From Transparency to Practice: InCommon Baseline Expectations

TNC 2019
Get collaboration ready

- Protect collaboration resources
- Support high value resources
- Enable basic collaboration

Reduce risk

- Standard MFA request/response
- Identity assurance info

Release “Research & Scholarship” attributes

Basic security
- Accurate & complete metadata for good user experience

Service Providers implement
Identity Providers implement
Everybody implements
InCommon’s **Baseline Expectations** program

**Dimensions**
- Security
- Privacy
- Transparency/Accountability
- User Experience

**Processes**
- Community Consensus
- Community Dispute Resolution

**Participation Agreement** requires everyone to adhere to Baseline Expectations

*Mostly, it consists of tons of communication and help*
Community Consensus

1. Raise an issue on technical-discuss@incommon.org or participants@incommon.org

2. Community Trust and Assurance Board (CTAB) facilitates discussion, calling in subject matter experts, stakeholders, and others

3. Achieve rough consensus
Community Dispute Resolution

Three stage process to resolve disputes or concerns between a Concerned Party and Participant

First Stage
Peer-to-Peer

Second Stage
InCommon Operations Assisted

Third Stage
CTAB Formal Review
Identity Provider (IdP) Baseline Expectations

1. The IdP is operated with organizational-level authority
2. The IdP is trusted enough to be used to access the organization’s own systems
3. Generally-accepted security practices are applied to the IdP
4. Federation metadata is accurate, complete, and includes site technical, admin, and security contacts, MDUI information, and privacy policy URL
Service Provider (SP) Baseline Expectations

1. Controls are in place to reasonably secure information and maintain user privacy

2. Information received from IdPs is not shared with third parties without permission and is stored only when necessary for SP’s purpose

3. Generally-accepted security practices are applied to the SP

4. Federation metadata is accurate, complete, and includes site technical, admin, and security contacts, MDUI information, and privacy policy URL

5. Unless governed by an applicable contract, attributes required to obtain service are appropriate and made known publicly
Federation Operations Baseline Expectations

1. Focus on trustworthiness of their Federation as a primary objective and be transparent about such efforts

2. Generally-accepted security practices are applied to the Federation’s operational systems

3. Good practices are followed to ensure accuracy and authenticity of metadata to enable secure and trustworthy federated transactions

4. Frameworks that improve trustworthy use of Federation, such as entity categories, are implemented and adoption by Members is promoted

5. Work with relevant Federation Operators to promote realization of baseline expectations
How did we decide which first step to take for Baseline?
We need a sustainable process to guide the continued evolution of Baseline.

InCommon Federation has over 760 participating organizations and nearly 5,000 entities. Affecting change in a large consensus driven community takes time. We need to build-in a repeatable process to guide the ongoing development and maturing of Baseline requirements as needs evolve.
We needed to set achievable goals for everyone.

InCommon is built on consensus and voluntary adoption. This is the first time in InCommon’s 15 year history where the community is setting mandatory requirements.

Institutions have varying capabilities. We want everyone to be able to succeed.
We needed better quality contact information.

Over the years, people moved on. Organizations changed. Not all participant organizations still retained institutional knowledge of why they joined InCommon.

Reaching the right contacts in these evolving organizations is in itself a challenge.
What has it taken do Baseline?

First, a few lessons learned:

- This is about community holding itself accountable. The community responded very positively.
- We need to do better at keeping contact information up to date - we had to do quite a bit of institutional archeology. There were lots of digging and outreach just to make organizational and contact updates.
- Our effort was proportional to the number of organizations we needed to reach.
What has it taken do Baseline?

**Preparation**
- Develop Processes

**Phase I**
- Gain community consensus; voluntary adoption

**Phase II**
- Official transition to Baseline Expectations; mandatory enforcement.
What has it taken to do Baseline?

**Preparation** - Develop processes and transition plan

- Baseline Expectations for Trust in Federation
- Community Consensus Process
- Dispute Resolution Process

2016 - mid 2018

~ 700 to 1,000 hours of effort

Led by Community Trust and Assurance Board (CTAB) with InCommon Federation operations and community support
What has it taken to do Baseline?

Phase I - Gain community consensus; voluntary adoption

- Outreach, engagement, education, and consensus building
- Webinars, blogs, and presentations at conferences
- Develop automated monthly Baseline health check; notify non-adhering organizations
- Required (mostly) minimal efforts from participants
- CTAB, Federation operations and broader community working together

2017 - mid 2018

~50% of organizations voluntarily met Baseline Expectations before official transition began

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of organizations voluntarily met Baseline Expectations before official transition began
What has it taken to do Baseline?

**Phase II - Official transition to Baseline Expectations**

- Amended InCommon Participant Agreement to require Baseline Expectations
- Continued webinars, blogs, presentations, and health check notices
- Held open office hours in November and December 2018 to assist with transition
- Side effect: a lot of organizational updates (e.g., company merger) and new admin enrollments

<table>
<thead>
<tr>
<th>Baseline effective date</th>
<th>adherence deadline</th>
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<tbody>
<tr>
<td>June 15, 2018</td>
<td>Dec 14, 2018</td>
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- ~100 hours to modify Federation Manager to enforce Baseline rules
- ~1,500 Hours to individually contact non-adhering organization
How are we doing with the transition?

- **Deadline to meet Baseline Expectations**: 99% completion.
- **Official transition to Baseline**: Direct participant outreach begins.

Graph showing progress with key milestones:
- 13% in February
- 16% in March
- 5% in April
- 5% in May
- 40% in June
- 64% in July
- 51% in August
- 9% in September
- 69% in October
- 87% in November
- 92% in December
- 97% in January '19
- 99% in February '19
- 99% in March '19
- 99% in April '19
- 99% in May '19

Legend:
- % IDP Meets BE
- % SP Meets BE
- % Organizations Meets BE
Get collaboration ready - Next Steps

Long term: will engage community to gauge where we should go

Medium term on roadmap: Should there be an inter-federation “Baseline” to propel international research collaboration?

Heading this way in 2019-20: Sirtfi, error URL, etc.

Done

Protect collaboration resources

Support high value resources

Enable basic collaboration

Reduce risk

Standard MFA request/response
Identity assurance info

Release “Research & Scholarship” attributes

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Accurate & complete metadata for good user experience
“A path is formed by laying one stone at a time.”
-The Giant
Some possible next stones...

1. All federations publish all IdPs in eduGAIN

2. Ensure that all IdPs and SPs consume all entity metadata from *both their local federation and eduGAIN*

3. Maybe an eduGAIN program to ensure that contact information, UI elements and other aspects of metadata are accurate and complete?

What do you think?
Resources

- Baseline Expectations for Trust in Federation website
  https://www.incommon.org/federation/baseline/index.html

- Baseline Expectations for Trust in Federation document
  http://doi.org/10.26869/TI.34.1

- Community Consensus Process
  http://doi.org/10.26869/TI.107.1

- Processes to Maintain Baseline Expectations by InCommon and its Members
  http://doi.org/10.26869/TI.105.2

- InCommon Baseline Expectations: Designing How to Transition the Community
  http://doi.org/10.26869/TI.120.1
What has it taken do Baseline?

**Preparation** - Develop processes and transition plan

- Began in 2016; continuing through mid 2018
- Develop Baseline Expectations for Trust in Federation
- Community Consensus and Dispute Resolution Processes
- Led by Community and Trust Assurance Board (CTAB) with InCommon Federation operations and community support
- Approximately 700 to 1,000 hours of effort
What has it taken do Baseline?

**Phase I** - Gain community consensus; voluntary adoption

- 2017 through mid 2018
- Outreach, engagement, education, and consensus building
- Webinars, blogs, and presentations at Global Summit and TechEx
- Automated, monthly Baseline health check and notice
- Led by Community and Trust Assurance Board (CTAB) with InCommon Federation operations and community support
- Required (mostly) minimal efforts from participants to meet Baseline
- Roughly 50% of organizations voluntarily met Baseline Expectations before official transition began
What has it taken to do Baseline?

**Phase II - Official transition to Baseline Expectations**

- Transition: June 15, 2018
- Amended InCommon Participant Agreement to require Baseline Expectations
- Deadline to meet criteria by December 14, 2018
- Continued webinars, blogs, presentations, and health check notices; office hours in November and December 2018
- 2 consultants, Federation operators, and CTAB members spent 6 months to individually contact non-adhering organization to assist with updates (~1,500 hours)
- Approx 100 hours of effort to modify Federation Manager to enforce Baseline rules
- Plus: a lot of organizational updates (e.g., company merger) and new admin enrollments