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Electronic Messages White Paper

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Introduction

Throughout fiscal year 2016, NARA conducted research to assess current practices in Federal agencies regarding the management of electronic messages and use of electronic messaging technology. This white paper represents NARA's findings as of March 2016. On the whole, NARA's research indicates that records management practices around electronic messages are emerging. As new electronic messaging technologies are created in the marketplace, Federal agencies must determine how to manage the records they create when they implement these tools.

This white paper is intended to help agencies begin to address the management of electronic messages beyond email. NARA's research included a review of current guidance, analysis of agency reports, forums with agency records managers, and research into capture tools. For the purposes of this research project, we focused on text and chat/instant messages. NARA will continue to ask for detailed information on agency use of electronic messaging. NARA's future goals include producing guidance and sharing promising practices to manage electronic messages.

NARA Research

Current Guidance

The 2014 amendments to the Federal Records Act (FRA) and [NARA Bulletin 2015-02, Guidance on Managing Electronic Messages](#) specifically address managing electronic messages. The FRA added requirements for managing records created or received in non-official and personal electronic messaging accounts (44 USC § 2911). The new requirements establish that employees may not create or send a record using a non-official or personal account unless they copy or forward any Federal record received in a personal or non-official messaging account to their official account. This amended statute was the first explicit reference to managing electronic messages in personal or non-official accounts. However, agencies were already required to manage electronic messages in official accounts under the existing statutory framework. The NARA Bulletin, released after the law was amended, reinforced the requirement that agencies manage and schedule all of their records, including electronic messages. The Bulletin stated that electronic messages created or received in the course of agency business are Federal records. These records may have temporary or permanent value.

2015 Senior Agency Official for Records Management Reports

The research team reviewed agency responses to two questions from the 2015 Senior Agency Official (SAO) for Records Management Reports:

“Has your agency taken actions to implement the 2014 amendments to the Federal Records Act requiring Federal employees to copy or forward electronic messages (including email, texts, chats, and instant messaging) that are Federal records from their non-official accounts to official accounts within 20 days?” (SAO Question #3)

“Describe your agency’s internal controls for managing electronic messages (including email, texts, chats, and instant messaging) of the agency head and other executives (including appropriate advisers, and other senior management staff).”
(SAO Question #4)

Eighty-two percent of agencies answered yes to Question 3 and said they have taken steps to copy or forward electronic messages, including email, texts, chats, and instant messages, from non-official accounts to official accounts within 20 days. Many reported adding this requirement to their records management training or are in the process of updating or creating briefings for employees. Agencies also reported adding the requirement to agency records management, IT, and email management policies and directives. Many have reported directly briefing senior executives of the changes to the FRA.

Many agencies only addressed email in their answers to Question 4. Agencies discussed draft policies and proposed training as measures for handling electronic messages, but did not describe internal controls. Agencies reported they wrote policies stating that agency heads and executives must retain their electronic messages and briefed executives on the new requirements in the FRA. Some agencies reported that they trained employees, including agency heads and executives, on identifying electronic messages as records and saving them in an electronic records management system or official account. Other agencies said they are currently performing research to determine how senior executives are using text and chat to conduct business. They also reported researching tools and technologies currently available to capture the text and chat/instant messages of their agency heads and senior executives. Many agencies said they prohibit the use of text and chat/instant messages to conduct business or treated all text and chat/instant messages as transitory records. Federal records scheduled as transitory may be disposed of immediately or when no longer needed.

Agency Focus Groups and Interviews

NARA interviewed agencies to discuss policies and best practices surrounding electronic message management. The responses from agencies indicated minimal progress in the area of managing electronic messages, but a great deal of interest in the practices of other agencies.

NARA held two focus groups with records management staff from a total of 11 agencies. NARA separately interviewed three additional agencies. NARA asked agencies the following questions:

- What forms of electronic messaging does your agency use?
- Do you have a policy? Would you be willing to share your policies, schedules, or other materials?
- What kind of training do you have?
- Are your electronic messages scheduled? What schedule are you using?
- Are you using a Capstone approach?

- Have you determined a capture strategy?
- Are you looking into tools to use for capture? Have you explored what metadata can be captured?
- Do you know how often senior officials use text and chat?

Agencies expressed concerns about managing electronic messages, yet comprehensive approaches to management are only starting to develop. NARA categorized and analyzed the feedback we received from agencies in four ways: policies, systems, access, and disposition.

Policies: Agencies stated they are aware of the current and potential use of electronic messaging systems by employees, contractors, volunteers, and others in the course of conducting agency business. Agencies are also aware of the requirement to manage electronic messages sent or received on personal accounts or devices in official systems. Many agencies have policies that prohibit the use of any electronic messaging that results in the creation of records, whether on agency-furnished equipment or personal devices. Some agencies have policies in place to instruct employees what to do in the event of creating electronic messages outside of agency control. Even though electronic messaging tools may be prohibited at agencies, some records management staff were concerned employees may still use such tools to do their work.

Other agencies allow the limited use of electronic messaging and have provided training and instruction to employees on how to manually manage electronic messages that are records. Other agencies are in the process of updating existing policies and guidance to ensure they address electronic messaging systems.

Systems: Agencies expressed concern that electronic messaging technologies and platforms do not have records management functionality making it difficult to manage records. No agencies reported having a system to automatically capture text messages into a recordkeeping system. Many agencies have instant messaging services built into their email systems and can potentially capture chat/instant messages along with email. While system functionality varies, some systems can keep messages for a specific length of time while others allow for immediate deletion. Agencies are unclear what metadata is captured when instant messages are managed in email systems.

Access: Agencies reported receiving requests, including FOIA and Congressional requests, for their text and chat/instant messages and have experienced difficulties retrieving text messages sent from or received on agency-owned and personal devices. Many agencies require employees and contractors to forward text and chat/instant messages to official email accounts so they can be searched and retrieved along with email messages in response to information requests. Agencies are concerned that potentially responsive records are not being searched and retrieved in a timely and efficient manner.

Disposition: Agencies reported having difficulty identifying electronic messages that are records. Some agencies currently consider all electronic messages to have transitory value. Agencies expressed concern that NARA and the FRA state that electronic

messages created by Federal employees in the conduct of official business are records. Some agencies consider this to be unnecessarily broad and feel that it places an undue burden on them to manage "transitory" or "ephemeral" electronic messages.

Agencies reported interest in using a Capstone-like approach to scheduling and managing the electronic messages of senior officials, agency employees, and contractors. However, no agencies reported submitting a Capstone schedule to NARA for electronic messages other than email.

NARA Analysis

Electronic messages are challenging to manage due to the proliferation of platforms, devices, and systems used to create these records. Further, the technology itself makes the capture and preservation of electronic messages difficult. In some agencies, the use of text and chat/instant messages is critical to accomplishing the agency mission. Agencies are facing the issue of how to capture discrete messages that require longer retention without flooding systems with all electronic messages or without asking users to capture individual electronic messages.

Agencies reported prohibiting the use of electronic messaging technology to perform agency business. NARA believes prohibiting the use of electronic messaging is not a viable approach. Agencies should provide employees both the tools they need for their work and mechanisms to manage the records created using those tools. Similarly, employees and contractors should use the tools provided by their agencies. This could decrease the instances of employees and contractors using personal accounts or devices for their work.

In order to capture electronic messages that are records requiring longer term retention, agencies must use appropriate tools and methods to extract and store electronic messages with sufficient information to understand their content, context, and structure. Agencies need to capture account information (see [NARA Bulletin 2015-04: Metadata Guidance for the Transfer of Permanent Electronic Records](#)) and maintain it in association with any text or chat/instant messages they harvest from a device. If an application or communication platform currently in use does not have the functionality to meet Federal records management requirements, agencies should consider ways they can meet the requirements or select other tools that would assist with the capture of records and associated metadata. Prior to implementing systems and tools, agencies should determine if they are fit for the purpose of conducting agency business, documenting the actions of agencies, and managing records.

Like email, text and chat/instant messages are designed to permit communication between computers, phones, and other networked devices. However, they differ in ways that significantly impact records management. Email is based on the [RFC 5322](#) standard that defines the components necessary to send and receive email messages. One of these components is an email header made up of fields including a mandatory recipient and mandatory sender. In comparison, individual chat and text messages often either mask or fail to include the address, username, or phone number of the account holder. Similarly,

email messages include an optional subject line that provides context for messages whereas text and chat/instant messages do not contain a subject line.

Further, the manner in which text and chat/instant messages are stored poses retrieval and preservation challenges. These types of messages include a timestamp that should permit agencies to preserve message exchanges in their original order. However, most platforms store messages in database tables with text being stored separately from multimedia files. When they are extracted from a user's device, message content and associated metadata may be placed in different folders. As a result, a photograph may be preserved, but may lack the time stamp indicating the when the message was sent or received.

Agencies need to know when records need to be kept for longer periods of time and train employees on their records management responsibilities. This may include instructions on how to capture electronic message records in an electronic recordkeeping system.

Several decades of experience with email records management has demonstrated the reliance on individual end users to take appropriate action to make effective records retention decisions has not been successful; nevertheless many agencies continue to rely on individuals to manually manage records.

Additionally, NARA is concerned with the approach of considering all electronic messages as transitory because permanent and long-term temporary records will not be preserved. If agency electronic messages are not scheduled, they must be retained and treated as permanent records until scheduled (36 CFR 1225.16). Ultimately, agencies need the ability to access electronic messages created and received during the course of agency business and to be responsive to information requests.

Current Practices

While there are general best practices for records management, the most appropriate ways to schedule, manage, and preserve electronic messages are still emerging. We do not have best practices to share at this time, but we are aware of the following current practices.

- Revising and drafting agency policies to address the requirement in the FRA to forward to or copy official accounts when personal accounts are used.
- Communicating to all employees, contractors, and volunteers their responsibilities for managing electronic messages. For example, agencies reported briefing all employees on their responsibilities related to the amended FRA requirements.
- Training employees on how to forward or copy electronic messages to official accounts.
- Monitoring and auditing employee use of devices to ensure appropriate use of systems and handling of records. For example, agencies reported reviewing mobile phone bills to monitor how often senior officials are sending and receiving text messages on agency-owned devices.
- Adding functionality to existing instant messaging systems to capture chats. For example, adding archiving functionality to capture instant messages integrated within an email system.

- Enabling employees to easily access official accounts from multiple devices in accordance with agency policy and procedures.

Agency Next Steps

In addition to the current practices, agencies reported planning the following steps to manage electronic messages.

- Form a cross-organizational working group to focus on emerging record forms and formats. The working group would continue to monitor agency use of electronic messaging tools to make sure policies, records schedules, and management approaches are up to date.
- Review agency policies to ensure compliance with the FRA requirement to forward or copy electronic messages that are Federal records from personal or non-official accounts to official accounts.
- Implement procedures detailing how to capture and preserve electronic messages that are Federal records. Procedures will vary based on service or system used.
- Acknowledge that many electronic messages may fall under the definition of transitory records and focus capture efforts on messages with longer term value.
- Train employees on how to distinguish between transitory records and those with long term value.
- Review a list of technology systems already in place to see if an agency has an existing method to capture electronic messages.
- Configure mobile device management services on agency-owned devices to automatically capture content or store content in a location where records can be searched and accessed.
- Ensure electronic messages are usable and retrievable beyond a single device as requesting electronic messages from providers is not a reliable or efficient method of retrieval.
- Share lessons learned with other agencies so that others in the Federal Government can benefit from their experiences.

Conclusion

Records take many different forms based on the tools used to create them. All records have value even if it is for a very short period of time, which is likely the case with many text and chat/instant messages. However, some electronic messages may need to be retained for several years, or even permanently. Without automated capture, employees need to make a determination at creation or receipt as to whether each electronic message qualifies as a record and, if so, whether it is a temporary or permanent record. The goal of the [Managing Government Records Directive \(M-12-18\)](#) is to move agencies toward efficient electronic records management and move away from the reliance on end users to manage their records.

The Federal Government must make greater strides towards managing electronic messages. NARA will continue to advance the discussion around the management of electronic messages and monitor agency use of new technologies. Based on research from

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the focus groups and talking to agencies, NARA will ask for more detailed information on agency use of electronic messaging in future reporting. NARA will continue to produce guidance to address agency concerns and share promising practices to manage electronic messages.

Appendix A: Government Policies

Federal Agency Policies

This following table includes excerpts from existing Federal agency policies that address electronic messages.

Agency	Policy Title	Excerpt from Policy
<p>Department of Health and Human Services</p>	<p>HHS Policy for Records Management</p>	<p>5. 12 Social Media and Instant Messaging: The use of social media and instant messaging may create federal records that must be captured and managed in compliance with Federal records management laws, regulations, and policies. OpDivs must identify these federal records and determine how they will be managed. If the OpDiv has identified social media content as federal records, they must determine whether an existing disposition authority applies, including the General Records Schedule (GRS). If an existing authority does not cover the content, a new schedule must be developed. OpDivs should develop a new records schedule if social media and instant messaging users enhance the content by adding comments, metadata or other information that becomes part of the complete record.</p>
<p>Department of Interior Fish and Wildlife Service</p>	<p>Acceptable use of BisonConnect Electronic gChat Technology</p>	<p>Employees and contractors must determine when to take actions to preserve a gChat conversation as a Federal record in accordance NARA. If the conversation is defined as a Federal record and within the record retention requirement, the gChat message must be retained as a Federal record in the appropriate record retention schedule.</p> <p>All gChat conversations are not necessarily Federal records. The 36 C.F.R. 1222 and 44 U.S.C. 3101 provide the criteria regarding proper documentation to be maintained of all communicated information, whether via telephone calls, meetings, instant messages, or electronic mail exchanges. Information related to agency organization functions, policies, activities, decisions, procedures, and essential transactions of the agency which protect the legal and financial rights of the Government and employees affected by the agency's activities, means this conversation is a Federal record. To capture this record depends upon whether the conversation was already captured as an "on" or "off" the record chat.</p>

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<p>General Services Administration</p>	<p>GSA Electronic Messaging and Related Services</p>	<p>...Transitory refers to documents of short-term interest having no documentary or evidential value and which normally need not be kept indefinitely. Examples of transitory material are: ... (7) User-saved instant messages and Mp3 voicemail messages.</p>
<p>Environmental Protection Agency</p>	<p>Records Management Policy</p>	<p>Additionally, EPA discourages the use of text messaging on a mobile device for sending or receiving substantive (or non-transitory) Agency records. However, EPA recognizes that some Agency staff perform time-sensitive work that may, at times, require the creation of substantive (or non-transitory) records in the form of text messages for emergency or environmental notification purposes. In those limited instances, staff must continue to save and manage any text message records related to their work, as discussed below.</p>
<p>National Archives and Records Administration</p>	<p>NARA 861 – Email Records Management</p>	<p>861.7 Records of Communications Created Outside of the NARA Email System, such as Telephone, Face-To-Face Conversations, IM/Chat, and Otherwise Undocumented Official Exchanges.</p> <p>The NARA email records management system may also be used to capture some types of nonemail records, such as telephone calls or Google “chat” conversations, that are not automatically captured. For managing these types of records: Staff may request the Office of Information Services to convert voice messages into email files. Google Chat messages that are records must be saved and then sent to your NARA email account. Instant Messages or SMS texts on mobile devices issued by NARA that are records must be saved and sent to your NARA email account. Personal devices, including laptops and mobile devices, should not be used to store agency records. (See NARA 802.)</p>

<p>NASA</p>	<p>NASA Records Management Program Requirements, Chapter 5. Requirements for Management of Records in E-mail, Cloud, and Social Media</p>	<p>5.4.7 NASA business communications that rise to the definition of Agency records of retention value greater than 180 days shall not be created using instant messaging and text messaging services. In the event that communication of longer retention value is created, the sender and recipient have responsibility for capturing the content of and attachments to the message, together with date/time sent and distribution metadata, and saving it in the same system in which their related non-e-mail official records are stored or in systems/locations where their protection, retention, and recovery can be ensured.</p>
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Other Government Policies

NARA conducted research on how other international, state, and local government organizations are managing their electronic messages. This included researching policies available online and through phone interviews. While many organizations have policies in place, research showed that other governmental organizations are struggling with the same issues of record identification, appropriate capture, and providing access to electronic messages. There is recognition that electronic messages often qualify as public records and systems exist that can capture, access and dispose of records. However, we did not find many examples of successful implementation.

Archives New Zealand:

- [Managing text messages under the Public Records Act 2005: A review by the Chief Archivist](#)
- [Core public recordkeeping responsibilities for Ministers](#)
- [Text messages: advice for Ministers](#)

Commonwealth of Massachusetts: [Enterprise Electronic Messaging Communications Security Policy](#)

Municipal Research and Services Center (MRSC): [Text Messaging Policies](#)

Office of the Secretary of State, Washington State Archives:

- [Managing Text Messages:](#)
- [Text Messages and Public Records - The Basics](#)
- [Are Text Messages Public Records?](#)
- [How Long Do Text Messages Need to be Kept?](#)
- [Capture and Retention of Text Messages](#)
- [Managing Public Records Created or Received as Text Messages](#)

Public Health - Seattle and King County: [SMS Text Messaging Policy](#)

State of Georgia: [SO-11-005 Instant Messaging Services](#)

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State of New Jersey: [Electronic Mail/ Messaging Content Policy and Standards](#)

State of North Carolina:

- [Best Practices for Electronic Communications Usage in North Carolina: Text and Instant Message](#)
- [Best Practices for Electronic Communications Usage in North Carolina: Guidelines for Implementing a Strategy for Text and Instant Messages](#)

Tasmanian Archive and Heritage Office:

- [Guideline 7 Managing Electronic Communications as Records](#)
- [Recordkeeping Advice No. 4, Managing Electronic Communications as Records](#)

Appendix B: Tools Available for Capture of Electronic Messages

In the course of this research project, NARA compiled a non-exhaustive list of current tools available for the capture of electronic messages. They were neither tested nor are they endorsed by NARA. It remains the responsibility of agency records officers to evaluate software functionality and compliance with recordkeeping requirements. This list in no way relieves an agency of its obligation to follow all applicable procurement laws.

The following products and tools could be used to capture text, chat/instant, and social media messages:

Tool	Provider Claims to Capture:
Actiance	Sharepoint, Jive, IBM Connections, Salesforce Chatter, Microsoft Skype for Business, IBM Sametime, Cisco Jabber, Bloomberg, Thomson Reuters, Symphony, SMS
ArchiveFacebook	Facebook messages
Erado Unified Archive	Bloomberg, Erado IM, Skype for Business (formerly Microsoft Lync), IceChat, Yahoo, AIM, ICQ, Jabber, Cisco Unified Presence, IBM Sametime, SMS, Android Messaging, iMessage, BlackBerry Messenger, VOIP Voice Recording, Mobile Voice Recording
Global Relay Archiving	AOL Instant Messenger (AIM), MSN Messenger, Yahoo! Messenger, Google Talk (GTalk), Jabber/XMPP, Pivot 360 (IM Trader), ICE Chat, FactSet IM, Twitter - Direct messages, LinkedIn: Messages, Invitations, InMail, Profiles, Network Updates, Comments, Salesforce Chatter, Yammer, Microsoft Lync & OCS (Office Communication Server)
Gwava	BlackBerry Messenger conversations, BBM Protected, PIN, SMS, MMS, and phone usage data
Hearsay Messages	Text messages
iExplorer	iMessages
If this, then that	SMS, Slack, Yammer
iMazing	SMS, MMS and iMessages, Contacts, Voicemail, Voice Memos, Notes and Call History
iPhone SMS Export	iMessages
Mobile Guard	SMS, MMS, iMessages, mobile voice recordings

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Patrina	AOL Instant Messenger (AIM), Bloomberg, MSN Messaging, Yahoo! Messenger, Jabber/XMPP, Microsoft Lync, Slack
Proofpoint	Jive, Cisco Jabber, Microsoft Lync Online (Office 365), Thomson Reuters, Eikon Messenger, Factset IM, Pivot IMTrader, UBS Chat, Squawker, Sitrion Social Workplace, Live Person and Oracle/ATG Live Help, Android SMS, Apple SMS content
Smarsh	IceChat IBM Sametime, Microsoft Lync, Cisco Unified Presence, Jabber, Slack, Skype for Business, AOL Instant Messenger
Sonian	Microsoft Lync
SMS to Text Pro	SMS
SMSBackup+	SMS, MMS and call log entries using a separate label in Gmail / Google Calendar
TextGuard	SMS, Blackberry Messenger and Blackberry PIN-to-PIN messages