OpenID Connect in the R&E World:
What is the State of Play?

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OpenID Connect in the R&E World:
What is the State of Play?

- A strong and rising interest for using OpenID Connect as a protocol for identification and authentication.
- Given this interest, multiple parties in the R&E Trust & Identity area are working on the adoption and the impact that OpenID Connect has.
- Chartering an R&E working group under the OpenID connect Foundation to consolidate and reinforce the work.

Panel Session

- Nathan Dors, University of Washington
- Roland Hedberg, independent
- Niels van Dijk, SURFnet
- Chris Phillips, CANARIE

OpenID Connect in the R&E World
Internet2 Technology Exchange
October 16, 2018

InCommon OIDC-OAuth Deployment Working Group

Nathan Dors, Chair
University of Washington

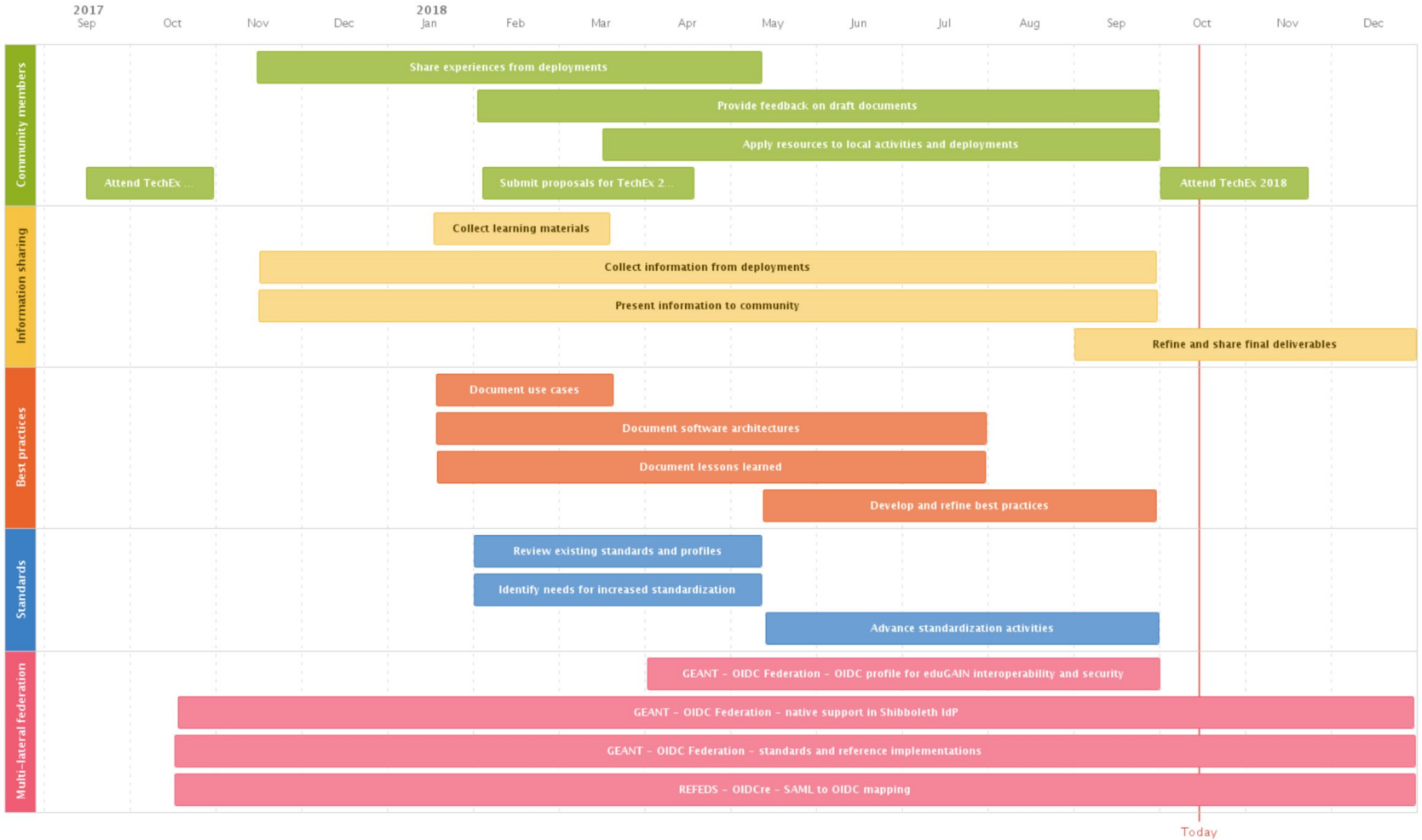
Sponsor: InCommon Technical Advisory Committee

Website: https://spaces.at.internet2.edu/x/jJiTBg

Conference calls: Bi-weekly, Tuesdays, 11am ET

Email: oidc-deploy@incommon.org

Charter / Rationale:
Share information
Develop best practices for deployment, configuration, and use
Guide standardization
Support multilateral federation


2017
Sep
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Community members
Share experiences from deployments
Provide feedback on draft documents
Apply resources to local activities and deployments
Attend TechEx ...
Submit proposals for TechEx 2...
Attend TechEx 2018
Information sharing
Collect learning materials
Collect information from deployments
Present information to community
Refine and share final deliverables
Best practices
Document use cases
Document software architectures
Document lessons learned
Develop and refine best practices
Standards
Review existing standards and profiles
Identify needs for increased standardization
Advance standardization activities
Multi-lateral federation
GEANT - OIDC Federation - OIDC profile for eduGAIN interoperability and security
GEANT - OIDC Federation - native support in Shibboleth IdP
GEANT - OIDC Federation - standards and reference implementations
REFEDS - OIDCre - SAML to OIDC mapping
Today

InCommon OIDC-OAuth Deployment Working Group

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Business needs, use cases, scenarios

What are researchers and research communities trying to do?

Researchers
Research communities
GÉANT, Internet2, NRENS

Activities & working groups

What activities and working groups are needed to advance our work? What deliverables will they produce?

- OIDF
- REFEDS
- **InCommon OIDC-OAuth Deployment**
- REFEDS OIDCre
- OIDF R&E
- OIDF A/B
- IETF OAuth
- Others. . .

Standards & profiles

What standards and profiles do we need to produce useful software implementations and services?

- OIDC Conformance Profiles
- OIDC Discovery
- OIDC Core
- SAML2 OIDC Mapping
- OIDC R&E Profile
- OIDC Federation
- OAuth 2.0
- Others. . .

Software implementation, services, guides

What what software, services, and guides do deployers have to choose from? What guides and training help selection?

- GÉANT Shib OIDC Plugin
- Shib IdP 3.4
- SATOSA
- AppAuth SDK
- JWT Connect OIDC
- mod_oidc
- CAS
- Others. . .

Deployments & integrations

What's being deployed and how is it integrated? What are typical configurations, customizations, and anti-patterns for different participants/contexts?

- GÉANT, Internet2, NRENS
- Research communities & funding bodies
- Home organizations
- eduGAIN
- Federations
- Research e-infrastructures
- Others. . .

Operating & sustaining

How do deployers operate, improve, coordinate, and advocate for deployments? How are baseline expectations managed?

- Baseline expectations
- Code of conduct
- Operational plans
- Assessments
- Processes
- Funding plans
- Others. . .

Use, results, outcomes

What were the results of our deployments? What new business needs emerge from real-world use?

Research communities
Researchers

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InCommon OIDC-OAuth Deployment Working Group

Status: Active

Pitch:

“Create more value than you capture.”

Plug:
InCommon OIDC-OAuth Deployment WG Meeting
Pacifica Ballroom 4 / 5
4:00pm today

OIDC federation

- Scope
  - Define a standard for how to do multilateral federations using OpenID Connect
  - Present draft avaliable at https://github.com/rohe/oidcfederation/
  - At least 2 independent implementations
  - POCs

Getting Involved

- **Where**
  - OIDF WG lists are main work area
    - R&E WG VC Meetings: to be weekly, TZ friendly for EU and Asia/Pacific
    - REFEDS OIDCre WG on ramp/incubation area for R&E items
- **Passive Participation:**
  - Join OIDF WG list and OIDCre and observe
- **Active Participation**
  - Join OIDF formally and be a voter (strongly encouraged)
  - Further steps:
    - Start learning more about OIDC and OAuth2 https://spaces.at.internet2.edu/x/AIuTBg
    - Get involved on activities or projects
    - Participate in prototyping and pilots

Goal

- In a not so distant future OIDC federations have replaced SAML2 federations and people are not lamenting about wanting back the ‘good old days’. 😀

REFEDS

REFEDS OIDCre

White Paper for implementation of mappings between SAML 2.0 and OpenID Connect in Research and Education

Niels van Dijk, SURFnet
REFEDs OIDCre Chair

REFEDS 39 @TechEx2018,
Monday 15th October 2018, Orlando

REFEDS

SAML and OIDC

- We have an ecosystem where SAML and OIDC will be living side to side
- Protocols bring similar, but also unique features, which adds challenges, yet creates opportunities
- Mixed implementation requires a myriad of choices to be answered
- Harmonize on how we implement both protocols side by side
- Answer some questions and capture best practices as we go along

REFEDS

White Paper for implementation of mappings between SAML 2.0 and OpenID Connect in Research and Education

Hightlights:

- A discussion on how to map between identifiers used in SAML and OIDC;
- A recommendation for a basic attribute and claims mapping profile, which should be useable with unmodified OIDC clients which implement the standard claims of the OIDC core standard; and,
- A recommendation for an advanced mapping profile, which will leverage the full set of attributes made available by the eduPerson- and SCHAC schema but requires handling additional, (currently) non-standard claims and scopes.

Whitepaper:

- https://wiki.refeds.org/download/attachments/38895621/20181011-OIDC-WP.pdf

REFEDS

Consultation

- The consultation will open on **15th October 2018** and close at **17:00 CET on 26th November 2018**.

- Participants are invited to review and comment on the proposed White Paper for implementation of mappings between SAML 2.0 and OpenID Connect in Research and Education.

- Following the consultation all comments will be taken back to the REFEDS OIDC(re) working group for review and if appropriate the White Paper will then be forwarded to the REFEDS Steering Committee for sign-off and publication on the REFEDS website as per the REFEDS participants agreement.

- Consultation landing page: https://wiki.refeds.org/display/CON/Consultation%3A+SAML2+and+OIDC+Mappings

REFEDS

Statement

- With OIDC being such an easy way to deliver and consume identity, what’s the future of SAML and our federations?

OIDF Working Group for OIDC R&E Profile

> Scope

- Develop profiles with specific requirements for
  - Security
  - multi-lateral trust
  - interoperability in the R&E sector.
- Specific set of claims and scopes related to R&E.
- Extensions to OpenID Connect entity's metadata.

> Anticipated Duration

- ~12-18 months
- commensurate with contributions, effort, running code.

Charter: https://github.com/daserzw/oidc-edu-wg/blob/master/charter.md

Signs of Success

- **1st class multi-lateral trust support in OIDC**
  - Ubiquitously supported by platforms
  - Operational capabilities on premises, by vendors, & fed-ops
  - Training offerings to ramp community knowledge.
- **Regardless of protocol**
  - Interoperability of multi-lateral inter-federation trusts
  - Predictable attribute exchange
  - Parity of trustworthiness of endpoints
- **R&E profile must work with existing OIDC libraries**
- **Stretch goal: User Experience**
  - Login once, user is able to access SAML or OIDC resources transparently and simultaneously

Getting Involved

Where

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Passive Participation:

- Join the OIDF RandE WG list & the REFEDS OIDCre and observe

Active Participation

- Join the OIDF formally and be a voter
- Get involved on activities or projects
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More information

OIDF R&E WG

- mailinglist: http://lists.openid.net/mailman/listinfo/openid-specs-rande

REFEDS OIDCre

- wiki: https://wiki.refeds.org/display/GROUPS/OIDCre
- mailinglist: https://lists.refeds.org/sympa/info/oidcre