Grant Opportunity: Comprehensive Data Modeling/Testing for Replacing EDI Format in Telecom

Project Summary

The NCPDP Telecommunication Standard (Telecom) has its origin in a protocol first used in the late 1980's as the industry began to convert from paper formats and proprietary messages and protocols. In 1996 NCPDP became ANSI accredited and the Telecom standard was later named in the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Over time computing has changed and no longer uses isolated computer code but interconnected services, storage solutions have changed from dedicated storage replaced with shared storage solutions, and networking has changed from proprietary solutions to interconnectivity. In addition, today's Internet and standardization of network ecotechnology has changed from silos to interconnectivity and software development has changed to new and more powerful languages, libraries, and tools.

The NCPPD Foundation is seeking a consultant to help NCPDP through the data modeling, design, and evolving architecture to replace the NCPDP Telecom syntax (format).

Project Strategic Support

Supports the NCPDP Foundation's vision of better healthcare through standards-based health information technology for the common good by keeping the NCPDP Telecom standard relevant with today's technology to continue to get medication therapy in the hands of the patient efficiently and effectively.

Support NCPDP Strategic initiatives by ensuring NCPDP develops standards that are relevant to industry needs to advance patient care through the development/updating the platform for Telecom in a format that is current with today's technology.

Support NCPDP's Leadership in Standards Development through continued relevance and adoption in the development of a logical data model and update of the syntax for Telecom with a high-level plan to be completed by the end of 2021.

Support the work of the NCPDP Telecommunication Standard Modern Format Recommendation Task Group (aka TANG) in their recommended structural changes to the Telecom Standard that accelerate the ability of stakeholders to respond to the needs of the marketplace.

> The task group provides a high-level roadmap that transitions the relevant transactions towards those structural changes. Initially, its scope will be limited to the Claim Billing and Eligibility transactions, effective after the next HIPAA named version. In a Task Group survey 86% are in favor of adopting a new format. The most preferred formats are JSON (75%) and XML (25%). If JSON is chosen Task Group members are concerned with the interoperability between JSON and XML which SCRIPT is written in.

The project would encompass:

1. Building a Comprehensive Data Model (EDI to XML/JSON, JSON to XML) using the Altova UModel product. The data model will begin with the Telecom Standard and then incorporate other NCPDP XML based standards. The data model must support extensions.
2. ECL project: investigate how HL7 is using code values for FHIR and incorporate into the Telecom Standard data model
3. Parallel Testing to ensure interoperability
4. Evaluate the NCPDP XML standard and determine if a NCPDP JSON standard is needed.

Industry Need

Structural changes of the Telecommunication Standard
*   Rigid message construct where an undefined field or segment is not supported
*   Message construction and parsing

Need for Interoperable Communications
*   Coordination of Benefits, Mutually Exclusive Benefits, Integrated Benefits (e.g. MMPs)
*   Clinical services, value-based healthcare, MTM, DIR, Lower Cost Alternatives
*   Payer, Pharmacy, Prescriber communications (e-PA, RTPB, RxChange, RxFill)

Production Support and Maintenance
*   Error and reject handling
*   Workflow automation

Resource Knowledge Constraints
*   Requires extra time to employee and constructs language (EDI) no longer taught/used
*   Ideation to Production (Time to deliver)

Newer Technology with Speed and Accuracy
*   Telecom still built on original VISA II protocol
*   Newer technology uses Certificate Exchange process
*   Data storage and validation protocols can be enhanced via Block Chain technology
*   Connectivity with current protocols: HTTPS, SOAP, RESTful, etc.
*   Enhanced Security (SSO, 509c, mutual auth, TLS)

Measurements for Success

Measuring the success of Foundation grant for a more agile NCPDP Telecommunication Standard format can be measured in a number of other ways including:

*   Completion of a detailed comprehensive data model
*   Analysis and recommendations of extensibility

- Ability to integrate with newer technologies
- Measure the interoperability with other NCPDP standards

Desired Skills and Experience

- Ideal consultant will have expert knowledge of JavaScript Object Notation (JSON), Extensible Markup Language (XML) and Electronic Data Interchange (EDI).
- Ability to develop a logical and physical data model using the Altova UModel product
- Architectural thought leadership in standards design
- Oral/written communication and presentation skills to effectively communicate complex technical information
- Practical application(s) with NCPDP standard(s)
- Experience with NCPDP Workgroups and Task Groups