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Navigating Hybrid IAM and Entra ID Integration Thread Meetup Report

Virtual Session:

August 6, 2025

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Overview

The August 2025 Hybrid IAM Thread Meetup brought together InCommon community members at various stages of integrating Microsoft Entra ID with existing identity infrastructure. The discussion revealed a common pattern across higher education: institutions are running dual SSO systems with hundreds of integrations split between traditional providers (Shibboleth/CAS) and Entra ID. Rather than viewing this as a temporary transition state, participants recognized that hybrid architectures are becoming the new normal for research and education institutions.

Key challenges emerged around cost, complexity, and maintaining critical capabilities. Universities highlighted licensing constraints that prevent provisioning all users in Entra, the necessity of maintaining InCommon Federation access for research collaboration, and the surprising complexity of MFA transitions. Participants shared hard-won lessons about Duo integration pitfalls, organizational challenges with different teams managing pieces of the identity ecosystem, and the loss of custom functionality that Shibboleth and CAS provide.

The most valuable aspect was peer-to-peer knowledge sharing, with institutions like Southern Methodist University presenting their successful SAML proxy implementation, Kent State sharing operational insights from using Entra as their primary IDP, and University of Washington discussing their MFA migration challenges. Participants emphasized that community collaboration and gradual implementation approaches are essential, with solutions like the Cirrus Identity Bridge emerging as practical tools for maintaining federation capabilities while modernizing authentication infrastructure.

Conversation Highlights

- **SMU's Success Story:** Tommy Doan walked through Southern Methodist University's completed migration using Shibboleth as a SAML proxy to Entra ID, showing before and after architecture diagrams and explaining how they maintained existing Duo integrations while transitioning to Microsoft MFA and modern authentication methods like passkeys and Windows Hello for Business.
- **The Scale and Cost Reality:** Multiple institutions shared similar challenges - University of Virginia described managing 800+ Shibboleth integrations alongside 600+ Entra integrations, with 1.25 million total identities but only 80,000 provisioned in Entra due to licensing costs. This licensing constraint is fundamentally shaping architectural decisions across the community.
- **MFA Migration Painpoints:** University of Washington participants shared their experience from switching to Duo's External Authentication Method (EAM), emphasizing the critical need to remove other Entra MFA methods first to avoid user confusion and authentication loops. Multiple institutions noted that user

communication and help desk preparation are often more challenging than the technical integration itself.

- **InCommon Federation as Non-Negotiable:** Despite pressure for “Microsoft-only” solutions, participants consistently emphasized that research collaboration and academic resources access through InCommon Federation remains essential, making solutions like the Cirrus Identity Bridge or SAML proxy configurations necessary tools rather than temporary workarounds.

5 Considerations for Navigating Hybrid IAM and Entra ID Integration

1. You Are Not Alone - Many Institutions Are Running Dual SSO Systems

The discussion revealed that nearly every institution is grappling with the same challenge of managing both traditional identity providers like Shibboleth or CAS alongside Entra ID. This isn't a sign of poor planning, but rather the reality of modern R&E IT. Universities described similar architectures with hundreds of integrations split between systems. Hybrid is the new normal, not a temporary state.

2. InCommon Federation Remains a Critical Requirement - Plan Accordingly

Despite Microsoft's growing capabilities, Entra ID doesn't natively support multilateral federation like InCommon. Institutions consistently cited research collaboration and academic resource access as non-negotiable requirements that keep Shibboleth in the picture. Solutions like Cirrus Identity Bridge or SAML proxy configurations are becoming essential tools, not just optional add-ons. Don't let cost-driven “Microsoft-only” mandates overlook this fundamental need.

3. MFA Migration Is More Complex Than It Appears

Multiple institutions shared hard-won lessons about transitioning from Duo to Microsoft MFA. One institution specifically mentioned “scars” from their switchover, emphasizing the need to remove other Entra MFA methods before implementing Duo's External Authentication Method (EAM). The technical integration is achievable, but user communication, help desk preparation, and telephony cost planning are often underestimated. One participant noted, “reconfiguring and re-registering for multi-factor seems to be the other big user engagement portion of this which is harder than the technical [aspects] a lot of the time.”

4. **Cost and Licensing Complexity Drives Architecture Decisions**

The financial reality is that not every institution can afford to provision all identities in Entra ID. One university's example of 1.25 million total identities with only 80,000 in Entra illustrates this challenge. Institutions are making strategic decisions about which users get provisioned where and these decisions fundamentally shape their technical architecture. Factor in the true cost of licensing all user types (students, alumni, faculty, staff, affiliates, guests) early in your planning.

5. **Community Knowledge Sharing Is Your Best Resource**

And finally, the most valuable part of the discussion wasn't in the technical details, it was institutions sharing real experiences, both successes and failures. Thread Meetups are a direct response to the community's desire to learn from their peers. As one attendee noted, "you can listen to 60 different people tell you what they're doing with Entra and get 60 different answers." Leverage InCommon's community network as there is value in collaborating with and learning from your peers. Stay tuned for future Thread Meetups and other opportunities to engage with the community.

Next Steps

Immediate Actions

- **Connect with peers:** Reach out to institutions at similar stages in their journey for informational knowledge sharing and problem-solving.
- **Complete current state assessment:** Document all existing integrations, user populations, and dependencies on custom functionality before making architectural decisions.
- **Evaluate a bridge solution:** Institutions should assess whether a bridge solution such as Cirrus addresses their InCommon Federation needs while reducing infrastructure complexity.

Short-Term Planning

- **Establish cross-functional working groups:** Address the organizational challenge highlighted by Cal Poly SLO by bringing together teams managing Entra ID, Office 365, identity systems, and security.
- **Pilot SAML proxy configuration:** For institutions considering SMU's approach, set up a test environment to validate the technical implementation and understand operational implications.

- **Develop MFA migration strategy:** Learn from University of Washington's experience by planning user communication, help desk preparation, and technical prerequisites (like removing other Entra MFA methods) before attempting Duo EAM integration.

Strategic Initiatives

- **Engage with InCommon working groups:** Participate in the [Software Integration Working Group](#) and others to advocate for community needs around hybrid architectures and vendor integration improvements.
- **Build business cases for leadership:** Use community examples and cost analysis frameworks to educate decision-makers about the complexity beyond "we're already paying for Microsoft."
- **Plan for continued involvement:** Given the strong community interest, continue the peer-to-peer learning in future Thread Meetups, working group meetings, and conferences.

Looking Ahead

The InCommon Academy encourages participants to consider further professional development opportunities such as:

- [TechEx25](#): Denver, CO - December 8-12, 2025
 - With a wide range of talks, tutorials, posters, working meetings, and sponsored social events, this is a must-attend event for our community.
- [Trusted Access Platform Component Training](#): Ongoing

APPENDIX

Meeting Recording & Transcripts

Select the following link to access the recording and transcripts:

[Zoom Recording](#) Passcode: 2q%sj%p=

Please note that audio and chat transcripts are available within the recording.