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239 lines (120 loc) · 6.77 KB

T1070.008 - Email Collection: Mailbox Manipulation

Description from ATT&CK

Adversaries may modify mail and mail application data to remove evidence of their activity. Email applications allow users and other programs to export and delete mailbox data via command line tools or use of APIs. Mail application data can be emails, email metadata, or logs generated by the application or operating system, such as export requests.

Adversaries may manipulate emails and mailbox data to remove logs, artifacts, and metadata, such as evidence of [Phishing/Internal Spearphishing](#), [Email Collection](#), [Mail Protocols](#) for command and control, or email-based exfiltration such as [Exfiltration Over Alternative Protocol](#). For example, to remove evidence on Exchange servers adversaries have used the `ExchangePowerShell PowerShell` module, including `Remove-MailboxExportRequest` to remove evidence of mailbox exports.(Citation: Volexity SolarWinds)(Citation: ExchangePowerShell Module) On Linux and macOS, adversaries may also delete emails through a command line utility called `mail` or use [AppleScript](#) to interact with APIs on macOS.(Citation: Cybereason Cobalt Kitty 2017)(Citation: mail man page)

Adversaries may also remove emails and metadata/headers indicative of spam or suspicious activity (for example, through the use of organization-wide transport rules) to reduce the likelihood of malicious emails being detected by security products.(Citation: Microsoft OAuth Spam 2022)

Atomic Tests

- [Atomic Test #1 - Copy and Delete Mailbox Data on Windows](#)
- [Atomic Test #2 - Copy and Delete Mailbox Data on Linux](#)
- [Atomic Test #3 - Copy and Delete Mailbox Data on macOS](#)
- [Atomic Test #4 - Copy and Modify Mailbox Data on Windows](#)
- [Atomic Test #5 - Copy and Modify Mailbox Data on Linux](#)
- [Atomic Test #6 - Copy and Modify Mailbox Data on macOS](#)

Atomic Test #1 - Copy and Delete Mailbox Data on Windows

Copies and deletes mail data on Windows

Supported Platforms: Windows

auto_generated_guid: d29f01ea-ac72-4efc-8a15-bea64b77fabf

Attack Commands: Run with **powershell** ! Elevation Required (e.g. root or admin)

```
New-Item -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data\copy" -It  
Get-ChildItem -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data" -Ex  
Remove-Item -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data\copy"
```

Cleanup Commands:

```
Remove-Item -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data\copy"
```

Atomic Test #2 - Copy and Delete Mailbox Data on Linux

Copies and deletes mail data on Linux

Supported Platforms: Linux

auto_generated_guid: 25e2be0e-96f7-4417-bd16-a4a2500e3802

Attack Commands: Run with **bash** ! Elevation Required (e.g. root or admin)

```
mkdir -p /var/spool/mail/copy
for file in /var/spool/mail/*; do
    if [ "$(basename "$file")" != "copy" ]
    then
        cp -R "$file" /var/spool/mail/copy/
    fi
done
rm -rf /var/spool/mail/copy/*
```



Cleanup Commands:

```
rm -rf /var/spool/mail/copy
```



Atomic Test #3 - Copy and Delete Mailbox Data on macOS

Copies and deletes mail data on macOS

Supported Platforms: macOS

auto_generated_guid: 3824130e-a6e4-4528-8091-3a52eeb540f6

Attack Commands: Run with **bash** ! Elevation Required (e.g. root or admin)

```
mkdir ~/Library/Mail/copy
cp -R ~/Library/Mail/* ~/Library/Mail/copy
rm -rf ~/Library/Mail/copy/*
```



Cleanup Commands:

Preview

Code

Blame

Raw



```
rm -rf ~/Library/Mail/copy
```



Atomic Test #4 - Copy and Modify Mailbox Data on Windows

Copies and modifies mail data on Windows

Supported Platforms: Windows

auto_generated_guid: edddff85-fee0-499d-9501-7d4d2892e79b

Attack Commands: Run with **powershell** ! Elevation Required (e.g. root or admin)

```
New-Item -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data\copy" -It
Get-ChildItem -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data" -Ex
Get-ChildItem -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data\copy"
```



Cleanup Commands:

```
Remove-Item -Path "C:\Users\${env:USERNAME}\AppData\Local\Comms\Unistore\data\copy"
```



Atomic Test #5 - Copy and Modify Mailbox Data on Linux

Copies and modifies mail data on Linux

Supported Platforms: Linux

auto_generated_guid: 6d99f93c-da56-49e3-b195-163090ace4f6

Attack Commands: Run with **bash** ! Elevation Required (e.g. root or admin)

```
mkdir -p /var/spool/mail/copy
for file in /var/spool/mail/*; do
    if [ "$(basename "$file")" != "copy" ]
    then
        cp -R "$file" /var/spool/mail/copy/
        if [ -f "/var/spool/mail/copy/$(basename "$file")" ]; then
            echo "Modification for Atomic Red Test" >> "/var/spool/mail/copy/$(basename "$file").txt"
        fi
    fi
done
```



Cleanup Commands:

```
rm -rf /var/spool/mail/copy
```



Atomic Test #6 - Copy and Modify Mailbox Data on macOS

Copies and modifies mail data on macOS

Supported Platforms: macOS

auto_generated_guid: 8a0b1579-5a36-483a-9cde-0236983e1665

Attack Commands: Run with **bash** ! Elevation Required (e.g. root or admin)

```
mkdir ~/Library/Mail/copy
cp -R ~/Library/Mail/* ~/Library/Mail/copy
echo "Manipulated data" > ~/Library/Mail/copy/manipulated.txt
```



Cleanup Commands:

```
rm -rf ~/Library/Mail/copy
```

