Web Services

The Web Services feature in Lyniate Corepoint is important for health organizations looking to meet the Promoting Interoperability (formerly Meaningful Use) requirement of exchanging patient data with an unaffiliated external organization.

The Corepoint Web Services feature allows users to participate in or create the most common health information exchange scenarios, such as enterprise HIEs, including those used in Accountable Care Organizations.

Web Services is the ideal communication standard for HIE creation and participation because organizations can exchange large amounts of data over the internet and intuitively integrate received data into their application environment, all without the need for scripting. Because Web Services allows data transmission regardless of the vendor or workflow, it is the ideal communication method for connecting remote providers and applications across an HIE network.

Corepoint uses XML messages that follow the SOAP standard for secure communications, the most common Web Services standard used in healthcare.

Know

Secured Web Services updates data in real time based on trigger events, or action points in Corepoint. Once a patient's data is updated by a provider and the trigger is set, that patient record is published to one or more HIEs.

SOAP-based Web Services feature gives users the ability to act as either a Web Client or a Web Service, all within Corepoint.

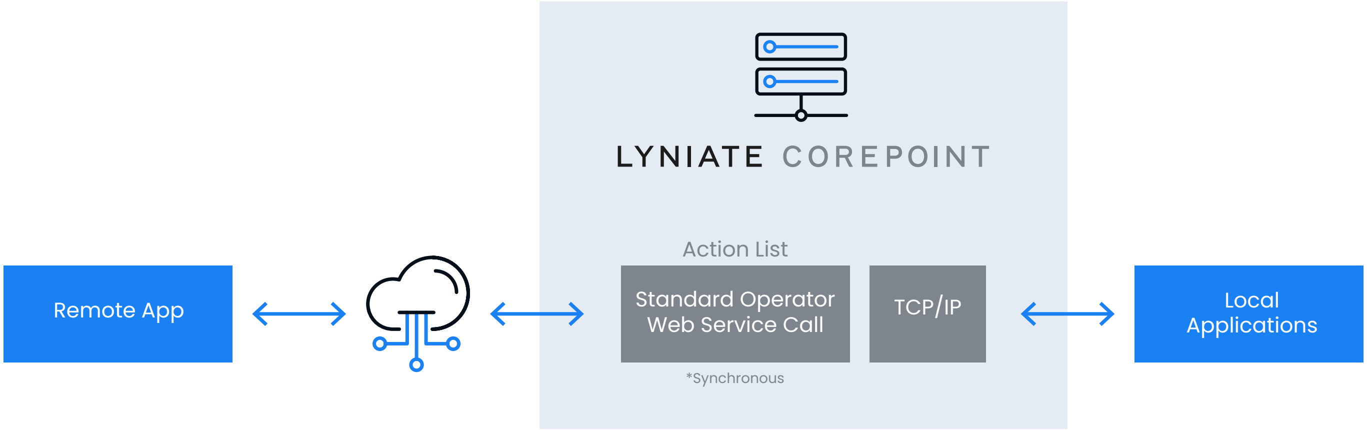
Corepoint Web Client feature includes "call" and "send" abilities with logging and error handling capabilities. Deploy data to multiple endpoints using current engine and server configuration.

Supports secure messaging, reliable messaging, secure transport, client certificates, SOAP 1.1, SOAP 1.2 and WS* standards

The Web Service feature allows users to establish the destination hub, free of scripting, that receives inbound requests from external calling applications equipped with Web Services capabilities. A Web Service using Corepoint creates an intuitive health data information exchange architecture powered by the most-trusted integration engine in healthcare.

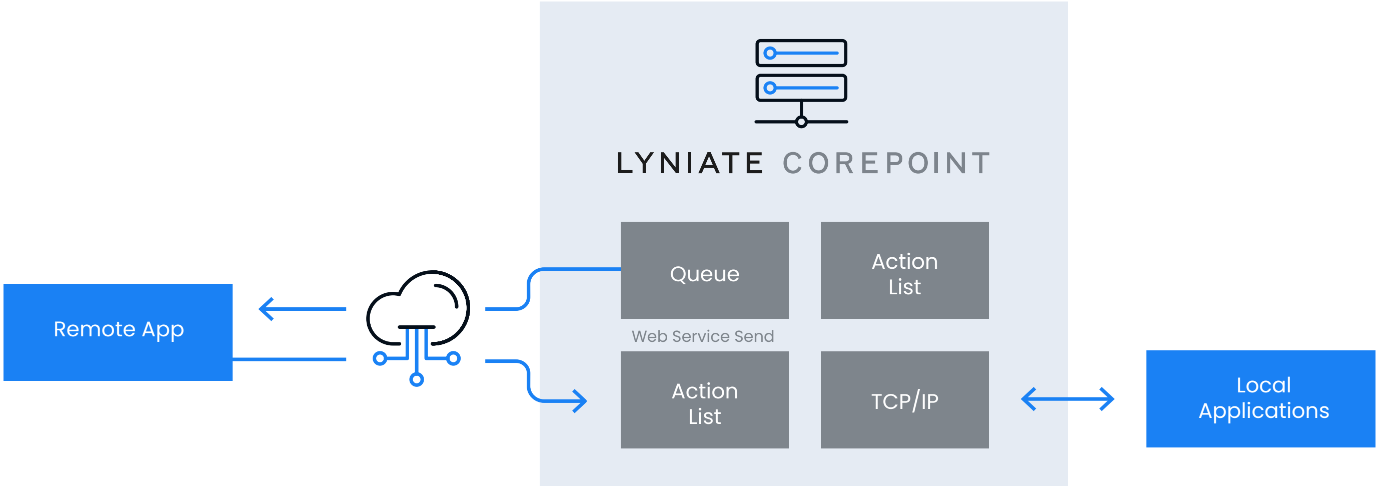
Web Service Call

A Web Service Call feature is available as an Action List operator in Corepoint, giving users the ability to call any SOAP-based Web Service to request data. Because this feature is available in an Action List, the call is made to the external organization simultaneously, without the need for other software or a CareAgent. The only requirement is that the receiving application have Web Services listening capabilities.



Web Service Send

Sender functionality allows users to also deliver Web Service messages from a connection queue. More complex than a simple Web Service Call in that it separates HL7 mapping from the data transport, this function handles multiple connections with built-in error handling capabilities. Like Web Services Call, users benefit from robust logging capabilities native to Corepoint.

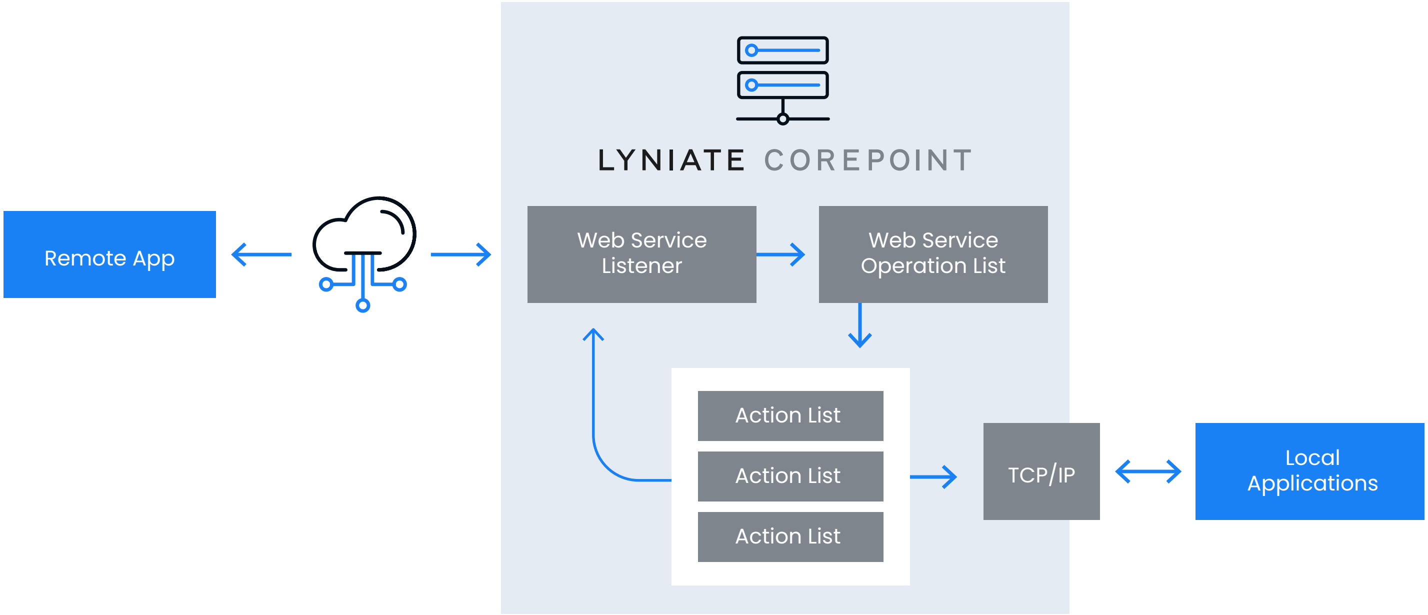


Web Services Listener

Listener functionality allows organizations to create the data architecture needed to establish an enterprise HIE by monitoring and receiving messages from calling applications. Using the same powerful integration features available for internal applications, Web Services Listener seamlessly processes incoming messages in Action Lists and routes them to other destinations or calling organizations.

Web Service Multi-Request

Web Service Multi-Request is a feature that extends the functionality of web services to handle multiple concurrent requests at one time. This separately licensed feature will support up to 100 concurrent web service receiver requests, significantly increasing throughput and preventing web service receiver bottlenecks. This robust multi-request processing will continue processing messages if one message errors and will resume processing upon a connection restart.

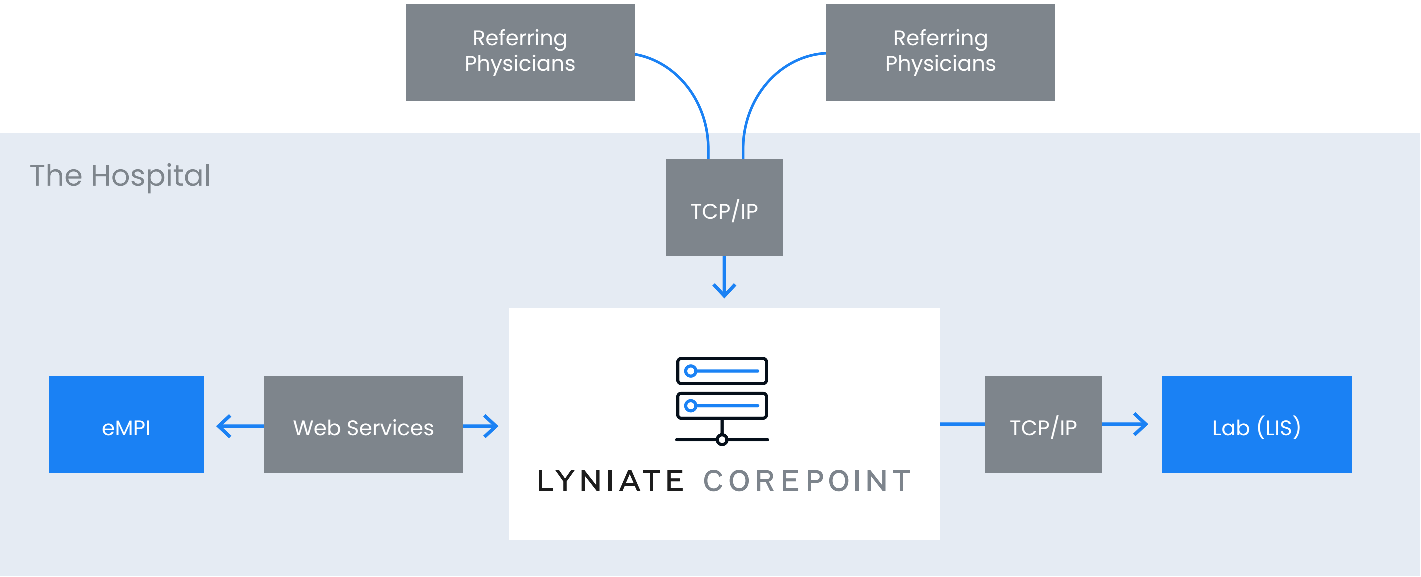


Data Mapping

One common use for Web Services is to look up codes and/or patient names. Corepoint acts as a Web Client to query the eMPI for the correct patient identifier.

In this example, an order is received from the referring physician community. Once that order arrives at the hospital facility, the integration engine can extract demographic information about the patient and encode it into the XML body of a SOAP-based message being sent to the eMPI. The integration engine acts as a Web Client, or a Web Service Consumer.

The way in which the data is encoded and what specific demographics must be included are defined in the WSDL provided by the eMPI vendor. The eMPIs acts as a Web Service Producer, and returns the appropriate local patient identifier. The integration engine can then map the local patient identifier into the order message before it is forwarded on to the local lab (LIS).



Transporting Documents

Another common use of Web Services is for the transport of CCD documents to a local HIE.

For example, it might be required to upload a CCD to the HIE every time a patient is discharged so other providers in the area can have access to the data to continue care.

To illustrate: a hospital HIS sends the document to Corepoint using traditional TCP/IP. The integration engine uses Web Services to transport the document outside of the facility without performing any mapping in the document—it simply acts as a Web Services Consumer that routes the document to the HIE.

More complex scenarios might require routing to multiple downstream entities. In that scenario, the integration engine could parse the CCD document to determine the intended recipients from the header, and then route the document to all required entities via Web Services.

Hosting a Web Service

Corepoint can act as a Web Services producer when CCD documents are stored in a hospital's repository, rather than with an HIE. In this case, the HIE must query the hospital when it has a request from another HIE member for patient health information regarding a specific patient.

Corepoint acts as a Web Services producer and listens for HIE Web Clients to request documents for a given patient. The integration engine would then retrieve the document from the local HIS and forward it to the HIE that made the initial query.

Similar to the way an integration engine manages and simplifies connections among applications within the facility, an integration engine is extremely useful in managing and simplifying connections to outside partners.

Conclusion

Web Services is changing the way healthcare organizations share data. As patient healthcare data is shared between facilities, privacy and security are of upmost importance. Web Service lends itself well to this type of sharing as a secure method of transport that is flexible enough, with its XML structure, to incorporate profiles aimed at consent, authentication, auditing, and all the other attributes important to healthcare IT.

Contact Us:
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