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**HIT Standards Committee Testimony**  
November 30, 2010

**Written Statement of  
Joe Carlson  
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Covisint Corporation, a Compuware Company**

**Introduction**

Distinguished Members of the HIT Standards Committee and associated guests I would like to thank you for the opportunity to discuss approaches to **the standards used for secure point-to-point (P2P) transport of health data between provider organizations.**

Throughout the past ten years Covisint has been providing integration and secure messaging of data as a “service” to thousands of organizations across multiple, global vertical markets. Covisint Data Exchange Services processes over two million messages daily enabling many critical business processes through secure messaging. Protocol translation, data integration services, security policies and secure transport are all components of enabling exchange of health data between organizations.



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## STATEMENTS FROM COVISINT ON “APPROACH” TOPICS ESTABLISHED BY COMMITTEE:

- **A means of authenticating end points (and managing end-point identities and certificates)**
  - a. As part of the core “Covisint ExchangeLink™” platform for Healthcare, Covisint “Data Exchange Services” provides a means of authenticating and managing end-points, end-point trading relationships that drive the flow of data and managing communication channels and associated certificates. Within Covisint Data Exchange Services, our primary application enables standards-based interfaces and management of end-points. Many other capabilities exist, such as, flexibility to enable custom services for non-standard interfaces, encryption/secure hashing algorithms, mapping and transformation services, support for custom processing of data and integration with our security, identity management and portal/collaboration services.
  - b. By default, all network access for system-to-system messaging is denied. On a per end-point basis, we enable IP-to-IP access over specific ports based on secure transport being implemented. Multiple methods of authentication should be supported, such as, basic authentication and client authentication with digital certificates.



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- c. Within Covisint Data Exchange Services, our primary application provides the interface for managing, supporting and configuring end-points and the associated attributes of the end-point. For example, “who they are”, transport protocol and authentication criteria, etc.
- **An encryption solution**
  - a. Within Covisint Data Exchange Services, our primary application is the common framework for supporting message based encryption and SSL/TLS secure transport in addition to providing system-to-system IPsec VPN solutions for many customers.
  - b. We support many standard ciphers and algorithms for encrypting and signing data. Most can be found at:  
<http://www.entrust.com/pki/java/features.htm>
  - c. We also implement the Covisint “Scout” technology as a solution that can be installed and configured to run at an end-point for secure communications with Covisint. Scout handles the secure encrypted communication over the internet and many options integrating back-end applications within the end-point environment.



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- **A means of assuring that data are not modified in transit**
  - a. To ensure data integrity, we support digital signatures and secure hashing algorithms as part of the Covisint ExchangeLink platform. Our messaging platform can generate hash values (message digest) and validate/compare hashed values to validate the data received is what was sent.
  
- **A messaging protocol (e.g., SMTP, SOAP, REST), and**
  - a. All standards-based protocols are supported where minimum security requirements are met. We have implemented many interfaces based on many different standard protocols, such as, SOAP and REST style services, Core2, PHINMS, XDS.b, XCA and NHIN. In addition, we have implemented many transport protocols for secure message exchange, secure email, FTP or MLLP over IPsec VPN, secure FTP and HTTPS.
  - b. Covisint “Scout” is an additional option we provide for secure messaging based on HTTPS transport. Scout can easily be deployed at the end-point to quickly enable secure communication over the internet.



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- **A means of confirming the receipt of messages**
  - a. Within Covisint Data Exchange Services, our primary application provides complete visibility and tracking to all messages exchanged between end-points. As part of the solution, we support both transport and application level acknowledgements and receipts. The status of whether a message was confirmed or delivered is visible in the application and exceptions are rolled-up in to a standard dashboard and alerted to appropriate personnel.
  - b. Within Covisint Data Exchange Services, through our primary application we have visibility into delivery receipts that get associated to each individual message. These can be MLLP level transport acknowledgements, SOAP responses and depending on the business process we also could receive asynchronous receipts from the receiving application that we associate to the original message.
  - c. Within Covisint Data Exchange Services, our primary application also provides API's for external end-points to both query message attributes and status along with communicating the status of messages received to provide additional confirmation.



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## **ANSWERS FROM COVISINT ON “QUESTIONS” ESTABLISHED BY COMMITTEE:**

- **What factors affected your decision to implement P2P messaging as you did?**

**Would you make the same decision if you were designing it today?**

Covisint provides secure messaging as a “service” for all its customers and across many vertical markets across the globe. P2P messaging can be very costly for many organizations to implement and support on a continual basis and as the number of end-points grow. There are many disparate messaging protocols and variations of standards that managing and being responsive can be a significant task for many organizations to overcome. It’s not just the initial investment or “on-boarding” of end-points but there is a continual “re-investment” in technology that is required as standards change and new standards evolve. In our experience, even when "implementing to standards", end-point implementations vary and are not always compatible. Thus, the importance of Covisint services being able to support multiple variations within a given standard.



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Much of the complexity is not always in the messaging protocol but in the message formats and understanding the data. Understanding the standard message formats, such as, XML, HL7, X12, etc., how basic routing information is identified and how each EHR vendor has implemented can present many challenges.

- **What do you consider essential requirements for simple, P2P exchanges between two provider organizations?**

Focusing strictly on “messaging” and assuming patient consent and matching of identities is a separate discussion.

Each organization should have the ability to securely communicate over the internet based on a standard transport such as HTTPS. This could be very basic HTTPS standard operations to messaging protocols like SOAP or REST style web service calls. Consideration of security and confirmation of delivery are important essentials along with building a framework to support new requirements for building more complex interfaces as technology and standards continue to change.



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In addition, an understanding of the “data” being exchanged is an important requirement. Many EHR vendors require specific formats for data content, specific values in segments or other small details that are not known by simply stating support for XML, HL7 or X12. Success is in the “details”.

- **Do you exchange information with any federal organizations using the NHIN CONNECT gateway? If so, how is that accomplished?”**

No. We have implemented NHIN Connect gateway as part of a HIMSS 2010 demo with the Mayo Clinic and State of Minnesota Health Information Exchange (MN-HIE). We have since built NHIN Connect functionality into our Covisint Data Exchange Services platform, with support for XDS.b and XCA IHE profiles.

Regarding NHIN Direct, Covisint is participating in NHIN Direct technical implementations with other vendors as part of the many pilot projects and workgroups. We are working to support the efforts and vision of NHIN Direct as an easy end-point on-ramp for secure message exchange.



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## Conclusion

Standard transport and messaging protocols are critical to providing direction for organizations and enabling secure message exchange. However, success will largely be driven by an organizations ability to support and implement multiple concurrent standards. Successes being defined in this context as how quickly and how many end-points have been integrated into the “healthcare ecosystem”. Participants in a “healthcare community” will bring forth many disparate solutions based on current technologies and existing applications where investments have already been made. Business and care value is the ultimate driver, not technology, and there will always be a need to support legacy, multiple standards and non-standard implementations to enable secure transport of health data between organizations.

This is what Covisint does and provides as our “core service”. We help organizations manage the disparate messaging protocols and message formats, provide increased visibility and tracking of critical business transactions, provide tools to manage end-points and provide lower total costs to our customers.

Members of the Committee, I thank you for the opportunity to discuss these approaches in healthcare data exchange and welcome any questions you may have.