profiles](#) page.

HIE of One

The [HIE of One open-source project](#) is run by Michael Chen, MD and Adrian Gropper, MD. It implements an UMA V1.0.1 authorization server, and supports dynamic client registration for resource servers and clients. HIE of One serves as an OpenID Connect relay to other OIDC services, such as Google and Twitter. This authorization server is meant to be deployed as a single instance per patient (user). It is licensed through GNU AGPLv3. Support information is available at the [distro link](#).

HIE of One acts as a Health Information Exchange service but under control by the patient themselves. It is coupled in the same root domain URL with a resource server that acts as a patient-centered health record (NOSH ChartingSystem), although they are two separate projects. HIE of One allows the patient to control user-managed access to her resources served by NOSH ChartingSystem using a specific RESTful API (FHIR) for health-related information. This allows other third-party applications to take advantage of the patient's health-related information in a secure and privileged manner, governed by the user and not by another third party.

HIE of One is not in production at this time; fully working code is in GitHub and is used for current demonstration of how HIE of One is coupled with NOSH ChartingSystem for the above functionality.

This implementation leverages third-party OAuth and OpenID Connect implementations Google OAuth2, Twitter OAuth2, and [mdNOSH](#) (this is for demo purposes for physician single-sign-on, not federated).

Jericho Systems

In 2015 the company [Jericho Systems](#) announced a product, [Consentral on FHIR](#), with UMA support; it also performed a [Privacy on FHIR demonstration](#) with UMA support.

MITREid Connect

The open-source [MITREid Connect project](#) has [UMA support](#).

RedHat KeyCloak

RedHat's [KeyCloak](#) authorization services offering includes partial [UMA1](#) support, and the project is working on including full [UMA2](#) support as of June 2017.

SMART project (non-healthcare-related)

This older Java implementation includes an [UMA/j](#) framework and sample applications. See the [SMART blog](#). The OAuth portion, originally named [leeloo](#), was contributed to Apache Amber (now Apache [Oltu](#), which is going to include OpenID Connect and good JWT support too). Part the SMART project involves development of set of open-source Python libraries, called [Puma](#), for UMA-enabling web apps to become UMA resource servers and clients. Note that this SMART project is distinct from the [SMART health IT](#) initiative.

Synergetics

The company [Cloud Identity Limited](#) (since acquired by [Synergetics](#)) developed an UMA Authorization Server - [NuveAM \(Online Demo\)](#). NuveAM implements the UMA protocol and supports other open standards including OAuth 2.0, OpenID Connect, and SAML 2.0. The company also developed Java and Python SDKs. More information is on the company's website and the company's [YouTube channel](#). The company integrated UMA with its [NuveLogin](#) service to simplify the flow for Resource Server and Client applications.

Telia

The Telia telecom company has an [identity solution](#) that provides [UMA support](#).

Universidad de Alcalá Telematic Services Engineering Group

This Python implementation, part of the European Union-funded project [SITAC](#), focuses on IoT use cases. See a video [here](#).