

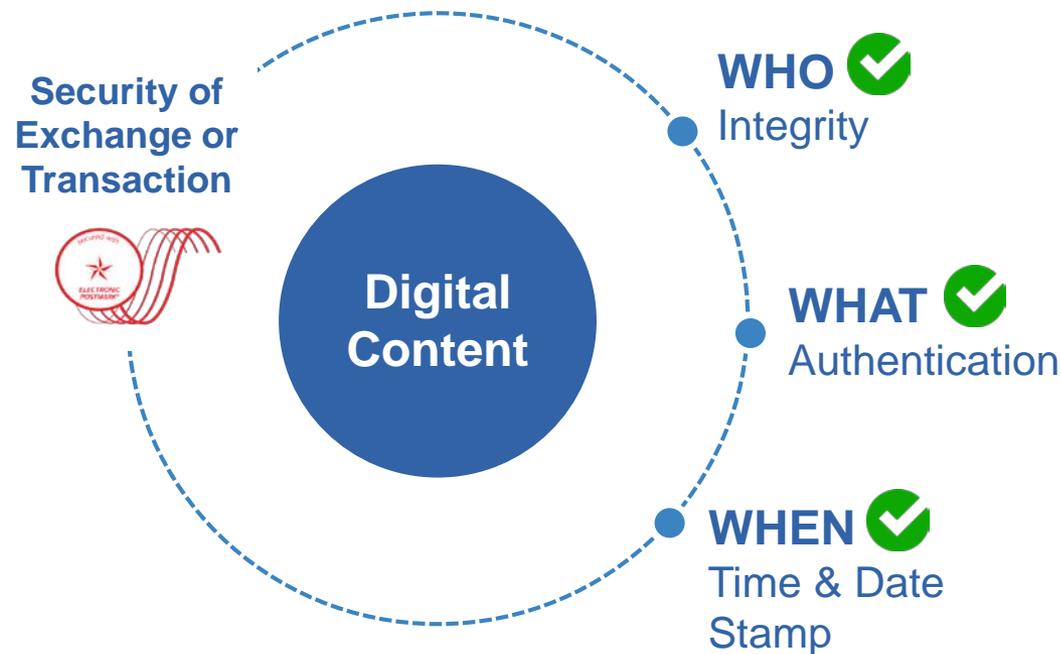
USPS Electronic Postmark® (EPM™)

The USPS Electronic Postmark (EPM) seeks to address digital communication security concerns between senders and receivers by equipping messages with enhanced digital security and verification capabilities

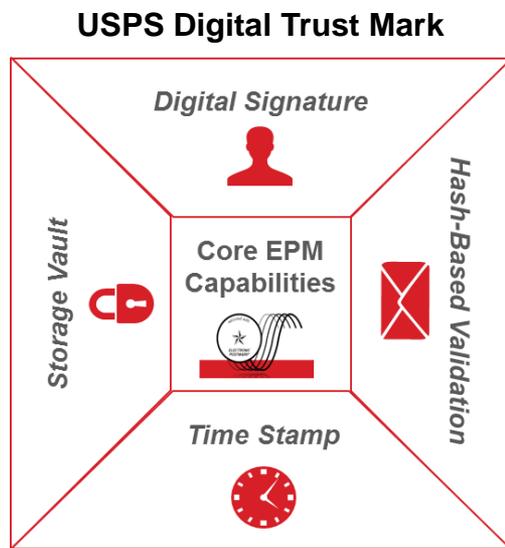
Vision

USPS' vision for secure digital solutions is to develop security technology that addresses evolving digital communication customer needs and extends its trusted postmark from physical mail to digital communications

The Electronic Postmark® delivers digital message content integrity, authenticity, and time and date stamp service.



USPS Solution Features and Benefits



Verifies sender: Includes two security keys – one signs the EPM, ensuring the integrity of the message data, and the other verifies the signature on the message¹



Captures date and time of information: Partners with the National Institute of Standards & Technology to officially time stamp hashed messages and digital signatures



Identifies altered message: Alerts receiver of accidental or intentional changes to transmitted data by applying a “hash mark,” an algorithmic key



Stores unique message information: Stores the time stamp and USPS digital signature in a USPS repository for a customizable amount of time²

USPS Value Add

Trusted Brand

USPS is an established trusted identity verifier for physical addresses and is expanding this capability into the digital space

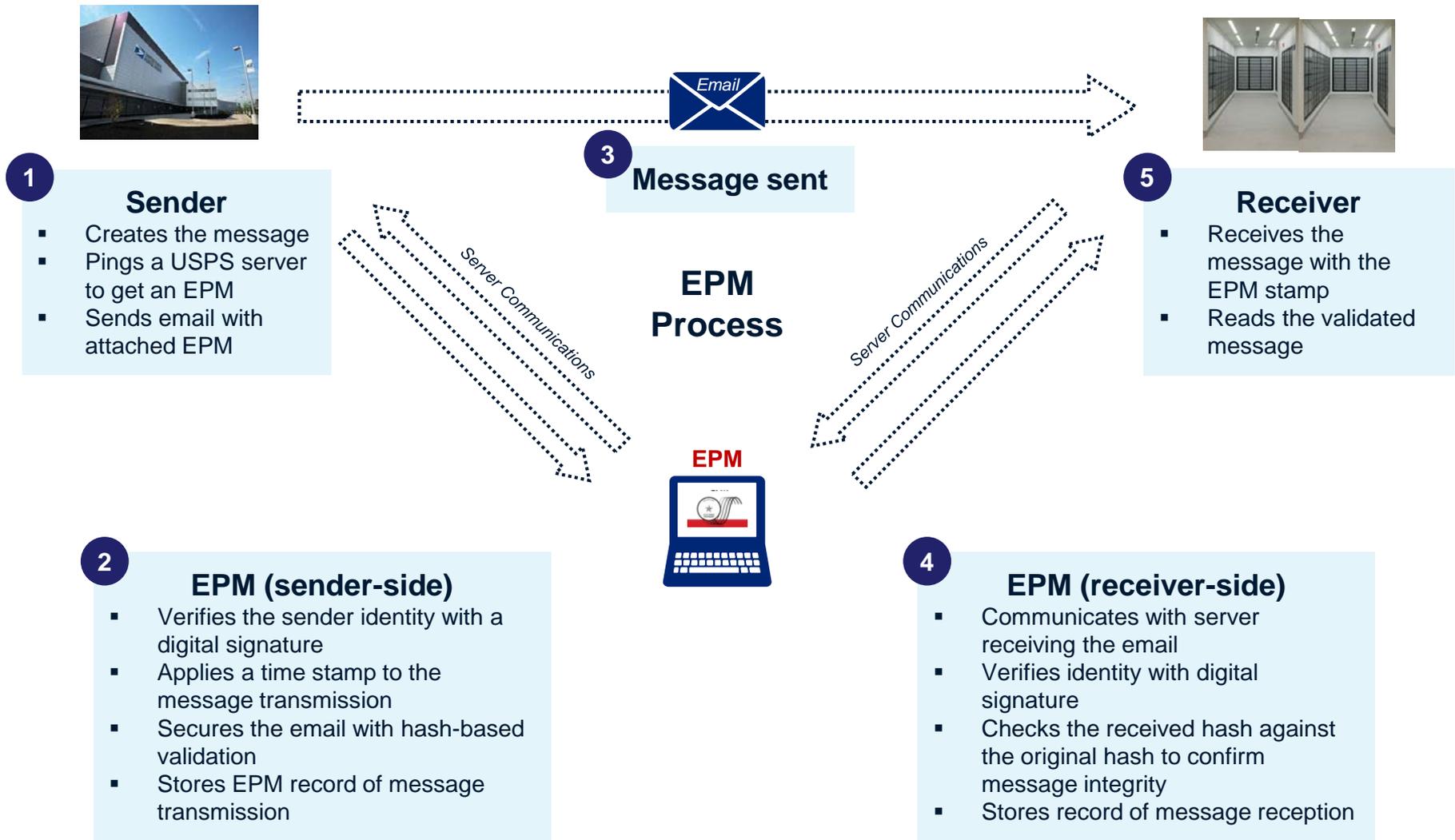
Consistently Reliable

Through trusted partnerships, USPS can capture time and location specific information reliably

Dependable Long-Term

USPS, one of the longest-standing US institutions, stores the signature, location and date of transactions for a customizable length of time for future verifications

Note: 1. The digital signature feature meets the FIPS (Federal Information Processing Standard) 140-2 accrediting the USPS cryptographic methods; 2. The content of the messages are not stored



Note: Illustrative EPM Process Flow.

USPS Health Connect is a personal health record application the USPS is testing with interested employees.

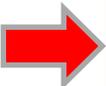
The following screen shots show how the USPS Health Connect application is leveraging the EPM web service to both apply and validate Electronic Postmarks within the secure messaging portion of the PHR.

Click on “My Messages” to send a Direct Message or check your inbox:

USPS
Health Connect



- My Dashboard
- Health Profile
- My Health Files
- My Messages**
- My Appointments
- To Do's
- My Apps & Devices
- History



! Settings JOHN

Search Patient Education... Search

JOHN SMITH
years old
Edit Profile +

Blood Pressure



No Blood Pressure recorded

Heart Rate



No Heart Rate recorded

Respiratory Rate



No Respiratory Rate recorded

Medications



No active Medications recorded

Thursday Apr 7

There is no zip code for your address

Weight



No Weight recorded

Temperature



No Temperature recorded

Allergies



No active Allergies recorded

Lab Results



No Lab Results recorded

Health Tips

**Fruit Every Day
Might Help Your
Heart**

WebMD Health

Click on “eye” icon to view your messages:

USPS
Health Connect

16
Settings ⚙
BOB ▾

+


 My Dashboard


 Health Profile


 My Health Files


 My Messages


 My Appointments


 To Do's


 My Apps & Devices


 History

Messages

Compose
New appointment
Refill prescription
Terminate prescription

Inbox

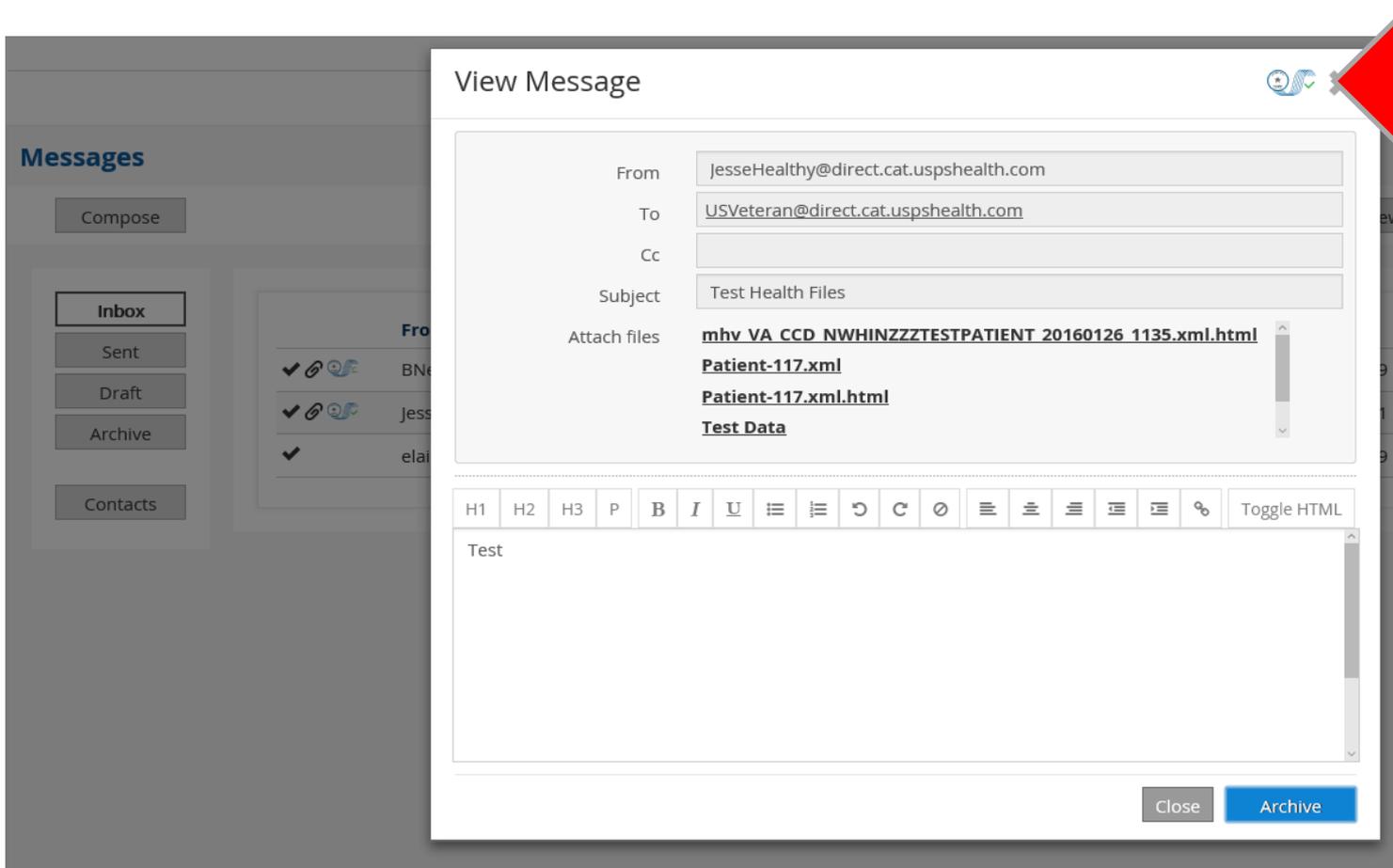
Sent

Draft

Archive

	From	Subject	Date	EPM Validated	
✉	USVeteran@direct.cat.uspshealth.com	Delivered: Test CCDA	07/11/2016 02:19 PM		👁 ↩ 🗑
✉	jessehealthy@direct.cat.uspshealth.com	Processed: EPM Test 2	03/24/2016 09:46 AM		👁 ↩ 🗑
✔ 🔗 🌐	JesseHealthy@direct.cat.uspshealth.com	Test EPM	03/24/2016 09:35 AM	03/24/2016 09:44 AM	👁 ↩ 🗑
✔ 🔗 🌐	Mastodon@direct.cat.uspshealth.com	Test	02/24/2016 02:43 PM	02/24/2016 02:50 PM	👁 ↩ 🗑
✔ 🔗 🌐	JesseHealthy@direct.cat.uspshealth.com	EPM Test	02/12/2016 04:08 PM	02/24/2016 02:57 PM	👁 ↩ 🗑
✔ 🔗 🌐	JesseHealthy@direct.cat.uspshealth.com	Please Upload attached to my files	02/05/2016 11:53 AM	02/24/2016 02:58 PM	👁 ↩ 🗑

Click on the electronic Post Mark (ePM) to validate attachments were not tampered with during transit:

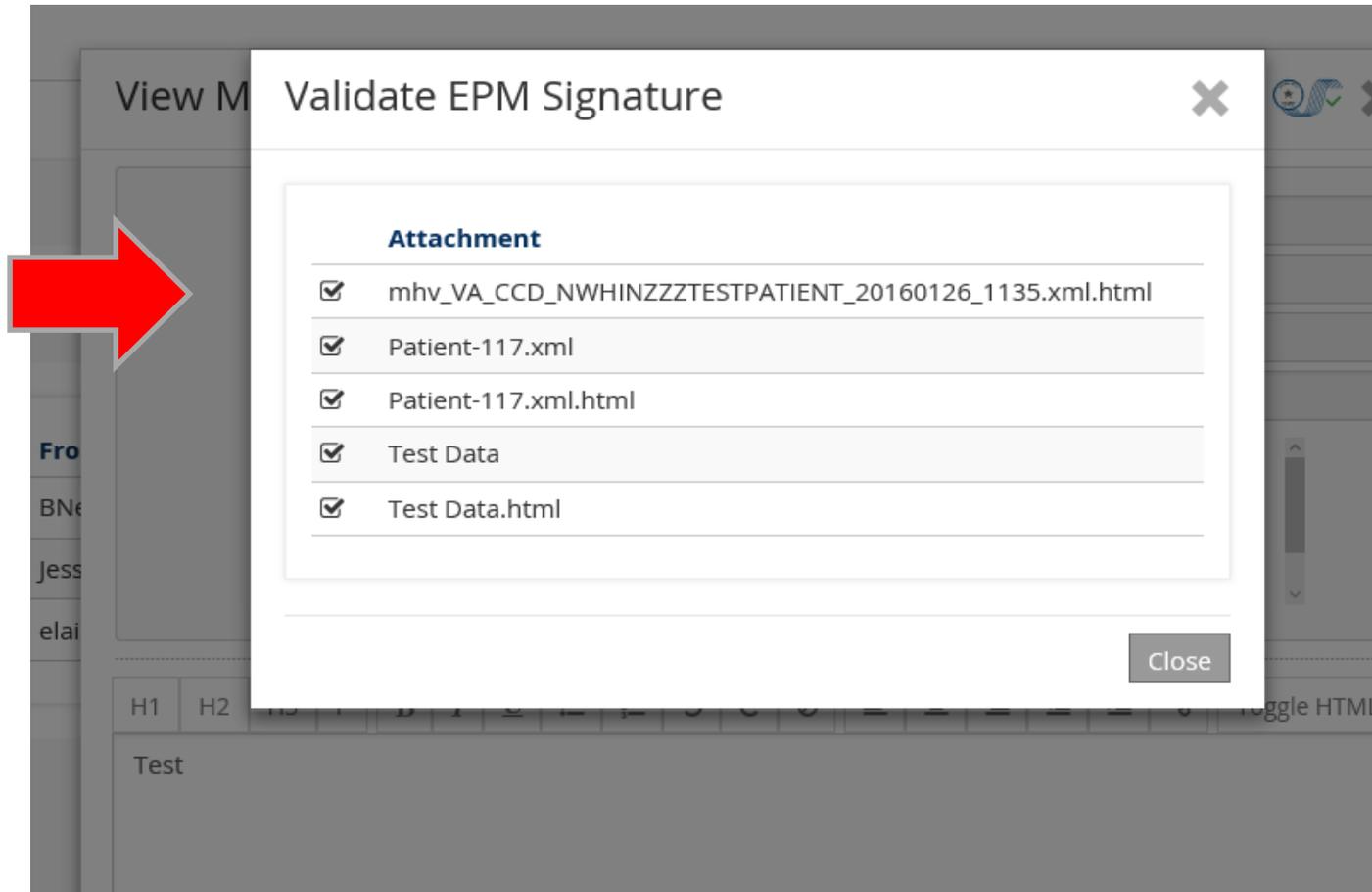


The screenshot shows a 'View Message' window with the following details:

- From:** JesseHealthy@direct.cat.uspshealth.com
- To:** USVeteran@direct.cat.uspshealth.com
- Subject:** Test Health Files
- Attach files:** [mhv VA CCD NWHINZZZTESTPATIENT 20160126 1135.xml.html](#), [Patient-117.xml](#), [Patient-117.xml.html](#), [Test Data](#)

The message body contains the text 'Test'. The interface includes a rich text editor toolbar with options for heading (H1-H3), paragraph (P), bold (B), italic (I), underline (U), list, link, unlink, and a 'Toggle HTML' button. At the bottom right, there are 'Close' and 'Archive' buttons. A red arrow points to the ePM icon in the top right corner of the message window.

Checkmarks next to documents validate attachments were not tampered with during transit:





! ¹⁹ | Sett

Search Patient Education...

Messages

Compose

New appointment

Refill prescription

Te

Inbox

Sent

Draft

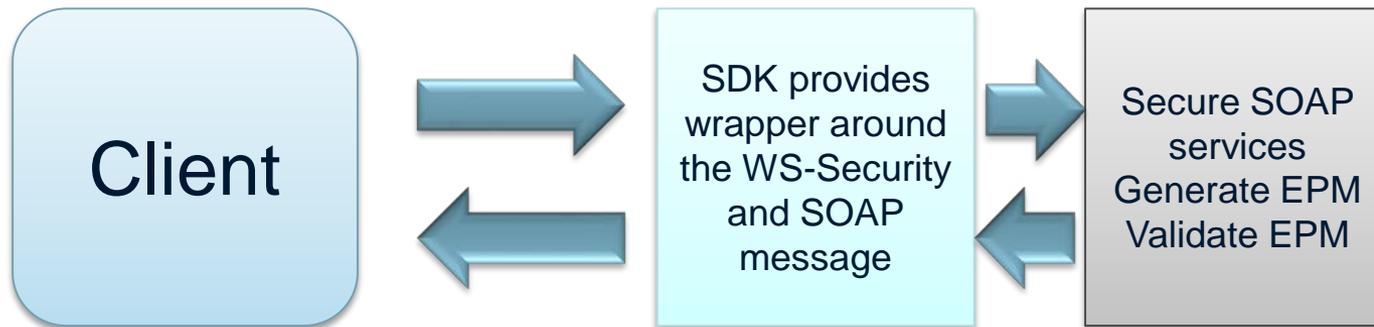
Archive

Contacts

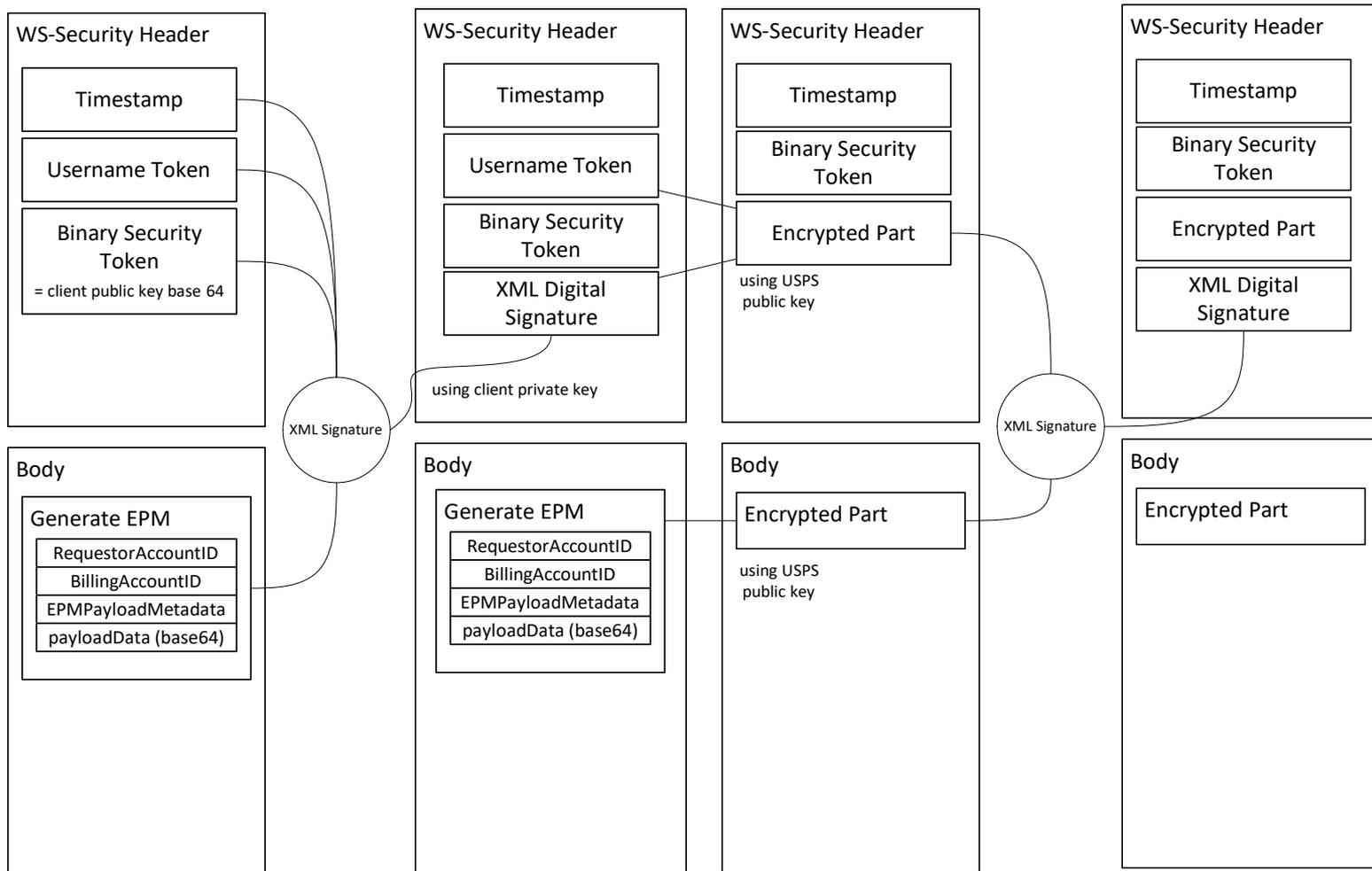
	From	Subject	Date	EPM Validated	
☑	vamsivvk3@direct.cat.uspshealth.com	Delivered: Re: With Health Files	08/14/2015 03:49 PM		👁
☑	vamsivvk3@direct.cat.uspshealth.com	Processed: Re: With Health Files	08/14/2015 03:48 PM		👁
☑	vamsivvk3@direct.cat.uspshealth.com	With Health Files	08/07/2015 01:15 PM	08/19/2015 08:36 AM	👁
☑	vamsivvk3@direct.cat.uspshealth.com	Hello Mr. Jesse Healthy	08/07/2015 01:14 PM		👁
☑	MStClair@direct.cat.uspshealth.com	Re: Test Epm Part Deux (One attachment)	07/22/2015 02:48 PM		👁
☑	MStClair@direct.cat.uspshealth.com	Delivered: Test Epm Part Deux (One attachment)	07/07/2015 03:30 PM		👁



The SDK provides a wrapper around the secure SOAP services allowing for the client to quickly integrate with the EPM services to both generate and validate EPMs.



The illustration below shows the WS security policy used by the secure web service for EPM.





[Home](#)

[Challenges](#)

[Contact](#)

[Register](#)



Electronic Postmark® (EPM™) Overview

What is it?

The USPS Electronic Postmark API is a secure web service which provides a time/date stamp and a unique hash (the EPM) which acts to prove the state of electronic data (such as a medical record or a consent decree) at a point in time, and which can then be validated at a later point in time as unaltered (i.e. the same medical document or the same consent decree) since its original date of “postmarking”.

What it does?

The Electronic Postmark System provides the means to digitally sign and timestamp various types of electronic data through an official USPS authority. This process results in the creation of a USPS Electronic