

Commonwealth of Massachusetts
Executive Office of Health and Human Services



The Golden Spike

Integration Options

8/20/2012

Massachusetts Health Information Highway



Agenda



Introduction	Manu Tandon
HIE Integration Options	Jonathon Price
HIE Integration Specifications	Jonathon Price
Golden Spike Implementation Schedule	John Kelly
Priority Discussion/ Poll of Preferred Options	John Kelly
HIE Participant Agreement Discussion	Ray Campbell Kathleen Snyder
HIE Pricing Discussion	Micky Tripathi
Last Mile Program Review	Laurance Stuntz
Next Steps	Ron Evans



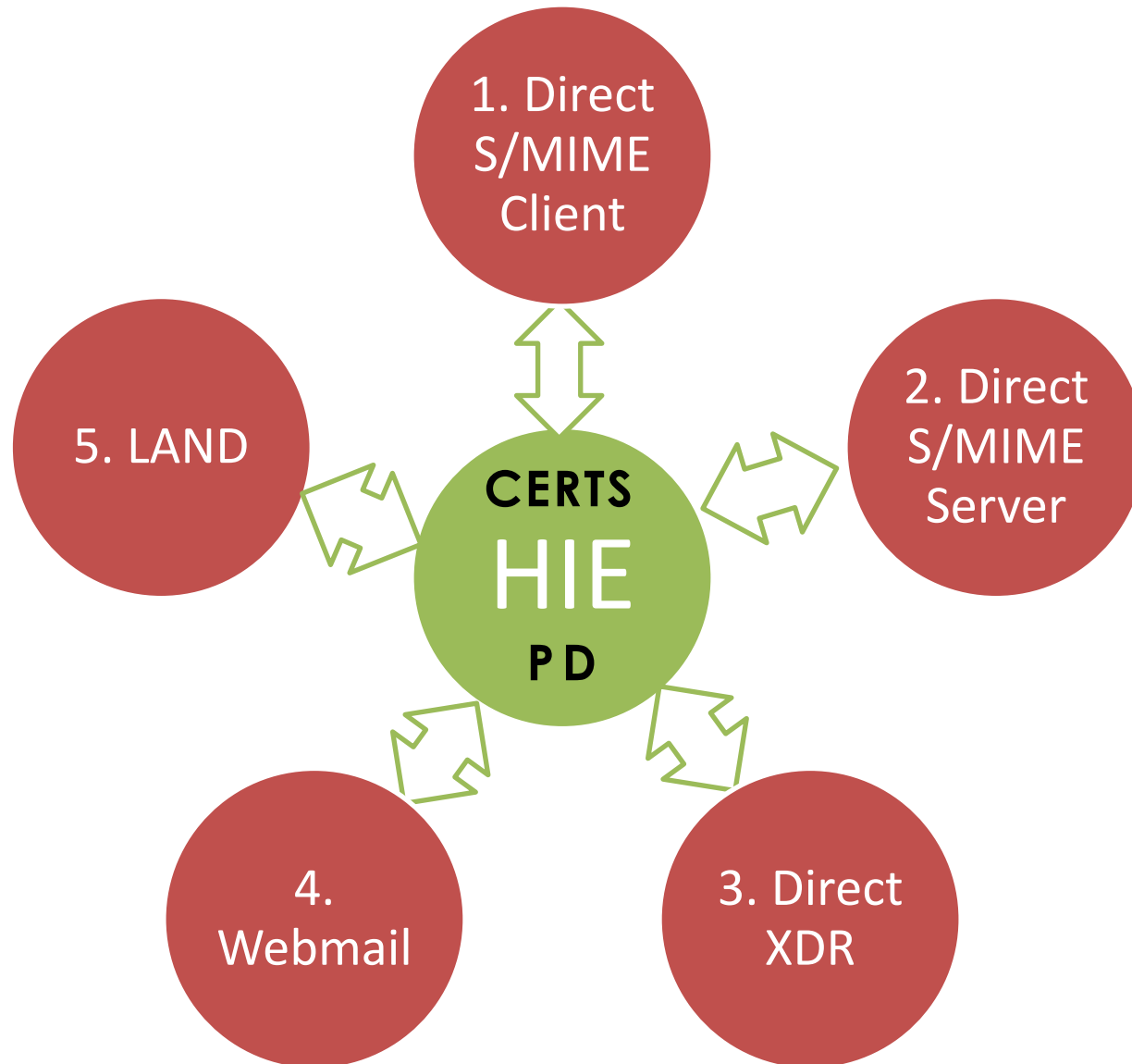
Agenda



Introduction	Manu Tandon
HIE Integration Options	Jonathon Price
HIE Integration Specifications	Jonathon Price
Golden Spike Implementation Schedule	John Kelly
Priority Discussion/ Poll of Preferred Options	John Kelly
HIE Participant Agreement Discussion	Ray Campbell Kathleen Snyder
HIE Pricing Discussion	Micky Tripathi
Last Mile Program Review	Laurance Stuntz
Next Steps	Ron Evans

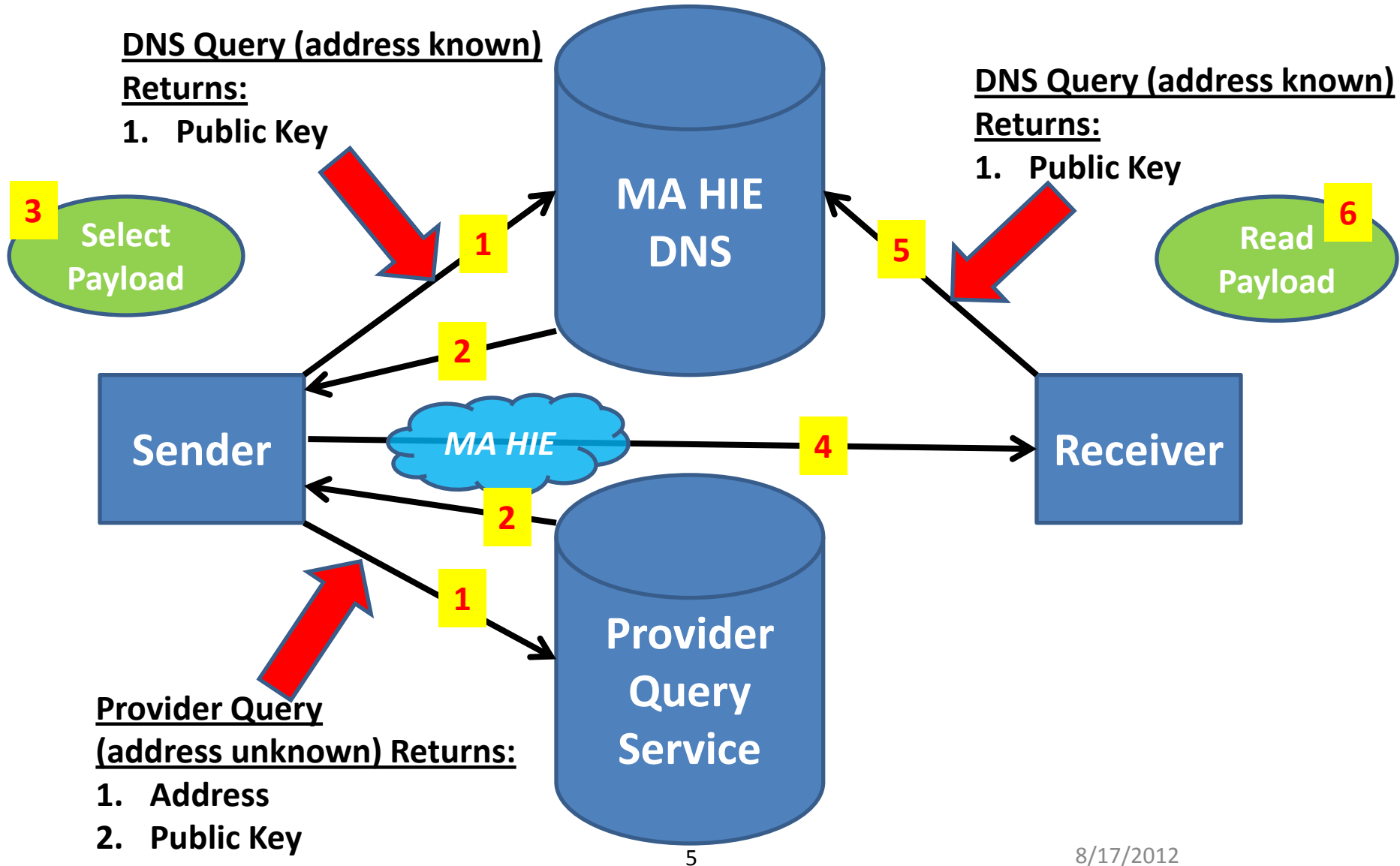


Massachusetts HIE Integration Options





Common Message Pattern





Massachusetts HIE Integration Options



- Option 1 – Direct S/MIME Client
- Option 2 – Direct S/MIME Server
- Option 3 – Direct XDR
- Option 4 – Webmail
- Option 5 – LAND Gateway



Massachusetts HIE Integration Options



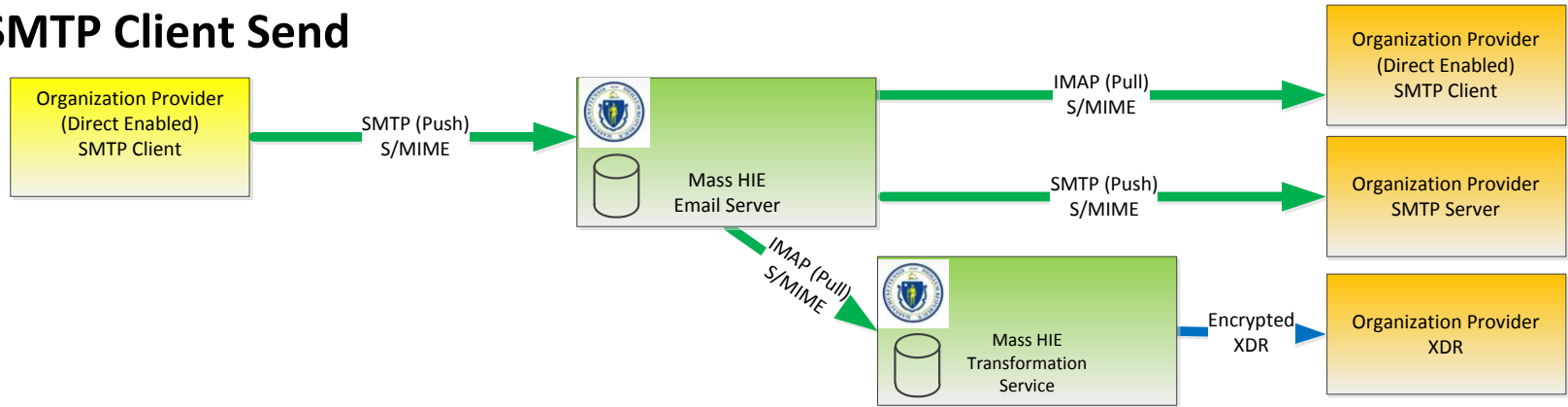
- Option 1 – Direct S/MIME Client
 - Requires EHR or Direct Gateway capable of sending messages via SMTP
 - Allows HIE to provide email server to a local email client
 - Transports payload as S/MIME attachment
 - Encrypts payload via S/MIME certificate retrieved from Provider Directory web service query
 - Receives S/MIME messages by IMAP connection to HIE web server
 - If sender uses XDR, HIE transforms XDR message to S/MIME attachment



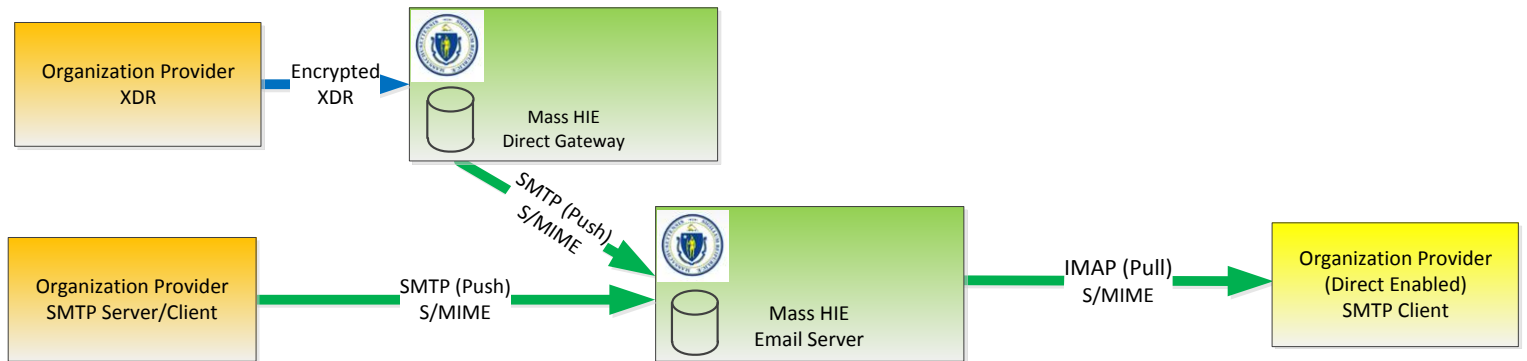
Option 1 – Direct S/MIME Client



SMTP Client Send



SMTP Client Receive





Massachusetts HIE Integration Options



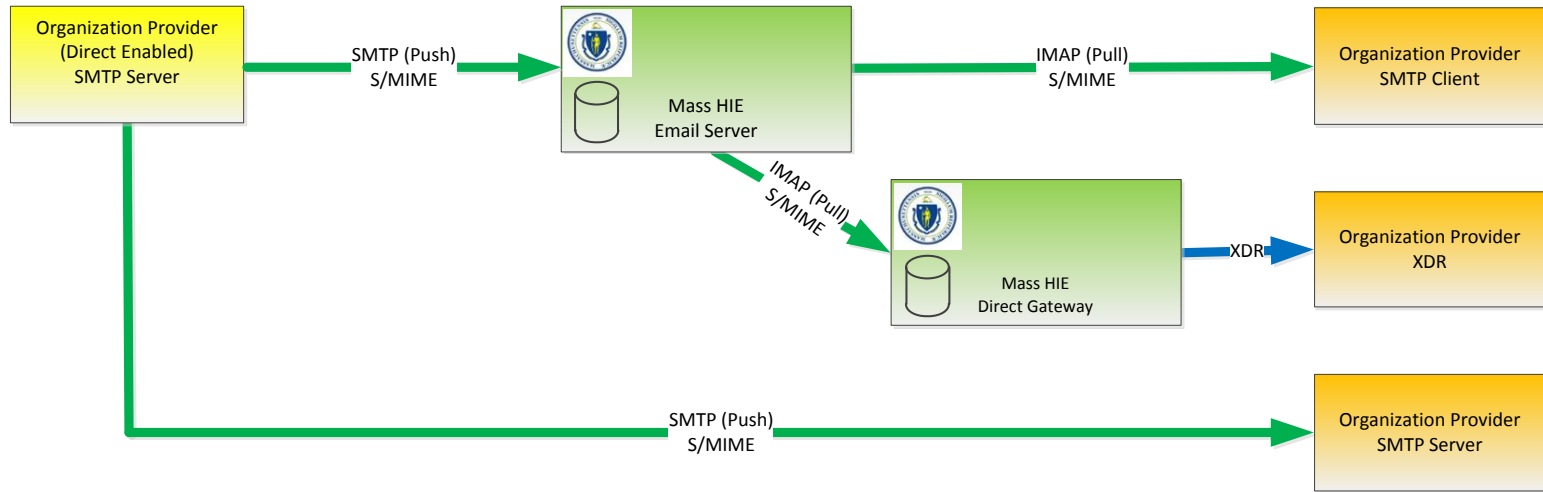
- Option 2 – Direct S/MIME Server
 - Requires EHR or Direct Gateway capable of sending messages via SMTP
 - Allows for direct node to node communication without requiring data to be routed through HIE
 - Transports payload as S/MIME attachment
 - Encrypts payload via S/MIME certificate retrieved from Provider Directory web service query
 - Receives S/MIME messages by SMTP push from HIE email server
 - If sender uses XDR, HIE transforms XDR message to S/MIME attachment



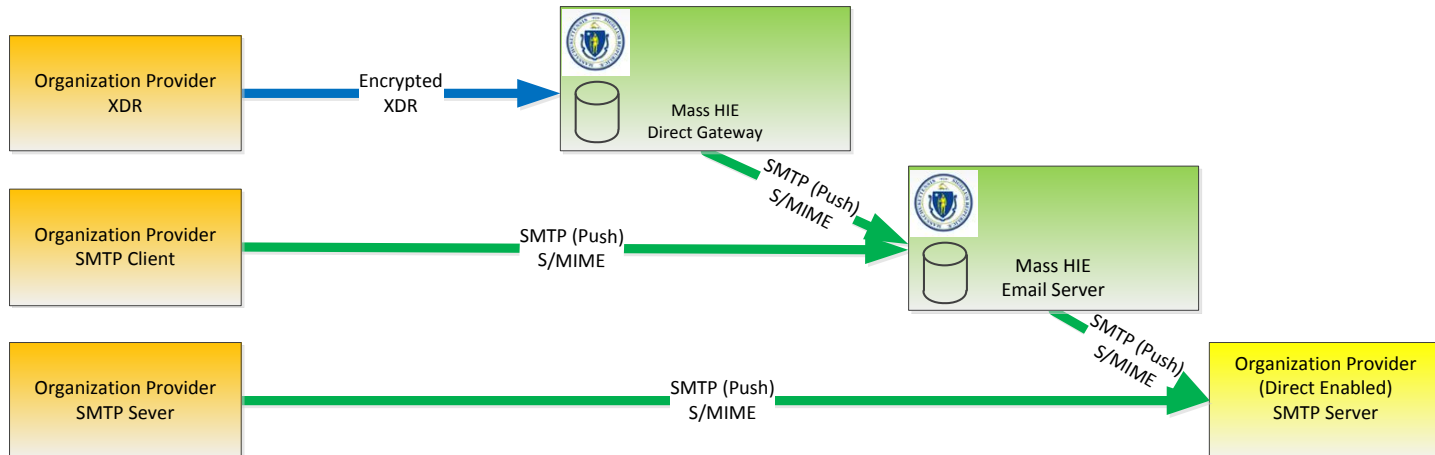
Option 2 – S/MIME Server



SMTP Server Send



SMTP Server Receive





Massachusetts HIE Integration Options



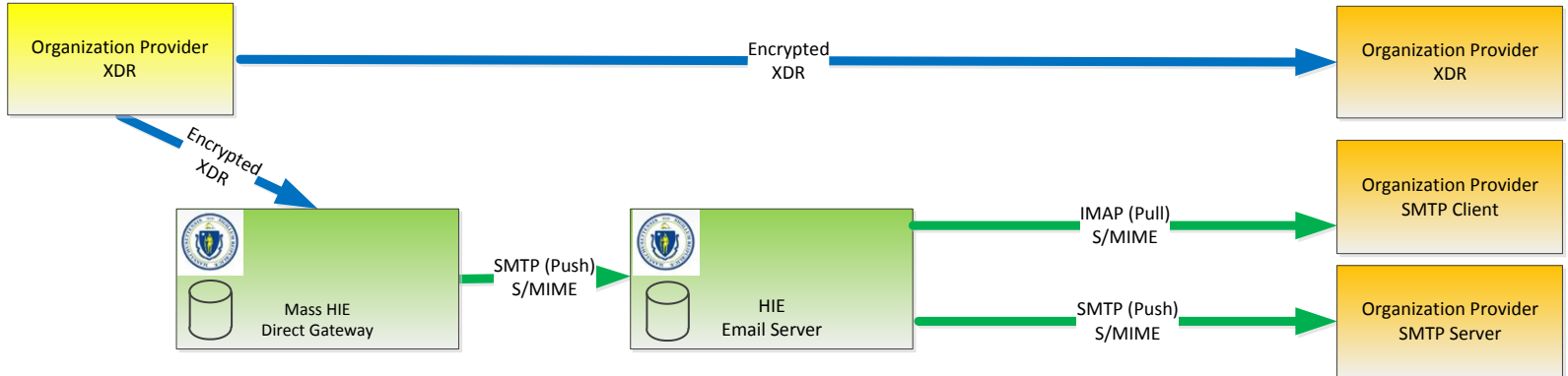
- Option 3 – Direct XDR Transfer
 - Requires EHR or Direct Gateway capable of sending and receiving XDR messages
 - Allows for direct node to node communication without requiring data to be routed through HIE
 - Transports payload as XDR posted to a web service
 - Encrypts payload via XDR certificate retrieved from Provider Directory web service query
 - If sender uses S/MIME, HIE transforms payload to XDR



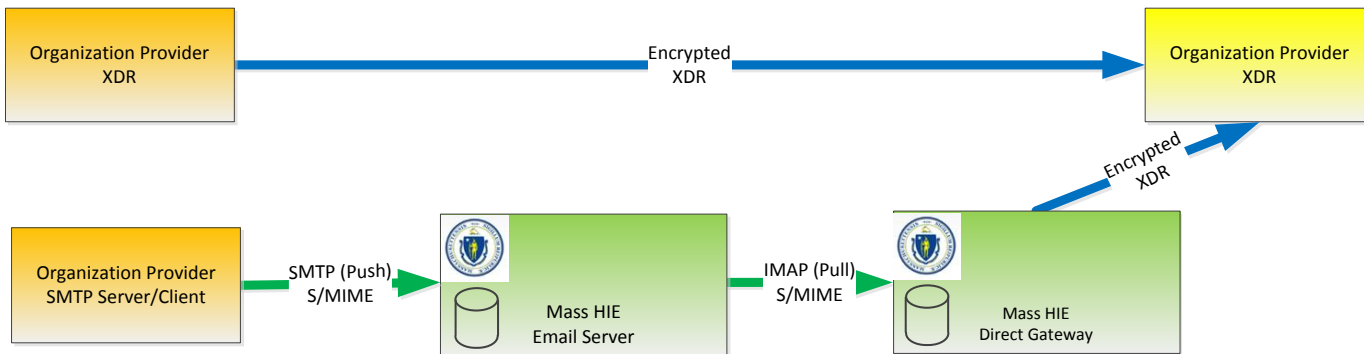
Option 3 – Direct XDR



XDR Send



XDR Receive





Massachusetts HIE Integration Options



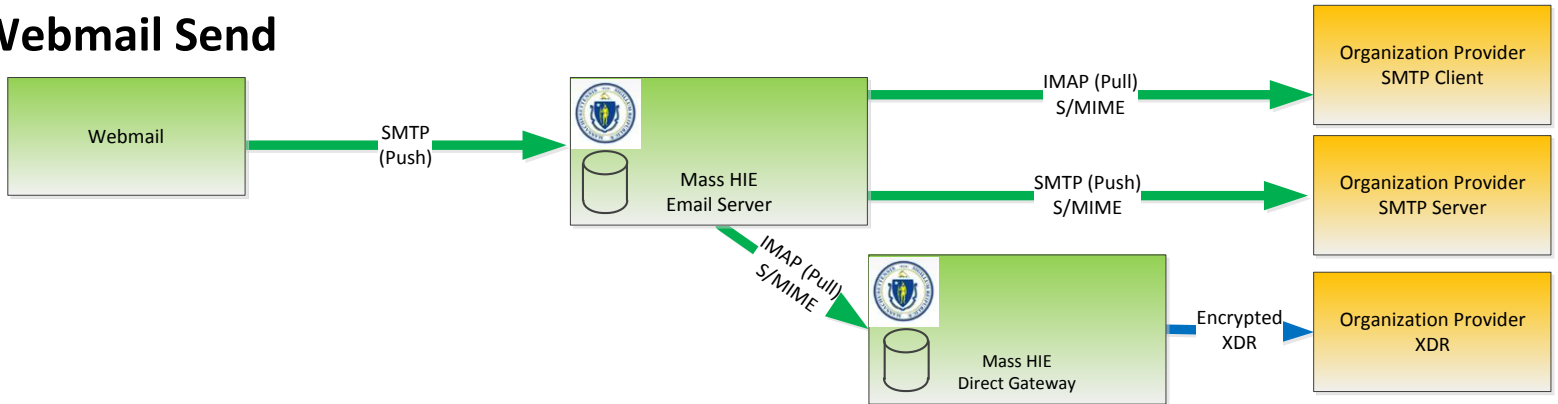
- Option 4 – Webmail
 - Minimal client implementation, requires only a browser
 - Allows access to HIE regardless of provider EHR capabilities
 - Transports payload as email attachment
 - Uploaded attachments scanned by antivirus
 - All webmail traffic routed through HIE
 - HIE manages transformations from webmail attachments to S/MIME or XDR as required by receiver



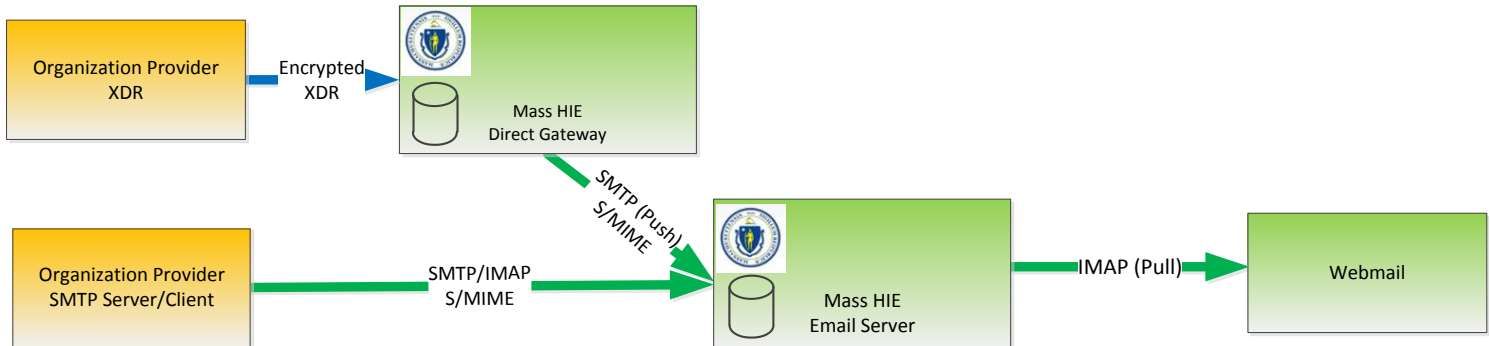
Option 4 – Webmail



Webmail Send



Webmail Receive





Option 5 – LAND Integration



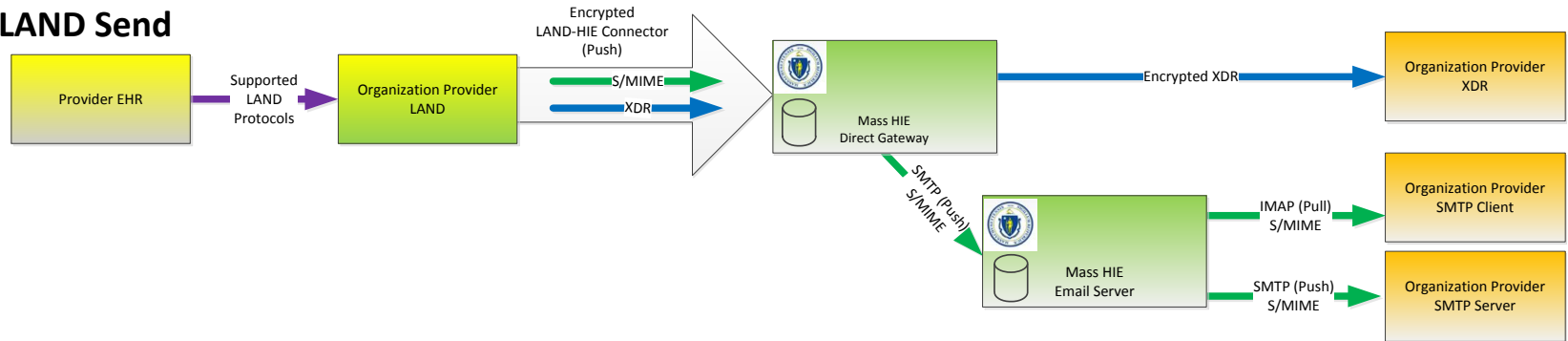
- Low cost appliance securely transmits data from EHR to LAND to the HIE via multiple options
- Creates and encrypts either S/MIME or XDR payload for transmission to the HIE, depending on recipients' capability
- Transports payload as XDR or S/MIME passed via secure protocol from LAND device to HIE Direct Gateway



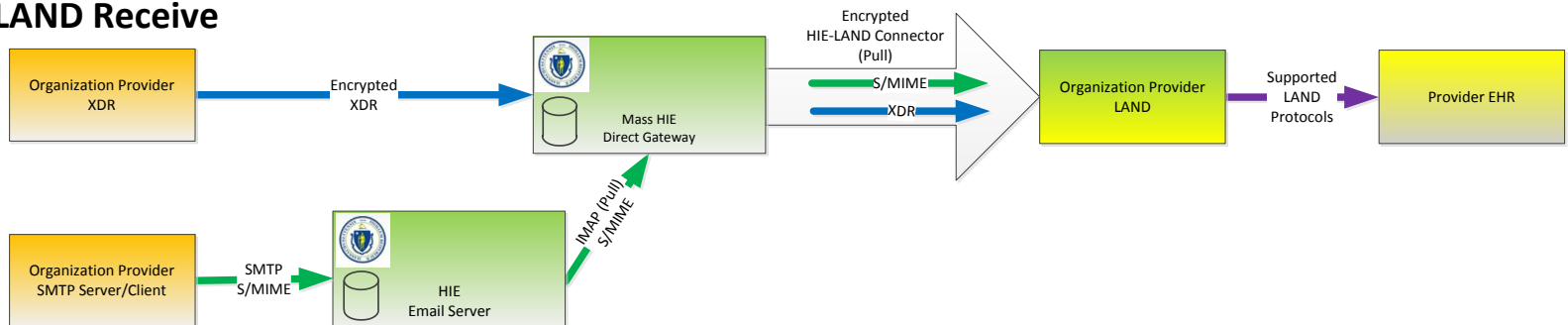
Option 5 – LAND Integration



LAND Send



LAND Receive





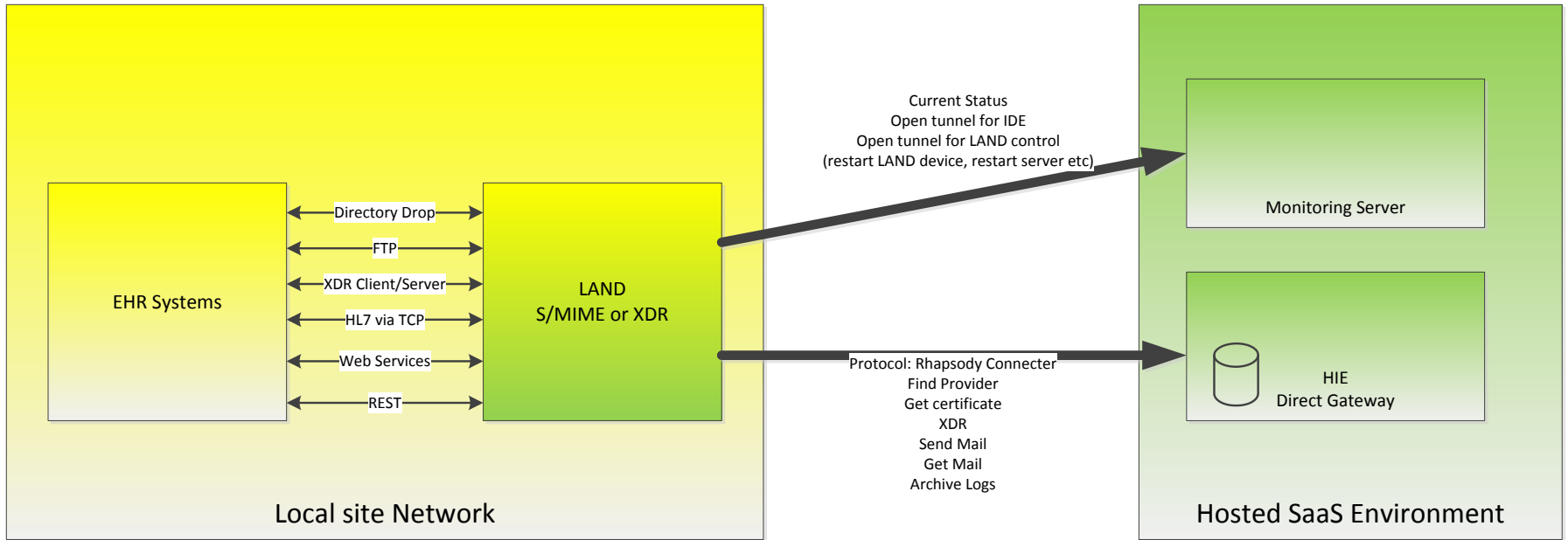
LAND Integration Options (Connecting to the LAND Device)



- **Send Directory (Folder) and Receive Directory (Folder)**
 - Files placed by the sender into the **Send** Directory/Folder will be sent securely to the HIE router. Prior to placement in the Directory, the Provider Directory Query Service will be accessed by the local system via the LAND device. Response information will be passed to LAND (e.g., embedded file name, attached metadata package, CDA metadata, etc.). LAND will construct the appropriate DIRECT envelope. Files sent to the practices will be put into the **Receive** Directory/Folder.
- Send and Receive via FTP
- **XDR client and server**
 - Allows an EMR to communicate with the HIE using XDR without having to use secure web services
 - LAND device would receive the non-secure version via a local network connection and convert to secure version to transmit to HIE
- HL7 v2 via TCP
- **Simple Web service interface**
 - Very simple web services to send messages and retrieve messages
- REST service interface
 - Similar to the web service interface but using RESTful web service calls



LAND Integration





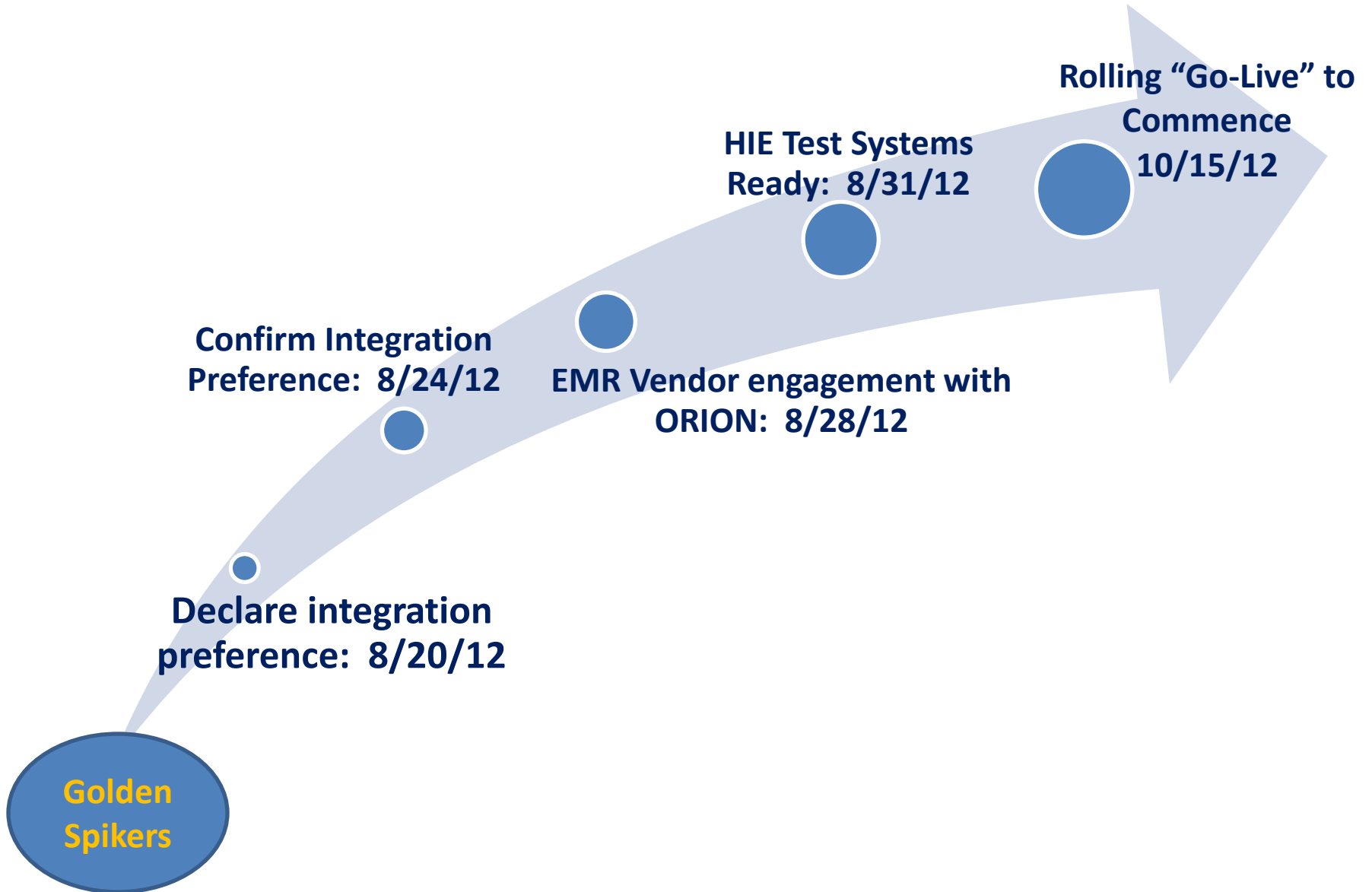
Agenda



Introduction	Manu Tandon
HIE Integration Options	Jonathon Price
HIE Integration Specifications	Jonathon Price
Golden Spike Implementation Schedule and Priority Discussion/ Poll of Preferred Options	John Kelly
HIE Participant Agreement Discussion	Ray Campbell Kathleen Snyder
HIE Pricing Discussion	Micky Tripathi
Last Mile Program Review	Laurance Stuntz
Next Steps	Ron Evans



Golden Spike Schedule





Agenda



Introduction	Manu Tandon
HIE Integration Options	Jonathon Price
HIE Integration Specifications	Jonathon Price
Golden Spike Implementation Schedule	John Kelly
Priority Discussion/ Poll of Preferred Options	John Kelly
HIE Participant Agreement Discussion	Ray Campbell Kathleen Snyder
HIE Pricing Discussion	Micky Tripathi
Last Mile Program Review	Laurance Stuntz
Next Steps	Ron Evans



Participant Agreement Types



Agreement Name	Description	Signed by
Participation Agreement	Governs Participant's access to and use of the HIE and its related online tools and services.	The 'Head of the Organization' or their designee
Access Administration Agreement	Governs Participant's creation, oversight, and termination of Authorized HIE Users.	
Service Addendum	Confirms Participant's agreement to adhere to the policies and procedures related to the services being offered by the HIE.	



Agenda



Introduction	Manu Tandon
HIE Integration Options	Jonathon Price
HIE Integration Specifications	Jonathon Price
Golden Spike Implementation Schedule	John Kelly
Priority Discussion/ Poll of Preferred Options	John Kelly
HIE Participant Agreement Discussion	Ray Campbell Kathleen Snyder
HIE Pricing Discussion	Micky Tripathi
Last Mile Program Review	Laurance Stuntz
Next Steps	Ron Evans



Agenda



Introduction	Manu Tandon
HIE Integration Options	Jonathon Price
HIE Integration Specifications	Jonathon Price
Golden Spike Implementation Schedule	John Kelly
Priority Discussion/ Poll of Preferred Options	John Kelly
HIE Participant Agreement Discussion	Ray Campbell Kathleen Snyder
HIE Pricing Discussion	Micky Tripathi
Last Mile Program Review	Laurance Stuntz
Next Steps	Ron Evans



Massachusetts Health Car HIEWay



Last Mile



Last Mile Program | Education and Outreach



Providers

- Thought leadership on health information exchange, Meaningful Use, continuity of care, etc.
- Education materials: available online and distributed to practices
- Regional meetings and training sessions

Consumers/Patients

- Patient materials, such as patient tool kit available in the provider practice and online

EHR Vendors

- Information on Last Mile Program
- Vendor technical assistance with Direct integration



Last Mile Program | Connection



Enable connections to the HIE from existing applications or web portals

- Technical assistance for EHR vendors and providers to accelerate the development of Direct messaging interfaces

Direct: the national standard for secure transport of health information

- Implementation support services

Supporting the three methods of connecting to the Commonwealth's HIE



Last Mile | Time Table

