

Innovation for Practical Use by MaxMD



Scott A. Finlay, Founder & CEO

“We have always been focused on secure communication and secure exchange of data but our approach has been constantly evolving.”

Information technology in the healthcare industry is rapidly evolving with new applications, devices and constituencies emerging daily. However, exchanging healthcare information between legacy applications and new systems still seems to rely on point-to-point persistent interfaces. This is an expensive dogmatic approach to interoperability.

While ‘Interoperability’ may sound like a complex term, it refers to a simple concept of allowing data created by one vendor system to be securely exchanged and consumed by another. Security and trust-in-identity are pivotal concepts in developing a scalable exchange of healthcare data. These are fundamental building blocks of the Direct Protocol, and MaxMD’s lightweight, scalable and sustainable approach to Health Information Exchange (HIE).

Kick-Starting

It all started when MaxMD originally bought exclusive rights to a Top Level Domain with the idea of creating a secure healthcare domain. A patent was filed and received for secure communication process between independent organizations (sub-domains) and disparate systems.

“We approached the problem from one level higher; at the top level domain stratum as opposed to the subdomain level,” explains the co-founder and CEO of MaxMD, Scott A. Finlay. *“However when the ONC announced the Direct Protocol, we joined Direct Trust and were one of the first three vendors fully accredited as a HISP, RA, and CA.”*

MaxMD’s technology leverages a unique combination of tools to transform data while in transit between disparate systems. The inclusion of a sophisticated Rules Engine, Data Transformation Engine and a natural language processing engine supplements Direct Exchange. The results are unparalleled data liquidity that comes at a fraction of the cost associated with other forms of HIE.

Overcoming the stumbling block

As is the case with new ventures the journey has seen challenges of various sorts. *“Our founders did not come from the healthcare industry so we looked at challenges differently so there was some initial skepticism about what we knew about*

The Leading Force of MaxMD

Scott A. Finlay is the founder and CEO of MaxMD. He graduated with a BS in Engineering from the United States Military Academy at West Point. Finlay was a Managing Director at Lehman Brothers for 11 years. He then moved to CIBC World Markets as a Managing Director for 4 years before establishing MaxMD.

healthcare,” explains Finlay. *“However, we viewed this as an advantage. Combined with the fact that we listen to customer feedback and respond quickly with customizable, lightweight, scalable solutions has proven to be a positive differentiator for MaxMD.”*

Nevertheless, the healthcare industry still has some unique challenges. Some segments of the healthcare market can be resource challenged and dependent on legacy system vendors. *“We are steadily growing but the pace of change in healthcare in part because of regulatory and privacy concerns moves at a slower pace than other industries,”* he notes. MaxMD feels that the client feedback has shaped its product development. Every service that it has designed has its roots in a consumer or client’s challenge. Be it structured or unstructured data, or other effective ways to exchange ePHI, MaxMD is constantly working to address interoperability challenges. *“We are committed to creating data liquidity for the healthcare market to improve care coordination and lower the costs of ePHI exchange,”* he says.

Healthcare Communication Solutions

MaxMD’s enhanced direct services expands the role of a HISP to enable automated, machine-driven exchange while leveraging many aspects of the Direct Protocol and non-persistent connections. Be it trust-in-identity or one-to-many interface that enables scalable health information exchange, the benefits

are many. It also creates a desirable security posture with its secure push modality. The advantage of Direct Protocol is that it instantly bridges one direct-enabled user or organization with millions of authenticated users on thousands of disparate systems, applications and endpoints.

The Direct Protocol is also payload agnostic where the same channel can carry multiple payload types, such as structured or unstructured data. The MaxMD HISP incorporates a highly customized data integration engine to programmatically transform payloads while in transit. Operational use cases include integrating with a legacy LIS to deliver lab results, reformatting data to be consumed by registries, and transforming an unstructured output from a mobile app or Medical device into a CDA formatted payload. These implementations replace expensive one-to-one interfaces with scalable non-persistent connections. Seamless interoperability is available from virtually any legacy system or new HIT application. This approach replicates some of the functions of a traditional HIE. But the major differences are that there isn’t any heavy overhead or need for a consolidated secondary data repository that first generation HIEs are still struggling to sustain.

Factors contributing to Success

MaxMD’s products and approach have gained popularity over the years. *“We grow by word of mouth – customer referrals and by listening to client challenges,”* says Finlay.

MaxMD has also participated as a member of 16 Direct Trust.org Committees responsible for establishing the national standards of Directed Exchange. The MaxMD CTO is a member of the Board of Directors of DirectTrust.org, a member of the DirectTrust.org Planning Committee and holds leadership or voting positions on 5 of the 16 Direct Trust Committees. *“It is our belief that our deep involvement with DirectTrust.org creates significant value to our clients. Our expertise, vision and knowledge of the policy and technology specifics of the Direct Protocol ensures our products are built to mature with and expand the use cases of the Direct Protocol and ensure our clients will not outgrow our capabilities or find themselves with technology that is not staying abreast of evolving healthcare-technical requirements.”*

A Better Tomorrow

The new MaxMD mobile app is already running on Android devices and will shortly be released on the iOS platform. The app is specially designed for patients and providers and allows them to securely coordinate care from a familiar mobile interface. The app also enables users to query medical records from EHRs by leveraging the trust-in-identity of the Direct Protocol to authenticate to FHIR APIs. Moreover, the costs are reduced as it is a federated interoperability solution built upon a secure-push modality via non-persistent connections. In the coming years, MaxMD will continue to solve data liquidity or interoperability issues for clients.