

# Technology Modernization Board

## Meeting Minutes

Thursday, May 24<sup>th</sup>, 2018

### Attendance

#### PRESENT

- |                           |                        |
|---------------------------|------------------------|
| 1. Suzette Kent           | Chair                  |
| 2. Alan Thomas            | Permanent Member       |
| 3. Mark Kneidinger        | Permanent Member       |
| 4. Maria Roat             | Term Board Member      |
| 5. Rajive Mathur          | Term Board Member      |
| 6. Charles Worthington    | Term Board Member      |
| 7. Matt Cutts             | Term Board Member      |
| 8. Margie Graves          | Alternate Board Member |
| 9. Dr. Erwin Gianchandani | Alternate Board Member |
| 10. Grant Schneider       | Alternate Board Member |
| 11. Darren Ash            | Alternate Board Member |

#### OTHER ATTENDEES

- |                     |   |
|---------------------|---|
| 1. Elizabeth Cain   | GSA PMO   |
| 2. Emma Perron      | GSA PMO   |
| 3. Jay Johnson      | GSA PMO   |
| 4. Lane Becker      | GSA PMO   |
| 5. Jenn Hanna       | GSA PMO   |
| 6. Allison Brigati  | General Services Administration                             |
| 7. Ben Skidmore     | Office of Management and Budget                             |
| 8. Somer Smith      | Office of the Federal Chief Information Officer             |
| 9. Max Tassano      | Office of the Federal Chief Information Officer, Contractor |
| 10. Claudine Roxas  | Office of the Federal Chief Information Officer, Contractor |
| 11. Kathy Kraninger | Office of Management and Budget                             |

### Meeting Minutes

1. The Board heard a Final Project Proposal presentation from the Department of Housing and Urban Development.
2. The Board heard a Final Project Proposal presentation from the Department of Energy.
3. The Board voted to accept the HUD UNISYS Mainframe Migration project for funding based on several conditions that will be outlined to the project team.
4. The Board voted to accept the DOE Enterprise Cloud Email project for funding based on several conditions that will be outlined to the project team.

## Action Items Voting Decisions

### PROJECT DETERMINATIONS

| Order | Project Title              | Agency | Project Stage          | Determination |
|-------|----------------------------|--------|------------------------|---------------|
| 1     | UNISYS Mainframe Migration | HUD    | Final Project Proposal | Accept        |
| 2     | Enterprise Cloud Email     | DOE    | Final Project Proposal | Accept        |

### Voting Record

#### 1. Unisys Mainframe Migration [HUD]

|                     |          |
|---------------------|----------|
| Matt Cutts          | Reject   |
| Maria Roat          | Accept** |
| Mark Kneidinger     | Accept** |
| Rajive Mathur       | Reject   |
| Alan Thomas         | Accept** |
| Charles Worthington | Accept** |
| Suzette Kent        | Accept** |

#### \*\*Conditions

1. Progress must be demonstrated within first **10 months** to continue receiving project funding
2. The project management team must address how much manual work will be needed to address coding errors from a software and tools perspective.
3. The project team must document all steps taken in order to create a replicable operation strategy for the rest of the Federal government

#### 2. Enterprise Cloud Email [DOE]

|                     |          |
|---------------------|----------|
| Matt Cutts          | Accept** |
| Maria Roat          | Accept** |
| Mark Kneidinger     | Accept** |
| Rajive Mathur       | Accept** |
| Alan Thomas         | Accept** |
| Charles Worthington | Reject   |
| Suzette Kent        | Accept** |

#### \*\*Conditions

1. The presentation identified cultural change as a risk. The team will need to address how change management across the enterprise will be handled.
2. The team must identify how executive leadership at DOE sites and plants be engaged in this process

## For Future Consideration

The Board has notified teams that they will hear a response by Friday, June 1<sup>st</sup>. A messaging discussion between Suzette Kent, the TMF PMO, and OMB Support will need to occur to discuss messaging to the teams and ensure all deliberation conditions are documented and encompassed accurately. We will notify teams as early as possible but request information to be withheld from the press, however we must assume it will be leaked at some point and therefore provide solid communication and messaging to project teams.

## Meeting Deliberations

1. **Welcome and Opening Remarks** – Suzette Kent, Chair
  - We will be holding people to their time
  - We will cut off questions at 20 minutes
  - We have communicated expectations to the team that they should have expectations within a week – if we can't reach a decision today, we will figure it out
  - Capture notes on this process
2. **May 14, 2018 Meeting Minutes Review and Approval** – Suzette Kent, Chair
3. **Break for HUD Team Set Up** (All)
4. **HUD UNISYS Migration Pitch & Board Q+A with HUD Unisys Migration Team** – Board and HUD Team
  - What are the top 2 risks?
    - Procurement
    - Testing on the back end (engaging program offices to do back end testing)
      - That's why it was so important to get the secretary bought in
  - SK: Will testing all happen within the agency?
    - No, it will take place outside the agency as well.
    - End-user testing has worked very well for them in the past
      - This is a similar process to something they have done before
    - User interface does not change
  - MK: Understanding the business process delay... are they imagining doing a business process review post-migration
    - By moving into Java, it will make this process easier (which is part of the long term plan)
  - MK: Given the substantial FHA component... what is the end user effect? What improvements would be seen?
    - Improved security around PII on the back-end
    - Eventually the cold fusion interface will go away with a new digital services design (but not as a result of this project)
  - MC: How maintainable would new code be? How many lines of COBOL would go to Java?
    - 4 Million lines of code in COBOL – converts to roughly 10 Java files (estimation)

*The following information is deliberative and shall remain confidential.*

- Relational database
- MC: How realistic is it to be able to implement new legislation?
  - You are converting COBOL into something totally new and sometimes code conversion doesn't happen; when you look at the conversion rate it makes sense
  - Trying to keep it as a 'lift and shift' – at the end you may have to do some manual work (which is factored in the 2 year timeline)
  - TSRI was used to translate Java code
- CW: How long did it take to know the previous attempt had failed?
  - Would have to follow up to give an example of previous mistakes. We would be able to see within 10 months if their timeline does not work (with the first release)
  - But they were successful with the proof of concept
    - Regression testing in the proof of concept phase
    - Testing automation is done as much as possible
    - They do one user testing to see whether the back-end is working
- AT: Was this team around in 2016 when the idea was hatched?
  - Yes. AT so why didn't the dollars materialize before now? Why couldn't they secure the internal funding?
  - The primary difference is the top of house support, and also the support of the CFO, and people believe in the leadership team (CFO understands how the working capital funds work)
- AT: Acquisition as a risk – either use a current contract AND/OR sole source something - do they feel like they should open that up?
  - The challenge is that with competition they may lose the vendor (Unisys doesn't scream modern)
  - This is their opportunity to unlock themselves from Unisys – but they do have all of the SMEs needed to solve any issues they have with their code conversion. This is an interim step to get off Unisys.
  - Pulling out or hierarchical databases into modernization databases
  - There is already a success story on the conversion in the past, which is why they feel they have good risk mitigation
- MR: Any chance of slow rolling within contractors?
  - No, that's why they have such an aggressive timeline.
  - AT: A bigger risk could be that they just see the writing on the walls and leave the agency
  - At the risk of being non-politically correct (Deputy CIO,) the youngest COBOL programmer at the agency is in their early 60's, but they have done a good job in supporting this over the past ~30 years and are near retirement
- CW: How frequently do they get requests to change cold fusion / chums etc?
  - This is a regular routine thing, they get a lot of legislation changes as well
  - CW: Did they attempt to make changes to the Java code in the prototype and how will they handle change during the lift and shift?
    - Code conversion is pretty simple in the way it is handled; they will start with CHUMS and then put it into action with all updates
    - Conversion of COBOL code is the last step (between Java and the databases)

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- CW: When they did the prototype did they make any changes to the Java application?
  - No
- RM: 1.4 Million lines of code in 2 months?
  - AI tool, when they convert they pick out modules which is very straightforward because the complexity of that model wasn't that big
- RM: Did they consider not creating a totally new database
  - They start with converting from the DMS to the SEQUEL and then convert the UML into the relational database. Then they stand up the data access – coding is the last part of the whole process
- RM: When is the original mainframe turned off?
  - In this project, it is at the end in 2021
- Who is the code conversion vendor? TSRI
- DA: Impact on financial audit findings, would it introduce any CFO concerns?
  - No because it is a lift and shift, and the CFO is on board.

## **5. Break and Board Follow Up Discussion**

- The fact that the timeline was built on the proof of concept was helpful
- They did have a POC that confirmed their intent in modernization and unlocked vendor dependence; flexibility to add a rules engine vs. rules of custom code were things that they heard.
- This seems like a huge improvement in security all around
- The timeline shows the ability to deliver results within 10 months so they would see something sooner than within a year
- RISK: Procurement (it would be hard to write a requirement to compete it)
- CW: There could be a mess of Java at the end that no one understands.
- It was a red flag that they referred to this as AI when really it is a machine code
- Credit given for proofing it out, but they didn't try to code it out at all
- Financial audit... can you prove to me it works the same tomorrow. MC → you are going to get spaghetti code out of this
- Want to see a realistic view of what % will have to be reworked. They want an independent assessment of the quality of the code coming out the other side that can be taken into the future and built upon (they said they have a separate contract)
- AT – this was initially attractive because there are a lot of problems, but they REALLY need to get the path right. Board would hate to give them the money to do an ok job.
- Cost savings would basically just come from turning off the mainframe – but how will that compare with the staff they need to hire to run Java applications? Compiled tools can be less effective than mainframes in terms of efficiency
  - Weren't totally sure about the cost savings and how much operations will cost
- There is some breakout on the sheets – but if you were the account rep on Unisys why would you do this?
  - This is inevitable and will have to happen at every agency – it is a dying market
- SK: There are a couple of other indicators that need to be demonstrated and structured. There is value for HUD but the TMF value is a planning playbook, perspective on tools & work effort for other agencies to be able to replicate
- The proof point in 10 months will be very telling

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- LK: The team will be coachable in terms of suggestions
- Secretary sponsor is big for this project

Criteria to address moving forward / conditions for funding:

- Award funding will be determined based on project milestones and status check ins based on the timeline set out
- Project must be replicable for other agencies across the Federal government

**6. DOE Cloud Email Migration Pitch & Board Q+A with DOE Enterprise Cloud Email Team – Board and DOE Team MK:** One of the things they talked about was how they have tried this already – what has been the inhibitor for the dept. to start this on their own? Is it a budget issue?

- There are a couple sites on the long term that are going to take a while to shift. Some teams are just getting around to the shift because of the federated systems in the labs – but there needs to be some sort of continuity.
- Bonneville power administration (WA) you would expect to be all Microsoft, but they actually own licenses for 365 for Office, but the move to cloud email presents issues (24/7 no fail operation.) Their new CIO is very much on board with this – Bonneville has its own subsection of multiple systems.
- All of these things are real, but the broader cultural issue at the department is a huge problem. There are places division is appropriate and places it is not – this is a fundamental change that needs to be made.
- With 64 email systems the multiplication of administrators, contracts, etc. is going to be a cost reduction and an increase in efficiency
- SK: Talk about the project team – cultural change, many agencies on board – what does that team look like?
  - The plan would be along with the vendor who is doing the technical work (Microsoft,) Lab personnel will be needed for site knowledge. They acknowledge it is a challenge to get the right people who have done this before
  - They are a distributed department and they are used to it. Help and support from other agencies has been crucial in overall ‘how do we move to the cloud’ strategy
- MC: How do ATOs play into this project?
  - This is a bit of a side driver, there has been no use of Enterprise ATOs at DOE. Authorizing officials do not have expertise to make decisions and become reliant on contractors
  - Building out enterprise ATOs, some people haven’t moved because they’ve never done this before. This move means that some risk will be owned by core project team – people are starting to realize the value in that
  - They are starting to set some visibility at the top
  - They are utilizing the FedRamped ATO; they have shared that to get teams a big starting point
- MC: What was the biggest challenge at Savannah River?
  - The big challenge was getting sufficient connectivity and locking down the cultural change of the move to cloud email
- MR: Is the timeline for this 3 years?

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- The project proposed is a two year project that covers a little over 1/3 of the inboxes, the 2/3 is NNSN, and the last 1/3 is already on their way
- For NNSA security, that will likely take a while.
- MR: Why is it going to take 3 years – why couldn't it be done in a year?
  - Part of this also includes consolidation of existing G3 separate tenants
  - Contract issues with M&O
  - NNSA will also need to use DLP and additional controls for restricted nuclear data which will require a lot longer burn in
- MR: IS DLP all inclusive in this?
  - Part of this is going towards enterprise visibility for federal sites, and labs as well.
  - They are being conservative in timeline
- RM: Virtual desktop infrastructure
  - This is partly a cultural change in the user experience depending on if they are doing VDI and the shift to cash mode. This is an end-user experience change but not a huge risk. This is one of the things they ran into with their migration but really a shift from online mode to cash mode. Not a risk they are worried may derail anything
- RM: How does mobile play into this? The way this was mitigated would be more information about mobile compatibility during the initial phase?
  - No significant risk, most workplaces will be compatible with 365 but there may be some work through
  - Across the enterprise they have multiple apps (MaaS 360 etc.) Moving to standard enterprise mobile tenant. A good example of that is encryption – they make extensive use of encryption across emails and mobile use
- CW: Cost savings with this migration?
  - Cost savings were realized by putting resources in other places. At HQ where the transition was done, they had \$2 Million for a team doing email administration, expertise changes
  - Cost avoidance
- AT: Culture and independence, we are talking about technology in TMF. When managing this, how much are you actually involving technology?
  - Having executive leadership and site CIOs will make this happen
  - Will be pre-walking through this process to make it go forward faster at the IT leadership level
  - Some of the labs are doing the best customer experience in the department
  - The goal is to move these people to do valuable work (people who were just doing email administration)

## **7. Review and Discussion of Phase II Projects – Board**

- MC: That was a good proposal
- SK: They agree – the only thing she would like to see them work on is Alan's question between customer service and the team actually doing the work
- RM: VDI and Mobile were presented not to be much of a concern – the change is probably the biggest risk
- MK: From the cultural perspective, there is positive movement towards thinking more as an enterprise which was a good thing to see
  - Thinking back to the stakeholders, that is great. Why are there CIO's at every lab? Could that cause problems?

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- Under Secretary is on board, and getting their involvement has helped Max push other initiatives with their CIOs (it has worked in the past)
- The team liked the customer service aspect
- LC: This project will have savings, the issue is just getting access to those savings (this is where the CFO comes in, and is again a structural problem)
  - Tracking down regional CIOs could potentially be tough
- SK: Their request was small
- CW: They didn't really articulate why it would be better for their own employees and the American citizen
  - TIC related issues and infrastructure challenges
  - OMB has been willing to try TIC related pilots at places like Census, the OMB side could help them figure out the rational way to do it
- CW: Knowing the culture at DOE, the labs view themselves as the people who know what they're doing (and best customer centric attitudes / customer support there too,) so who is the winner of this in the end?
  - Margie – there is a lot of operating model surrounding the project, their approach to how they do that uniformly so the customer doesn't suffer is crucial
  - CW was hoping to see more of how it relates to their mission and how it will positively effect them (Suzette would like to see more of this as well)
- SK: Who is the program? Who is the number of people? What is the sponsorship of the structure and engagement?
  - Conditional on coming back and seeing more detail
  - Project team was a PMO and it was the management team
- KK: DOE structure, their HQ is one thing, but Bonneville and WAPA – do they need to be on the same infrastructure? How should this really look and why do they all need to be on the same enterprise email service. Who is encompassed in it and why?

#### **8. Votes on Phase II Projects – Board**

- HUD: Accepted in a 5-2 Vote
- DOE: Accepted in a 6-1 Vote

#### **9. Next Steps and Confirmation of Action Items – Board**

#### **10. Adjourn**