## Initial Sponsor Meeting **Agenda**

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| **Skyward Federal**  **Multi Level Security (MLS) API Part 1** | | **1/14/2018**  **12:50 AM to 1:40 AM**  **NCSU – EB2-2216** | | |
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| Type of meeting: | Project Requirements | Note Taker:  Facilitator: | Daniel Mills  Spencer Yoder | |
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| Invitees: | Spencer Yoder, Jeen Shaji, Jonathan Balliet, Daniel Mills, Caleb Boswell, Dr. Jason King, Ms. Margaret Heil, Erin Kotlyn, Kristina Hatch | | | |
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| Meeting info: | [meet.google.com/inf-tyqj-yqx](http://meet.google.com/inf-tyqj-yqx) | | | |
| **Agenda** | | | | |
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| Introductions and Agenda Overview | | All | | 5 min. |
| Summary of Project | | From Student Team Perspective  From Skyward Federal Perspective | | 10 min. |
| Goals and Requirements for Project– Discuss Questions | | All | | 30 min. |
| Action Items & Next Meeting | | All | | 5 min. |
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| **Additional Information** | | | | |
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| Resource persons: | Dr. Jason King, Ms. Margaret Heil, Mr. Richard Kaufman, Erin Kotlyn, Kristina Hatch | | | |

**MLS API Part 1 Questions**

**Requirements Clarification**

1. Are there specific tools you want us to use for implementation? Eclipse? Does it matter? - Caleb
2. Do you have a preference on the language we should use? - Jeen
3. What is the long term goal of MLS API for your needs? - Jeen
4. Do you have a more thorough list of our deliverables? - Spencer
5. Does each level of data need to have its own Docker container? - Jonathan
6. Where is the database going to be stored? Are we are restricted to certain technologies for remotely storing it? ( AWS, Azure, etc ). - Jonathan
7. Are we restricted to what web/cloud services to use for serving the API endpoints? ( AWS, Azure, etc ). - Jonathan
8. What is the data that will be stored? (Do we get a sample/test database?) - Spencer
9. What are the three sources we’re getting data from? - Spencer
10. How important is speed? How fast should our system be at reading/writing the data? - Spencer

**Testing**

1. Do you have any preferences for how we test our software? Are there any specific technologies we should use? - Daniel
2. What aspects of the system will we be testing? Are there specific points that testing will be focused on? - Caleb
3. Will the privilege requirements affect the testing in any way? - Caleb

**Design**

1. Will we be designing any kind of front-end UI for the application? - Daniel
2. Do you have recommendations for how we should do the encryption? - Jonathan
3. What do you mean by a dynamic application? (should a change trigger a realtime pull into the “super” system or everytime they deploy) - Jeen

**Communication/Logistics**

1. Where/when will weekly meetings be held? - Caleb
2. Who is the main point of contact at Skyward Federal? - Caleb
3. Are there specific documentation guidelines and formatting we need to follow? (requirements, design and testing) - Jeen
4. What is the structure of your two-week sprints? What is the typical schedule like over the course of one sprint? - Daniel
5. How exactly are we going to be integrated into the sprints? (Would it be wise for us to have our own project board, repo, wiki, etc.) - Spencer

**Initial Sponsor Meeting Minutes**

**Team**: Skyward Federal – MLS API Part 1 **Date**: January 14, 2020

**Facilitator**: Spencer Yoder **Recorder**: Daniel Mills

**Attendance**:

* Spencer Yoder
* Jeen Shaji
* Jonathan Balliet
* Daniel Mills
* Caleb Boswell
* Dr. Jason King
* Ms. Margaret Heil
* Erin Kotlyn
* Danny
* Matthew Peters

**Minutes:**

* Introductions and fun facts
* Summary of project - our perspective
  + Addressing the issue of government and clients storing data w/ specific access rights in separate silos. We should implement a system that reads data from these silos, tags them, and stores them in a database. Create an API the client can use to access the data, and properly maintains these access rights.
* Their perspective
  + Mission is to create a system that contains multiple types of data w/ different access levels. What’s the most efficient way to manage these? Make sure people only have the access that they have the right to blendSElinux concepts with other technology like containers…
  + Co-mingle data w/ different access in one area
  + Need an API that is transparent to the user in the backend system, translation between the linux labels and the human labels
* Powerpoint notes
  + Give us access to their slack, different time zones
  + Give us access to their documentation and their AWS environment so we can play around in it
  + Design is not set in stone, we’ll work on them over the course of the project
  + Main purpose is to figure out the data flow
  + Cloud security overview is the best diagram to look at
  + ATO is a process that you have to go through with government stuff - goes through a security review
  + RMF - risk management framework that the gov uses to assess risk. Generally quantified in how an ATO is read. ATO is a sheet of paper that says the system is accredited up to a certain level
  + Is ATO something we need to handle?
    1. No, that’s handled on their end
  + System should have full disk encryption and transport layer security
  + Translate ATO requirements (there are over 900) into real, practical requirements
  + Prefer design flexibility over set in stone
  + Postgres has an extension that can work with SE linux
  + References page is the research they said they would provide, we’ll have access to their initial notes
* Questions and answers
  + Are there specific tools you want us to use for implementation? Eclipse? Does it matter? - Caleb
    1. The bulk of this work is configuring existing software. There might be components where they might find a library. They found a nice Java library, so we can write a Java application
  + Do you have a preference on the language we should use? - Jeen
    1. Java!
  + What is the long term goal of MLS API for your needs? - Jeen
    1. Integrate with the existing system and deploy it
    2. Apply what we learn to many other systems
    3. Create really secure applications with MLS
    4. Integrate with the actual systems as much as possible
    5. From our perspective - use principles learned to apply it to other systems
  + Do you have a more thorough list of our deliverables? - Spencer
    1. *Not asked*
  + Does each level of data need to have its own Docker container? - Jonathan
    1. A few docker containers, wrap the layer inside a container
    2. They’ll find a web app that can use the container
    3. When a user logs in, they will spin up a docker container at THEIR LEVEL
  + Where is the database going to be stored? Are we are restricted to certain technologies for remotely storing it? ( AWS, Azure, etc ). - Jonathan
    1. *Not asked*
  + Are we restricted to what web/cloud services to use for serving the API endpoints? ( AWS, Azure, etc ). - Jonathan
    1. *Not asked*
  + What is the data that will be stored? (Do we get a sample/test database?) - Spencer
    1. Depends on what web app we use for demo environment
    2. They’ll find some example data sets when we get there
  + What are the three sources we’re getting data from? - Spencer
    1. Based on the example
    2. Prove that it works by using different sample users that only have access to certain types of data, verify that it works as intended
  + How important is speed? How fast should our system be at reading/writing the data? - Spencer
    1. Might just be a proof of concept and see how fast it is
  + Do you have any preferences for how we test our software? Are there any specific technologies we should use? - Daniel
    1. JUnit
    2. Tools in their pipeline for static analysis - they’ll provide some automated testing
    3. We’ll get to see some new tools they’re adding
  + What aspects of the system will we be testing? Are there specific points that testing will be focused on? - Caleb
    1. Testing if user 1 can see data 1, user 2 can see data 2, etc
    2. Which aspects? all of them
    3. Observability - want to understand what the system does at any given point
    4. Focus - security is the priority. Security over performance!!
  + Will the privilege requirements affect the testing in any way? - Caleb
    1. *Not asked*
  + Will we be designing any kind of front-end UI for the application? - Daniel
    1. Probably not. We’re building the init proof of concept
    2. UI not really the plan for now
    3. If it’s easier with some sort of GUI, that’s ok
  + Do you have recommendations for how we should do the encryption? - Jonathan
    1. SSL or DLS
    2. Everything in transit
    3. Postgres is mostly figuring out the configuration to store the data encrypted
  + What do you mean by a dynamic application? (should a change trigger a realtime pull into the “super” system or everytime they deploy) - Jeen
    1. Dynamic in reference to spinning up the containers depending on access level
    2. Dynamically create container with user A’s credentials, only have access to their data
    3. Want application to periodically re authenticate users
    4. When is data considered stale?
    5. Probably some configuration to the database to handle this
  + Where/when will weekly meetings be held? - Caleb
    1. Slack any time
    2. Hangouts most of the time, they can periodically come down
    3. We’ll schedule as we go
  + Who is the main point of contact at Skyward Federal? - Caleb
    1. Erin
  + Are there specific documentation guidelines and formatting we need to follow? (requirements, design and testing) - Jeen
    1. *Not asked*
  + What is the structure of your two-week sprints? What is the typical schedule like over the course of one sprint? - Daniel
    1. *Not asked*
  + How exactly are we going to be integrated into the sprints? (Would it be wise for us to have our own project board, repo, wiki, etc.) - Spencer
  + What is our preferred tempo? Primarily interface with Erin
    1. Weekly meetings (part of the class)
    2. Thursdays at 12:50? Tentative
  + Kristina? - Change that point of contact to Danny, but primarily Erin
  + Deliverable for next meeting?
    1. Rough draft of requirements
    2. We’ll get their documentation, slides, development environment

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| **Action Item** | **Person Responsible** | **Due Date** |
| Requirements rough draft | Everyone |  |
| Docker containers research doc | Jeen, Jonathan |  |
| Postgres research doc | Daniel, Jeen |  |
| SELinux research doc | Spencer |  |
| Firecracker research doc | Caleb |  |
| Look at SF’s documentation | Everyone |  |
| Look at dev environment | Everyone |  |

**Meeting Evaluation:**

* Ms. Heil’s Feedback
  + Ms. Heil thought it was great
  + Agenda was good
  + Figure out how to use conference room video and speakers
* Positive
* Negative

**Next Meeting:** Thursday, January 23, 2020 at 12:50 pm: Review Preliminary Requirements - 2253 EB2