

University of Toledo Leverages Flexible Integration Engine to Meet Interface Demands

THE CHALLENGE

Build interfaces in a remote space

The COVID-19 pandemic and implementation of a new EHR system, combined with keeping legacy systems operational, has kept the University of Toledo's IT staff on their toes over the last two years. Like many other hospitals, the IT staff went remote during this time and used Microsoft Teams to organize and share documentation, as well as schedule meetings with third-party vendors.

"Mirth Connect is beneficial to our IT integration team because it has the flexibility to handle many different types of data transfers," said Robert Werner, senior interface application developer at the University of Toledo. "The solution handles HL7, SFTP, API, ETL, and Web Service Sender, which allows us to design the best solution to meet vendor and government requirements."



CLIENT PROFILE

University of Toledo

Toledo, Ohio

Background: The mission of this 246-bed hospital is to provide a learning environment for future doctors, nurses, and other healthcare professionals. The University of Toledo features an emergency department and inpatient surgery, physical therapy, radiology, speech therapy, ambulatory clinics, and cardiovascular services.

NEXTGEN HEALTHCARE SOLUTIONS

- Mirth® Connect by NextGen Healthcare
- Mirth Connect Premium

HIGHLIGHTS



Leveraged flexible integration engine to meet vendors' interface needs



Ensured secure file transfers



Accessed resources and professional services of Mirth Connect Premium



Utilized extensions to maintain seamless health data exchange

THE SOLUTION

A flexible integration engine

“For example, if a vendor says they can’t do TCP/IP interfaces but can do web service, ETL (flat file), SFTP, or API—we can do that with Mirth Connect,” said Werner. “Mirth Connect enables us to choose what type of data transformation we’re going to send that data to that third-party vendor, whether that vendor sits in our network firewall or outside our network firewall.”

On a typical day, upper management will request an interface with a new vendor. The interface team then determines if the vendor can accept a real-time interface and if a Virtual Private Network (VPN) is needed to ensure the data being exchanged is secure. Mirth Connect provides the tools to create interfaces that meet rigorous data exchange demands.

Safety blanket

Mirth Connect provides a safety blanket in the form of a clustered environment—a failover clustered setup within Mirth Connect if a main server fails. Under these circumstances, the secondary engine kicks in to prevent disruptions in the flow of critical patient data to clinical care teams.

“We’ve had this happen maybe three or four times in the last ten years, where we had a hardware failure, the secondary engine stepped up, and everything went fine,” said Werner. “The hospital continued to operate smoothly—no one experienced any interruptions.”

A big change

In September 2022, the University of Toledo went live with an EHR system from Epic. This impacted all operational departments (between 5,000 and 6,000 employees); it was quite a transition with changes in the workflow, how they gathered data, and other processes.

“To put into the perspective of buying a new car, every department had to go from driving a 1999 Ford to a 2022 Tesla—all the bells and whistles of a new EHR and a major transformational change,” said Werner. “As the integration strategy was quickly adapted to the new system, we understood how the change would affect the clinicians’ daily workflows and the importance of training the entire hospital staff on the new workflow and how to enter patient orders.”

Before the implementation of the new EHR system, the hospital had approximately 580 interfaces linked to multiple small systems. The efficiency of Mirth Connect has reduced the number of interfaces to about 225.

“The integration engine is like a heart with different veins, pumping clinical data for labs, pharmacy, radiology, cardiology, transplants, and other departments—quickly, accurately, 100% of the time, 24 hours a day, seven days a week without any interruption,” said Werner. “Again, Mirth Connect gives us the flexibility to choose the most effective way to manage the data.”

When help or consultation is needed, Werner places a ticket and receives a call from NextGen Healthcare within two to four hours. As in any hospital environment, issues need to be resolved quickly.

“Mirth Connect allows us to easily work with the vendor’s capabilities. If they can’t do TCP/IP interfaces but can do a web service—we can accommodate them.”

Robert Werner

Senior Interface Application Developer
University of Toledo

Mirth Connect Premium

Over a decade ago, the hospital signed a contract for Mirth Connect Premium to access professional services and extensions to keep up with the hospital's growth and rising interoperability demands. Before going to Premium, the hospital used the open-source solution.

"We went with open-source first to test Mirth Connect's ability to create interfaces and find out how easy or hard it would be for our interface team to perform development and test HL7 interfaces," said Werner.

The interface team worked with the open-source engine for several months before deciding to go with Premium to access professional services and various extensions.

The Mirth Connect professional services team lent a hand when the hospital converted to Mirth Connect Premium and assisted with developing the hospital's integration strategy. "It was reassuring to know that we had that level of expertise and knowledge helping us through that process," said Werner.

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HOW CAN WE HELP?

Partner with us at **855-510-6398** or **results@nextgen.com**