PROJECT DETAILS

Project Name:	Data Enclave Implementation Sub Project
Estimated Project Timeline:	7/1/2021 - 8/31/2022
Actual Project Timeline:	7/1/2021 – 8/31/2022
Overall Status:	Completed on time

PROJECT CLOSEOUT SUMMARY

The deliverable for this subproject was to implement a data enclave to comply with UI and UIHC business policies run by ICTS and supported by HCIS and ITS with unique, networking, hardware, and software requirements. This implementation is part of a larger initiative to implement the Iowa Health Data Resource (IHDR). A data enclave is a secure network through which confidential data, such as identifiable information from the patient electronic medical record, can be processed and analyzed while maintaining patient confidentiality.

Over the past 14 months a cross functional team composed of resources from HCIS, ICTS and ITS implemented the necessary networking, hardware and software components and developed the service parameters around which the storage and computational component of the IHDR Data Enclave service will be managed. This service now provides a data storage platform that allows for the utilization of exiting UI advanced computational resources such as Argon and the Interactive Data Analytics Service while aligning with UI Health Care business rules for management of UIHC protected health information (PHI).

STATUS PER PHASE

Phase 1: Initiation – Complete: July 2021

The initiation phase of the project went smoothly. A cross functional team composed of individuals from HCIS, ICTS and ITS was formed. A business case was developed and the ITS component of the project was approved by the OneIT operations team in July 2021.

Phase 2: Planning – Complete: August – November 2021

The planning phase went smoothly. The core project team developed a detailed project plan outlining scope and deliverables. A technical team was identified that would be responsible for configuring the data enclave networking, hardware, and software components. The core and technical project teams worked on developing the project plan which was shared with and approved by the OneIT Operations team in November 2021.

Phase 3: Implementation – Complete: September 2021 – July 2022

The implementation stage of the project went smoothly. The hardware arrived and was installed and configured within the estimated window. Storage arrays were setup in the HCIS data center and connectivity was established to front end services in the ITS data center. In parallel the core project team worked on outlining and documenting service support process. Once the processes were drafted pilot users were brought into the system, processes were modified based on feedback and the service began transitioning from a pilot to operational service in July 2022.

THE FOLLOWING SUMMARIZES WHAT WENT WELL WITH THE PROJECT:

- The collaboration between HCIS and ITS for deployment of unique storage resource in HCIS data hall space. Despite concerns regarding the setup of the storage resource the project team was able to come together and constructively develop and implement an architecture that supported the service.
- The collaborative development of support and service process between ICTS and ITS-RS. Mapping out swim lanes for the various service processes enabled constructive conversation and ensured a positive partnership and sustainable service model has been develop between ITS-RS and ICTS resources supporting this service.
- Leveraging existing tools and processes (such as Integrated Access Management) for support of service. This saved the team time as the team did not have to engage develop one-off business processes.

THE FOLLOWING SUMMARIZES WHAT COULD HAVE BEEN IMPROVED WITH THE PROJECT:

- HCIS and ITS technical resources initially did not understand why the service needed to be architected the way outlined in the P3 proposal. Several meetings were spent explaining why the storage needed to be housed in the HCIS Data Center when the rest of the hardware was housed in the ITS Data Center. Better articulation of the business requirements for storage needing to be in a separate physical location would have been helpful in addressing questions and concerns.

ADDITIONAL ITEMS FOR CONSIDERATIONS AS PROJECT TRANSITIONS TO OPERATIONAL SUPPORT:

- Further development of the relationship between ICTS BMI and RS will help strengthen the service in the long run. An initial relationship has been developed due to the implementation of this project. Further developing and strengthening this relationship will help both teams understand how the Data Enclave is being used by researchers and will ensure the service is getting the support needed to continue to grow from a technical and a resource perspective. It is recommended that ICTS BMI and RS individuals are identified who will meet on an agreed upon recurring basis to ensure the teams are learning and communicating with one another about the service and future needs.
- Developing a process around the previous bullet point will enable this one. ICTS BMI and RS working together to develop a firmer definition regarding the usage and long-term support of the data enclave storage service. Doing this would allow for adequate resourcing and ensure longevity of service support. ITS Leadership is concerned regarding how the ITS support will be funded once the initial 3 years of the P3 funding has passed.

Phase 4: Closeout – Complete: August 2022

The IHDR Data enclave service transitioned to operational service support implementation in August 2022.

Currently 5 studies and 16 researchers have been added to the Data Enclave. In the next 3 – 6 months it is projected that an additional 9 studies and 18 – 27 researchers will be utilizing the service.

From ITS resource perspective approximately 275 hours have been logged to this initiative as of 7/15/2022. This translates to approximately $26,000 in labor costs at $95 per labor hour.