

To: Quilt InCommon Workshop Participants  
From: Jack Suess, UMBC  
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Re: La Jolla Quilt InCommon Workshop Summary and Next Steps

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It is hard to believe that 5 weeks have passed since we met in San Diego to discuss how Internet2/InCommon and the Regionals can collaborate on trusted identity. This document is a brief summary of the workshop and the next steps planned. Before summarizing, we want to thank all of you for your participation. The interest and attendance exceeded our expectation.

## **Workshop Summary**

The kick-off talk was by Shel Waggener who spoke about the direction and momentum for Internet2 NET+ services and how this builds upon the foundational work done in our community around identity. Shel noted that for Internet2 to meet the growing application needs and requirements of the larger education community, including community colleges and K-12, in collaboration with regional networks we will need to extend InCommon's design and architecture to meet these groups. Federated identity infrastructure represents a lynchpin component necessary to effectively deliver future cloud based applications and services needed in the broader education community. We have to have an identity strategy for tomorrow that takes into consideration the regional community.

The workshop attendees then broke into two tracks, one focused on technical issues and requirements, and the other focused on administrative and policy issues.

## **Administrative/Policy Track**

Facilitators for the Admin track led a discussion focused on coming up with an administrative framework for a distributed federation model that would extend federation services to K-12 and community colleges. There was a discussion of concerns expressed by some participants about the value proposition and the importance of demonstrating the value-add to these communities given the level of effort required. Numerous potential value propositions were listed by the participants but many see a strong need to provide incentives to get buy-in from K-12. Mike Berman from California State University then facilitated a visioning exercise by dividing the track participants into four groups that were tasked with envisioning what might be possible following the successful completion of a pilot project with a regional working with a K-12 or community college. Numerous examples were provided ranging from enabling statewide online testing through digital identities not possible today as well as leveraging trusted identities for statewide access to LMS's, digital library resources, portfolio management, content providers and wifi. Lowering costs, improved security and increased privacy were also mentioned, as well as a statewide etexts initiative for community colleges.

John Krienke from InCommon then facilitated a discussion regarding some of the roles and administrative functions that should remain with InCommon and which administrative tasks and functions could be delegated to regional networks. InCommon has an important role to play in developing and coordinating national standards but is willing to partner with states and regionals interested in taking on many of the basic administrative functions of operating a federation. This

allows regionals and state networks to avoid duplicating work that is being done on a national scale by InCommon but delegates other tasks to regionals who are in a better position to deal with state and local politics and can develop supportive relationships with their members regarding Identity and Access Management infrastructure.

Changes in the InCommon business model were also discussed, with a possible change involving the creation of a new membership category for regional networks, with a fee structure that will encompass community colleges, state colleges and K-12 schools. Under this scenario some of the administrative functions that could be delegated to regionals include: Vetting the authenticity of contacts claiming the authority to speak on behalf of community colleges and K-12; metadata publication upstream to InCommon; administrative support for members; as well as policy development at the regional level.

The general goal and direction of the proposed path forward is to develop a collaboration between InCommon and regional networks; whereby, InCommon would extend metadata schemas for these new constituents and maintain national metadata standards and policies while collaborating with regional networks operating state-based federation models that can be applied across states in a standards based manner. There was general consensus among the participants of the Admin/Policy track that this approach appears sound and will reduce the complexity of other uncoordinated options.

The participants in the Admin/Policy track also agreed that conducting some proof of concept pilot projects in the near term would be a productive next step in moving this proposed path forward.

## **Technical Track**

This session started with a review of the key goals for the workshop: a framework for extending InCommon federation services to smaller institutions, pilot requirements and next steps. Also using the following guiding principles: achieving the workshop goals; keeping it simple; not reinventing the wheel; meeting most use cases for K-12, community colleges, regionals, federations; and interoperability with other federations.

It became apparent early on in the session, that there were major differences between regionals, namely that not all of their constituents included K-12. Some regionals are strictly focused on the higher education community, where others have a much broader constituent base – all of education, healthcare, public safety, libraries, etc. (Community Anchor Institutions).

Also due to the challenges of working with K-12 (in part because students are minors), many felt that community colleges would be the lower hanging fruit, at least for pilots and getting off the ground. (See [K-12 Obstacles to Federation](https://spaces.internet2.edu/display/InCQuiltFed/K-12+Obstacles+to+Federation+%28Table%29) on the InC-Quilt-Federation wiki – spaces.internet2.edu dashboard).  
( <https://spaces.internet2.edu/display/InCQuiltFed/K-12+Obstacles+to+Federation+%28Table%29> )

Shel Waggener mentioned that the Regionals were the best option for extending federation services to these communities due to their connectivity relationships and better understanding of local needs, compared to the alternative of InCommon operating a state-based effort that would be challenged by differing political issues across the states.

Use cases were discussed for both K-12/Community Colleges and Regionals including:

## K-12/CC

- Online Assessments (part of Common Core State Standards)
- Licensed, age-appropriate web content (e.g. Libraries, Learning Object Repositories – LORs)
- Federated access to state-hosted resources/applications
- Vendor-hosted applications
- Joint High School/Community College degree programs (5th year)
- InBloom (Shared Learning Collaborative project – renamed)
- College admissions process/financial aid (CommIT project)
- Intrastate cross registration for community college courses

## Regionals

- Mandating Federated Identity Mgmt to access board documents (TX)
- Support for intra-regional activities (Merit/NJEDge video)
- Protected delivery of Net+ services
- Diversity of regionals will drive the need for options in service delivery strategies

A few questions/comments also came out of this discussion:

- What if your constituents need access to InC-federated resources but aren't members of InCommon?
- Regionals will need to come up with the appropriate business model for implementation (based on the communities served, value propositions, current funding resources, etc.)
- Need information on confidentiality and security
- Need value proposition (for users and regional)

The discussion then moved on to what “federation model” best fit the use cases described. Paul Caskey reviewed the different models identified at the 2012 Fall Advance CAMP session on [Federation Models](https://spaces.internet2.edu/display/ACAMP_Scribe2012/Thurs+3.30pm+Salon4+-+Developing+Federation+Model+Options) (Mesh, Centralized, Hub & Spoke, Hierarchical and Hybrid). ( [https://spaces.internet2.edu/display/ACAMP\\_Scribe2012/Thurs+3.30pm+Salon4+-+Developing+Federation+Model+Options](https://spaces.internet2.edu/display/ACAMP_Scribe2012/Thurs+3.30pm+Salon4+-+Developing+Federation+Model+Options) )

The group decided that a combined hierarchical and hybrid model best fit the situations found in most regionals and states, and provided the most options for implementation. The Hierarchical/Hybrid model (H/H) is hierarchical between the regionals and InCommon and (potentially) a hybrid model between the Regionals and their constituent base. This means that “below” the Regional may exist a combination of IdPs, state university system federations, or in some cases just a Single Sign On (SSO) solution at the institution, supported by a Proxy IdP/SP at the Regional. Most solutions would involve either the use of a metadata aggregator tool and/or a Proxy IdP/SP.

A short discussion on K-12 attributes concluded that (as found in the UK implementation of their own K-12 federation), most vendors only need the eduPersonAffiliation attribute to make an access decision, so new attributes might not be that big of a deal. However, further discussion will take place on the need for “grade level” or some other age-indicating attribute to deal with the “minor-ness” of a K-12 student.

Takeaways from the session were:

1. The **Hierarchical/Hybrid federation model** covered the most use cases of Regionals helping to extend federation to smaller institutions in their states.

2. There is a lot of benefit to K-12 and Community Colleges to federate, and if “we” don’t provide it, there will be 3rd-party vendors doing it soon.
3. **InCommon Affiliates** (e.g. vendors providing professional services, appliances, or cloud-based IdM), will likely be part of the equation – especially for regionals that aren’t as far along with federation services.

## **Pilot Projects**

When the participants of both tracks met together on the last day of the workshop there was a very active discussion regarding positive as well as negative characteristics of potential pilot projects that should be considered. There was a general consensus that there would need to be a significant value add to achieve the level of buy-in that would be needed for the pilots to be successful. The idea emerged of creating an attractive bundle of services which would provide significant value and would hopefully benefit educational objectives. These might be based on Net+ services (Box, Instructure Canvas, others) along with technical support from the InCommon Affiliates to help bootstrap participants to make sure the necessary technical infrastructure is in place.

Some of the applications participants thought would be attractive in a bundle included: LMS’s like Desire2Learn or Instructure Canvas; Box; GoogleApps services; Virtual desktops; eTextbooks; Eduroam; Discovery Learning and EBSCO; a backup service like Crashplan; and MOOC’s for K-12 access to courses typically not offered.

## **Next Steps**

At the conclusion of the workshop it was agreed that it would make sense to ask the participants of the workshop to continue the dialog by joining three working groups focused on the pilots:

**InCommon - Quilt Pilot Definition Group** - would define the requirements for the pilots and develop a call for participants and develop timelines

**InCommon - Quilt Pilot Technical Group** - that would further develop the federation models discussed during the workshop outlining the pros and cons for regionals to consider and coordinate with the InCommon TAC (Technical Advisory Committee) Interfederation group

**InCommon - Quilt Pilot Admin/Policy Group** - that will document the distributed administration tasks and roles outlined during the workshop and identify the key policy issues and business models that will need to be addressed in the pilots.

## **Post Workshop - Working Group Deliberations**

As an update to the Pilot Projects discussed above, during the post workshop Pilot Working Group calls, it was decided that rather than have a formal “Open” Call For Proposals, we should have a less formal and interactive process that focuses on potential pilot projects that Regionals/State Systems attending the workshop already have been considering or were interested in.

The process would involve working with the regionals to define project proposals that help validate the technical and administrative models/processes for extending InCommon federation services to

K-12 and the Community Colleges. The Pilot Definition WG would develop the requirements for the first set of pilots as well as criteria for selection of proposals.

In order to facilitate this process, the Admin/Policy and Technical working groups are finalizing a series of questions as well as supplementary diagrams and information to be included in the initial call for participation along with an explanation of the pilot program that will be distributed to the workshop attendees. This initial information gathering phase will allow the working groups to see how the potential pilots align with the criteria and what seems to be practical. Following this initial phase a conference call may be scheduled to probe deeper with more questions and/or allow the members of the working groups to make suggestions for the pilot regarding use of particular federation models or metadata issues.

Following this iterative information exchange, finalized pilot proposals will be requested that will better align with the goals established for the pilots.

More details will be provided via the workshop attendee mailing list over the next few weeks...