NC Education Cloud
Identity and Access Management Working Group
10 AM Wednesday, February 22, 2012
Agenda

• General Updates

• IAM Plan v5.0

• RFP Process

• Q&A / Open Discussion

• But first.... let’s do a quick roll call
General Updates (1)

• Data Integration Update
  • Sammie is leading separate Data Integration effort
  • DI can become authoritative source for IAM, once it’s available
General Updates (2)

- Target Services Question of the Day Feedback
  - Initial focus will probably be non-DPI apps (see later slide)
  - DPI application issues are still TBD. For example this could include:
    - Gforge
    - Xnet
    - NCWISE (including PA)
    - NCWISE Reporting Hub
    - AHR
    - Licensure
    - CIMS
    - Pearson PowerSchool
    - CECAS
    - NC Education System (including NC Falcon)
    - DPI Assessment Systems (e.g. ACTCompass, ACT Workkeys, Certipoint, etc.)

- More info on Data Sources / Targets in Upcoming Slides
General Updates (3)
Tentative Schedule – Still on Track

Phase I – Research and Planning
Tentative Schedule: October 2010 – October 2011 (12 Months)

Phase II – Establish Service Model
Tentative Schedule: November 2011 – June 2012 (8 Months)

Phase III – Build and Implementation
Tentative Schedule: July 2012 – June 2013 (12 Months)

Phase IV – Full Production and Operation
Tentative Schedule: July 2013 – Ongoing
IAM Plan V5

- Version 4 of the IAM paper was completed December 2
- Version 5 of the IAM paper is being wrapped up now
  - Provides a snapshot of the proposed IAM system
  - Modified the service model to really purchase the IAM system as a service (see next slides)
  - Facilitates IAM related communications within and among NC Education Cloud Team, LEAs, vendors, similar state or regional projects, and other interested parties.

- The Vision: “Every student, teacher/staff member, parent/guardian, and school community member has a single unique username/password to access learning resources in North Carolina”

- “Developing an Identity and Access Management System for North Carolina Education Cloud” version 4 is here (will share v5 link soon):
The “Big Picture”

Policy and Governance

- Friday Institute / NC Cloud Team
- Educational Service Agency
- Others?

Requirements & Policies

- State Board of Education
- IAM Working Group
- DPI/ITS

Authority

- Collaborations between Roles
- Management of the Service Provider

Service Manager

Managed Service

- Data Match & Merge
- Person Registry
- Provisioning of Accounts
- Authentication/SSO
- Authorization
- User Directory (LDAP)
- Directory data -> LEAs
- Access Management
- Provisioning of Access
- Federation
- User Self-Service
- Guest System

- Delegated Administration
- Audit Logging, Reports
- Ongoing Support and Administration
- Provisioning Rules
- Request Workflows
- Application Onboarding & Integration with Service
  - All HW & SW support
  - Systems Integration
  - Vendor Technical Support

Service Consumers

- Cloud Services (Vendors)
  - Applications
  - Services
  - Resources

- DPI
  - NCWISE
  - CECAS
  - UID
  - Assessment
  - Others

- LEAs, Charters, NCVPS, NCSSM (Users)
  - End users
    - Self Service
    - Reduced/Single Sign-On
  - Delegated Admins
    - Pwd Resets
    - Sponsored Guests
    - Workflow Requests & Approvals
  - Ensure Accuracy of user data in Source Systems
  - Local Tech Support

Data Sources

- Systems of Record
  - NCWISE
  - HRMS
  - UID
  - Wake (HR)
  - CMS(HR)
  - NCSSM
  - NCVPS

Data Integration

- SW Vendor
  - IAM SW Stack
  - Recommends HW/OS
  - Technical Support

- Systems Integrator
  - Technical Architect
  - Design
  - Implementation
  - Technical Support

- HW - Infrastructure Hosting
  - Cloud Service
    - IaaS, SaaS
    - Technical Support
  - Locally Hosted
    - HW/OS Platform Vendor
    - Technical Support

Authority Representation

SW Vendor

- IAM SW Stack
- Recommends HW/OS
- Technical Support

SW Vendor

- IAM SW Stack
- Recommends HW/OS
- Technical Support

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- IAM SW Stack
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SW Vendor

- IAM SW Stack
- Recommends HW/OS
- Technical Support
IAM Managed Service Provider

This figure shows what the NC Education Cloud project is looking to purchase (everything in the Yellow block). A complete “IAM as a Managed Service” offering.

Inputs to the Managed Service would be data either from a Data Integration service, or from the Source Systems, possibly in the form of a tab-delimited file(s). If the Data Integration service exists, the first two items (in blue) would likely be supported there. Otherwise, they would need to be part of the IAM Managed Service.

Additionally, policy and business practices would be provided - to be implemented through provisioning and workflow functions.

Target Systems would access the IAM Managed Service for a variety of reasons from authentication and user attributes to federation and data and audit reporting.
IAM Managed Service – Required Functionality

Managed Service
- **Data Match & Merge**
- **Person Registry**
- Provisioning of Accounts
- Authentication/SSO
- Authorization
- User Directory (LDAP)
- Directory data -> LEAs
- Access Management
- Provisioning of Access
- Federation
- User Self-Service
- Guest System
- Delegated Administration
- Audit Logging, Reports
- Ongoing Support and Administration
- Provisioning Rules
- Request Workflows
- **Application Onboarding & Integration with Service**
- All HW & SW support
- Systems Integration
- Vendor Technical Support

SW Vendor
- IAM SW Stack
- Recommends HW/OS
- Technical Support

Systems Integrator
- Technical Architect
- Service Design
- Implementation
- Technical Support

HW Infrastructure
- **Cloud Service**
  - IaaS, SaaS
  - Technical Support
- **Locally Hosted**
  - HW/OS Vendor
  - Technical Support

Authentication, User Attributes, SSO/Federation, Non-web Apps? & Service Account Provisioning
IAM Managed Service – Sources & Targets

**Sources**

- HRMS
- Wake-HR
- CMS-HR
- NCWISE
- Others...

**Systems of Record**

- Data Match & Merge
- Person Registry
- Provisioning of Accounts
- Authentication/SSO
- Authorization
- User Directory (LDAP)
- Directory data -> LEAs
- Access Management
- Provisioning of Access
- Federation
- User Self-Service
- Guest System

**Managed Service**

- Delegated Administration
- Audit Logging, Reports
- Ongoing Support and Administration
  - Provisioning Rules
  - Request Workflows
- Application Onboarding & Integration with Service
  - All HW & SW support
  - Systems Integration
  - Vendor Technical Support

**SW Vendor**

- IAM SW Stack
- Recommends HW/OS
- Technical Support

**Systems Integrator**

- Technical Architect
- Service Design
- Implementation
- Technical Support

**HW Infrastructure**

- Cloud Service
  - IaaS, SaaS
  - Technical Support

- Locally Hosted
  - HW/OS Vendor
  - Technical Support

**Shared Infrastructure & Cloud Services**

- IIS
- NCLOR
- Blackboard
- Moodle
- Google Apps
- Live@EDU
- Follett
- Destiny
- ClassScape
- MCNC Web Security
- DiscoveryEd
- Others... TBD

**Targets**
IAM Service Manager Role

Managing a statewide IAM Service for the IAM Service Consumers as specified by the NC Education Cloud and other advisory bodies
   Phased approach / Pilot then Production

Responsible for management of the IAM Managed Service provider relationship

Establishing relationships and coordinate as needed with owners of authoritative source data systems

Providing level 2-3 technical support services and a help desk (may be part of a larger NC Education Cloud Help Desk), to the IAM Service Consumers for matters related to the IAM Service

Ensuring implementation and support of policies defined by IAM Policy and Governance bodies

Providing technical and strategic guidance to the IAM Policy and Governance bodies about any necessary policies that are needed to help the IAM Service Provider deliver and support a better IAM Service for the IAM Service Consumers

Coordinating with IAM Managed Service provider to translate IAM Service Consumer and/or IAM Policy and Governance requirements into enhancements or corrections for the IAM Service

Coordinating with IAM Managed Service provider and IAM Service Consumers to onboard/integrate new Cloud Applications, Resources, and Services

Providing to IAM Service Consumers and IAM Policy and Governance bodies any reporting and audit information as needed (may be provided by a Cloud Security and Compliance group)

Providing training and documentation to IAM Service Consumers as they onboard and use the resources/services provided by the IAM Service

Tracking user suggestions for improvements, features, and developing the methodology for IAM system enhancements

Developing metrics and report on the impact of IAM on the Service Consumers to IAM Policy and Governance where appropriate

Communicating new IAM Service features to appropriate IAM Service Consumer participants

Managing vendor churn for IAM System components

Managing vendor contracts and developing acceptance criteria for each checkpoint of a contract
Help Desk (Support) Escalation Process

- **Support – Cloud**
  (NC Education Cloud Help Desk)
  Triaged to appropriate Cloud Service

- **Support – District**
  (Technology Director)

- **Support – School**
  (Teacher/Technology Facilitator)

- **Support - Service Manager**

- **Support - Vendor**
  (Managed Service Provider)

*** It’s unclear at this time where a response would go, but likely to the school or district level (not the user)
RFP Process

• IAM Managed Service Provider RFP will come through ITS, on behalf of DPI
  – IAM Service RFP via DPI/ITS
  – Service Manager role will not be part of that RFP

• Goal: release IAM Managed Service Provider RFP sometime during March and announce award by late June or July, 2012
Key RFP Steps

1. Drafting
2. Review of Draft
3. RFP draft goes to DPI
4. DPI reviews / updates
5. RFP draft goes to ITS
6. ITS reviews / updates
7. RFP “hits the streets”
8. Question submission period
9. Final responses to questions published 1 week later
10. Vendor RFP response submissions due ~2 weeks later
11. Response evaluation, includes meetings/PoCs with lead candidates
12. Recommended selection made to administrative team
13. Award announced
IAM-WG Assistance To RFP Process

• **Review of Draft**
  - Tight 48-hour window expected

• **Response Evaluation**
  - Read and rank all responses, meet with evaluation team, join the F2F meetings/PoCs
  - Significant time commitment expected

• **Seeking an IAM-WG representative for the above two steps**
  - Ideally, with good knowledge of IAM in your schools
  - Need to commit time-wise, and to represent the committee at-large
  - Wider IAM-WG’s subject-matter-expertise could be delivered through the rep

• **Signing confidentiality / non-disclosure forms probably required – still TBD**
Open Q&A + Contact Info

• Web site—place for FAQ, Guidelines, Presentations, Organization, Team members, news, links to DPI & others: http://cloud.fi.ncsu.edu

• IAM Email List is cloud-iam@lists.ncsu.edu

• Sammie Carter, swcarter@ncsu.edu, 919-513-8513

• Mark Scheible, mscheible@mcnc.org, 919-248-1997

• Steve Thorpe, thorpe@mcnc.org, 919-248-1161