



# **InCommon Basics and Participating in InCommon**

A Summary of Resources

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# **InCommon Basics**

# Federated Identity Management Checklist

This document lists the *minimum (marked with an \*)* and *recommended* policy, process, and technical steps required to implement Federated Identity Management and operate within the InCommon Federation. You may use the checklist to assess your organization's readiness for implementation and to serve as a checklist for those tasks that remain to be completed.

Most sections of the checklist have three parts: policy steps, business practice steps, and technical steps. Each batch of steps is sequential.

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## Identity Provider: Identity Management Preparation

### Policy Steps

**\* Review InCommon Participant Operating Practices (POP) document to familiarize yourself with the policies your organization will need in joining a federation**

All InCommon members must maintain online versions of their operating practices, so it is easy to find samples that can help your organization (such as these:

<http://its.lafayette.edu/about/policies/InCommonPoP>,

<http://www.cit.cornell.edu/identity/InCommon.html>). Reviewing these sites first will help familiarize you with the policies you will need to address and demonstrate later.

**Ensure basic identity management policies are in place, including data stewardship and acceptable use policies**

Outside service providers to whom you provide identity information may have questions about your institution's acceptable user and data stewardship policies and how these compare with their requirements. If you plan to provide federated services to the InCommon community, these questions are especially important as they will let others from outside your network understand policies that relate to their use of your organization resources.

**\* Define policies related to single sign-on (SSO) and authentication**

These policies are of interest to your service providers in the federation, but they also give good information for informing your users of identity risks and best practices. To address these policies, your organization will need to answer questions such as "How long is a sign-on valid (1 hour? until a web browser closed?)?"

**\* Define and publish account creation and termination policies**

“What defines a *user* for your organization?” is a question of key interest to service providers. Organizations to which your institution provides identity are likely to want to know the steps your institution uses to establish and create user identity (e.g. What identification does your organization require? How accounts are removed—when a student graduates or leaves, is the student’s account removed immediately? In 1 month?). Service providers may ask for information about account creation, termination or provision in order to ensure your organization’s compliance with licensing, published or federation policies, etc. It is a best practice to be explicit about what verification your institution is able to do.

**Define policies on log retention for identity management and provision**

In relation to the previous policy areas, especially account creation and termination and identity management, service providers may request information related to your logs. Your organization may need to develop policies related to the retention of logs and their use.

**\* Join InCommon**

See <http://www.incommonfederation.org/join.cfm> for more information.

**Business Practice Steps**

**\* Provision/de-provision accounts for your users (faculty, staff, and students) based on published policies**

Before you provide identity to outside providers, your organization needs to ensure compliance with its published policies. Have accounts been terminated which are supposed to have been terminated?

**Create problem resolution process for when users forget or lose passwords**

As with the authentication problems, your organization likely has such processes, and these should be checked against any policies set above.

**Create Help Desk support procedures for authentication problems and password changes**

Your organization probably already has such procedures, but it is best to check these again against the policies in the above steps.

**\* Create a process to address reports of abuse**

**\* Post your InCommon Participant Operating Practice (POP).**

For more information, see the identity provider portion of [http://www.incommonfederation.org/docs/policies/incommonpop\\_20080208.html](http://www.incommonfederation.org/docs/policies/incommonpop_20080208.html).

**Technical Steps**

**\* Install/operate/manage the identity provider package of a SAML federating software system such as Shibboleth**

If you intend to use Shibboleth, the see <https://spaces.internet2.edu/display/SHIB2/Installation> for detailed installation, configuration and operation instructions.

# Identity Provider: Identity Attribute Provisioning

## Policy Steps

Many organization/data stakeholders will need to understand federating and its impact on the institution, the service portfolio, related issues, and risks. Governance is typically required for ensuring proper data use and federated access is no exception. For example, if a new service provider emerges asking for certain information on service consumers, how can those who want to take advantage of this service determine if this release of information is within organization policies?

### **\* Identify who governs the decision to release attributes**

Organizations need to have a way to decide which attributes (is this person a student? In what year of studies is this student?) are released to service providers and for what purposes. Often, this function also oversees compliance issues for government and other policies.

### **Develop policy governing use of your attributes by service providers such as attribute retention, sharing, etc.**

Organizations should proactively develop and publish policies for service providers on what they will do with identity attribute information once provided. In addition, many schools have developed standard contract language for this to ensure policy adherence.

### **Consider setting up tiers or groups of attribute release policies for different categories of service providers**

Identifying groups of service providers (library content providers, for instance) and related attribute release constraints can help streamline the governance process for approval.

## Business Practice Steps

### **\* Identify who is responsible for editing/implementing the attribute release policies**

This process should reflect the policies above, and in particular specify how they are carried out.

### **Define process a service provider would use to request attributes and the process used to respond to the request**

This will happen with new providers and can also happen with new services from existing providers. Who should the provider contact? Who reviews these requests? This process generally implements the policies above.

### **Define process to follow when a service provider requests an attribute that is not currently available as defined by the policy above**

This process should implement the policies in the 'Policy Steps' section above.

### **\* Define problem escalation procedure if identity information is released in conflict with organization policies**

For example, if the wrong attributes are sent to a service provider, when does your organization notify users? Does your institution make a request to the service provider of some kind?

## Technical Steps

### **\* Extend directory and/or person registry schemas if needed to support eduPerson**

A federation, such as InCommon, require a common data schema to facilitate the passing of identity-related information (attributes) from identity to service providers for access. InCommon requires the support of eduPerson data schema. For this step, familiarize yourself with the eduPerson data schema at <http://middleware.internet2.edu/eduperson/>.

You can choose to support these attributes by storing them in your directory or database. If using Shibboleth, the software can also look up a local attribute in your directory and send it as an eduPerson attribute, if you configure it that way. Each attribute in eduPerson does not have to be populated. The ones that are most commonly used at this point are `eduPersonScopedAffiliation`, `eduPersonAffiliation`, and `eduPersonPrincipalName`.

### **\* Configure the identity provider attribute resolver for the appropriate sources**

Ensure that your organization's identity provider software is providing attributes according to the policies defined above and as needed by the service providers. The attribute resolver in Shibboleth, for example, gets the attributes from your data source (such as a directory or database), performs operations that you specify to ensure that the attribute conforms to your policies and the federation technical and data schema specifications.

### **\* Configure the identity provider to release the right attribute(s) to your service providers**

Newly defined attributes are not released to service providers until you define an attribute filter policy for it. Such policies describe which service providers, under which conditions, receive which attributes. See the Shibboleth 2 documentation wiki on this topic at <https://spaces.internet2.edu/display/SHIB2/IdPAddAttributeFilter> for more information.

## Service Provider Preparation

### **Policy Steps**

#### **\* Review InCommon Participant Operating Practices (POP) document to familiarize yourself with the policies your organization will need in joining a federation**

All InCommon members must maintain online versions of their operating practices.

See

[http://www.incommonfederation.org/docs/policies/incommonpop\\_20080208.html](http://www.incommonfederation.org/docs/policies/incommonpop_20080208.html) for more information.

#### **\* Determine which services you would like to offer to the InCommon Community**

##### **Who will be accessing your service for what purpose?**

Determine audience and risk for each offered service and related requirements

How will you decide whether they are eligible or not to use the service?

What kind of assurance of the user's identity will you require from the accessing organizations?

**Develop policy governing the use of attributes received by SPs such as attribute retention, sharing, etc.**

Will you keep the identity attribute information that identity providers send to you and if so, for how long?

**Ensure your policies are in compliance with the federation requirements**

Check the InCommon site to ensure your policies are in compliance with the current federation requirements.

## **Business Practice Steps**

**Identify who is responsible for managing the federated access to your service(s)**

**\* Identify what attributes you will require from partnering identity providers for access to your service. Determine which services are eligible to receive which attributes.**

It's best to go with common practice as much as possible. You can review InCommon's attribute overview at <http://www.incommonfederation.org/attributes.html>.

**\* Ensure you have a defined problem resolution process for remote users**

If a user has a problem accessing your service, where will they get help?

**\* Define problem escalation and support procedure for IdP users of your service(s)**

If you have a break in service, how will you let your partners know? If you find one or more users abusing your service, how will you contact their home organization?

**\* Define process IdPs would use to request services and the process used to respond to the request**

**\* Post your InCommon Participant Operating Practice (POP).**

For more information, see the service provider portion of [http://www.incommonfederation.org/docs/policies/incommonpop\\_20080208.html](http://www.incommonfederation.org/docs/policies/incommonpop_20080208.html).

## **Technical Steps**

**\* Install/operate/manage SAML Service Provider Federating software such as Shibboleth**

**\* Connect services to be federated to the federating software and enable them to use the incoming attributes to control access**

If the application that you are federating doesn't support the federating software, you will have to do some programming work to enable it to use the sent attributes. A growing number of applications, though, support Shibboleth so check [shibboleth.internet2.edu](http://shibboleth.internet2.edu) or send a note to the Shibboleth Users list to find out about integrated versions.

**\* Add service provider information to the federation metadata**

**\* Configure service provider software to use federation metadata and credentials and refresh when required**

**Document how your SP could authorize users given the provided attributes**



**Document how your application could use the supplied attributes in alternative ways, such as for customization or form completion**

# InCommon FAQ

## About InCommon

The mission of the InCommon Federation is to create and support a common framework for trustworthy shared management of access to on-line resources in support of education and research in the United States. To achieve its mission, InCommon will facilitate development of a community-based common trust fabric sufficient to enable participants to make appropriate decisions about the release of identity information and the control of access to protected online resources. InCommon is intended to enable production-level end-user access to a wide variety of protected resources.

## What is InCommon?

InCommon is a formal federation of organizations focused on creating a common framework for collaborative trust in support of research and education. InCommon makes sharing protected online resources easier, safer, and more scalable in our age of digital resources and services. Leveraging SAML-based authentication and authorization systems, InCommon enables cost-effective, privacy-preserving collaboration among InCommon participants. InCommon eliminates the need for researchers, students, and educators to maintain multiple, password-protected accounts. The InCommon federation supports user access to protected resources by allowing organizations to make access decisions to resources based on a user's status and privileges as presented by the user's home organization.

## What are the benefits of joining of InCommon?

InCommon supports web-based distributed authentication and authorization services, an example of which is controlled access to protected library resources. Participation in InCommon means that trust decisions regarding access to resources can be managed by exchanging information in a standardized format. Using a standard mechanism for exchanging information provides economies of scale by reducing or removing the need to repeat integration work for each new resource.

Since access is driven by policies set by the resource being accessed, higher security and more granular control to resources can be supported. Reduced account management overhead is another benefit, since users can be authenticated and access resources from the home institution and no longer need separate accounts to access particular resources. InCommon is operated by Internet2 to provide consistency and participant support.

## InCommon and User Identity

InCommon also preserves privacy since the home institution controls when identity is disclosed. Information can be exchanged about authorized user access, without having to disclose the identity of the user unless both sides agree it's needed.

## What is a federation?

A federation is an association of organizations that use a common set of attributes, practices and policies to exchange information about their users and resources in order to enable collaborations and transactions.

## Who can currently join InCommon?

There are two primary categories of federation participation in InCommon: Higher Education Institutions and their Sponsored Partners. To learn more about the

eligibility criteria and the processes for joining, visit our join page.

### **What is required to join InCommon?**

Organizations applying to join InCommon must agree at an executive level of their organization to the terms and conditions of federation participation (legal framework and federation policies), which include documenting an organization's practices and procedures used to grant and manage user accounts. Contacts for the organization must be official representatives and will be verified as such. There are also technical requirements to support InCommon's federated authentication model. For more details on the Shibboleth software, please see the question on Shibboleth below.

Being accepted into InCommon is a two-step process. The first step is to complete the InCommon agreement, identifying the person who will act as the Executive Liaison to InCommon. After the participation agreement has been signed by both parties, a registration process will verify the designated Executive and Administrators for the organization, after which the organization will be able to register its systems in the federation. For more information on this process, see the join page.

### **How do I prepare for InCommon?**

Organizations that are eligible to join InCommon may consider testing with Shibboleth to gain familiarity with federation technology, concepts, and requirements. As described on the join page, the first step in participation is to review and submit a signed participation agreement. The NMI-EDIT Consortium has some excellent resources available on planning, which among other resources includes two excellent roadmaps: The Enterprise Directory Implementation Roadmap and The Enterprise Authentication Implementation Roadmap ([www.nmi-edit.org](http://www.nmi-edit.org)).

### **What is Shibboleth?**

Shibboleth software enables the sharing of Web resources that are subject to access controls such as user IDs and passwords. Shibboleth leverages institutional sign-on and directory systems to work among organizations by locally authenticating users and then passing information about them to the resource site to enable that site to make an informed authorization decision. The Shibboleth architecture protects privacy by letting institutions and individuals set policies to control what type of user information can be released to each destination. For more information on Shibboleth please visit <http://shibboleth.internet2.edu/>.

# Joining InCommon

## 1. Are You Eligible?

Participation in InCommon is open to:

1. **Higher Education** – Two- and four-year, degree-granting academic institutions that are accredited by a U.S. Department of Education Regional Institutional Accrediting Agency
2. **Sponsored Partners** – Business, education, and research organizations who partner with higher education may join the Federation as Sponsored Partners. Sponsored Partners must be sponsored by the designated Executive of a current InCommon Higher Education Institution.

## 2. Send Us the Agreement (and Sponsor Letter)

If you are eligible, send us a signed copy of the InCommon Participation Agreement by postal mail, email or fax. This agreement also designates your trusted Executive (we will identity-proof this person for security), and is signed by an authorized representative of your organization.

If you are applying as a Sponsored Participant, InCommon must receive a sponsorship letter from a current InCommon higher education institution.

## 3. Register for Your Executive and Administrator for Identity Verification

After your Agreement has been executed and you are in our system:

1. Designate individuals to fill InCommon-related roles and submit their names during registration.
  - Administrator (we will identity-proof this person for security)
  - Billing Contact (recorded but not identity-proofed)
  - Executive: You will have already appointed your Executive in the agreement.
2. Register: InCommon will send you a secure Registration URL in email after we receive your signed agreement. (A fee paid by credit card is required.)
3. Post your Participant Operational Practices (POP) [WORD] on your organization's website. (After the registration process is complete, your Administrator will submit your POP URL to InCommon.)
4. Review InCommon policies and practices.

## 4. Confirmation via Telephone

Our Registration Authority will identity-proof your Executive and Administrator via telephone appointment. After this step, your Administrator will be given access the site administration interface for registering and managing your systems for interoperability within the federation.

## **5. Planning and Implementing Identity and Access Management**

The NMI-EDIT Consortium provides excellent resources available on planning which, among other resources, includes two detailed roadmaps: The Enterprise Directory Implementation Roadmap ([http://www.nmi-edit.org/roadmap/dir-roadmap\\_200510/index-set.html](http://www.nmi-edit.org/roadmap/dir-roadmap_200510/index-set.html)) and the Enterprise Authentication Implementation Roadmap (<http://www.nmi-edit.org/roadmap/draft-authn-roadmap-03/>).

The Shibboleth system is addressed on the Shibboleth website (<http://shibboleth.internet2.edu>) and detailed on the Shibboleth documentation wiki (<https://spaces.internet2.edu/x/mgM>).

For library resources, the InC-Library Collaboration has published a set of best practices on their wiki (<https://spaces.internet2.edu/display/inclibrary/Best+Practices>).

# Getting Help

## Corporate Consulting and Support

During 2010, InCommon is piloting an Affiliate Program, designed to connect InCommon participants with those providing federation-related products, services and consulting. Colleges and universities, for example, may be interested in help as they get started with InCommon or Shibboleth.

As the federation grows, InCommon has received an increased number of inquiries about services or consultants available to help with both the policy and technical implementation requirements. The Affiliate Program provides a bridge between the commercial or non-profit organizations that provide software, content, guidance, support, and implementation and integration services related to federation participation.

Proceeds from the program provide funding for the federation's ongoing programs, including outreach, collaboration activities, educational offerings, research and development, and technical operations.

Current InCommon Affiliates include:

- Unicon, Inc. – a leading provider of IT consulting services for the education market, including implementation support for Shibboleth.
- AegisUSA – an identity management solution provider that has developed a Federated Identity Appliance for Education that provides turnkey infrastructure for joining and participating in InCommon.
- Microsoft – a new Affiliate familiar to all campuses as a provider of software and identity management services and systems.

Details on the services available from these companies are available at <http://www.incommon.org/affiliate>.

## Community Support: Email Lists

InCommon operates a number of email lists, both for general information and help, as well as lists for specific topics and collaboration groups. A list of available email lists is at <https://lists.incommon.org/sympa/lists>. To subscribe to a list, send email to [sympa@incommon.org](mailto:sympa@incommon.org) with this message in the subject line: subscribe ListName FirstName LastName (e.g. subscribe inc-cert Joe Doaks).

**InCommon-Announce:** An announcement-only email list with news and informational items about InCommon, as well as the means to distribute a monthly email newsletter.

**InCommon-Participants:** A list to discuss collaboration and implementation issues related to InCommon.

**InC-Cert:** An announcement-only email providing updates and information on the progress of the InCommon Certificate Service.

**InC-Ops-Notifications:** This email list is used by InCommon Operations to send important notifications about modifications to the metadata generation system,

service interruptions, and any other important technical announcements as they occur. All official InCommon Site Administrators are automatically subscribed to this list as a requirement to participation in InCommon services.

There are other lists related to the InCommon collaboration groups, including InC-Student, InC-Library, the U.S. Federations group, and others. For information, see <https://lists.incommon.org/sympa/lists>

**Shibboleth Email Lists** provide forums for discussing development and user topics, as well as learning about the latest news. To subscribe, send an e-mail to [sympa@internet2.edu](mailto:sympa@internet2.edu) with the following message in the subject: subscribe ListName FirstName LastName (e.g.: subscribe shibboleth-announce Chris Jones)

- **Shibboleth-Announce**  
Used by the Shibboleth team to distribute news about Shibboleth and federations. This low-traffic list is also used by the Shibboleth team to distribute Security Advisories.
- **Shibboleth-Users**  
Used for discussion of Shibboleth deployment issues.  
NOTE: if you are new to Shibboleth, start with this list.
- **Shibboleth-Dev**  
Used for discussion of Shibboleth development issues.

# Additional Resources

Links to many of the documents below can be found on the InCommon website at [www.incommon.org](http://www.incommon.org) and the Shibboleth website at [shibboleth.internet2.edu](http://shibboleth.internet2.edu). For information on development activities, refer to [middleware.internet2.edu](http://middleware.internet2.edu). For more information on identity management, refer to [www.nmi-edit.org](http://www.nmi-edit.org).

## Getting Started with InCommon

The InCommon website ([www.incommon.org](http://www.incommon.org)) is your primary resource for background, as well as policy documents, education and outreach activities, collaboration groups and technical information.

Policies and Practices: The policies and practices page (<http://www.incommonfederation.org/policies.cfm>) includes the InCommon participation agreement, fee schedule, POP template, Federation operating policies, information about attributes, and information about InCommon governance.

## Getting Started with Shibboleth

**The Shibboleth website** is the primary source for software, documentation, and deployment information. Refer to the Info Centers for management-related and technical implementation information. <http://shibboleth.internet2.edu>

**Read These First:** If you are just getting started with Shibboleth, go to the "Get Started with Shibboleth" page (<http://shibboleth.internet2.edu/get-started.html>) and also download the Shibboleth Deployment Checklist (<http://shibboleth.internet2.edu/shib-checklist-final-website.pdf>).

## Getting Started with Identity Management

- **Enterprise Directory Implementation Roadmap** describes a process campuses can use to work through the technology, business practice, and policy issues associated with deploying an enterprise directory and initial identity management services. <http://www.nmi-edit.org/roadmap/directories.html>
- **Enterprise Authentication Implementation Roadmap (Draft)** offers a project framework and related resources for deploying authentication services, including technical, management, and policy concepts. <http://www.nmi-edit.org/roadmap/authentication.html>
- **EDUCAUSE Identity Management Working Group** offers ongoing discussion and networking with peers via email along with related resources. <http://www.educause.edu/cg/idm>



# **Participating in InCommon**

# InCommon Policies and Practices

The documents listed below comprise the policies and practices under which the InCommon Federation and Participants operate. These documents should be reviewed prior to submitting an application. For eligibility questions, please refer to the join InCommon page (<http://www.incommon.org/join.cfm>). Documents are listed in the recommended order of reading. Policies and practices for InCommon are overseen by the InCommon Steering Committee.

## **Participation Agreement:**

<http://www.incommonfederation.org/docs/policies/participationagreement.pdf>

## **Fee Schedule** (also in the participation agreement):

<http://www.incommonfederation.org/fees.html>

## **Participant Operational Practices**

[http://www.incommonfederation.org/docs/policies/incommonpop\\_20080208.html](http://www.incommonfederation.org/docs/policies/incommonpop_20080208.html)

Each participant's POP outlines its Identity Management and/or Service system(s). Service Providers will use the POP to determine their level of trust for assertions from each participant. Identity Providers will evaluate each Service's privacy policies and attribute collection and use policies. Participant POP statements must be publicly posted on a website. The URLs for participant POPs are available to all Administrators via the secure administrative interface.

## **Federation Operating Policies and Practices**

<http://www.incommonfederation.org/docs/policies/incommonfopp.html>

The FOPP describes the activities and systems of the InCommon Federation. A paper on further risk assessment is also available at

[http://www.incommonfederation.org/docs/policies/risk\\_assessment.html](http://www.incommonfederation.org/docs/policies/risk_assessment.html).

## **Changing Your Site Administrator or InCommon Executive**

<http://www.incommonfederation.org/roles.html>

When you change your executive contact for InCommon, we need information in writing (this can be emailed). There is a template for a letter (which must be on your institution's letterhead) at:

<http://www.incommonfederation.org/docs/policies/ExampleExecLetter.doc>

## **InCommon Assurance Profiles**

<http://www.incommonfederation.org/assurance>

InCommon is moving toward additional assurance profiles (including Silver), which will meet requirements for SPs with applications needing higher security, additional identity proofing, or other such needs.

## **InCommon Attributes**

<http://www.incommonfederation.org/attributessummary.html>.

InCommon supports eduPerson Schema attributes. For more information, see the InCommon Attribute overview page at

<http://www.incommonfederation.org/attributes.html>.

# Technical Requirements and Information

## Supported Software

Organizations participating in InCommon must install and operate software systems that can interoperate with other participants. See the software guidelines for information on recommended software:

<http://www.incommonfederation.org/ops/softguide.html>.

## InCommon Deployment

The bulk of the work of configuring a Shibboleth IdP or SP is not specific to the federation(s) you are participating in, but there are various steps involved in making your deployment "InCommon-aware" once it's up and running. To get started, visit the Technical Guide on the InCommon Collaboration wiki:

<https://spaces.internet2.edu/display/InCCollaborate/Technical+Guide>.

Shibboleth installation guides and general support:

<http://shibboleth.internet2.edu/support.html>.

Shibboleth Deployment Guide for The Ohio State University:

<https://webauth.service.ohio-state.edu/%7Eshibboleth/>.

## Testing the Identity Provider

The best way to test the installation of your IdP is to also install the SP and run it yourself, using it to verify your system. If you want to run an IdP, you need to be able to control the SP and view the logs for troubleshooting purposes. Testing with Remote SPs is never a viable substitute.

You can even register such SPs in InCommon, if you like, and essentially use the exact same approaches as you will with outside SPs. Once installed, you can test your Identity Provider configuration by visiting the InCommon Test Service web page (<https://service1.internet2.edu/test/>), which runs the Shibboleth 2.x SP and supports SAML 1.1 and SAML 2.0. If you want to test with an external site, you can go to the Internet2 spaces wiki (<http://spaces.internet2.edu>), find your IdP on the WAYF and log in.

## Testing the Service Provider

There are at least two ways to test your Service Provider. They are documented at [http://www.incommonfederation.org/test\\_SP.html](http://www.incommonfederation.org/test_SP.html).

## Participant Operating Practices

Federation participants must provide InCommon with a link to their practices as described in the Participant Operating Practices (POP).

## Your EntityID

Getting ready to start the federating process? The technical guide on the InCommon-Collaborate wiki provides important information about things to consider concerning your EntityID:

<https://spaces.internet2.edu/display/InCCollaborate/Technical+Guide>.

## Registering Your Systems in Federation: Metadata

It's fairly simple to activate a resource (SP) or identity management system (IdP) in the federation. All Participants' Administrators (as designated by your Executive) have access to the site admin management interface:

<https://service1.internet2.edu/siteadmin/manage>.

**Self-Signed Certificates:** InCommon accepts self-signed certifications. For more information, see the wiki page on X.509 certificates:

<https://spaces.internet2.edu/display/InCCollaborate/X.509+Certificates+in+Metadata>.

**Data for SPs:** Entity ID, Assertion Consumer Service Endpoints: Type (post/artifact) and URL; KeyName; and Contacts (support, technical, administrative).

**Data for IdPs:** Error URL; URL and KeyName for Single Sign On Service; URL and KeyName for Attribute Service; and Contacts (support, technical, administrative)

For detailed information on InCommon metadata and the InCommon WAYF ("Where Are You From?") service, please see the Metadata page at

<http://www.incommonfederation.org/metadata.html>.

### Identity Attributes

For information regarding the attributes InCommon recommends, please visit the Attributes page: <http://www.incommonfederation.org/attributes.html>.

# Sponsoring Partners into InCommon

If you are a partner of a higher-education institution, you must have a current InCommon higher education participant sponsor your participation. The sponsoring institution's designated InCommon Executive must send to InCommon, via email or postal mail, a sponsorship letter as suggested below, including the Sponsored Partner's homepage URL and the name of their Executive-level contact. We use this information to cross-reference the Partner's application and to begin the identification and authentication steps necessary to validate the organization and its trusted officers. If you need assistance finding a sponsor, contact us.

## Template for Minimal Sponsorship Letter

To: [incommon-admin@incommonfederation.org](mailto:incommon-admin@incommonfederation.org)

[InCommon, c/o Internet2, 1000 Oakbrook Dr, Suite 300, Ann Arbor, MI 48104]

Dear InCommon,

[Sponsored Partner] is currently involved in providing resources to the higher education, research and education community. I believe this service provider will be an InCommon Federation participant in good standing and submit their name and URL below.

PARTNER EXECUTIVE CONTACT NAME

[HTTP://SPONSORED\\_PARTNER'S\\_URL](http://SPONSORED_PARTNER'S_URL)

Sincerely,

[InCommon Executive Liaison]

## Sample Sponsorship Letter

Dear InCommon,

SAMPLE University entered into a business relationship with PARTNER in 2007 to use their web-based resource to support individualized instruction in IT topics to faculty, staff, and students. We want to use our identity management system to leverage their product. In addition, we are currently engaged in a project with PARTNER that will allow our students to access digital versions of textbooks published by PARTNER in a way that leverages our identity management system. For both of these products we want to be able to provide access either directly by end users or via our course management systems. In order to accomplish our goals with both of these services, we would like to sponsor PARTNER to join InCommon.

Our PARTNER:

Ms. JANE EXECUTIVE

PARTNER INC.

[HTTP://URL\\_OF\\_PARTNER](http://URL_OF_PARTNER)

Sincerely,

Dr. Executive

Vice Provost, Information Technology

SAMPLE University