Federation Manager:
A Collaboration

Presented By:
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Jonathan Gabel | Developer | Alfa Jango
Mark Donnelly | Director of Engineering | Painless Security
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Introductions

- **Johnny Lasker**
  23 years in IT (previous life as a developer)
  10 years in HEIT (7 years at EDUCAUSE + 3 years at Internet2)

- **Jonathan Gabel**
  12 years in web development
  20 years teaching in higher education

- **Mark Donnelly**
  27 years in IT
  11 years working with IAM in higher education
A Brief History of the Federation Manager

- **2004**: Metadata aggregate (of 8) was assembled via email
- **2007**: Federation Manager ported from Java to Ruby on Rails
- **2014**: Internet2 joined edugain to facilitate interfederation and int'l collaboration
- **2019**: Baseline Expectations v1
- **2021**: Baseline Expectations v2, eduroam migration
- **2023**: Operationalizing Baseline Expectations
InCommon

Federations summary

<table>
<thead>
<tr>
<th>NAME</th>
<th>COUNTRY</th>
<th>ENTITIES</th>
<th>IDP</th>
<th>SP</th>
<th>AA</th>
</tr>
</thead>
<tbody>
<tr>
<td>InCommon Federation</td>
<td>United States</td>
<td>13115</td>
<td>5458</td>
<td>7878</td>
<td>2</td>
</tr>
</tbody>
</table>

https://met.refeds.org/
eduroam in the US
## Extended Federation Manager Team

<table>
<thead>
<tr>
<th>Internet2</th>
<th>Alfa Jango</th>
<th>Painless Security</th>
<th>Unicon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Management</strong></td>
<td><strong>Operations</strong></td>
<td><strong>Architecture</strong></td>
<td><strong>Security</strong></td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td><strong>DevOps</strong></td>
<td><strong>Development</strong></td>
<td><strong>Security</strong></td>
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<tr>
<td><strong>Policy</strong></td>
<td><strong>QA</strong></td>
<td><strong>Maintenance</strong></td>
<td><strong>QA</strong></td>
</tr>
</tbody>
</table>

- IJ Kim
- Nick Lewis
- Nicole Roy
- Albert Wu
- Sara Jeanes
- Angi Sizemore
- John Krienke
- Sally Ricks
- Deianna Tyler
- David Shafer
- Johnny Lasker
- Andrew Scott
- Grant Bierly
- Rebekah Ahrens
- Thomas Pratt
- Romy Bolton
- Mike Zawacki

- Jonathan Gabel
- Julia Iwinski
- Harsh P Biscuitwala
- John Hoinville
- Emily Jeanes

- Mark Donnelly
- Sebastian Ramirez
- Margaret Cullen

- Dominic Martinez
- Steve Erickson
- Ben Quinata
Multiple Lenses

- Operations
- Projects
- Security
- Technical Debt
- Cost
- Timing
- Documentation
- Scalability
How We Work - BOUNDARIES
How We Work - COMMUNICATION
How We Work - VULNERABILITY
How We Work - INVESTMENT
Collaborations: eduroam Migration - 2021

- Federation Manager Hosting move to AWS
- National infrastructure move
- Migration of existing users, organizations, configurations
- IAM platform enrollment, effectively doubling the user population
- Leveraging existing workflows as well as adapting new ones
- Communications, Communications, Communications
eduroam Dashboard

**Service Locations**

<table>
<thead>
<tr>
<th>Name</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Encryption Type</th>
<th>Tags</th>
<th>Number of Aps</th>
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</thead>
<tbody>
<tr>
<td>Harsh's Community</td>
<td>42.2801118</td>
<td>-84.45661109999999</td>
<td>WPA2</td>
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</tr>
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</table>

**Hotspot RADIUS Servers**

<table>
<thead>
<tr>
<th>Friendly Name</th>
<th>Host</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test2</td>
<td>172.168.0.16</td>
</tr>
</tbody>
</table>
Collaborations: Operationalizing Baseline Expectations - 2023

- Standing up AWS SQS messaging
- Periodic and on-demand entity scans
- Endpoint encryption trend data
- URL and Contact health checks
- Scalable, externalized check system
- Enhanced visibility into Federation metadata health
Community Role

• InCommon Technical Advisory Committee (TAC)
  (TAC) provides recommendations relating to the operation and management of InCommon Federation
  with respect to technical issues

• Community Trust and Assurance Board (CTAB)
  CTAB represents the InCommon community in InCommon Federation's trust and assurance related
  programs and initiatives

• Community Architecture Committee for Trust and Identity (CACTI)
  The Community Architecture Committee for Trust and Identity (CACTI) is a standing architecture
  strategy group of community members chartered by Internet2's Vice President for Trust and Identity

• eduroam Advisory Committee (eAC)
  The eAC provides technical guidance to the CACTI

• User feedback
  Support tickets, office hours, community events
QUESTIONS?