

Introduction

When the CIC CIO Identity Management taskforce began work on its current charter in August 2009, a goal was set for InCommon Silver preparedness for all CIC institutions by fall 2011. The following report outlines the progress toward that goal as a participant survey conducted in August 2011. As the InCommon Federation itself is nearly ready with its assurance program, in large part due to CIC leadership in developing the Assurance Profile, the CIC work now turns to the campus level where each school must respectively implement the policies and procedures for Silver (this work being subject to local priorities and resources). This report highlights that 7 of our 13 schools are planning to be ready for Silver by Q2 of 2012, and notes common areas of heightened risk to project completion.

Survey Background

The CIC InCommon Silver Project team surveyed the participating schools regarding the status of their efforts, closing the survey on August 15th. The following points should be kept in mind while considering the information presented.

- This is a snapshot at the time of the survey. Since efforts are ongoing and thinking is evolving, it should be expected that the current state is different from that of August 15th.
- Individual respondents interpreted the questions within their own local context and perhaps did not always respond to the literal statement as posed.
- The questions revolved around the status of meeting the fall 2011 objective, and it should be expected that the answers would be substantially different if asked regarding a different timeframe.
- The Silver Identity Assurance Profile lists thirty three criteria in eight functional areas. Many of these criteria have multiple requirements within them, so the actual number of requirements that must be met exceeds seventy (the actual number varying slightly depending on local circumstance).
- Each of the project teams at the individual schools maintain their own project management detail which went into responding to the survey.

Project Health Snapshot

Respondents were asked to indicate the health of their efforts to meet each criterion using a red/yellow/green scale.

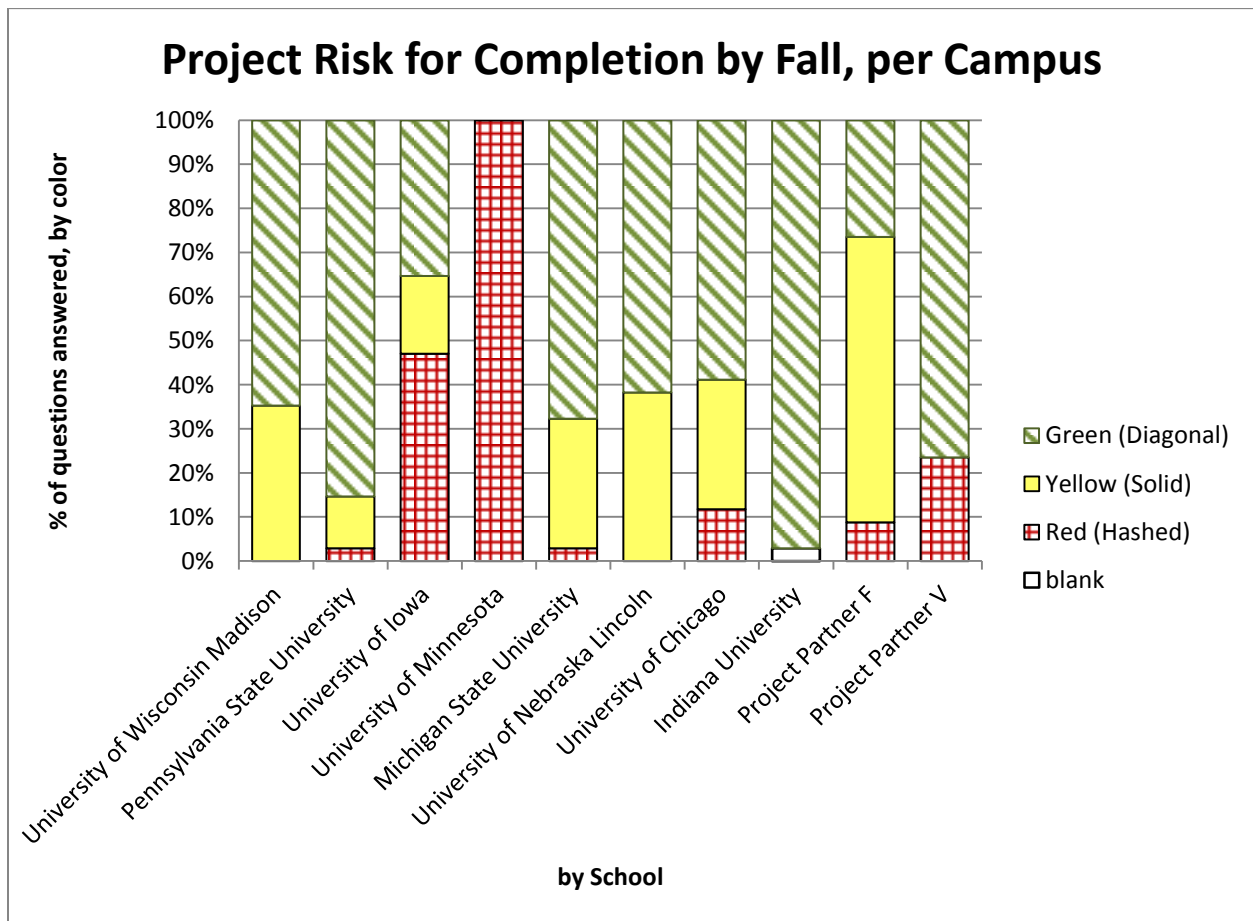
- **Green:** Current resources are adequate and all milestones are being completed on time or early. This item will be completed [and ready for audit] by [the date, now November 2011].
- **Yellow:** This item is no longer on track to complete by the target date. With additional resources (labor hours)/knowledge/capital investment (technology) it can be guided back on track for completion [and ready for audit] by [the date].
- **Red:** This item will not be completed by the target date. Events have occurred or dependent milestones have been missed, that prevent completion of this item even with massive resource and capital additions.

Note that while the survey stated for example that “With additional resources ... it can be guided back on track ...” it is clear that people responded using their best judgment and perhaps independent of these statements. Assumptions should be avoided when looking at individual responses, and questions should be directed to the local project team for clarification.

The overall reported status was

- **Green 57%**
- **Yellow 23%**
- **Red 20%**

Since one school reported all criteria as “Red” (including their membership in InCommon) and another school reported all criteria as “Green”, the overall status may not be representative.



The graph indicates that the status varies from likely completion by Fall to highly unlikely completion with the remainder being challenged to varying degrees.

Prospects for Completion

The critical question that was not asked in the original survey was “If not this Fall, then when?” In conversation, a number of schools mentioned that if the questions had been based on a later timeframe, such as spring 2012, then much more green would have been evident. So, we went back to the participants in a follow up e-mail and asked them to estimate the calendar quarter by which they will be fully ready to make Silver assertions.

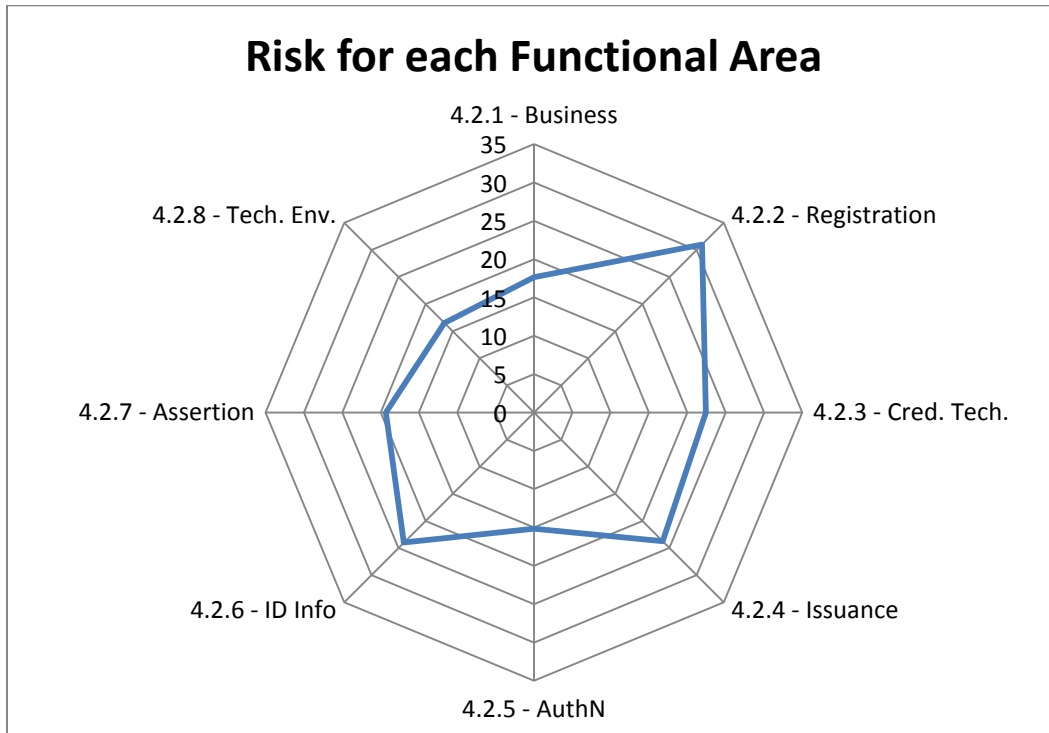
Of the ten participating schools,

- seven expect to be Silver capable by Q2 of 2012 (Chicago, Indiana, Penn State, Michigan State, Wisconsin-Madison, Virginia Tech, and Florida)
- one has set Q3 of 2012 as their target (Nebraska-Lincoln)
- one responded that their date was still unknown (Minnesota)
- one is targeting Q1 of 2014 (Iowa)
- one did not complete the survey, but is targeting Q4 2012 (Purdue)

While not the sole reason, a large part of the shift from Fall 2011 to 2012 and beyond can be attributed to the fact that these schools were the first to cover this ground. Their pioneering drove much of the change that went into evolving the Silver specification from version 1 to version 1.1. This caused some efforts to stall and others to need to be restarted.

Risk Concentration

If we assign a risk value of 10 to each red criterion and 1 to each yellow then average the risk across each functional area, the following risk map results:



¹See Appendix for a summary of the assertion criteria and their functional areas.

What this tells us is that the greatest risk lies within the Registration and Identity Proofing requirements, section 4.2.2. It also tells us that the least risk lies within the technical and infrastructure areas represented by 4.2.8 (Technical Environment), 4.2.5 (Authentication Process), and 4.2.7 (Assertion Content).

Appendix

Summary of Identity Assurance Criteria

Functional Area	Criteria	Bronze	Silver
4.2.1 Business, Policy and Operational Criteria	1. InCommon Participant.	●	●
	2. Notification to InCommon	●	●
	3. Continuing Compliance	●	●
4.2.2 Registration and Identity Proofing	.1 RA authentication	n/a	●
	.2 Identity verification process	n/a	●
	.3 Registration records	n/a	●
	.4 Identity proofing	n/a	●
	.4.1 Existing relationship	n/a	●
	.4.2 In-person proofing	n/a	●
	.4.3 Remote proofing	n/a	●
	5. Address of Record confirmation	n/a	●
4.2.3 Credential Technology	.1 Credential unique identifier	●	●
	.2 Resistance to guessing Authentication Secret	●	n/a
	.3 Strong resistance to guessing Authentication Secret	n/a	●
	.4 Stored Authentication Secrets	●	●
	.5 Protected Authentication Secrets	●	●
4.2.4 Credential Issuance and Management	.1 Credential issuance process	n/a	●
	.2 Credential revocation or expiration	n/a	●
	.3 Credential renewal or re-issuance	n/a	●
	.4 Retention of Credential issuance records	n/a	●

Appendix 1 (continued)

Summary of Identity Assurance Criteria

Functional Area	Criteria	Bronze	Silver
4.2.5 Authentication Process	.1 Resist replay attack	●	●
	.2 Resist eavesdropper attack	●	●
	.3 Secure communication	●	●
	.4 Proof of Possession	●	●
	.5 Session authentication	●	●
	.6 Mitigate risk of sharing Credentials	●	●
4.2.6 Identity Information Management	.1 Identity record qualification	●	●
4.2.7 Assertion Content	.1 Identity Attributes	●	●
	.2 Identity Assertion Qualifier	●	●
	.3 Cryptographic security	●	●
4.2.8 Technical Environment	.1 Software maintenance	n/a	●
	.2 Network security	n/a	●
	.3 Physical security	n/a	●
	.4 Reliable operations	n/a	●