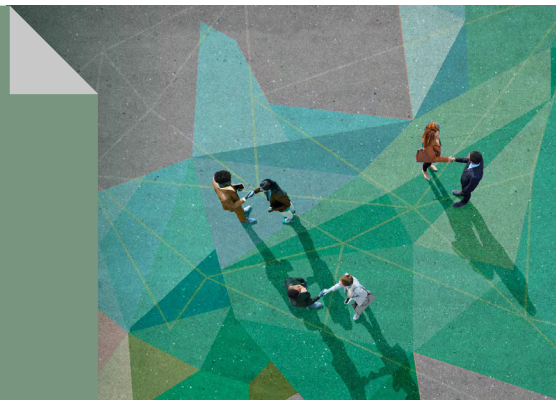




White Paper



Compliant eSign



Preface

This document augments Paperclip’s eM⁴ Compliant Email White Paper and associated technical documentation.

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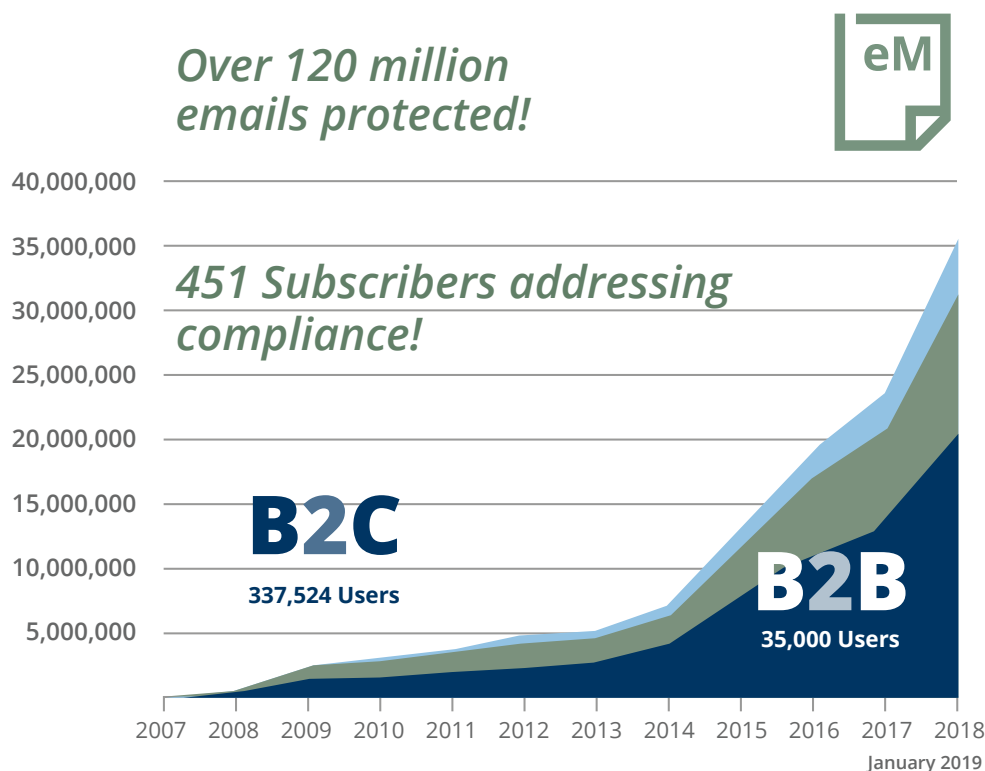
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Since 2007 eM⁴ Compliant Email Service has been widely adopted and proves that the industry advisors, who designed the service, got it right. We're excited about the future of eM⁴ and its evolution into a dynamic capture tool meeting the needs of efficiency while maintaining compliance. New services like eM⁴ Proof of Agreement, eM⁴C Cloud and eM⁴XO CrossOver will continue eM⁴ Compliant Email as a leading solution solving today's challenges.



For more on the eM⁴ Compliant Email Service, the eM⁴ White Paper is a good start on the deployment options (On-premise, Hosted and Cloud), Encryption standards, B2B and B2C flow, Email encryption rules, Disinterested Third Party (D3P) Auditing and Subscriber Administration portal. The remainder of this document is focused on eM⁴ ESign.

Since 2007 eM⁴ Compliant Email Service was intended to be more than just an encryption service. Paperclip recognized the utility of email as a communications tool capable of more value added to the business environment. Paperclip offers two enhancements. First: eM⁴ can be deployed as a cloud client, no software required to install. Second: eM⁴ Proof of Agreement (POA), and Electronic Signature (E- Sign) experience with no setup required, wallet authentication, click and sign and third-party archiving. POA supports many file types to include Microsoft Office, video, audio and many image types (i.e. PDF, TIF, PNG, JPEG, etc.).

To the end goal of Paperclip's Vision of "Authorized Data", POA is a great step forward. Users can replace attachments requiring wet signatures with POA which can be as simple as the email itself. Just put the content in the body of the email for E-Signing and upon return, store the email within your Paperclip VCF system or your choice of email repository/EDMS.

- No Login or Passwords Required
- B2B and B2C Functionality
- Simple Email Encryption Rules
- Three Deployment Options
- B2C Mailbox Portal Options
- B2C Large Attachment Support
- B2C Email Recall
- Proof of Delivery
- Proof of Readability
- Proof of Agreement / E-Signing
- Disinterested Third Party Audit (D3P)
- Annual Subscription - No tick charges
- B2B Cloud Client Store
- eM⁴ Actions, Outlook Add-In

Paperclip as a company creates paperless solutions that our customers are ready to adopt. Today, the customers want electronic signing solutions that can replace traditional paper and pen. The E-Sign landscape has matured over the last 20 years and most people are comfortable with E-Signing as a documented contract and binding obligation legal event.

What Paperclip heard is that most people were less than satisfied with the current market offerings. E-sign solutions required setup of embedded signature applets, user's signup requirements, format limitations and transactional fees. Customers wanted a simple, no setup required, ad-hoc, diverse file formats (even just the email body), easy integration with other solutions and no transactional billing.

eM⁴ Compliant ESign is not your usual suspect but different and is more likely to be adopted; Email encryption, E-Signing, Disinterested Third Party Audit and Archive and integrated Document Management platform is paperless.

The Paperclip model is the use of email as a transport of a message and/or attachments with B2C Instructions. When email with E-sign requested, the sending eM⁴ Relay pushes the encrypted email to the eM⁴ B2C webmail portal. The B2C webmail portal reads the B2C XML Instructions for processing behavior and then deletes the instructions from the email. The recipient opens the notice, selects the link and begins the 5-step E-Signing wizard. Once E-Signed, all parties will receive the E-Signing Attestation and the entire email is encrypted, hashed and archived in eM⁴ for a period of 1 year.

The eM⁴ Service defines B2B as Subscriber sending to another Subscriber and B2C for Subscriber to Non-Subscribers (Non-Subs). Subscriber sets the requirements for the Non- Subs access controls, web mailbox options and Subscriber user roles.

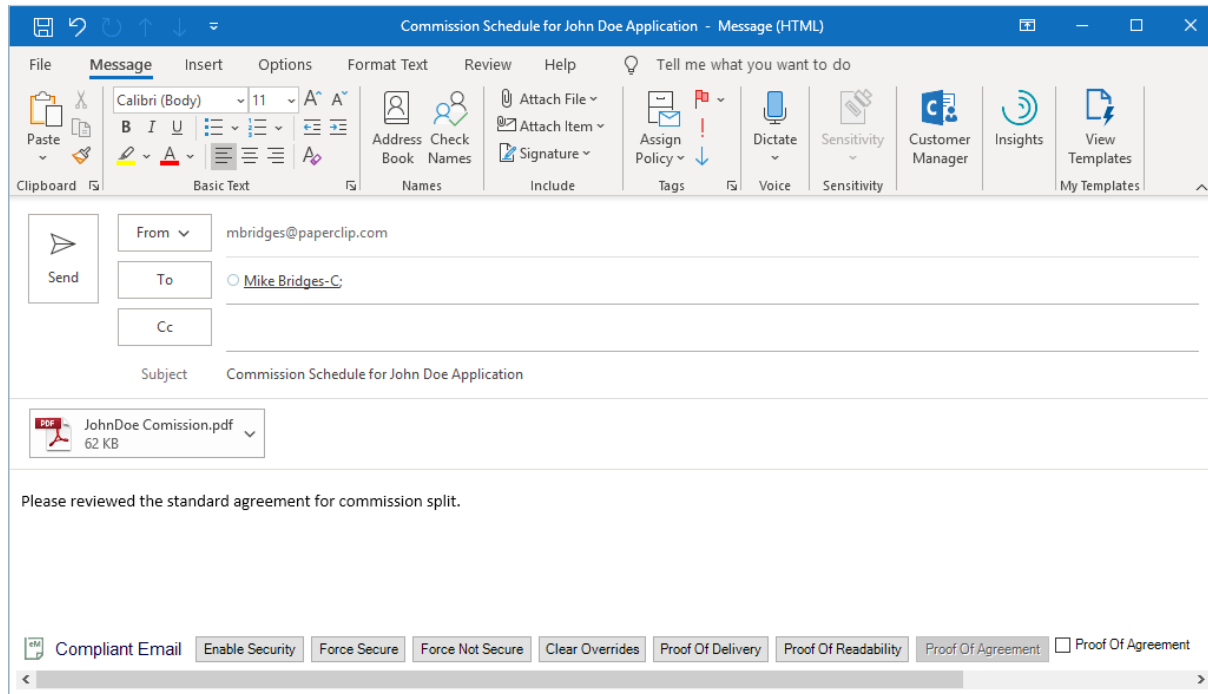
B2B is not currently supported for POA. The next enhancements for POA are B2B support which will require an upgrade for on-premise Subscribers and Two Factor Authentication.

Figure 1 below lists high level requirements to have a successful POA signing event.

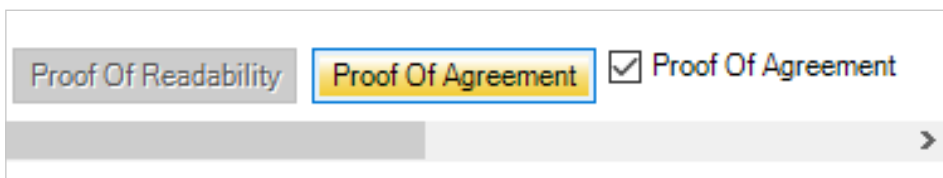
- ✓ **Supported Browsers**
 - All browsers that support HTML5
- ✓ **Viewers**
 - eM⁴ does not have any web viewers. All attachments are supported by local installed viewers.
- ✓ **Attachment File Size**
 - POA email has a limit of 100 megabytes but no limit on the number of attachments.
- ✓ **At Rest Encryption**
 - POA Archive uses AES256 to encrypt stored email and then purges after 365 days.
- ✓ **POA E-Signing Event Expiration**
 - Subscriber configurable 1 to 30 days. Default is 5 days.

Figure 1

The eM⁴ Subscriber wants to send a PDF contract attachment with some instruction in the body of the email. The process begins with the construction of the email and utilizing the eM⁴ Outlook Add-In or programmatically add the B2C XML instructions.



To send as a POA email, the user checks the POA checkbox and then selects Proof of Agreement button.



Now the Proof of Delivery “Wallet Security” screen opens for the question selection and the answer. Wallet Security is the scheme where the sender and receiver know something about each other (Age, Spouse’s Name, Dog’s Name, etc.) or some business-related information (Account Number, Last four of SSN, Location, etc.) both parties have access to.

Compliant Email - Proof of Agreement

Security Questions and Answers [Manage Questions](#)

First Question

Question: NJ State License Code

Answer: OC214321

Second Question

Question:

Answer:

Third Question

Question:

Answer:

Fourth Question

Question:

Answer:

Fifth Question

Question:

Answer:

Signature Options

☐ Message Only

☒ Attachments Only

☐ Check All

☒ JohnDoe Comission.pdf

Ok Cancel Clear

In the above example we’re asking for their NJ State License number which the sender’s admin system has a record off.

Users can manage their questions and answers by selecting the “Manage Question” link in blue above.

Security Questions and Answers [Manage Questions](#)

First Question

Question: NJ State License Code

Answer: OC214321

Next is to select what needs to be E-Signed.

Message Only – meaning no attachments, just a short agreed to paragraph that modifies the terms and conditions of a transaction.

Attachment Only – Selecting attachment invokes “Proof of Readability” (POR). POR is required as evidence the receiver can open the attachment required to sign. Users can have multiple attachments but select the ones subject to E-Signing.

Signature Options

☐ Message Only

☒ Attachments Only

☐ Check All

☒ JohnDoe Comission.pdf

Once the Wallet Security configuration is complete, the eM⁴ Add-In will highlight in green.

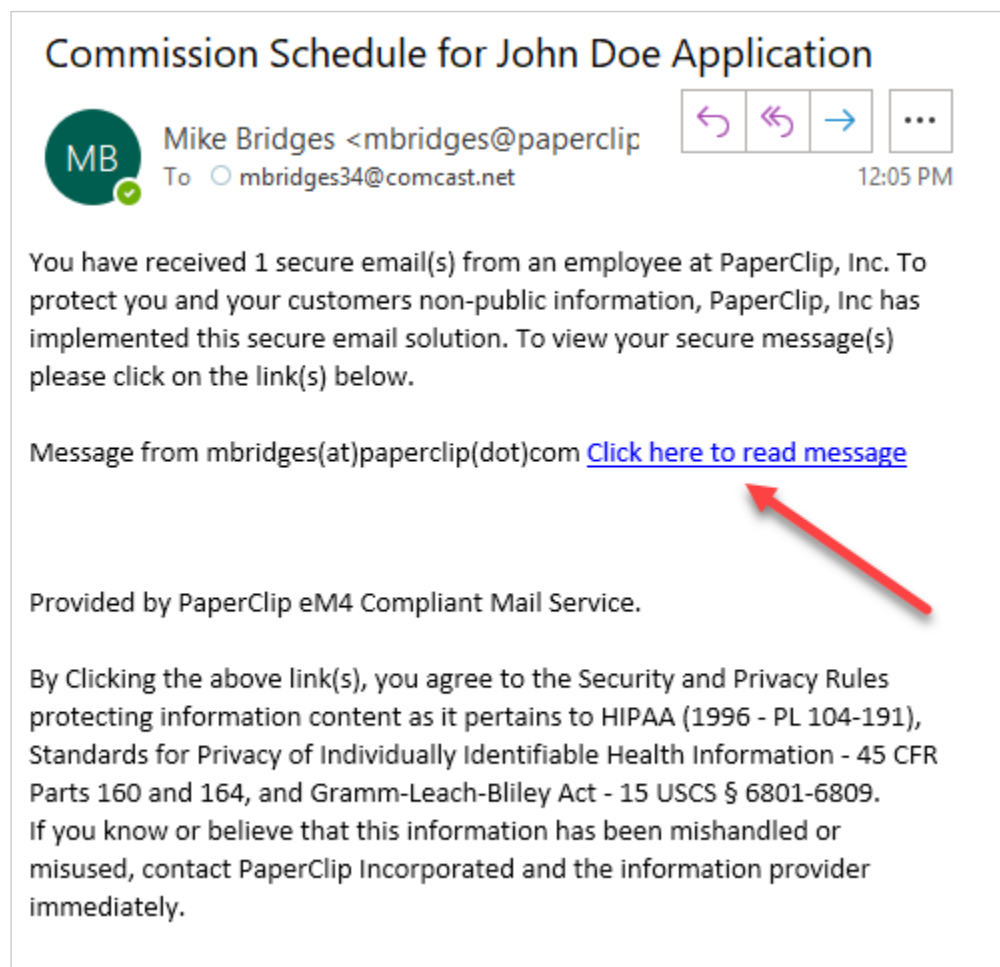
Compliant Email Enable Security Force Secure Force Not Secure Clear Overrides Proof Of Delivery Proof Of Readability Proof Of Agreement ☒ Proof Of Agreement

The eM⁴ Add-In also has appended the B2C XML Instruction to the bottom of the email.

Please reviewed the standard agreement for commission split.

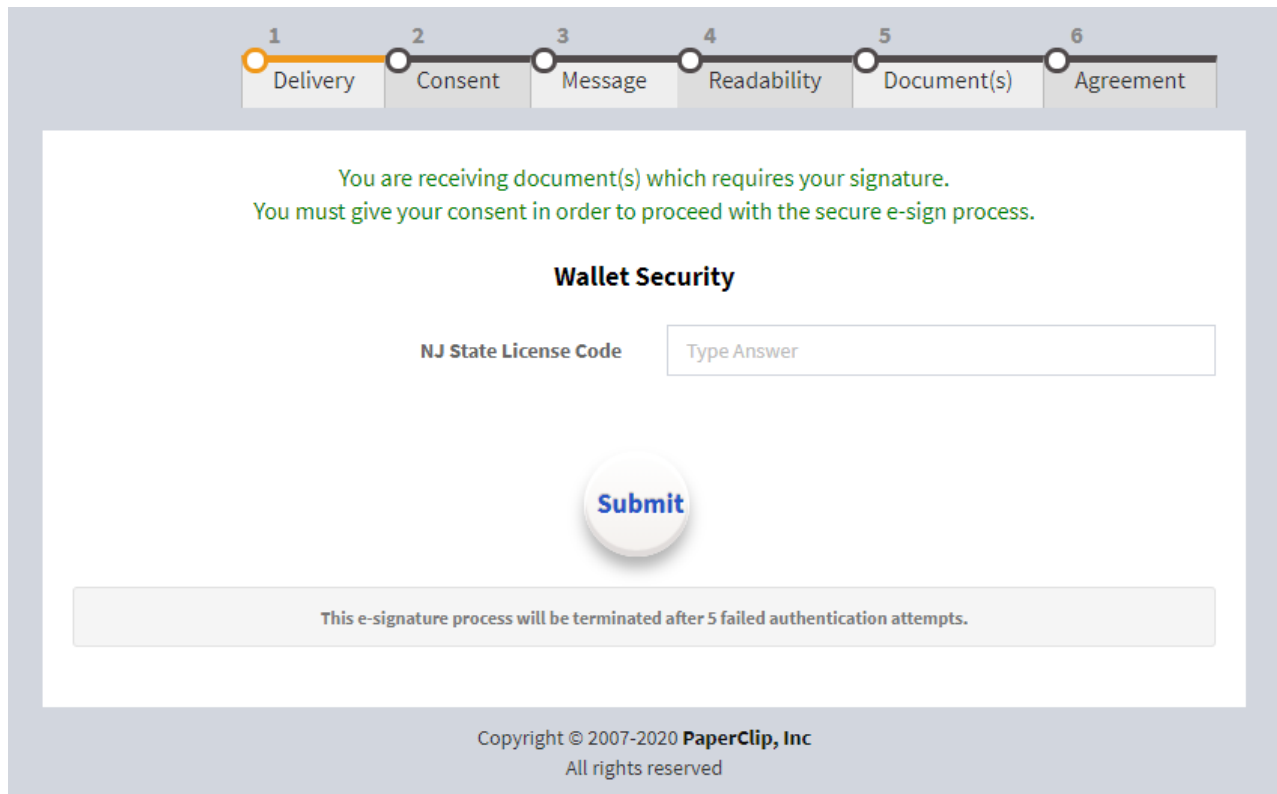
```
<eM4WA><eM4Prompt question="NJ State License Code" type="String"
option="None" answer="OC214321" /></eM4WA><eM4POA><eM4Sign
fileName="JohnDoe Comission.pdf" /></eM4POA>
```

Receiver will receive an eM⁴ POA Notice email as their initial notification.



Important – For the best user experience, senders should alert the receivers that they be receiving an eM⁴ Compliant Esign email and to follow the instructions. Senders should agree to a wallet security question and answer.

Select the link to open the email starts the 6 step E-Signing event.



1 Delivery 2 Consent 3 Message 4 Readability 5 Document(s) 6 Agreement

You are receiving document(s) which requires your signature.
You must give your consent in order to proceed with the secure e-sign process.

Wallet Security

NJ State License Code

Submit

This e-signature process will be terminated after 5 failed authentication attempts.

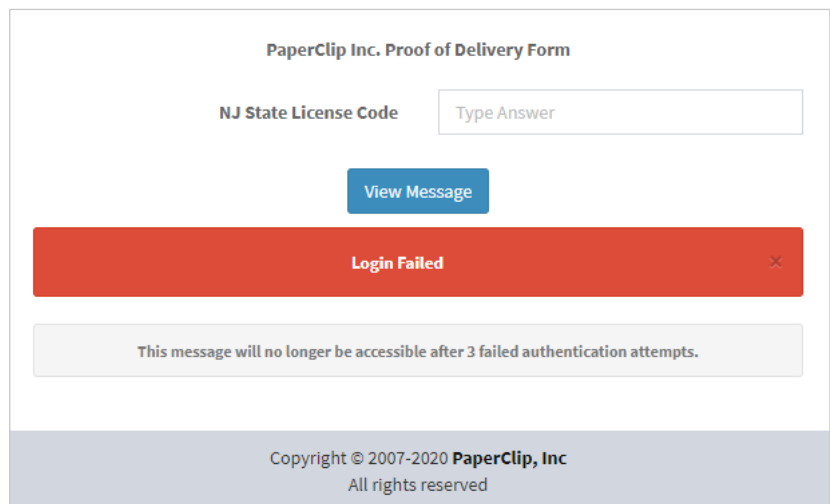
Copyright © 2007-2020 PaperClip, Inc
All rights reserved

Delivery requires the receiver to answer the question asked.

The User will have 3 attempts to get the answer right before the POA email becomes locked out. The email is then expired and so updated in the eM⁴ Admin portal.

This email signing event would have to start over.

Note to Sender – Go to the Outlook Sent folder, reply to / forward and send the email again will recycle the event.



PaperClip Inc. Proof of Delivery Form

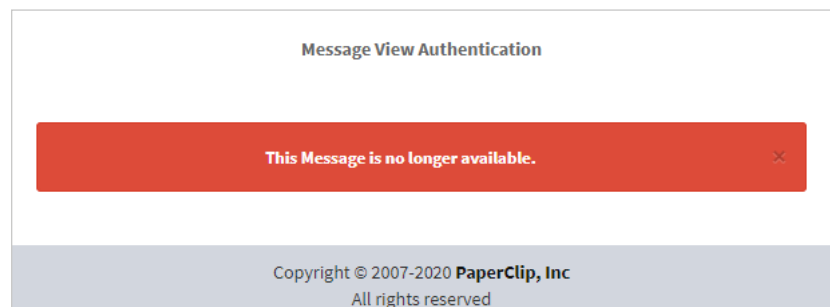
NJ State License Code

View Message

Login Failed

This message will no longer be accessible after 3 failed authentication attempts.

Copyright © 2007-2020 PaperClip, Inc
All rights reserved

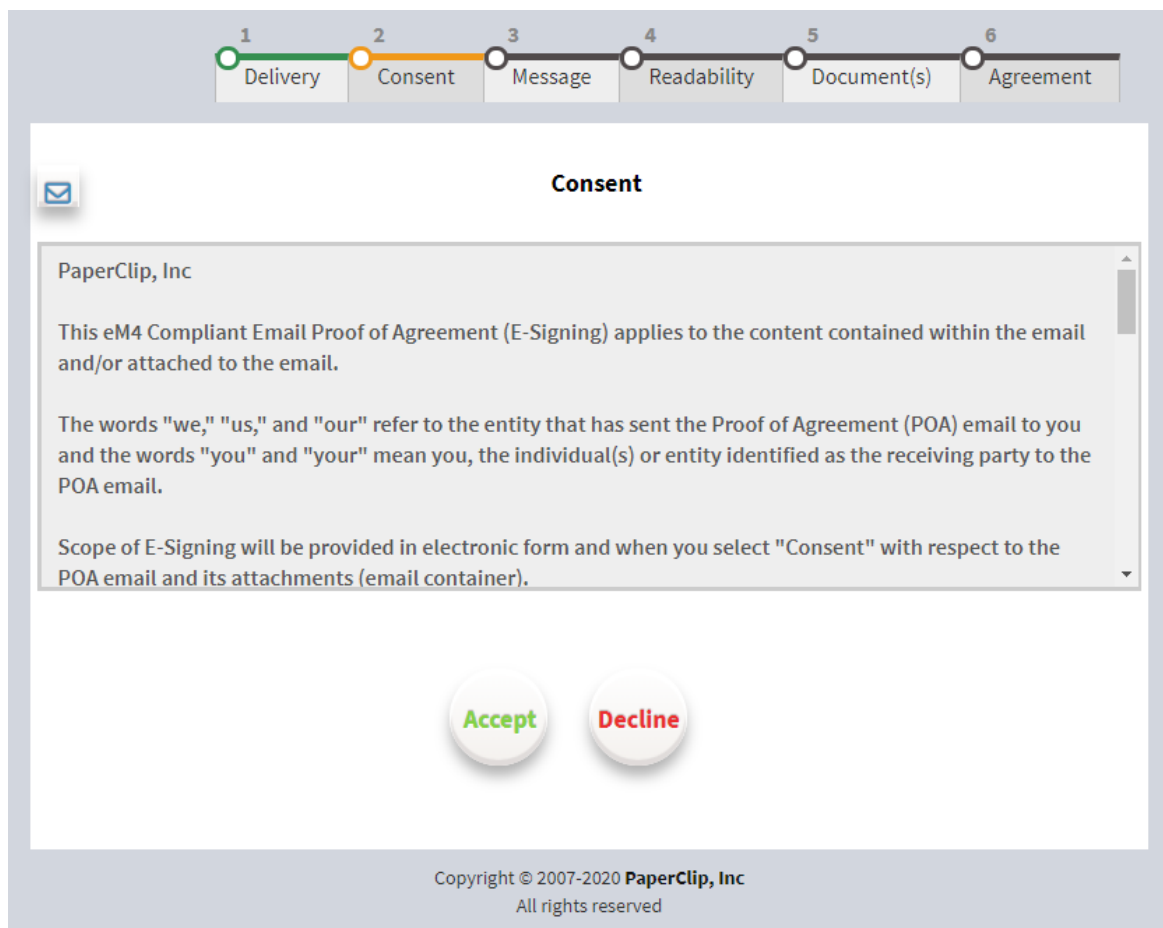


Message View Authentication

This Message is no longer available.

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All rights reserved

Defined by the regulations, all parties engaged in the E-Signing transaction must consent and this includes the terms and conditions of the signing event. eM⁴ has a standardized consent agreement which can be used as a default or Subscribers can customize their own. Default consent content included as Appendix A and to customize see Admin section below.



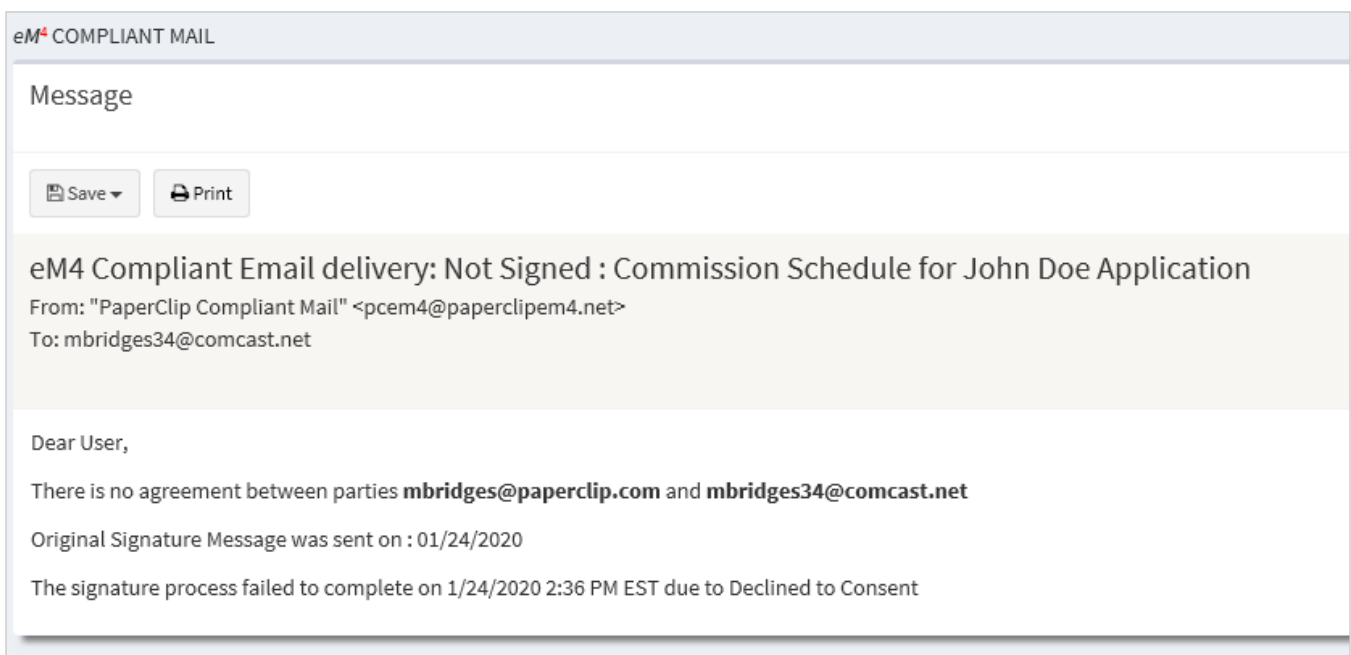
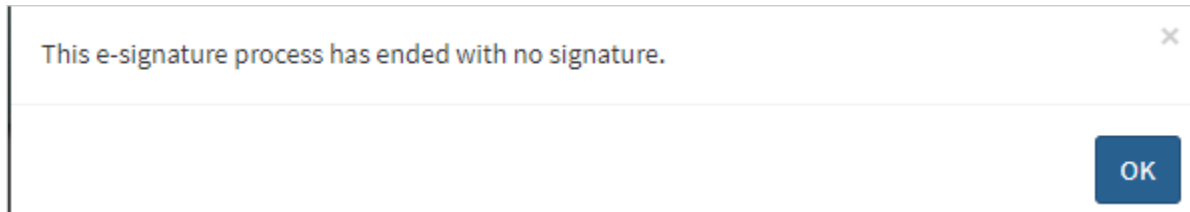
The screenshot shows a web interface for the 'Consent' step of an e-signing process. At the top, a progress bar has six steps: 1. Delivery, 2. Consent (highlighted in orange), 3. Message, 4. Readability, 5. Document(s), and 6. Agreement. Below the progress bar is a box titled 'Consent' with an envelope icon. Inside the box, the text reads: 'PaperClip, Inc', 'This eM4 Compliant Email Proof of Agreement (E-Signing) applies to the content contained within the email and/or attached to the email.', 'The words "we," "us," and "our" refer to the entity that has sent the Proof of Agreement (POA) email to you and the words "you" and "your" mean you, the individual(s) or entity identified as the receiving party to the POA email.', and 'Scope of E-Signing will be provided in electronic form and when you select "Consent" with respect to the POA email and its attachments (email container)'. At the bottom of the box are two large buttons: 'Accept' (green) and 'Decline' (red). Below the box, the footer text reads: 'Copyright © 2007-2020 PaperClip, Inc' and 'All rights reserved'.

Accept

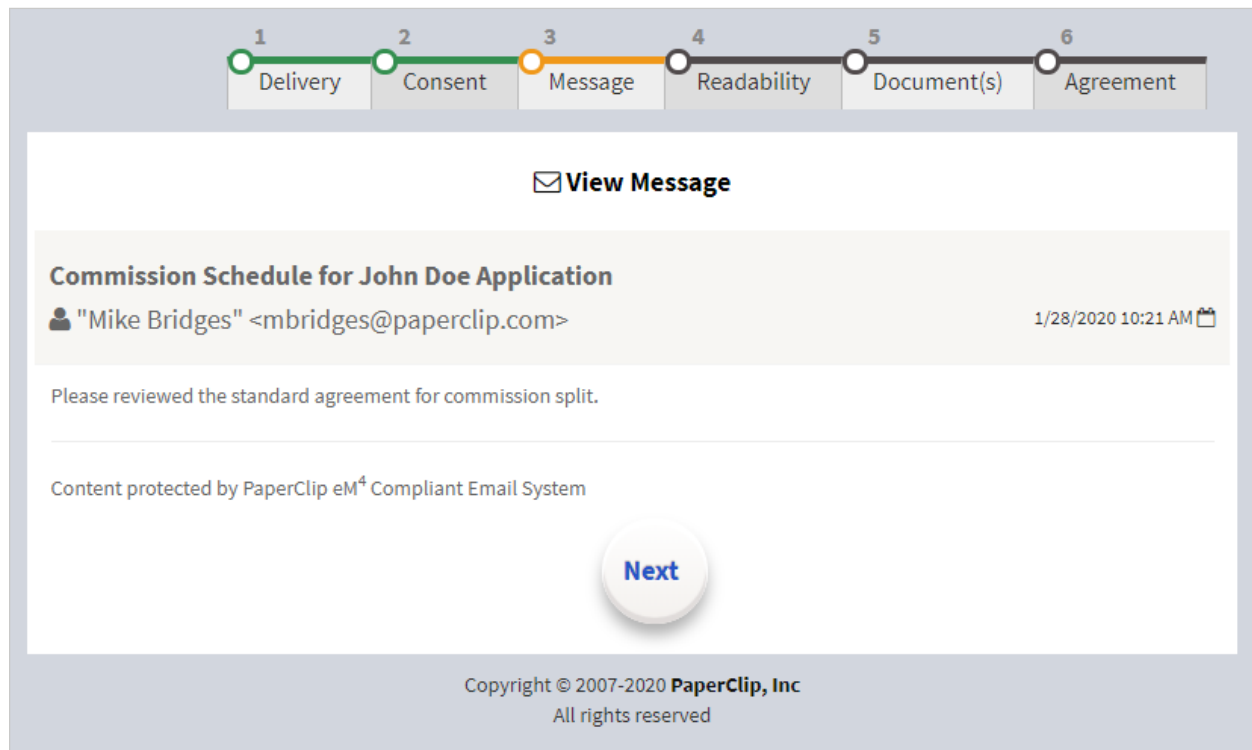
Agreeing to the consent will log the appropriate entries and progress to the next step 3.

Decline

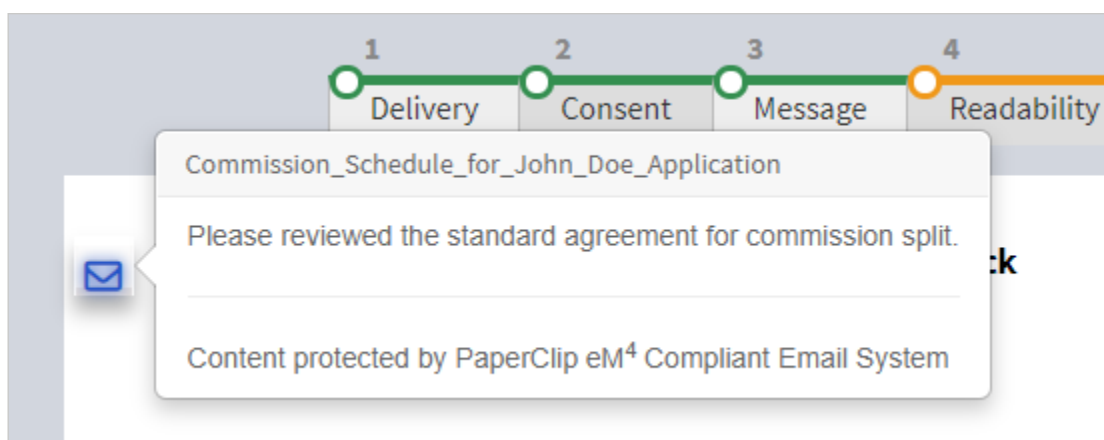
Decline the consent will end the process with the message below. In addition, all parties will receive the email below informing all of the decline.



View Message shows only the body of the original email. This includes the subject line, sender and date & time stamp. The only option here is "Next",



There is opportunity to view the message again as you progress. Select the email icon on the screen and the email body content will be displayed.



This step is unique to eM⁴ and required by regulations. It is unique because the traditional E-Signing solution has you opening a PDF file to reach the E-Signing inserts / applets. eM⁴ is different because eM⁴ does not require the insertion or configuration of applets inside the document. It offers a “Click Wrap” model to lock the document as an E-Signing event.

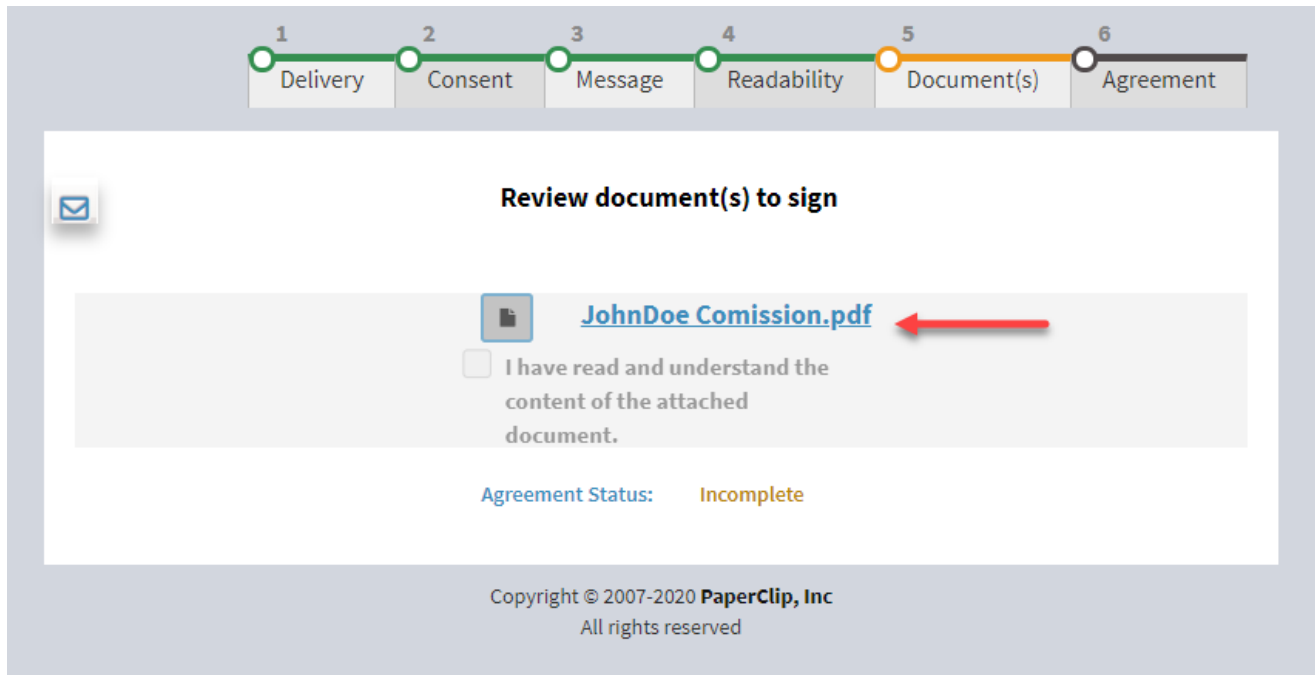
Proof of Readability ensures that the attachment sent to the receiver can be opened and read. A PDF attachment would open a PDF file containing a number. The user is required to type that number into the screen. If they match, the event POR is recorded in the auditing portal and the process moves to the next event.

The screenshot displays the 'Readability Check' step in a six-step process: 1. Delivery, 2. Consent, 3. Message, 4. Readability (highlighted), 5. Document(s), and 6. Agreement. The main interface includes an email icon, instructions to click an icon and enter a code, a PDF icon, a text input field containing '416873', and a 'Submit' button. The footer shows 'Copyright © 2007-2020 PaperClip, Inc All rights reserved'. An inset shows a PDF viewer window titled 'verification (1).pdf - Adobe Acrobat' displaying the number '416873'.


POR supports the following attachment file formats:



PDF	TIFF	BMP	GIF	JPG	PNG
DOC	DOCX	XLS	XLSX	PPT	PPTX
AVI	MP3	MP4	WAV	WMV	WMF

This step is where the user opens the attachment(s) and reviews each document and its content. Completing the review process requires the user to select the checkbox affirming that they have read and understand the content. The checkbox will become available after the document has been opened.



1 Delivery 2 Consent 3 Message 4 Readability 5 Document(s) 6 Agreement

 **Review document(s) to sign**

 [JohnDoe Comission.pdf](#) 

☐ I have read and understand the content of the attached document.

Agreement Status: Incomplete

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All rights reserved



Review document(s) to sign

 [JohnDoe Comission.pdf](#)

☒ I have read and understand the content of the attached document.

Agreement Status: Incomplete

Agree

When hovering over the Agree button, it will turn green. After selecting "Agree", the Agreement Status will change from Incomplete to Agree. Next is the Submit button which is the E-Signing Event.

Disagree

When hovering over the Disagree button, it will turn red.

Review document(s) to sign

📎

[JohnDoe Comission.pdf](#)

☒

I have read and understand the content of the attached document.

Agree

Disagree

I understand that selecting AGREE constitutes a legal signature confirming that I acknowledge and agree to the Terms and Conditions the subject attachment contains.

Agreement Status: Agree

↑

Press the Submit button to complete this process. Once submitted, you will not be able to make any changes to your responses within this agreement.

→

Submit

The final step is the Attestation confirming the document has been legally signed and binding between the parties. All parties to the E-Signing event will receive an email message affirming the event to include email address, signer IP and location, date & time stamp, consent agreement and archive notice. More information on POA Archiving below in Admin Section.

1

2

3

4

5

6

Delivery


Consent


Message

Readability

Document(s)

Agreement

You have successfully completed this E-Sign event! 



E-Sign Attestation Summary

[Open Email](#)

Sender : mbridges@paperclip.com

Signer : Mike Bridges - mbridges34@comcast.net

Signer IP/Location : 73.193.204.158 - Long Branch, New Jersey

Agreement Status : Agree

DOCUMENT AGREED TO

JohnDoe Comission.pdf

(62 KB)

<u>Date</u>	<u>Time</u>	<u>Archived</u>
01/28/2020	11:41:33 AM	Yes

Both Sender and Receiver will receive the above E-Sign Attestation and E-Sign Consent.

eM4 has sealed and archived the E-Signed email and its attachments for subscriber retention.

Please close this window

eM4 Compliant Email delivery: Agreement - Signa..



PaperClip Compliant Mail <pcem4@
To Mike Bridges



11:43 A

If there are problems with how this message is displayed, click here to view it in a web browser.

Dear User,

This agreement is between parties mbridges@paperclip.com and mbridges34@comcast.net The location information where the agreement was signed is **73.193.204.158-Long Branch, New Jersey**

Both parties have agreed to the following **consent text** :

PaperClip, Inc

This eM4 Compliant Email Proof of Agreement (E-Signing) applies to the content contained within the email and/or attached to the email.

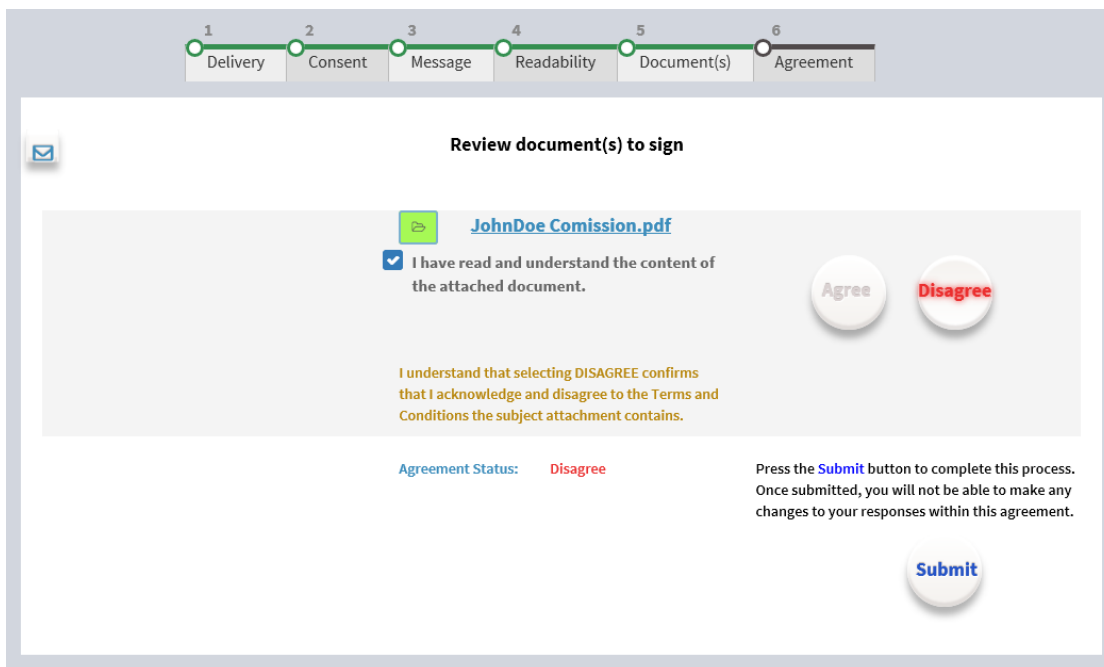
PaperClip Privacy Policy (<http://paperclip.com/index.php/privacy-policy>) remains in effect and PaperClip does not sell or share any Subscriber or email users stored content to any third parties. All related content is encrypted at rest and in transit as required by law and regulations.

Document	Agree ?	Signature Date	Archive ?	MessageDate
JohnDoe Comission.pdf	Yes	1/28/2020 11:41 AM EST	Yes	01/28/2020

Content protected by Paperclip eM⁴ Compliant Email System


Disagree

When hovering over the Disagree button, it will turn red.



1 Delivery 2 Consent 3 Message 4 Readability 5 Document(s) 6 Agreement

Review document(s) to sign

 **JohnDoe Comission.pdf**

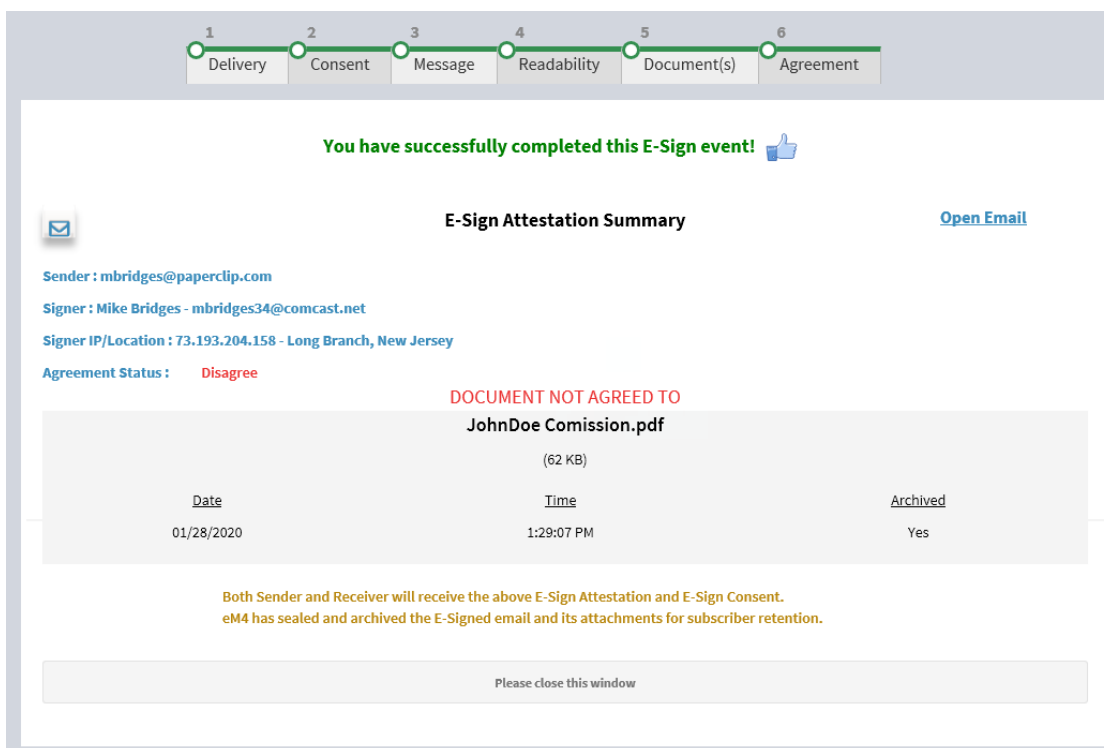
☒ I have read and understand the content of the attached document.

I understand that selecting DISAGREE confirms that I acknowledge and disagree to the Terms and Conditions the subject attachment contains.


Agreement Status: **Disagree**

Press the **Submit** button to complete this process. Once submitted, you will not be able to make any changes to your responses within this agreement.

Submit



1 Delivery 2 Consent 3 Message 4 Readability 5 Document(s) 6 Agreement

You have successfully completed this E-Sign event! 

E-Sign Attestation Summary [Open Email](#)

Sender : mbridges@paperclip.com
 Signer : Mike Bridges - mbridges34@comcast.net
 Signer IP/Location : 73.193.204.158 - Long Branch, New Jersey
 Agreement Status : **Disagree**

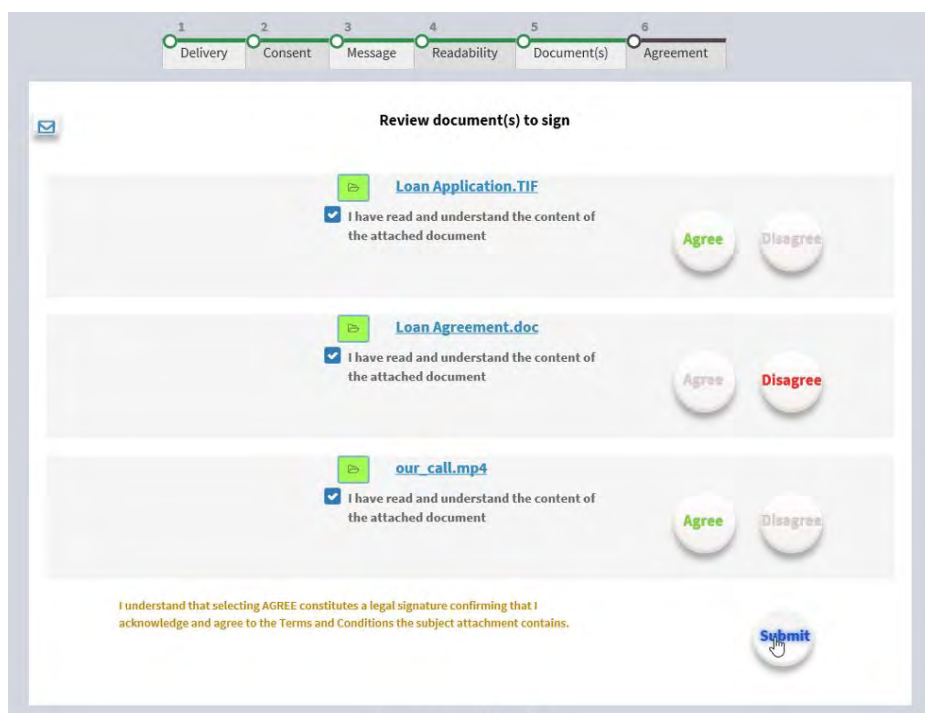
DOCUMENT NOT AGREED TO
JohnDoe Comission.pdf
 (62 KB)

Date	Time	Archived
01/28/2020	1:29:07 PM	Yes

Both Sender and Receiver will receive the above E-Sign Attestation and E-Sign Consent.
 eM4 has sealed and archived the E-Signed email and its attachments for subscriber retention.

Please close this window

Below screens show the presentation of many attachments for one event.



1 Delivery 2 Consent 3 Message 4 Readability 5 Document(s) 6 Agreement

Review document(s) to sign

[Loan Application.TIF](#)

☒ I have read and understand the content of the attached document

Agree Disagree

[Loan Agreement.doc](#)

☒ I have read and understand the content of the attached document

Agree Disagree

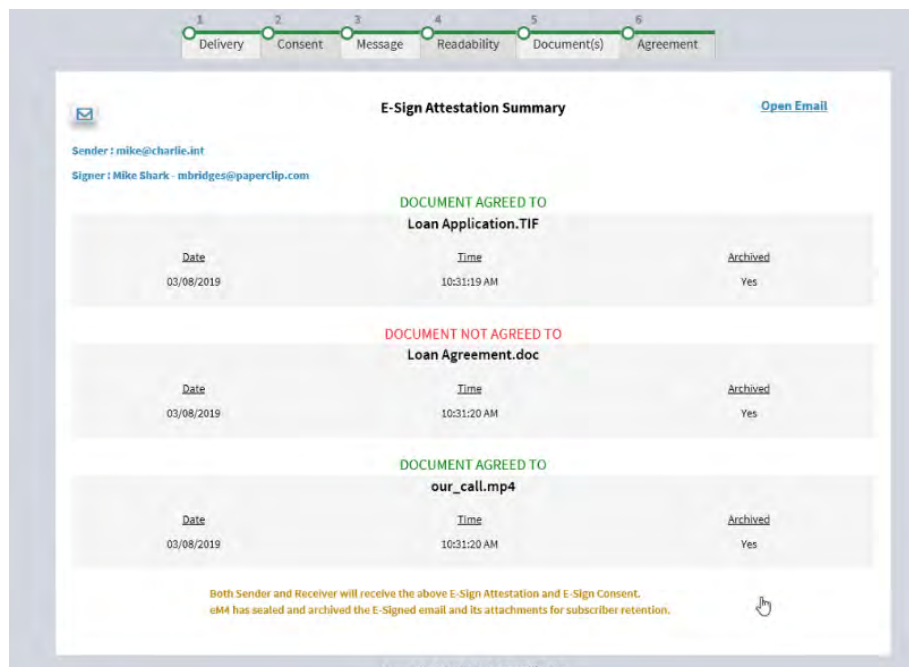
[our_call.mp4](#)

☒ I have read and understand the content of the attached document

Agree Disagree

I understand that selecting AGREE constitutes a legal signature confirming that I acknowledge and agree to the Terms and Conditions the subject attachment contains.

Submit



1 Delivery 2 Consent 3 Message 4 Readability 5 Document(s) 6 Agreement

E-Sign Attestation Summary [Open Email](#)

Sender: mike@charlie.int
Signer: Mike Shark - mbridges@paperclip.com

DOCUMENT AGREED TO
Loan Application.TIF

Date	Time	Archived
03/08/2019	10:31:19 AM	Yes

DOCUMENT NOT AGREED TO
Loan Agreement.doc

Date	Time	Archived
03/08/2019	10:31:20 AM	Yes

DOCUMENT AGREED TO
our_call.mp4

Date	Time	Archived
03/08/2019	10:31:20 AM	Yes

Both Sender and Receiver will receive the above E-Sign Attestation and E-Sign Consent.
eM4 has sealed and archived the E-Signed email and its attachments for subscriber retention.

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The email, attachments and attestation attachment are then encrypted (AES 256) Hashed (SHA-2) and archived by Paperclip for one year as the D3P. At the end of one year, with 30 days' notice, Paperclip will purge the same.

<Paperclip, Inc> *This is a drop in variable of the subscriber's name.*

This eM⁴ Compliant Email Proof of Agreement (E-Signing) applies to the content contained within the email and/or attached to the email.

The words "we," "us," and "our" refer to the entity that has sent the Proof of Agreement (POA) email to you and the words "you" and "your" mean you, the individual(s) or entity identified as the receiving party to the POA email.

Scope of E-Signing will be provided in electronic form and when you select "Consent" with respect to the POA email and its attachments (email container).

By selecting the Consent Button, you agree to use electronic records and signatures. You confirm that:

You can access and read this Electronic Record and Signature Attachment(s) as evidenced in 'Proof of Readability'; and

You can print on paper the Electronic Record and Attestation, or save or send this Electronic Record and Attestation to a location where you can print it, for future reference and access; and

You consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements about the POA email E-Signing event. If you elect to receive required notices and disclosures in paper format, you must contact the sender and request paper documentation. The eM⁴ Compliant Email Service will not provide any paper copies of any POA email events.

Hardware and Software Requirements. In order to access, view, and retain electronic Communications that we make available to you, you must have:

an Internet browser that supports TLS 1.2 encryption;

sufficient electronic storage capacity on your computer's hard drive or other data storage unit;

an e-mail account with an Internet service provider and e-mail software in order to participate in eM⁴ Compliant Email POA E-Signing event.

Withdrawing your consent after consenting you can end the process and reply to the email you received with the sender that you changed your mind and choose an alternate method of execution.

You acknowledge and agree that your consent to electronic signing is being provided in connection with a transaction affecting interstate commerce that is subject to the federal Electronic Signatures in Global and National Commerce Act, and that you and we both intend that the Act apply to the fullest extent possible to validate our ability to conduct business with you by electronic means.

Paperclip will archive the E-Signing email event with access via Subscriber's account for a period of one year in an unalterable state and is considered the original signed documents as the event presented and the attestation confirms.

Paperclip Privacy Policy (<http://paperclip.com/index.php/privacy-policy>) remains in effect and PaperClip does not sell or share any Subscriber or email users stored content to any third parties. All related content is encrypted at rest and in transit as required by law and regulations.

Below are variations for signature blocks when executing a contract or agreement via eM⁴ Proof of Agreement. Best Practices would promote the content of the actual document refer to the E-Signing event as the execution.

IN WITNESS WHEREOF, the parties, by their duly authorized representatives, hereto have executed this Agreement as of the day and year noted below as an eM⁴ ESigning/POA event as evidenced by the associated Attestation.

PAPERCLIP, INC.

Name: D. Michael Bridges

Title: President

Email: mbridges@paperclip.com

Esign/POA Event Date: 2/18/2020

ACME COMPANY

Name: Elmer Fudd

Title: CEO

Email: efudd@acmecompany.com