LIMSConnect Informational Overview

What it LIMSConnect?

- High level: Smart data synchronization service that provides near-real time bi-directional data exchange between ETOR and LIMS.
- Technical: LIMSConnect is an ETOR Platform service which operates on Windows Server and Workstation architectures. It sits behind a firewall with no open inbound ports and only requires 443 outbound port to a secure SSL encrypted endpoint for all communications to the ETOR Infrastructure. It connects directly to state LIMS using whatever protocols available (pre-developed) and then maintains data synchronization to the ETOR Infrastructure using secure SSL tunnel.

How does LIMSConnect Work?

- LIMSConnect will create a connection to the ETOR Infrastructure through port 443 using SSL encryption to tunnel a connection in order to synchronize data between ETOR and LIMS.
- It will maintain LIMS connection whenever necessary in order to PUSH/PULL data. It will create a LIMS connection using whatever protocols available (such as web services, SOAP connections, WCF, direct DB, SQL Server client, ODBC, etc) in order to create the data flow to/from the LIMS. This would be pre-developed and deployed as part of a plug-in of the LIMSConnect service and published as "open source" for states to control/modify the data flow to/from their LIMS.

What are some of the Pros of LIMSConnect?

- Complete control over what LIMS test/results data to share with submitters; not limited to just what's been submitted through the portal
- Near real-time data updates between ETOR and LIMS
- Much shorter implementation cycle. Main effort is to establish LIMSConnect interface with LIMS (i.e. "main pipe") using whatever protocol available for consumption. After that, any laboratory test can be ordered and resulted with minimal additional effort.
- Less layers of translation, less validation, magnitudes less points of failure (no issues with hand-offs between ETOR/AIMS Mirth/state Rhapsody/LIMS, no PHINMS issues, etc.)
- No need to develop/maintain order/result HL7 interfaces for each test to be used with ETOR
- LIMSConnect interface with LIMS is published as "open source" allowing states to control/modify the data flow and the interface specifics

- Security aspects:
    - No inbound ports required to open on firewall
    - Outbound ports are likely already open for common https internet comms over SSL

What is needed to prepare for LIMSConnect?

- A dedicated (preferred) box is needed that has network communications with the LIMS in order to execute the necessary comms with the LIMS data and an outbound port allowed (should be in most cases) on 443 to connect to the ETOR Infrastructure.
- LIMSConnect runs using the latest .NET Framework 4.7.1 and this framework is readily and easily upgraded on all workstations and servers. (Windows update will provide if 4.5 has been deployed with optional updates enabled).
- No minimum resource requirements for CPU/RAM – although 2core+ and 4GB+ is recommended for best results. Resources for drive space vary according to the anticipated data flow but 32GB is nominal and safe estimate for most systems. (error logs and transactional audits will be stored on the computer)