OPTN Network Operations Oversight Committee
Meeting Summary
February 28th, 2023
Webex

Edward Hollinger, MD, PhD, Chair

Introduction

The Network Operations Oversight Committee (NOOC) met via Webex on 02/28/2023 to discuss the following agenda items:

1. Welcome
2. OPTN Computer System Outage Update
3. NOOC Goals for Increasing API Adoption

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

1. Welcome

Ed Hollinger, Chair of the Network Operations Oversight Committee (NOOC), welcomed committee members and provided an overview of the agenda. Representatives from HRSA introduced a new member of their team to the NOOC, and committee members and advisors introduced themselves in return.

2. OPTN Computer System Outage Update

Tiwan Nicholson, UNOS Director of IT Operations, briefed the committee on the progress of investigation into a system outage that occurred on February 15. Staff have been working to determine a root cause of the outage with support from Microsoft and Nutanix. Mr. Nicholson noted that the investigation continues, it may not be impossible to determine a single root cause of the incident. Since the outage, staff have also been working to amplify incident response processes as well as monitoring and alarming tools based on feedback from Microsoft. Efforts have also been focused to correlate logs for faster visibility so that quicker conclusions and timely actions can be taken within tight timeframes.

These enhancements to incident response processes and tests have been made to create a more robust system and to preclude something similar from happening again, while monitoring and logging tools are utilized during testing to capture system diagnostics on the signals they know occurred during the outage. Nicholson explained that staff continue to explore effective means to maintain cluster availability while protecting the data. During the outage, no data was lost.

After the service was restored, Organ Center Staff reached out to all members they had received calls from during the outage and ensured their systems were back up and operating normally. The members also confirmed that here was no impact to donor or patient workflows, and they were able to successfully complete their allocation and procurement tasks.

Summary of discussion:

A committee member asked how the outage was communicated to the community. Mr. Nicholson informed the NOOC that OPTN members were informed of the outage through the dashboard that is available for anyone that uses the system. A committee member commented that the new proposal to

Establish Member System Access, Security Framework, and Incident Management and Reporting Requirements, requires members to have a site security administrator. The committee member suggested that the site security administrator could also serve as a contact for the OPTN to notify if an outage occurs.

A committee advisor shared feedback they collected from their institution after the February 16 meeting. They asked employees whether the outage adversely affected their work during that time. They said that the outage, although an inconvenience, did not hinder their work. If the outage had lasted multiple hours than that could have been disruptive to the transplant system. The advisor suggested to explore other opportunities to ensure an outage of this sort does not happen again or for longer period of time, which staff is exploring.

A representative from HRSA revisited the notification process to members and asked if there is an alerting mechanism for the status page or an RSS feed. Mr. Nicholson explained that the status page was released in November so there are still opportunities to enhance the page. For example, he noted that a NOOC member asked for a legend to be added to the page and a legend will be added to the page next month. The status page does have subscription capability for a single component of the system, or members may subscribe for all nodes, announcements, and messages for all components. The HRSA representative also asked whether the metrics on the status page updated automatically or if they were updated manually. Mr. Nicholson explained that the messaging is manual, and the calculation is automatic. The representative from HRSA also asked Mr. Nicholson for confirmation that there is a process in place when an incident occurs to update the page, and Mr. Nicholson confirmed this.

A representative from HRSA reminded the NOOC that the NOOC possesses oversight responsibility on dashboards, and if the NOOC thinks there should be different reporting, processes, or granularity then they have the right to make these changes. The HRSA representative stated that the NOOC is the reason the status update requirement was added to the OPTN Contract because HRSA wanted to ensure the dashboard was relevant and useful to members. The representative encouraged the NOOC to bring suggestions about the dashboards to future meetings.

A committee member commented that although a 45-minute outage would be unfortunate, organ allocation before and after the match runs are performed hours, even days before a patient enters the operating room (OR) therefore, a 45-minute outage should not harm the system. Coordinators also have a printed copy of backup recipients they take to the OR with them and sometimes a list of backup physicians as well, in case they need to expediate placement unexpectedly.

A committee advisor suggested the NOOC analyze what procedures OPTN members have in place when an incident like this occurs, so they may have more data on how members react. The advisor also encouraged the NOOC to consider the difference between an inconvenience versus a problem, and what happens during each. The committee advisor also stated that as end users, they are going to know about an issue before the OPTN Contractor does and have the ability to distribute communication to members. The advisor reiterated a prior point, that when an organ is being allocated, there are multiple people who have already seen that offer, so they will not necessarily need the OPTN Computer System to analyze the organ.

A representative from HRSA suggested that it would be beneficial for the NOOC to have a conversation about system availability in general, instead of focusing on this particular outage. They also stated the importance of how a member's downtime procedure falls into incident response for particular outages, and to consider why this happened but also to evaluate the process at which the OPTN Contractor team responded and the adequacy of the response. They suggested that perhaps the next part of enhancing

the incident response process could be to analyze how outages are communicated to committee members and the community at large.

3. NOOC Goals for Increasing API Adoption

Marty Crenlon, Healthcare Integration Program Manager, presented on the committee's goals to increase API adoption. Mr. Crenlon presented OPTN Contract modifications that impact the NOOC's role in API adoption and encourages the OPTN Contractor to enhance API adoption. He shared what the OPTN Contractor's goals are on increasing API adoption, noting that they plan to build out APIs and drive adoption through the community. The OPTN Contract states that the OPTN Contractor is to support the NOOC and their efforts to define goals and tactics, drive wider adoption, and build out requirements for member compliance agreements.

Deliverable A120 is the work that the NOOC has already committed to, and Mr. Crenlon asked the committee for input on whether they should proceed as planned with their API adoption plan, or if there were any items the committee would like to add. Mr. Crenlon also presented the deliverable of A063 that asks what the NOOC would like to enhance in order to further API adoption.

The committee was reminded of the A120 deliverables that were presented in January 2022 for Fiscal Year 2023 for the OPTN's API milestones. These API milestones were to deliver three or more new APIs, increase adoption of the Unacceptable Antigen API to at least 50% of all transplant centers, increase adoption of the Local Deceased Donor Record API to at least 80% of all OPOs in a given month, and to produce a standard API adoption dashboard for quarterly review by HRSA and the NOOC. When it comes to specific activities, there are currently four APIs that are in development, three-member engagement campaigns to gain support on adopting these APIs, and continuous work being done to produce the API adoption dashboard.

Summary of discussion:

A committee advisor asked if the OPTN planned to make API adoption mandatory to increase engagement, or whether they planned to simply encourage members to adopt. They stated that 80% adoption is a lofty goal if adoption was not going to be mandatory. Mr. Crenlon explained that the OPTN has not considered making API adoption mandatory, and that doing so would be an OPTN decision, likely guided by the NOOC.

A representative from HRSA stated that the original goals behind including deliverable A120 in the OPTN Contract was to try and make the system more efficient and reduce the burden of data collection on members. The thought was that this deliverable could aid in facilitating the transmission of data therefore creating more robust policies and improving allocation. Although these were the original goals of the deliverable, it has also helped reduce data entry errors. The representative encouraged the NOOC to consider their role in mandating API adoption and reminded the committee that it is within their scope to make adoption mandatory. They encouraged the NOOC's engagement in decision making around APIs and reiterated the important role APIs serve throughout the transplant community. A committee advisor emphasized the high value impact that these APIs could have and emphasized the importance of creating visibility throughout the community. The advisor offered their assistance in collecting feedback throughout their organization to identify potential gaps APIs could fill.

A committee member asked the NOOC to consider the impact data from APIs could have, which APIs may be more impactful, and how they may impact the system. They encouraged the committee to think about APIs in the context of the security project. They encouraged the committee to consider how APIs fit within the security project and what role they could potentially play.

A committee advisor urged the committee to look to the future, because although there may be APIs within the OPTN, there are still no APIs between donor hospitals and OPOs. What this means is that members are still having to enter this information manually before there is any interaction with the OPTN Computer System. A representative from HRSA said they could bring this concern to the Centers for Medicare & Medicaid Services (CMS). They stated that CMS is working to clarify a donor hospital's role within OPTN API adoption. They confirmed that HRSA is working on addressing this issue and is encouraged to hear this feedback.

Next Steps:

Committee members were tasked to consider what APIs they thought could have the most meaningful impact on their organization and to bring these ideas back to the NOOC.

Attendance

- **Committee Members and Advisors**
  - Adam Frank
  - Bruno Mastroianni
  - Daniel Yip
  - Ed Hollinger
  - James Pittman
  - Kelley Hitchman
  - Kimberly Rallis
  - Maryjane Farr
  - Melissa McQueen
- **HRSA Representatives**
  - Adriana Martinez
  - Christopher McLaughlin
  - Cliff Myers
  - Manjot Singh
  - Nick Lewis
  - Vinay Vuyyuru
- **UNOS Staff**
  - Alex Tulchinsky
  - Amy Putnam
  - Anna Messmer
  - Bridgette Huff
  - Courtney Jett
  - Jason Livingston
  - Kristine Althaus
  - Liz Robbins Callahan
  - Marty Crenlon
  - Morgan Jupe
  - Ralph Medina
  - Rob McTier
  - Roger Vacovsky
  - Terri Helfrich
  - Tiwan Nicholson
  - Tony Ponsiglione