

OPTN Network Operations Oversight Committee

Meeting Summary

November 6, 2023

Webex

Daniel Yip, MD, Chair

Introduction

The Network Operations Oversight Committee (NOOC) met via Webex on 11/06/2023 to discuss the following agenda items:

1. Welcome
2. OPTN Computer System to the public cloud

The following is a summary of the committee's discussions.

1. Welcome

Dan Yip, Chair of the Network Operations Oversight Committee (NOOC), welcomed committee members and provided an overview of the agenda.

2. OPTN Computer System to the public cloud

Tiwan Nicholson, Senior Director IT Operations, presented on the migration of the OPTN Computer System to the public cloud. Mr. Nicholson shared that the objective was to discuss and vote on whether the NOOC believes the OPTN Computer System should migrate to the public cloud, and if so, for the committee to determine an appropriate timeline for migration to the public cloud.

Mr. Nicholson presented the timeline of the path the OPTN Computer System has made over the years towards migrating to the public cloud. Mr. Nicholson shared that the timeline has been accelerated due to an outage in February 2023, and afterwards, migrating to the public cloud was identified as a corrective action.

Mr. Nicholson presented the benefits of moving the OPTN Computer System to the public cloud. He shared that the migration would provide benefits to the transplant community, including improved system security, reliability, and performance, enable faster rollout of new features to the transplant community, and improve stewardship of OPTN resources by providing scalable compute. Mr. Nicholson noted that moving to the public cloud will help achieve a greater level of stability for the current system. He shared that moving to the public cloud will reduce the level of effort (LOE) on maintaining the system, and that the migration aligns with and supports the OPTN Modernization Initiative.

Mr. Nicholson noted that it is important for the committee to consider migration now due to high operational overhead for on-premise infrastructure and lack of agility and scalability within the current platform to meet evolving transplant community needs. Additionally, manual failover and custom automated failover presents risks which could negatively impact patient outcomes, migration presents an opportunity to transition from the current system before the next 5-year hardware investment begins in FY25, and adoption of generally available public cloud services supports contractor neutrality.

Amy Putnam, Director IT Customer Advocacy, presented a plan for migrating the OPTN Computer System to the public cloud. Ms. Putnam shared that the first phase of the project would entail indicating

which efforts will be completed by the contractor, a test environment, or a third party. Ms. Putnam shared that the deliverables of the first phase would end in March 2024. She shared that at this time, there would be a report to the NOOC on the completion of Phase 1, including a summary of the components that were tested in a test environment, security findings and recommendations, results of the functioning testing on the system, as well as the results of performance testing, lessons learned, and information on the final cost. Ms. Putnam presented four potential project risk areas: technical, schedule, funding, and quality.

Mr. Nicholson shared the estimated cost of Phase 1 of migrating the OPTN Computer System to the public cloud. He shared that Phase 1 of the migration would cost approximately \$1,096,975. Ms. Putnam shared a cost comparison between migrating the OPTN Computer System to the public cloud versus maintaining the OPTN Computer System on the current platform. Ms. Putnam shared that the comparison was cost neutral, however there were greater benefits in migrating to the public cloud.

Summary of Discussion:

When discussing potential risks, a representative from HRSA asked about security risks associated with the migration. Mr. Nicholson explained that the security risk analysis will be part of Phase 2 of migrating to the public cloud. A representative from HRSA asked technical questions about migrating the OPTN Computer System to the public cloud. A representative from USDS said that the migration to the public cloud is the direction the OPTN should move towards, but they did not agree with the “lift and shift plan” presented. The representative asked for more details on the proposed plan.

A committee advisor asked if the OPTN Computer System should stay in the private cloud and stated their concerns in maintaining the status quo of the system and not modernizing the system as technology continues to improve. A representative from USDS commented that they believe there are other technological advances that the OPTN Computer System should take on to impact patients. A committee advisor asked if the NOOC should continue to upgrade the system that operates now or should the NOOC start laying the groundwork that is necessary for migrating to the public cloud. A representative from USDS and committee members continued to discuss the modernization of the system and API usage throughout the transplant community.

A committee advisor commented that the NOOC voting on whether to migrate to the public cloud is an important next step towards modernization. A representative from HRSA commented that even if the OPTN Computer System is migrated to the public cloud, the same security measures would need to be in place. They stated that because the OPTN Computer System would move from a private cloud to a public cloud, the technology of the OPTN Computer System would not be very different. A representative from USDS stated that moving the OPTN Computer System to the public cloud does not inherently provide greater accessibility.

A representative from HRSA asked what other modernization efforts were underway for the OPTN Computer System. They asked for more information on the patient outcomes associated with the movement of the OPTN Computer System to the public cloud.

The Chair commented that they wanted to ensure the NOOC was acting in the best interest of the OPTN Computer System and to improve the system for the entire transplant community. The Chair summarized the discussion, noting that the committee wants to move the OPTN Computer System to the public cloud and there is conversation around how the OPTN Computer System should make this transition. They encouraged the NOOC to consider whether moving the OPTN Computer System to the public cloud puts the system in a better position, and if so, then it would be in the best interest of the OPTN to migrate to the public cloud.

A committee member commented on the useability of the system and the usage of APIs within the histocompatibility space. They commented that much of the frustration in the histocompatibility community is a vendor issue and not an issue around the national system. A committee member asked about the movement to the public cloud and asked for clarity on which aspects of the OPTN Computer System would benefit from this migration. The committee member also asked why this move to another vendor would be beneficial to the OPTN Computer System. A representative from HRSA stated that they want to ensure the movement to the public cloud has positive patient outcomes or positive medical outcomes. A representative from HRSA asked the risks associated with migrating to the public cloud.

A committee advisor asked if there were any other alternative options that the government would like to see as it pertains to modernizing the OPTN Computer System. A representative from HRSA stated that their biggest priority is around the security of the system, and the collaboration that has been done with the contractor to enhance the security of the OPTN Computer System. A representative from HRSA asked how the NOOC wants to prioritize the work associated with the OPTN Computer System. They asked if there was other work the NOOC would like to consider in modernizing the OPTN Computer System. A committee advisor commented that having Centers for Medicare & Medicaid Services (CMS) participate in modernization discussions would help further the technology of the transplant community.

Julie Chatman, Director of Information Security, noted the security benefits of moving the OPTN Computer System to the public cloud. She noted the benefits are data backup redundancy that could enhance the security and business continuity of the system, data center usage, and security intelligence. A representative from HRSA commented that their focus is how this migration will benefit the patient community. The representative from HRSA stated that migrating the OPTN Computer System to the public cloud is for the NOOC to decide, not the federal government. A representative from HRSA commented that they believe a “lift and shift” of the system will not necessarily result in an increased level of security of the system. A representative from HRSA commented that replatforming the OPTN Computer System is not necessarily the answer and that refactoring may be a better path forward for the OPTN Computer System.

A committee member summarized that the OPTN Computer System should move to the public cloud, but there is debate on how to make this move. They asked HRSA and the contractor about the best way to migrate to the public cloud to benefit the entire transplant community.

The Chair asked the committee to consider whether the OPTN should work towards migrating the OPTN Computer System to the public cloud. A representative from HRSA suggested that the NOOC analyze the movement to the public cloud as a full plan and to analyze the different phases of the project. The Chair clarified that the question is not about moving to a specific vendor right now, and asked whether the NOOC should entertain the proposal of moving the OPTN Computer System to the public cloud. If yes, then the committee should consider how the NOOC can accomplish the movement to the public cloud and what resources this includes.

A committee advisor asked for HRSA to share their vision of modernizing the OPTN to aid the NOOC’s decision on whether to move to the public cloud. A representative from HRSA stated that the OPTN Computer System is a contractor owned system and the NOOC should consider if they would like to invest OPTN resources into the OPTN Computer System to migrate to the public cloud.

Dale Smith, Chief Financial Officer, asked if the committee recommended the movement to the public cloud to the Finance Committee and to include the \$1.7 million dollars in the proposed budget for the migration. The Chair explained that the NOOC would need to analyze the migration before recommending it be included in the OPTN budget.

A committee advisor asked if HRSA could share more information about the future of the OPTN Computer System if the contractor were to change. The committee advisor stated that they thought this was important for the NOOC to consider when making their decision on moving to the public cloud. A representative from HRSA commented that they could work to assemble a presentation for the NOOC on information they are able to share on the future procurement and how this may affect the OPTN Computer System and the NOOC's decision to migrate to the public cloud.

Next Steps:

The Chair asked that the contractor provide information on the pros and cons of migrating the OPTN Computer System to the public cloud. The Chair asked that the information be provided to the committee for them to vote on whether the OPTN Computer System should move to the public cloud.

The committee will discuss and vote on whether they believe the OPTN Computer System should migrate to the public cloud at a future meeting. Based on the committee's vote, the Chair of the NOOC will present the committee's recommendation to the Finance Committee.

The committee was also asked to review information provided to them via email for a future meeting about third party users of the OPTN Computer System.

The meeting adjourned.

Upcoming Meetings

- November 20, 2023

Attendance

- **Committee Members and Advisors**
 - Andrew Kao
 - Colleen McCarthy
 - Daniel Yip
 - Edward Hollinger
 - James Pittman
 - Kelley Hitchman
 - Laura Butler
 - Melissa McQueen
 - Willscott Naugler
- **HRSA Representatives**
 - Adriane Burton
 - Christopher McLaughlin
 - Cle Diggins
 - Cliff Myers
 - Manjot Singh
 - Nick Lewis
 - Vanessa Arriola
 - Vinay Vuyyuru
- **UNOS Staff**
 - Amy Putnam
 - Anna Messmer
 - Tiwan Nichol
 - Cole Fox
 - Courtney Jett
 - Dale Smith
 - Jerry DeSanto
 - Jonathan Moore
 - Julie Chatman
 - Julie Nolan
 - Krissy Laurie
 - Kristine Althaus
 - Laura Schmitt
 - Lauren Mauk
 - Liz Robbins Callahan
 - Marty Crenlon
 - Micheal Ferguson
 - Morgan Jupe
 - Rebecca Murdock
 - Rob McTier
 - Roger Vacovsky
 - Susie Sprinson
 - Tiwan Nicholson
 - Tony Ponsiglione
 - Tynisha Smith