

CIS Microsoft Internet Explorer 9

v1.0.0 - 06-26-2013

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Overview

This document, CIS Microsoft Internet Explorer 9 Benchmark v1.0.0, provides prescriptive guidance for establishing a secure configuration posture for Microsoft Internet Explorer 9. This guide was tested against Microsoft Internet Explorer 9 running on Microsoft Windows 7. To obtain the latest version of this guide, please visit <http://benchmarks.cisecurity.org>. If you have questions, comments, or have identified ways to improve this guide, please write us at feedback@cisecurity.org.

Intended Audience

This document is intended for system and application administrators, security specialists, auditors, help desk, and platform deployment personnel who plan to develop, deploy, assess, or secure solutions that incorporate Microsoft Internet Explorer 9.

Consensus Guidance

This benchmark was created using a consensus review process comprised subject matter experts. Consensus participants provide perspective from a diverse set of backgrounds including consulting, software development, audit and compliance, security research, operations, government, and legal.

Each CIS benchmark undergoes two phases of consensus review. The first phase occurs during initial benchmark development. During this phase, subject matter experts convene to discuss, create, and test working drafts of the benchmark. This discussion occurs until consensus has been reached on benchmark recommendations. The second phase begins after the benchmark has been published. During this phase, all feedback provided by the Internet community is reviewed by the consensus team for incorporation in the benchmark. If you are interested in participating in the consensus process, please visit <https://community.cisecurity.org>.

Typographical Conventions

The following typographical conventions are used throughout this guide:

Convention	Meaning
<code>Stylized Monospace font</code>	Used for blocks of code, command, and script examples. Text should be interpreted exactly as presented.
<code>Monospace font</code>	Used for inline code, commands, or examples. Text should be interpreted exactly as presented.
<i><italic font in brackets></i>	Italic texts set in angle brackets denote a variable requiring substitution for a real value.
<i>Italic font</i>	Used to denote the title of a book, article, or other publication.
Note	Additional information or caveats

Scoring Information

A scoring status indicates whether compliance with the given recommendation impacts the assessed target's benchmark score. The following scoring statuses are used in this benchmark:

Scored

Failure to comply with "Scored" recommendations will decrease the final benchmark score. Compliance with "Scored" recommendations will increase the final benchmark score.

Not Scored

Failure to comply with "Not Scored" recommendations will not decrease the final benchmark score. Compliance with "Not Scored" recommendations will not increase the final benchmark score.

Profile Definitions

The following configuration profiles are defined by this Benchmark:

- **Level 1**

Items in this profile intend to:

- be practical and prudent;
- provide a clear security benefit; and
- not inhibit the utility of the technology beyond acceptable means.

ARCHIVE

Acknowledgements

Microsoft's Security Compliance Management Toolkit was an excellent resource in the development of this Benchmark. CIS also extends special recognition to the development teams of those resources. Readers are encouraged to download the toolkit to access many great resources, including tools such as GPOAccelerator and DCM Configuration Packs, which aid in the rapid deployment of security configuration policies

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Recommendations

1 Anti-Malware

1.1 Set 'Allow software to run or install even if the signature is invalid' to 'Disabled' (Scored)

Profile Applicability:

- Level 1

Description:

Microsoft ActiveX controls and file downloads often have digital signatures attached that help certify the file's integrity and the identity of the signer (creator) of the software. Such signatures help ensure that unmodified software is downloaded and that you can identify active signers to determine whether you trust them enough to run their software.

The Allow software to run or install even if the signature is invalid setting allows you to manage whether downloaded software can be installed or run by users even though the signature is invalid. An invalid signature might indicate that someone has tampered with the file. If you enable this policy setting, users will be prompted to install or run files with an invalid signature. If you disable this policy setting, users cannot run or install files with an invalid signature.

Note Some legitimate software and controls may have an invalid signature and still be OK. You should carefully test such software in isolation before you allow it to be used on your organization's network. The recommended state for this setting is: Disabled.

Rationale:

Microsoft ActiveX controls and file downloads often have digital signatures attached that certify the file's integrity and the identity of the signer (creator) of the software. Such signatures help ensure that unmodified software is downloaded and that you can positively identify the signer to determine whether you trust them enough to run their software. The validity of unsigned code cannot be ascertained.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Download\RunInvalidSignatures
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Disabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Advanced Page\Allow software to run or install even if the signature is invalid
```

Impact:

Some legitimate software and controls may have an invalid signature. You should carefully test such software in isolation before it is allowed to be used on your organization's network.

References:

1. CCE-17400-3

1.2 Set 'Prevent Bypassing SmartScreen Filter Warnings' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

The SmartScreen Filter prevents users from navigating to and downloading from sites known to host malicious content, including Phishing or malicious software attacks. If you enable this policy setting, the user is not permitted to navigate to sites identified as unsafe by the SmartScreen Filter. If you disable this policy setting or do not configure it, the user can ignore SmartScreen Filter warnings and navigate to unsafe sites. The recommended state for this setting is: Enabled.

Rationale:

If this setting is enabled and the SmartScreen Filter is active, the user can ignore a SmartScreen Filter warning and navigate to a site determined to be unsafe.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\PhishingFilter\PreventOverride
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Prevent Bypassing SmartScreen Filter Warnings
```

Impact:

Users cannot navigate to sites detected as unsafe by the SmartScreen Filter.

References:

1. CCE-16456-6

1.3 Set 'Prevent users from bypassing SmartScreen Filter's application reputation warnings about files that are not commonly downloaded from the Internet' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

The SmartScreen Filter warns users about executable files that are not commonly downloaded from the Internet by Internet Explorer users.

If you enable this policy setting, the user is blocked by SmartScreen Filter warnings.

If you disable this policy setting or do not configure it, the user can ignore SmartScreen Filter warnings. The recommended state for this setting is: Enabled.

Rationale:

This setting is important from a security perspective because Microsoft has extensive data illustrating the positive impact the SmartScreen filter has had on reducing the risk of malware infection via visiting malicious websites.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\PhishingFilter\PreventOverrideAppRepUnknown
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Prevent users from bypassing SmartScreen Filter's application reputation warnings about files that are not commonly downloaded from the Internet
```

Impact:

If you enable this policy setting, the user is blocked by SmartScreen Filter warnings. If you disable this policy setting or do not configure it, the user can ignore SmartScreen Filter warnings.

References:

1. CCE-16967-2

1.4 Configure 'Do not allow users to enable or disable add-ons' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users have the ability to allow or deny add-ons through Add-On Manager. If you enable this policy setting, users cannot enable or disable add-ons through Add-On Manager. The only exception occurs if an add-on has been specifically entered into the 'Add-On List' policy setting in such a way as to allow users to continue to manage the add-on. In this case, the user can still manage the add-on through the Add-On Manager. If you disable or do not configure this policy setting, the appropriate controls in the Add-On Manager will be available to the user. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

Users often choose to install add-ons that are not permitted by an organization's security policy. Such add-ons can pose a significant security and privacy risk to your network.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Restrictions\NoExtensionManagement
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

When the Do not allow users to enable or disable add-ons setting is enabled, users will not be able to enable or disable their own Internet Explorer add-ons. If your organization uses add-ons, this configuration may affect their ability to work.

References:

1. CCE-17430-0

1.5 Set 'Disable Save this program to disk option' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting prevents users from saving a program or file that Internet Explorer has downloaded to the hard disk. If you enable this policy setting, users cannot save programs to disk with the Save this program to disk option. The program file will not download, and the user is informed that the command is not available. The recommended state for this setting is: `Enabled`.

Rationale:

Users could download and execute hostile code from Web sites.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Internet Explorer\Restrictions\NoSelectDownloadDir
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
User Configuration\Administrative Templates\Windows Components\Internet Explorer\Browser menus\Disable Save this program to disk option
```

Impact:

Users will be unable to click the Save This Program to Disk button to download program files.

References:

1. CCE-17481-3

1.6 Set 'Select SmartScreen Filter mode for Internet Explorer 9' to 'Enabled:On' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows the user to enable the SmartScreen Filter, which will warn if the Web site being visited is known for fraudulent attempts to gather personal information through "phishing," or is known to host malware.

If you enable this policy setting, the user will not be prompted to enable the SmartScreen Filter. You must specify which mode the SmartScreen Filter uses: on, or off.

If the feature is on, all website addresses not contained on the filter's allow list will be sent automatically to Microsoft without prompting the user.

If the feature is off or you do not configure this policy setting, the user will be prompted to

decide the mode of operation for the SmartScreen Filter during the first run experience. The recommended state for this setting is: Enabled:On.

Rationale:

This setting is important from a security perspective because Microsoft has extensive data illustrating the positive impact the SmartScreen filter has had on reducing the risk of malware infection via visiting malicious websites.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Turn off Managing SmartScreen Filter for Internet Explorer 9\Turn off Managing SmartScreen Filter for Internet Explorer 9
```

Then set the Select SmartScreen Filter mode for Internet Explorer 9 option to On.

Impact:

If you enable this policy setting, the user will not be prompted to enable the SmartScreen Filter. You must specify which mode the SmartScreen Filter uses: on, or off. If the feature is on, all website addresses not contained on the filter's allow list will be sent automatically to Microsoft without prompting the user. If the feature is off or you do not configure this policy setting, the user will be prompted to decide the mode of operation for the SmartScreen Filter during the first run experience.

References:

1. CCE-17268-4

2 ActiveX Settings

2.1 Set 'Disable Per-User Installation of ActiveX Controls' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to disable the per-user installation of ActiveX controls. This policy only affects ActiveX controls that can be installed on a per-user basis. If you enable this policy setting, ActiveX controls cannot be installed on a per-user basis. If you disable or do not configure this policy setting, ActiveX controls can be installed on a per-user basis. Configure this setting in a manner that is consistent with the security and operational requirements of your organization. The recommended state for this setting is: *Enabled*.

Rationale:

Per-user installation of ActiveX controls is a convenient feature that many organizations may want to leverage. One benefit is that even if the user installs a control that includes a malicious payload its impact will be limited to the privileges of the user who installed it. Nevertheless, restricting the installation of ActiveX controls to administrators and using the ActiveX Installer Service or some other centralized software deployment tool is a more effective method for avoiding malware.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Security\ActiveX\BlockNonAdminActiveXInstall
```

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to *Enabled*.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Prevent per-user installation of ActiveX controls

Impact:

If you enable this policy setting, ActiveX controls cannot be installed on a per-user basis.

If you disable or do not configure this policy setting, ActiveX controls can be installed on a per-user basis.

References:

1. CCE-17302-1

2.2 Set 'Only use the ActiveX Installer Service for installation of ActiveX Controls' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to specify how ActiveX controls are installed. If you enable this policy setting, ActiveX controls will only install if the ActiveX Installer Service is present and has been configured to allow ActiveX controls to be installed. If you disable or do not configure this policy setting, ActiveX controls, including per-user controls, will be installed using the standard installation process. The recommended state for this setting is: Enabled.

Rationale:

Installing ActiveX controls using the standard installation process is less secure than using the ActiveX Installer Service.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\AxInstaller\OnlyUseAXISForActiveXInstall

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to **Enabled**.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Only use the ActiveX Installer Service for installation of ActiveX Controls
```

Impact:

If you enable this setting the ActiveX Controller Service must be configured correctly.

References:

1. CCE-17416-9

2.3 Set 'Turn off ActiveX opt-in prompt' to 'Disabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to turn off the ActiveX opt-in prompt. The ActiveX opt-in prevents Web sites from loading any COM object without prior approval. If a page attempts to load a COM object that Internet Explorer has not used before, an Information bar will appear asking the user for approval. If you enable this policy setting, the ActiveX opt-in prompt will not appear. Internet Explorer does not ask the user for permission to load a control, and will load the ActiveX if it passes all other internal security checks. If you disable or do not configure this policy setting, the ActiveX opt-In prompt will appear. The recommended state for this setting is: **Disabled**.

Rationale:

If the user were to enable this setting the ActiveX opt-in prompt would be disabled and malicious ActiveX controls could be executed without the user's knowledge.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Policies\Ext\NoFirsttimeprompt
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Disabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Turn off ActiveX opt-in prompt
```

Impact:

Enabling this setting would allow the possibility of malicious ActiveX controls to be executed without the user's knowledge.

References:

1. CCE-17469-8

2.4 Set 'Turn on ActiveX Filtering' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls the ActiveX Filtering feature for websites running ActiveX controls. The user can choose to turn off ActiveX Filtering for specific websites so that its ActiveX controls can run properly. If you enable this policy setting, ActiveX Filtering will be enabled by default for the user. The user cannot turn off ActiveX Filtering although they may add per-site exceptions. If you disable this policy setting or do not configure it, ActiveX Filtering will not be enabled by default for the user. The user can turn ActiveX Filtering on or off. The recommended state for this setting is: *Enabled*.

Rationale:

ActiveX Filtering allows you to make an informed decision about every ActiveX control you run by giving you the ability to block ActiveX controls for all sites, and then turn them on for only the sites that you trust. This can help improve your protection against risky and unreliable ActiveX controls.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Safety\ActiveXFiltering\IsEnabled
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Turn on ActiveX Filtering
```

Impact:

If you enable this policy setting, ActiveX Filtering will be enabled by default for the user. The user cannot turn off ActiveX Filtering although they may add per-site exceptions. If you disable this policy setting or do not configure it, ActiveX Filtering will not be enabled by default for the user. The user can turn ActiveX Filtering on or off.

References:

1. CCE-17259-3

3 Browsing History

3.1 Configure 'Prevent Deleting Cookies' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting is used to prevent users from deleting cookies. This feature is available in the Delete Browsing History dialog box. If you enable this policy setting, cookies will be preserved when the user clicks Delete. If you disable this policy setting, cookies will be deleted when the user clicks Delete. If you do not configure this policy setting, the user will be able to choose whether to delete or preserve cookies when the user clicks Delete. If the "Turn off Delete Browsing History functionality" policy is enabled, this policy is enabled by default. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

If a user is suspected of visiting unauthorized website the information stored in the data cookies could be useful in verifying where he or she went online.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Privacy\CleanCookies
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

If you enable this policy setting, users will not be able to delete cookies. If you disable or do not configure this policy setting, users will be able to delete cookies.

References:

1. CCE-16713-0

3.2 Configure 'Prevent Deleting Temporary Internet Files' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting is used to prevent users from deleting temporary Internet files. This feature is available in the Delete Browsing History dialog box. If you enable this policy setting, temporary Internet files will be preserved when the user clicks Delete. If you disable this policy setting, temporary Internet files will be deleted when the user clicks Delete. If you do not configure this policy setting, the user will be able to choose whether to delete or preserve temporary Internet files when the user clicks Delete. If the Turn off Delete Browsing History functionality policy is enabled, this policy is enabled by default. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

If a user is suspected of visiting unauthorized website the information stored in the Temporary Internet Files folder could be useful in verifying where he or she went online.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Privacy\CleanTIF
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

If you enable this policy setting, users will not be able to delete temporary Internet files. If you disable or do not configure this policy setting, users will be able to delete temporary Internet files.

References:

1. CCE-16986-2

3.3 Configure 'Turn off "Delete Browsing History" functionality' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting prevents users from performing the "Delete Browsing History" action in Internet Explorer. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

If users can delete their browsing history it will be easier for them to hide evidence if they have been visiting unauthorized sites.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Control  
Panel\DisableDeleteBrowsingHistory
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

If you enable this policy setting, users cannot perform the "Delete Browsing History" action in Internet Options for Internet Explorer 7. If you disable or do not configure this policy setting, users can perform the "Delete Browsing History" action in Internet Options for Internet Explorer 7.

References:

1. CCE-16475-6

4 Component Updates

4.1 Configure 'Automatically check for Internet Explorer updates' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Internet Explorer checks the Internet for newer versions. When Internet Explorer is set to do this, the checks occur approximately every 30 days, and users are prompted to install new versions as they become available. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

If you enable this policy setting, Internet Explorer checks the Internet for a new version approximately every 30 days and prompts the user to download new versions when they are available. Newer versions might not comply to the Internet Explorer version requirements of your organization.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Main\NoUpdateCheck
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

If you enable this policy setting, Internet Explorer checks the Internet for a new version approximately every 30 days and prompts the user to download new versions when they are available. If you disable this policy setting, Internet Explorer does not check the Internet for new versions of the browser, so does not prompt users to install them.

References:

1. CCE-16779-1

5 Certificates and Protocols

5.1 Set 'Secure Protocol combinations' to 'Enabled:Only use TLS 1.0' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to turn off support for Transport Layer Security (TLS) 1.0, TLS 1.1, TLS 1.2, Secure Sockets Layer (SSL) 2.0 or SSL 3.0 in the browser. TLS and SSL are protocols for protecting communication between the browser and the target server. When the browser attempts to set up a protected communication with the target server, the browser and server negotiate which protocol and version to use. The browser and server attempt to match each other's list of supported protocols and versions and pick the most preferred match. If you enable this policy setting, the browser will or will not negotiate an encryption tunnel with the encryption methods you select through the drop down list. If you disable or do not configure this policy setting, the user can select which encryption method the browser will support. NOTE: SSL 2.0 is off by default. SSL 2.0 is an outdated

security protocol, and enabling SSL 2.0 impairs the performance and functionality of TLS 1.0. The recommended state for this setting is: `Enabled:Only use TLS 1.0`.

Rationale:

The allowed encryption protocols determines the possible encryption types that can be used. Preventing the use of older protocols decreases vulnerability.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Advanced Page\Turn off Encryption Support\Turn off Encryption Support

Then set the Secure Protocol combinations option to `Only use TLS 1.0`.

Impact:

Determines the encryption protocols that may be used. One of the designated protocols needs to be active on both sides of the connection for encryption to function correctly.

References:

1. CCE-17396-3

5.2 Set 'Check for server certificate revocation' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Internet Explorer will check revocation status of servers' certificates. Certificates are revoked when they have been compromised or are no longer valid, and this option protects users from submitting confidential data to a site that may be fraudulent or not secure.

If you enable this policy setting, Internet Explorer will check to see if server certificates

have been revoked. If you disable this policy setting, Internet Explorer will not check server certificates to see if they have been revoked. If you do not configure this policy setting, Internet Explorer will not check server certificates to see if they have been revoked. The recommended state for this setting is: Enabled.

Rationale:

Certificates are revoked when they have been compromised or are no longer valid. If Internet Explorer does not check for the status of a certificate, users and this option protects users could inadvertently submit confidential data to a site that may be fraudulent or not secure.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet  
Settings\CertificateRevocation
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Internet Control Panel\Advanced Page\Check for server certificate revocation
```

Impact:

If you enable this policy setting, Internet Explorer will check to see if server certificates have been revoked. If you disable this policy setting, Internet Explorer will not check server certificates to see if they have been revoked.

References:

1. CCE-17392-2

5.3 Set 'Prevent ignoring certificate errors' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

When a user experiences Secure Socket Layer/Transport Layer Security (SSL/TLS) certificate errors such as "expired," "revoked," or "name mismatch," Internet Explorer blocks the user's ability to continue browsing the Web site. The recommended state for this setting is: *Enabled*.

Rationale:

Users who ignore certificate errors are more likely to visit unauthorized sites or sites that host malicious content.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet
Settings\PreventIgnoreCertErrors
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
Computer Configuration\Administrative Templates\Windows Components\Internet
Explorer\Internet Control Panel\Prevent ignoring certificate errors
```

Impact:

If you enable this policy setting, the user is not permitted to continue browsing the Web site. If you disable this policy setting or do not configure it, the user may elect to ignore certificate errors and continue browsing the Web site.

References:

1. CCE-17378-1

5.4 Set 'Disable changing certificate settings' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting removes a user's ability to change certificate settings in Internet Explorer. Certificates are used to verify the identity of software publishers. If you enable this policy setting, the certificate settings in the Certificates area of the Content tab in the Internet Options dialog box are dimmed. This policy setting also removes a user's ability to change settings that are configured through Group Policy.

Note When this policy setting is enabled, users can still double-click the software publishing certificate (.spc) file to run the Certificate Manager Import Wizard. This wizard enables users to import and configure settings for certificates from software publishers that are not already configured in Internet Explorer.

Note The Disable the Content page setting removes the Content tab from Internet Explorer in Control Panel and takes precedence over this Disable changing certificate settings configuration option. If the former setting is enabled, the latter setting is ignored. The Disable the Content page setting located in \User Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel in the Group Policy Object Editor. The recommended state for this setting is: *Enabled*.

Rationale:

Users could import new certificates, remove approved certificates, or change settings for previously configured ones. Such occurrences could cause approved applications to fail, or unapproved software to be executed.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Internet Explorer\Control  
Panel\Certificates
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
User Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Disable changing certificate settings
```

Impact:

Users will be unable to change the certificate settings.

References:

1. CCE-17456-5

5.5 Set 'Check for signatures on downloaded programs' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Internet Explorer checks for digital signatures (which identifies the publisher of signed software and verifies it hasn't been modified or tampered with) on user computers before downloading executable programs.

If you enable this policy setting, Internet Explorer will check the digital signatures of executable programs and display their identities before downloading them to user computers.

If you disable this policy setting, Internet Explorer will not check the digital signatures of executable programs or display their identities before downloading them to user computers.

If you do not configure this policy, Internet Explorer will not check the digital signatures of executable programs or display their identities before downloading them to user computers. The recommended state for this setting is: `Enabled`.

Rationale:

Although digitally signing software does not guarantee that it includes no malware it does reduce the risk and it provides another potential path of investigation should the software include a dangerous payload.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Internet Explorer\Download\CheckExeSignatures
```

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to Enabled.

```
User Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Advanced Page\Check for signatures on downloaded programs
```

References:

1. CCE-00000-0

6 Internet Communication Management

6.1 Set 'Disable Browser Geolocation' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to disable browser geolocation support. This will prevent websites from requesting location data about the user.

If you enable this policy setting, browser geolocation support will be turned off.

If you disable this policy setting, browser geolocation support will be turned on.

If you do not configure this setting, browser geolocation support can be turned on or off in Internet Options on the Privacy tab. The recommended state for this setting is: *Enabled*.

Rationale:

This setting has a small impact on user privacy because users may unknowingly allow their browser to share location data with web sites that they visit. The value of enabling this setting is diminished due to the fact that malicious web sites can learn a great deal about the location of a user merely by analyzing their IP address.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Geolocation\PolicyDisableGeolocation
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Disable Browser Geolocation
```

Impact:

If you enable this policy setting, browser geolocation support will be turned off. If you disable this policy setting, browser geolocation support will be turned on. If you do not configure this setting, browser geolocation support can be turned on or off in Internet Options on the Privacy tab.

References:

1. CCE-16750-2

7 Internet Explorer Process Security Features

7.1 Set 'Restrict File Download' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This setting can be used to suppress file download prompts that are not user-initiated in Internet Explorer. If you configure the Internet Explorer Processes (Restrict File Download) setting to Enabled, file download prompts that are not user-initiated are blocked for Internet Explorer processes. If you configure this policy setting to Disabled, file download prompts will occur that are not user-initiated for Internet Explorer processes. The recommended state for this setting is: Enabled.

Rationale:

In certain circumstances, Web sites can initiate file download prompts without interaction from users. This technique can allow Web sites to put unauthorized files on a user's hard disk drive if they click the wrong button and accept the download.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Restrict File Download\Internet Explorer Processes
```

Impact:

None. There is no legitimate reason for a Web site to start transferring a file to a user's workstation without a user request to do so.

References:

1. CCE-17403-7

7.2 Set 'Notification bar' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether the Notification bar is displayed for Internet Explorer processes when file or code installs are restricted. By default, the Notification bar is displayed for Internet Explorer processes.

If you enable this policy setting, the Notification bar will be displayed for Internet Explorer Processes.

If you disable this policy setting, the Notification bar will not be displayed for Internet Explorer processes.

If you do not configure this policy setting, the Notification bar will be displayed for Internet Explorer Processes. The recommended state for this setting is: *Enabled*.

Rationale:

There's no known vulnerability at this time, however information displayed in the Notification Bar may help users to understand why files or code installs are restricted.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Notification bar\Internet Explorer Processes

References:

1. CCE-17386-4

7.3 Set 'Restrict ActiveX Install' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting provides the ability to block ActiveX control installation prompts for Internet Explorer processes. The recommended state for this setting is: *Enabled*.

Rationale:

Users often choose to install software such as ActiveX controls that are not permitted by their organization's security policy. Such software can pose significant security and privacy risks to networks.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Restrict ActiveX Install\Internet Explorer Processes
```

Impact:

If you enable this policy setting, prompts for ActiveX control installations will be blocked for Internet Explorer processes. If you disable this policy setting, prompts for ActiveX control installations will not be blocked and these prompts will be displayed to users. Note: This policy setting also blocks users from installing authorized legitimate ActiveX controls that will interfere with important system components like Windows Update. If you enable this policy setting, make sure to implement some alternate way to deploy security updates such as Windows Server Update Services (WSUS). For more information about WSUS, see the Windows Server Update Services Product Overview page at www.microsoft.com/windowsserversystem/updateservices/evaluation/overview.mspx.

References:

1. CCE-17417-7

7.4 Set 'Consistent Mime Handling' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

Internet Explorer uses Multipurpose Internet Mail Extensions (MIME) data to determine file handling procedures for files that are received through a Web server. The Consistent MIME Handling setting determines whether Internet Explorer requires that all file type information that is provided by Web servers be consistent. For example, if the MIME type of a file is text/plain but the MIME data indicates that the file is really an executable file, Internet Explorer changes its extension to reflect this executable status. This capability helps ensure that executable code cannot masquerade as other types of data that may be trusted. The recommended state for this setting is: `Enabled`.

Rationale:

MIME file type spoofing is a potential threat to your organization. You should ensure that these files are consistent and properly labeled to help prevent malicious file downloads

that may infect your network. Note This policy setting works in conjunction with, but does not replace, the MIME Sniffing Safety Features settings.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Consistent Mime Handling\Internet Explorer Processes
```

Impact:

If you enable this policy setting, Internet Explorer examines all received files and enforces consistent MIME data for them. If you disable or do not configure this policy setting, Internet Explorer does not require consistent MIME data for all received files and will use the MIME data that is provided by the file.

References:

1. CCE-17347-6

7.5 Set 'Protection From Zone Elevation' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

Internet Explorer places restrictions on each Web page that it opens based on the security zone from which it originates. The recommended state for this setting is: `Enabled`.

Rationale:

These restrictions depend on the location of the Web page (such as Internet zone, Intranet zone, or Local Machine zone). Web pages on a local computer have the fewest security restrictions and reside in the Local Machine zone, malicious Web pages may attempt to elevate themselves from their current zone into another zone with higher privileges.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Protection From Zone Elevation\Internet Explorer Processes
```

Impact:

If you enable the Internet Explorer Processes (Zone Elevation Protection) setting, any zone can be protected from zone elevation by Internet Explorer processes. This approach helps prevent content that runs in one zone from gaining the elevated privileges of another zone. If you disable this policy setting, no zone receives such protection for Internet Explorer processes.

References:

1. CCE-16787-4

7.6 Set 'Scripted Window Security Restrictions' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

Internet Explorer allows scripts to programmatically open, resize, and reposition various types of windows. Often, disreputable Web sites resize windows to either hide other windows or force you to interact with a window that contains malicious code. The recommended state for this setting is: `Enabled`.

Rationale:

The Internet Explorer Processes (Scripted Window Security Restrictions) setting restricts pop-up windows and does not allow scripts to display windows in which the title and status bars are not visible to the user or that hide other windows' title and status bars. When enabled, this policy setting help make it difficult for malicious Web sites to control your Internet Explorer windows or fool users into clicking the wrong window.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Scripted Window Security Restrictions\Internet Explorer Processes
```

Impact:

If you enable this policy setting, pop-up windows will not display in Windows Explorer and Internet Explorer processes. If you disable or do not configure this policy setting, scripts will still be able to create pop-up windows and windows that hide other windows.

References:

1. CCE-17408-6

7.7 Set 'Mime Sniffing Safety Feature' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

MIME sniffing is a process that examines the content of a MIME file to determine its context—whether it is a data file, an executable file, or some other type of file. This policy setting determines whether Internet Explorer MIME sniffing will prevent promotion of a file of one type to a more dangerous file type. Note: This policy setting works in conjunction with, but does not replace, the Consistent MIME Handling settings. The recommended state for this setting is: `Enabled`.

Rationale:

MIME file-type spoofing is a potential threat to your organization. It is recommended that you ensure these files are consistently handled to help prevent malicious file downloads that may infect your network.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\Mime Sniffing Safety Feature\Internet Explorer Processes
```

Impact:

When set to `Enabled`, MIME sniffing will not promote a file of one type to a more dangerous file type. If you disable this policy setting, MIME sniffing configures Internet Explorer processes to allow promotion of a file from one type to a more dangerous file type. For example, a text file could be promoted to an executable file, which is dangerous because any code in the supposed text file would be executed.

References:

1. CCE-16890-6

7.8 Set 'MK Protocol Security Restriction' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting reduces attack surface area because it blocks the seldom-used MK protocol. Some older Web applications use the MK protocol to retrieve information from Microsoft Help files and compressed files.

Microsoft recommends that you block the MK protocol unless you specifically need it in your environment. The recommended state for this setting is: `Enabled`.

Rationale:

Because the MK protocol is not widely used, it should be blocked wherever it is not needed.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Features\MK Protocol Security Restriction\Internet Explorer Processes
```

Impact:

If you configure this policy setting to `Enabled`, the MK protocol is blocked for Windows Explorer and Internet Explorer, which causes resources that use the MK protocol to fail. If you disable this policy setting, other applications are allowed to use the MK protocol API. Because resources that use the MK protocol will fail when you deploy this policy setting, you should ensure that none of your applications use the protocol.

References:

1. CCE-16538-1

8 Security Zones

8.1 Internet Zone

8.1.1 Set 'Access data sources across domains' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Internet Explorer can access data from another security zone using the Microsoft XML Parser (MSXML) or ActiveX Data Objects (ADO). The recommended state for this setting is: `Enabled:Disable`.

Rationale:

The ability to access data zones across domains could cause the user to unknowingly access content hosted on an unauthorized server.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Access data sources across domains\Access data sources across domains
```

Then set the Access data sources across domains option to Disable.

Impact:

If you enable this policy setting, users can load a page in the zone that uses MSXML or ADO to access data from another site in the zone. If you select Prompt in the drop-down box, users are queried to choose whether to allow a page to be loaded in the zone that uses MSXML or ADO to access data from another site in the zone. If you disable this policy setting, users cannot load a page in the zone that uses MSXML or ADO to access data from another site in the zone. If you do not configure this policy setting, users cannot load a page in the zone that uses MSXML or ADO to access data from another site in the zone.

References:

1. CCE-16477-2

8.1.2 Set 'Allow drag and drop or copy and paste files' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users can drag files or copy and paste files from a source within the zone. The recommended state for this setting is:

Enabled:Disable.

Rationale:

Content hosted on sites located in the Restricted Sites Zone are more likely to contain malicious payloads and therefore this feature should be blocked for this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Allow drag and drop or copy and paste files\Allow drag and drop or copy and paste files
```

Then set the Allow drag and drop or copy and paste files option to Disable.

Impact:

If you enable this policy setting, users can drag files or copy and paste files from this zone automatically. If you select Prompt in the drop-down box, users are queried to choose whether to drag or copy files from this zone. If you disable this policy setting, users are prevented from dragging files or copying and pasting files from this zone.

References:

1. CCE-17173-6

8.1.3 Set 'Allow font downloads' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether pages of the zone may download HTML fonts. The recommended state for this setting is: *Enabled:Disable*.

Rationale:

It is possible that a font could include malformed data that would cause Internet Explorer to crash when it attempts to load and render the font.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Allow font downloads\Allow font downloads
```

Then set the Allow font downloads option to *Disable*.

Impact:

If you enable this policy setting, HTML fonts can be downloaded automatically. If you enable this policy setting and Prompt is selected in the drop-down box, users are queried whether to allow HTML fonts to download. If you disable this policy setting, HTML fonts are prevented from downloading.

References:

1. CCE-16927-6

8.1.4 Set 'Allow installation of desktop items' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users can install Active Desktop items from this zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

Active Desktop items could contain links to unauthorized websites or other undesirable content, it is prudent to prevent users from installing desktop items from this security zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Allow installation of desktop items\Allow installation of desktop items
```

Then set the `Allow installation of desktop items` option to `Disable`.

Impact:

The settings for this option are: `Enabled`, users can install desktop items from this zone automatically. `Prompt`, users are queried to choose whether to install desktop items from this zone. `Disabled`, users are prevented from installing desktop items from this zone. If you do not configure this policy setting, users are prevented from installing desktop items from this zone.

References:

1. CCE-16790-8

8.1.5 Set 'Allow paste operations via script' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether scripts can perform a clipboard operation (for example, cut, copy, and paste) in the security zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

A malicious script could use the clipboard in an undesirable manner, for example, if the user had recently copied confidential information to the clipboard while editing a document a malicious script could harvest that information. It might be possible to exploit other vulnerabilities in order to send the harvested data to the attacker.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Allow cut, copy or paste operations from the clipboard via script\Allow cut, copy or paste operations from the clipboard via script
```

Then set the `Allow paste operations via script` option to `Disable`.

Impact:

If you enable this policy setting, a script can perform a clipboard operation. If you select `Prompt` in the drop-down box, users are queried as to whether to perform clipboard operations. If you disable this policy setting, a script cannot perform a clipboard operation. If you do not configure this policy setting, a script cannot perform a clipboard operation.

References:

1. CCE-17024-1

8.1.6 Set 'Allow script-initiated windows without size or position constraints' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage restrictions on script-initiated pop-up windows and windows that include the title and status bars. The recommended state for this setting is: Enabled:Disable.

Rationale:

If you enable this policy setting, scripts will be able to launch and resize additional browser windows without and limits on size or position, attackers have used this feature in the past to confuse users and cause them to click on links that led to undesirable consequences.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Allow script-initiated windows without size or position constraints\Allow script-initiated windows without size or position constraints

Then set the Allow script-initiated windows without size or position constraints option to Disable.

Impact:

If you enable this policy setting, Windows Restrictions security will not apply in this zone. The security zone runs without the added layer of security provided by this feature. If you disable this policy setting, the possible harmful actions contained in script-initiated pop-up windows and windows that include the title and status bars cannot be run. This Internet Explorer security feature will be on in this zone as dictated by the Scripted Windows Security Restrictions feature control setting for the process. If you do not configure this policy setting, the possible harmful actions contained in script-initiated pop-up windows and windows that include the title and status bars cannot be run. This Internet Explorer security feature will be on in this zone as dictated by the Scripted Windows Security Restrictions feature control setting for the process.

References:

1. CCE-16689-2

8.1.7 Set 'Automatic prompting for file downloads' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting determines whether users will be prompted for non user-initiated file downloads. Regardless of this setting, users will receive file download dialogs for user-initiated downloads. The recommended state for this setting is: Enabled:Disable.

Rationale:

Users may accept downloads that they did not request, those downloaded files may include malicious code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Automatic prompting for file downloads\Automatic prompting for file downloads
```

Then set the Automatic prompting for file downloads option to Disable.

Impact:

If you enable this setting, users will receive a file download dialog for automatic download attempts. If you disable or do not configure this setting, file downloads that are not user-initiated will be blocked, and users will see the Information Bar instead of the file download dialog. Users can then click the Information Bar to allow the file download prompt.

References:

1. CCE-17429-2

8.1.8 Set 'Download signed ActiveX controls' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users may download signed ActiveX controls from a page in the zone. The recommended state for this setting is:

Enabled:Disable.

Rationale:

Signed code is better than unsigned code in that it may be easier to determine its author, but it is still potentially harmful, especially when coming from an untrusted zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Download signed ActiveX controls\Download signed ActiveX controls
```

Then set the Download signed ActiveX controls option to Disable.

Impact:

If you enable this policy, users can download signed controls without user intervention. If you select Prompt in the drop-down box, users are queried whether to download controls signed by untrusted publishers. Code signed by trusted publishers is silently downloaded. If you Disable the policy setting, signed controls cannot be downloaded.

References:

1. CCE-16684-3

8.1.9 Set 'Download unsigned ActiveX controls' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users may download unsigned ActiveX controls from the zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

Unsigned code is potentially harmful, especially when coming from an untrusted zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Download unsigned ActiveX controls\Download unsigned ActiveX controls
```

Then set the `Download unsigned ActiveX controls` option to `Disable`.

Impact:

If you enable this policy setting, users can run unsigned controls without user intervention. If you select `Prompt` in the drop-down box, users are queried to choose whether to allow the unsigned control to run. If you disable this policy setting, users cannot run unsigned controls. If you do not configure this policy setting, users cannot run unsigned controls.

References:

1. CCE-17455-7

8.1.10 Set 'Enable MIME Sniffing' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage MIME sniffing for file promotion from one type to another based on a MIME sniff. A MIME sniff is the recognition by Internet Explorer of the file type based on a bit signature. If you enable this policy setting, the MIME Sniffing Safety Feature will not apply in this zone. The security zone will run without the added layer of security provided by this feature. If you disable this policy setting, the actions that may be harmful cannot run; this Internet Explorer security feature will be turned on in this zone, as dictated by the feature control setting for the process. If you do not configure this policy setting, the MIME Sniffing Safety Feature will not apply in this zone. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

The MIME Sniffing Safety Feature improves security in some scenarios by providing an added layer of defense against potentially malicious files. The feature also helps with compatibility issues caused by web servers that specify incorrect MIME types. Under certain circumstances it can actually increase the risk of compromise because Internet Explorer may detect a script embedded within content that has a non-script MIME type declared and execute the script.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Enable MIME Sniffing\Enable MIME Sniffing
```

Then set the `Enable MIME Sniffing` option to `Enable`.

Impact:

If you enable this policy setting, the MIME Sniffing Safety Feature will not apply in this zone; the security zone will run without the added layer of security provided by this feature. If you disable this policy setting, the actions that may be harmful cannot run; this

Internet Explorer security feature will be turned on in this zone, as dictated by the feature control setting for the process. If you do not configure this policy setting, the MIME Sniffing Safety Feature will not apply in this zone.

References:

1. CCE-17336-9

8.1.11 Set 'Initialize and script ActiveX controls not marked as safe' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage ActiveX controls not marked as safe. If you enable this policy setting, ActiveX controls are run, loaded with parameters, and scripted without setting object safety for untrusted data or scripts. This setting is not recommended, except for secure and administered zones. The recommended state for this setting is:

Enabled:Disable.

Rationale:

This setting causes both unsafe and safe controls to be initialized and scripted, ignoring the Script ActiveX controls marked safe for scripting option. This increases the risk of malicious code being loaded and executed by the browser.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Initialize and script ActiveX controls not marked as safe\Initialize and script ActiveX controls not marked as safe
```

Then set the Initialize and script ActiveX controls not marked as safe option to Disable.

Impact:

If you enable this policy setting and select Prompt in the drop-down box, users are queried whether to allow the control to be loaded with parameters or scripted. If you disable this policy setting, ActiveX controls that cannot be made safe are not loaded with parameters or scripted. If you do not configure this policy setting, ActiveX controls that cannot be made safe are not loaded with parameters or scripted.

References:

1. CCE-16587-8

8.1.12 Set 'Java permissions' to 'Enabled:Disable Java' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage permissions for Java applets. The recommended state for this setting is: Enabled:Disable Java.

Rationale:

Java applications could contain malicious code, sites located in this security zone are more likely to be hosted by malicious people.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Java permissions\Java permissions
```

Then set the Java permissions option to Disable Java.

Impact:

If you enable this policy setting, you can choose options from the drop-down box. Custom, to control permissions settings individually. Low Safety enables applets to perform all operations. Medium Safety enables applets to run in their sandbox (an area in memory outside of which the program cannot make calls), plus capabilities like scratch space (a safe and secure storage area on the client computer) and user-controlled file I/O. High Safety enables applets to run in their sandbox. Disable Java to prevent any applets from running. If you disable this policy setting, Java applets cannot run. If you do not configure this policy setting, the permission is set to High Safety.

References:

1. CCE-17451-6

8.1.13 Set 'Launching applications and files in an IFRAME' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether applications may be run and files may be downloaded from an IFRAME reference in the HTML of the pages in this zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

If you enable this policy setting, applications can run and files can be downloaded from IFRAMEs on the pages in this zone without user intervention.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Launching applications and files in an IFRAME\Launching applications and files in an IFRAME

Then set the Launching applications and files in an IFRAME option to Disable.

Impact:

If you enable this policy setting, users can run applications and download files from IFRAMEs on the pages in this zone without user intervention. If you select Prompt in the drop-down box, users are queried to choose whether to run applications and download files from IFRAMEs on the pages in this zone. If you disable this policy setting, users are prevented from running applications and downloading files from IFRAMEs on the pages in this zone. If you do not configure this policy setting, users are queried to choose whether to run applications and download files from IFRAMEs on the pages in this zone.

References:

1. CCE-16484-8

8.1.14 Set 'Logon options' to 'Enabled:Prompt for user name and password' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage settings for logon options. If you enable this policy setting, you can choose from the following logon options: Anonymous logon disables HTTP authentication and uses the guest account only for the Common Internet File System (CIFS) protocol. Prompt for user name and password queries users for user IDs and passwords. After a user is queried, these values can be used silently for the remainder of the session. Automatic logon only in Intranet zone queries users for user IDs and passwords in other zones. After a user is queried, these values can be used silently for the remainder of the session. Automatic logon with current user name and password attempts logon using Windows NT Challenge Response (also known as NTLM authentication). If Windows NT Challenge Response is supported by the server, the logon uses the user's network user name and password for logon. If Windows NT Challenge Response is not supported by the server, the user is queried to provide the user name and password. If you disable this policy setting, logon is set to Automatic logon only in Intranet zone. If you do not configure this policy setting, logon is set to Automatic logon only in Intranet zone. The recommended state for this setting is: Enabled:Prompt for user name and password.

Rationale:

Users could submit credentials to servers operated by malicious people who could then attempt to connect to legitimate servers with those captured credentials.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Logon options\Logon options
```

Then set the Logon options option to Prompt for user name and password.

Impact:

Prompt for user name and password queries users for user IDs and passwords. After a user is queried, these values can be used silently for the remainder of the session.

References:

1. CCE-17097-7

8.1.15 Set 'Navigate windows and frames across different domains' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage the opening of sub-frames and access of applications across different domains. The recommended state for this setting is:

Enabled:Disable.

Rationale:

It is conceivable that a web site hosting malicious could use this feature to conduct an similar to cross-site scripting.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Navigate windows and frames across different domains\Navigate windows and frames across different domains

Then set the Navigate windows and frames across different domains option to Disable.

Impact:

If you enable this policy setting, users can open sub-frames from other domains and access applications from other domains. If you select Prompt in the drop-down box, users are queried whether to allow sub-frames or access to applications from other domains. If you disable this policy setting, users cannot open sub-frames or access applications from different domains. If you do not configure this policy setting, users can open sub-frames from other domains and access applications from other domains.

References:

1. CCE-17458-1

8.1.16 Set 'Only allow approved domains to use ActiveX controls without prompt' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether or not the user is prompted to allow ActiveX controls to run on Web sites other than the Web site that installed the ActiveX control. If you enable this policy setting, the user will be prompted before ActiveX controls are permitted to run from Web sites in this zone. Users may choose to allow the control to run from the current site, or from all sites. If you disable this policy setting, the user will not see the per-site

ActiveX prompt and ActiveX controls will be allowed to run from all sites in this zone. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

If the user were to disable the setting for the zone, malicious ActiveX controls could be executed without the user's knowledge.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Only allow approved domains to use ActiveX controls without prompt\Only allow approved domains to use ActiveX controls without prompt
```

Then set the `Only allow approved domains to use ActiveX controls without prompt` option to `Enable`.

Impact:

Disabling this setting would allow the possibility for malicious ActiveX controls to be executed from non-approved domains within this zone without the user's knowledge.

References:

1. CCE-16837-7

8.1.17 Set 'Software channel permissions' to 'Enabled:High safety' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage software channel permissions. If you enable this policy setting, you can choose the following options from the drop-down box: The recommended state for this setting is: `Enabled:High safety`.

Rationale:

Any setting lower than High Safety could cause a user to install software that includes malicious code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Software channel permissions\Software channel permissions
```

Then set the Software channel permissions option to High safety.

Impact:

Low safety allows a user to be notified of software updates by e-mail, software packages to be automatically downloaded to a user's computers, and software packages to be automatically installed on a user's computers. Medium safety allows a user to be notified of software updates by e-mail and software packages to be automatically downloaded to (but not installed on) a user's computers. High safety prevents a user from being notified of software updates by e-mail, and from having software packages automatically downloaded or automatically installed on the user's computers. If you disable this policy setting, permissions are set to High safety.

References:

1. CCE-17348-4

8.1.18 Set 'Status bar updates via script' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether script is allowed to update the status bar within the zone. The recommended state for this setting is: Enabled:Disable.

Rationale:

A script running in the zone could cause false information to be displayed on the status bar, which could confuse the user and cause him to perform an undesirable action.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Allow status bar updates via script\Allow status bar updates via script
```

Then set the Status bar updates via script option to `Disable`.

Impact:

If you enable this policy setting, script is allowed to update the status bar. If you disable this policy setting, script is not allowed to update the status bar. If you do not configure this policy setting, status bar updates via scripts will be disabled.

References:

1. CCE-17442-5

8.1.19 Set 'Use Pop-up Blocker' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether unwanted pop-up windows appear. Pop-up windows that are opened when the end user clicks a link are not blocked. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

Pop-up windows have been used on web sites that host malicious content to trick users into clicking on dangerous links or to confuse users by hiding elements of the browser interface.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Use Pop-up Blocker\Use Pop-up Blocker
```

Then set the Use Pop-up Blocker option to Enabled.

Impact:

If you enable this policy setting, many unwanted pop-up windows are prevented from appearing. If you disable this policy setting, pop-up windows are not prevented from appearing. If you do not configure this policy setting, many unwanted pop-up windows are prevented from appearing.

References:

1. CCE-17106-6

8.1.20 Set 'Web sites in less privileged Web content zones can navigate into this zone' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Web sites from less privileged zones can navigate into this zone. The recommended state for this setting is: Enabled:Disable.

Rationale:

If you enable this policy setting, Web sites from less privileged zones can open new windows in, or navigate into, this zone. The security zone will run without the added layer of security that is provided by the Protection from Zone Elevation security feature.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Internet Zone\Web sites in less privileged Web content zones can navigate into this zone\Web sites in less privileged Web content zones can navigate into this zone
```

Then set the Web sites in less privileged Web content zones can navigate into this zone option to Disable.

Impact:

If you enable this policy setting, Web sites from less privileged zones can open new windows in, or navigate into, this zone. The security zone will run without the added layer of security that is provided by the Protection from Zone Elevation security feature. If you select Prompt in the drop-down box, a warning is issued to the user that potentially risky navigation is about to occur. If you disable this policy setting, the possibly harmful navigations are prevented. The Internet Explorer security feature will be on in this zone as set by Protection from Zone Elevation feature control. If you do not configure this policy setting, Web sites from less privileged zones can open new windows in, or navigate into, this zone.

References:

1. CCE-17004-3

8.1.21 Set 'Scriptlets' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether scriptlets can be allowed. If you enable this policy setting, users will be able to run scriptlets. If you disable this policy setting, users will not be able to run scriptlets. If you do not configure this policy setting, a scriptlet can be enabled or disabled by the user. The recommended state for this setting is:

Enabled:Disable.

Rationale:

Scriptlets have been exploited by malicious users in the past, one example is the malware `Exploit-MSWord.k` which embedded the class ID of the Microsoft Scriptlet Component within a Word document and the URL of a website that hosted additional malicious software. When opened Microsoft Word would process the embedded object then download and activate the malicious payload. This particular vulnerability was patched several years ago but disabling this setting in untrusted zones helps mitigate against the entire class of attacks.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\Software\Policies\Microsoft\Windows\CurrentVersion\Internet  
Settings\Zones\3\1209
```

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to Enabled.

```
User Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Internet Control Panel\Security Page\Internet Zone\Allow Scriptlets
```

Then set the `Scriptlets` option to `Disable`.

Impact:

If you enable this policy setting, users will be able to run scriptlets. If you disable this policy setting, users will not be able to run scriptlets. If you do not configure this policy setting, a scriptlet can be enabled or disabled by the user.

8.1.22 Set 'Userdata persistence' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage the preservation of information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk. When a user returns to a persisted page, the state of the page can be restored if this policy setting is appropriately configured.

If you enable this policy setting, users can preserve information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk.

If you disable this policy setting, users cannot preserve information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk.

If you do not configure this policy setting, users can preserve information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

Organizations may want to disable this feature in order to prevent business data from being stored by Internet Explorer, in the past some sites hosting malicious content exploited this feature as part of an attack against visitors browsing the site.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Windows\CurrentVersion\Internet  
Settings\Zones\3\1606
```

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to Enabled.

```
User Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Internet Control Panel\Security Page\Internet Zone\Userdata persistence
```

Then set the `Userdata persistence` option to `Disable`.

Impact:

If you enable this policy setting, users can preserve information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk.

If you disable this policy setting, users cannot preserve information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk.

If you do not configure this policy setting, users can preserve information in the browser's history, in favorites, in an XML store, or directly within a Web page saved to disk.

References:

1. CCE-00000-0

8.1.23 Set 'Run .NET Framework-reliant components signed with Authenticode' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether .NET Framework components that are signed with Authenticode can be executed from Internet Explorer. These components include managed controls referenced from an object tag and managed executables referenced from a link.

If you enable this policy setting, Internet Explorer will execute signed managed components. If you select Prompt in the drop-down box, Internet Explorer will prompt the user to determine whether to execute signed managed components.

If you disable this policy setting, Internet Explorer will not execute signed managed components.

If you do not configure this policy setting, Internet Explorer will execute signed managed components. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

If you enable this policy setting, Internet Explorer will execute signed managed components, it may be possible for someone to host malicious content on a website that takes advantage of these components.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Windows\CurrentVersion\Internet
Settings\Zones\3\2001
```

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to Enabled.

```
User Configuration\Administrative Templates\Windows Components\Internet
Explorer\Internet Control Panel\Security Page\Internet Zone\Run .NET Framework-reliant
components signed with Authenticode
```

Then set the Run .NET Framework-reliant components signed with Authenticode option to Disable.

Impact:

If you enable this policy setting, Internet Explorer will execute signed managed components. If you select Prompt in the drop-down box, Internet Explorer will prompt the user to determine whether to execute signed managed components. If you disable this policy setting, Internet Explorer will not execute signed managed components. If you do not configure this policy setting, Internet Explorer will not execute signed managed components.

References:

1. CCE-00000-0

8.1.24 Set 'Run .NET Framework-reliant components not signed with Authenticode' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether .NET Framework components that are not signed with Authenticode can be executed from Internet Explorer. These components include managed controls referenced from an object tag and managed executables referenced from a link.

If you enable this policy setting, Internet Explorer will execute unsigned managed components. If you select Prompt in the drop-down box, Internet Explorer will prompt the user to determine whether to execute unsigned managed components.

If you disable this policy setting, Internet Explorer will not execute unsigned managed components.

If you do not configure this policy setting, Internet Explorer will execute unsigned managed components. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

Unsigned components may have a greater chance of including malicious code and it is more difficult to determine the author of the application therefore they should be avoided if possible.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Windows\CurrentVersion\Internet
Settings\Zones\3\2004
```

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to Enabled.

```
User Configuration\Administrative Templates\Windows Components\Internet
Explorer\Internet Control Panel\Security Page\Internet Zone\Run .NET Framework-reliant
components not signed with Authenticode
```

Then set the Run .NET Framework-reliant components not signed with Authenticode option to Disable.

Impact:

If you enable this policy setting, Internet Explorer will execute unsigned managed components. If you select Prompt in the drop-down box, Internet Explorer will prompt the user to determine whether to execute unsigned managed components. If you disable this policy setting, Internet Explorer will not execute unsigned managed components. If you do not configure this policy setting, Internet Explorer will not execute unsigned managed components.

References:

1. CCE-00000-0

8.2 Intranet Zone

8.2.1 Set 'Intranet Sites: Include all network paths (UNCs)' to 'Disabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether URLs representing UNC paths are mapped into the local Intranet security zone. The recommended state for this setting is: *Disabled*.

Rationale:

Some UNC paths could refer to servers not managed by the organization which means they could host malicious content and therefore it is safest to not include all UNC paths in the Intranet Sites zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet  
Settings\ZoneMap\UNCAsIntranet
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Disabled*.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Intranet Sites: Include all network paths (UNCs)

Impact:

If you enable this policy setting, all network paths are mapped into the Intranet Zone. If you disable this policy setting, network paths are not necessarily mapped into the Intranet Zone (other rules might map one there).

If you do not configure this policy setting, users choose whether network paths are mapped into the Intranet Zone.

References:

1. CCE-17277-5

8.3 Restricted Sites Zone

8.3.1 Set 'Access data sources across domains' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Internet Explorer can access data from another security zone using the Microsoft XML Parser (MSXML) or ActiveX Data Objects (ADO). The recommended state for this setting is: `Enabled:Disable`.

Rationale:

The ability to access data zones across domains could cause the user to unknowingly access content hosted on an unauthorized server.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Access data sources across domains\Access data sources across domains

Then set the Access data sources across domains option to Disable.

Impact:

If you enable this policy setting, users can load a page in the zone that uses MSXML or ADO to access data from another site in the zone. If you select Prompt in the drop-down box, users are queried to choose whether to allow a page to be loaded in the zone that uses MSXML or ADO to access data from another site in the zone. If you disable this policy setting, users cannot load a page in the zone that uses MSXML or ADO to access data from another site in the zone. If you do not configure this policy setting, users cannot load a page in the zone that uses MSXML or ADO to access data from another site in the zone.

References:

1. CCE-16995-3

8.3.2 Set 'Allow active scripting' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether script code on pages in the zone is run. The recommended state for this setting is: Enabled:Disable.

Rationale:

Active scripts hosted on sites located in this zone are more likely to contain malicious code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow active scripting\Allow active scripting

Then set the Allow active scripting option to Disable.

Impact:

If you enable this policy setting, script code on pages in the zone can run automatically. If you select Prompt in the drop-down box, users are queried to choose whether to allow script code on pages in the zone to run. If you disable this policy setting, script code on pages in the zone is prevented from running. If you do not configure this policy setting, script code on pages in the zone is prevented from running.

References:

1. CCE-16735-3

8.3.3 Set 'Allow Binary and Script Behaviors' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage dynamic binary and script behaviors: components that encapsulate specific functionality for HTML elements to which they were attached. The recommended state for this setting is: Enabled:Disable.

Rationale:

Executable binaries and scripts may include malicious code, the risk of this is higher in the Restricted Sites Zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow binary and script behaviors\Allow binary and script behaviors

Then set the Allow Binary and Script Behaviors option to Disable.

Impact:

If you enable this policy setting, binary and script behaviors are available. If you select Administrator approved in the drop-down box, only behaviors listed in the Admin-approved Behaviors under Binary Behaviors Security Restriction policy are available. If you disable this policy setting, binary and script behaviors are not available unless applications have implemented a custom security manager. If you do not configure this policy setting, binary and script behaviors are not available unless applications have implemented a custom security manager.

References:

1. CCE-17114-0

8.3.4 Set 'Allow drag and drop or copy and paste files' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users can drag files or copy and paste files from a source within the zone. The recommended state for this setting is:

Enabled:Disable.

Rationale:

Content hosted on sites located in the Restricted Sites Zone are more likely to contain malicious payloads and therefore this feature should be blocked for this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow drag and drop or copy and paste files\Allow drag and drop or copy and paste files
```

Then set the Allow drag and drop or copy and paste files option to Disable.

Impact:

If you enable this policy setting, users can drag files or copy and paste files from this zone automatically. If you select Prompt in the drop-down box, users are queried to choose whether to drag or copy files from this zone. If you disable this policy setting, users are prevented from dragging files or copying and pasting files from this zone.

References:

1. CCE-16485-5

8.3.5 Set 'Allow file downloads' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether file downloads are permitted from the zone. This option is determined by the zone of the page with the link causing the download, not the zone from which the file is delivered. The recommended state for this setting is:

Enabled:Disable.

Rationale:

Sites located in the Restricted Sites Zone are more likely to contain malicious payloads and therefor downloads from this zone should be blocked.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow file downloads\Allow file downloads
```

Then set the `Allow file downloads` option to `Disable`.

Impact:

If you enable this policy setting, files can be downloaded from the zone. If you disable this policy setting, files are prevented from being downloaded from the zone. If you do not configure this policy setting, files are prevented from being downloaded from the zone.

References:

1. CCE-17256-9

8.3.6 Set 'Allow font downloads' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether pages of the zone may download HTML fonts. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

It is possible that a font could include malformed data that would cause Internet Explorer to crash when it attempts to load and render the font.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow font downloads\Allow font downloads

Then set the Allow font downloads option to Disable.

Impact:

If you enable this policy setting, HTML fonts can be downloaded automatically. If you enable this policy setting and Prompt is selected in the drop-down box, users are queried whether to allow HTML fonts to download. If you disable this policy setting, HTML fonts are prevented from downloading.

References:

1. CCE-17383-1

8.3.7 Set 'Allow installation of desktop items' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users can install Active Desktop items from this zone. The recommended state for this setting is: Enabled:Disable.

Rationale:

Active Desktop items could contain links to unauthorized websites or other undesirable content, it is prudent to prevent users from installing desktop items from this security zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow installation of desktop items\Allow installation of desktop items

Then set the Allow installation of desktop items option to Disabled.

Impact:

The settings for this option are: Enabled, users can install desktop items from this zone automatically. Prompt, users are queried to choose whether to install desktop items from this zone. Disabled, users are prevented from installing desktop items from this zone. If you do not configure this policy setting, users are prevented from installing desktop items from this zone.

References:

1. CCE-17265-0

8.3.8 Set 'Allow META REFRESH' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether a user's browser can be redirected to another Web page if the author of the Web page uses the Meta Refresh setting to redirect browsers to another Web page. The recommended state for this setting is:

Enabled:Disabled.

Rationale:

It is possible that users will unknowingly be redirected to a site hosting malicious content.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow META REFRESH\Allow META REFRESH
```

Then set the Allow META REFRESH option to Disable.

Impact:

If you enable this policy setting, a user's browser that loads a page containing an active Meta Refresh setting can be redirected to another Web page. If you disable this policy setting, a user's browser that loads a page containing an active Meta Refresh setting cannot be redirected to another Web page. If you do not configure this policy setting, a user's browser that loads a page containing an active Meta Refresh setting cannot be redirected to another Web page.

References:

1. CCE-16497-0

8.3.9 Set 'Allow paste operations via script' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether scripts can perform a clipboard operation (for example, cut, copy, and paste) in the security zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

A malicious script could use the clipboard in an undesirable manner, for example, if the user had recently copied confidential information to the clipboard while editing a document a malicious script could harvest that information. It might be possible to exploit other vulnerabilities in order to send the harvested data to the attacker.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow cut, copy or paste operations from the clipboard via script\Allow cut, copy or paste operations from the clipboard via script
```

Then set the Allow paste operations via script option to Disable.

Impact:

If you enable this policy setting, a script can perform a clipboard operation. If you select Prompt in the drop-down box, users are queried as to whether to perform clipboard operations. If you disable this policy setting, a script cannot perform a clipboard operation. If you do not configure this policy setting, a script cannot perform a clipboard operation.

References:

1. CCE-17365-8

8.3.10 Set 'Allow script-initiated windows without size or position constraints' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage restrictions on script-initiated pop-up windows and windows that include the title and status bars. The recommended state for this setting is: Enabled:Disable.

Rationale:

If you enable this policy setting, scripts will be able to launch and resize additional browser windows without and limits on size or position, attackers have used this feature in the past to confuse users and cause them to click on links that led to undesirable consequences.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow script-initiated windows without size or position constraints\Allow script-initiated windows without size or position constraints
```

Then set the `Allow script-initiated windows without size or position constraints` option to `Disable`.

Impact:

If you enable this policy setting, Windows Restrictions security will not apply in this zone. The security zone runs without the added layer of security provided by this feature. If you disable this policy setting, the possible harmful actions contained in script-initiated pop-up windows and windows that include the title and status bars cannot be run. This Internet Explorer security feature will be on in this zone as dictated by the Scripted Windows Security Restrictions feature control setting for the process. If you do not configure this policy setting, the possible harmful actions contained in script-initiated pop-up windows and windows that include the title and status bars cannot be run. This Internet Explorer security feature will be on in this zone as dictated by the Scripted Windows Security Restrictions feature control setting for the process.

References:

1. CCE-16523-3

8.3.11 Set 'Automatic prompting for file downloads' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting determines whether users will be prompted for non user-initiated file downloads. Regardless of this setting, users will receive file download dialogs for user-initiated downloads. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

Users may accept downloads that they did not request, those downloaded files may include malicious code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Automatic prompting for file downloads\Automatic prompting for file downloads
```

Then set the Automatic prompting for file downloads option to Disable.

Impact:

If you enable this setting, users will receive a file download dialog for automatic download attempts. If you disable or do not configure this setting, file downloads that are not user-initiated will be blocked, and users will see the Information Bar instead of the file download dialog. Users can then click the Information Bar to allow the file download prompt.

References:

1. CCE-16673-6

8.3.12 Set 'Download signed ActiveX controls' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users may download signed ActiveX controls from a page in the zone. The recommended state for this setting is:

Enabled:Disable.

Rationale:

Signed code is better than unsigned code in that it may be easier to determine its author, but it is still potentially harmful, especially when coming from an untrusted zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Download signed ActiveX controls\Download signed ActiveX controls
```

Then set the Download signed ActiveX controls option to Disable.

Impact:

If you enable this policy, users can download signed controls without user intervention. If you select Prompt in the drop-down box, users are queried whether to download controls signed by untrusted publishers. Code signed by trusted publishers is silently downloaded. If you Disable the policy setting, signed controls cannot be downloaded.

References:

1. CCE-16783-3

8.3.13 Set 'Download unsigned ActiveX controls' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether users may download unsigned ActiveX controls from the zone. The recommended state for this setting is: Enabled:Disable.

Rationale:

Unsigned code is potentially harmful, especially when coming from an untrusted zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Download unsigned ActiveX controls\Download unsigned ActiveX controls
```

Then set the Download unsigned ActiveX controls option to Disable.

Impact:

If you enable this policy setting, users can run unsigned controls without user intervention. If you select Prompt in the drop-down box, users are queried to choose whether to allow the unsigned control to run. If you disable this policy setting, users cannot run unsigned controls. If you do not configure this policy setting, users cannot run unsigned controls.

References:

1. CCE-17413-6

8.3.14 Set 'Enable MIME Sniffing' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage MIME sniffing for file promotion from one type to another based on a MIME sniff. A MIME sniff is the recognition by Internet Explorer of the file type based on a bit signature. If you enable this policy setting, the MIME Sniffing Safety Feature will not apply in this zone. The security zone will run without the added layer of security provided by this feature. If you disable this policy setting, the actions that may be harmful cannot run; this Internet Explorer security feature will be turned on in this zone, as dictated by the feature control setting for the process. If you do not configure this policy setting, the actions that may be harmful cannot run; this Internet Explorer security feature will be turned on in this zone, as dictated by the feature control setting for the process. The recommended state for this setting is: Enabled:Enable.

Rationale:

The MIME Sniffing Safety Feature improves security in some scenarios by providing an added layer of defense against potentially malicious files. The feature also helps with compatibility issues caused by web servers that specify incorrect MIME types. Under certain circumstances it can actually increase the risk of compromise because Internet Explorer may detect a script embedded within content that has a non-script MIME type declared and execute the script.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Enable MIME Sniffing\Enable MIME Sniffing
```

Then set the Enable MIME Sniffing option to Enabled.

Impact:

If you enable this policy setting, the MIME Sniffing Safety Feature will not apply in this zone; the security zone will run without the added layer of security provided by this feature. If you disable this policy setting, the actions that may be harmful cannot run; this Internet Explorer security feature will be turned on in this zone, as dictated by the feature control setting for the process. If you do not configure this policy setting, the actions that may be harmful cannot run; this Internet Explorer security feature will be turned on in this zone, as dictated by the feature control setting for the process.

References:

1. CCE-17435-9

8.3.15 Set 'Initialize and script ActiveX controls not marked as safe' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage ActiveX controls not marked as safe. If you enable this policy setting, ActiveX controls are run, loaded with parameters, and scripted without setting object safety for untrusted data or scripts. This setting is not recommended, except for secure and administered zones. The recommended state for this setting is:

Enabled:Disable.

Rationale:

This setting causes both unsafe and safe controls to be initialized and scripted, ignoring the Script ActiveX controls marked safe for scripting option. This increases the risk of malicious code being loaded and executed by the browser.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Initialize and script ActiveX controls not marked as safe\Initialize and script ActiveX controls not marked as safe
```

Then set the Initialize and script ActiveX controls not marked as safe option to Disable.

Impact:

If you enable this policy setting and select Prompt in the drop-down box, users are queried whether to allow the control to be loaded with parameters or scripted. If you disable this policy setting, ActiveX controls that cannot be made safe are not loaded with parameters or scripted. If you do not configure this policy setting, ActiveX controls that cannot be made safe are not loaded with parameters or scripted.

References:

1. CCE-17440-9

8.3.16 Set 'Java permissions' to 'Enabled:Disable Java' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage permissions for Java applets. The recommended state for this setting is: Enabled:Disable Java.

Rationale:

Java applications could contain malicious code, sites located in this security zone are more likely to be hosted by malicious people.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Java permissions\Java permissions
```

Then set the Java permissions option to Disable Java.

Impact:

If you enable this policy setting, you can choose options from the drop-down box. Custom, to control permissions settings individually. Low Safety enables applets to perform all operations. Medium Safety enables applets to run in their sandbox (an area in memory outside of which the program cannot make calls), plus capabilities like scratch space (a safe and secure storage area on the client computer) and user-controlled file I/O. High Safety enables applets to run in their sandbox. Disable Java to prevent any applets from running. If you disable this policy setting, Java applets cannot run. If you do not configure this policy setting, the permission is set to High Safety.

References:

1. CCE-17426-8

8.3.17 Set 'Launching applications and files in an IFRAME' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether applications may be run and files may be downloaded from an IFRAME reference in the HTML of the pages in this zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

If you enable this policy setting, applications can run and files can be downloaded from IFRAMEs on the pages in this zone without user intervention.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Launching applications and files in an IFRAME\Launching applications and files in an IFRAME
```

Then set the `Launching applications and files in an IFRAME` option to `Disable`.

Impact:

If you enable this policy setting, users can run applications and download files from IFRAMEs on the pages in this zone without user intervention. If you select `Prompt` in the drop-down box, users are queried to choose whether to run applications and download files from IFRAMEs on the pages in this zone. If you disable this policy setting, users are prevented from running applications and downloading files from IFRAMEs on the pages in

this zone. If you do not configure this policy setting, users are queried to choose whether to run applications and download files from IFRAMEs on the pages in this zone.

References:

1. CCE-17431-8

8.3.18 Set 'Logon options' to 'Enabled:Anonymous logon' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage settings for logon options. If you enable this policy setting, you can choose from the following logon options: Anonymous logon disables HTTP authentication and uses the guest account only for the Common Internet File System (CIFS) protocol. Prompt for user name and password queries users for user IDs and passwords. After a user is queried, these values can be used silently for the remainder of the session. Automatic logon only in Intranet zone queries users for user IDs and passwords in other zones. After a user is queried, these values can be used silently for the remainder of the session. Automatic logon with current user name and password attempts logon using Windows NT Challenge Response (also known as NTLM authentication). If Windows NT Challenge Response is supported by the server, the logon uses the user's network user name and password for logon. If Windows NT Challenge Response is not supported by the server, the user is queried to provide the user name and password. If you disable this policy setting, logon is set to Automatic logon only in Intranet zone. If you do not configure this policy setting, logon is set to Automatic logon only in Intranet zone. The recommended state for this setting is: `Enabled:Anonymous logon`.

Rationale:

Users could submit credentials to servers operated by malicious people who could then attempt to connect to legitimate servers with those captured credentials.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Logon options\Logon options
```

Then set the Logon options option to Anonymous logon.

Impact:

Anonymous logon disables HTTP authentication and uses the guest account, which means that users will be unable to connect to sites in this security zone that require authentication.

References:

1. CCE-17325-2

8.3.19 Set 'Navigate windows and frames across different domains' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage the opening of sub-frames and access of applications across different domains. The recommended state for this setting is:

Enabled:Disable.

Rationale:

It is conceivable that a web site hosting malicious could use this feature to conduct an similar to cross-site scripting.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Navigate windows and frames across different domains\Navigate windows and frames across different domains
```

Then set the `Navigate windows and frames across different domains` option to `Disable`.

Impact:

If you enable this policy setting, users can open sub-frames from other domains and access applications from other domains. If you select `Prompt` in the drop-down box, users are queried whether to allow sub-frames or access to applications from other domains. If you disable this policy setting, users cannot open sub-frames or access applications from different domains. If you do not configure this policy setting, users can open sub-frames from other domains and access applications from other domains.

References:

1. CCE-16502-7

8.3.20 Set 'Only allow approved domains to use ActiveX controls without prompt' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether or not the user is prompted to allow ActiveX controls to run on Web sites other than the Web site that installed the ActiveX control. If you enable this policy setting, the user will be prompted before ActiveX controls are permitted to run from Web sites in this zone. Users may choose to allow the control to run from the current site, or from all sites. If you disable this policy setting, the user will not see the per-site ActiveX prompt and ActiveX controls will be allowed to run from all sites in this zone. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

If the user were to disable the setting for the zone, malicious ActiveX controls could be executed without the user's knowledge.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Only allow approved domains to use ActiveX controls without prompt\Only allow approved domains to use ActiveX controls without prompt
```

Then set the `Only allow approved domains to use ActiveX controls without prompt` option to `Enable`.

Impact:

Disabling this setting would allow the possibility for malicious ActiveX controls to be executed from non-approved domains within this zone without the user's knowledge.

References:

1. CCE-17326-0

8.3.21 Set 'Run .NET Framework-reliant components not signed with Authenticode' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether .NET Framework components that are not signed with Authenticode' can be executed from Internet Explorer. These components include managed controls referenced from an object tag and managed executables referenced from a link. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

Unsigned components may have a greater chance of including malicious code and it is more difficult to determine the author of the application therefore they should be avoided if possible.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Run .NET Framework-reliant components not signed with Authenticode\Run .NET Framework-reliant components not signed with Authenticode
```

Then set the Run .NET Framework-reliant components not signed with Authenticode option to Disable.

Impact:

If you enable this policy setting, Internet Explorer will execute unsigned managed components. If you select Prompt in the drop-down box, Internet Explorer will prompt the user to determine whether to execute unsigned managed components. If you disable this policy setting, Internet Explorer will not execute unsigned managed components. If you do not configure this policy setting, Internet Explorer will not execute unsigned managed components.

References:

1. CCE-17480-5

8.3.22 Set 'Run .NET Framework-reliant components signed with Authenticode' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether .NET Framework components that are signed with Authenticode can be executed from Internet Explorer. These components include managed controls referenced from an object tag and managed executables referenced from a link. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

If you enable this policy setting, Internet Explorer will execute signed managed components, it may be possible for someone to host malicious content on a website that takes advantage of these components.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Run .NET Framework-reliant components signed with Authenticode\Run .NET Framework-reliant components signed with Authenticode
```

Then set the `Run .NET Framework-reliant components signed with Authenticode` option to `Disable`.

Impact:

If you enable this policy setting, Internet Explorer will execute signed managed components. If you select `Prompt` in the drop-down box, Internet Explorer will prompt the user to determine whether to execute signed managed components. If you disable this policy setting, Internet Explorer will not execute signed managed components. If you do not configure this policy setting, Internet Explorer will not execute signed managed components.

References:

1. CCE-16512-6

8.3.23 Set 'Run ActiveX controls and plugins' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether ActiveX controls and plug-ins can be run on pages from the specified zone. The recommended state for this setting is:

Enabled:Disable.

Rationale:

If you enable this policy setting, controls and plug-ins can run without user intervention.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Run ActiveX controls and plugins\Run ActiveX controls and plugins
```

Then set the Run ActiveX controls and plugins option to Disable.

Impact:

If you enable this policy setting, controls and plug-ins can run without user intervention. If you selected Prompt in the drop-down box, users are asked to choose whether to allow the controls or plug-in to run. If you disable this policy setting, controls and plug-ins are prevented from running. If you do not configure this policy setting, controls, and plug-ins are prevented from running.

References:

1. CCE-17133-0

8.3.24 Set 'Script ActiveX controls marked safe for scripting' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether an ActiveX control marked safe for scripting can interact with a script. The recommended state for this setting is:

Enabled:Disable.

Rationale:

If you enable this policy setting, script interaction can occur automatically without user intervention.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Script ActiveX controls marked safe for scripting\Script ActiveX controls marked safe for scripting
```

Then set the Script ActiveX controls marked safe for scripting option to Disable.

Impact:

If you enable this policy setting, script interaction can occur automatically without user intervention. If you select Prompt in the drop-down box, users are queried to choose whether to allow script interaction. If you disable this policy setting or do not configure this policy setting, script interaction is prevented from occurring.

References:

1. CCE-17512-5

8.3.25 Set 'Scripting of Java applets' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether applets are exposed to scripts within the zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

If you enable this policy setting, scripts can access applets automatically without user intervention.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Scripting of Java applets\Scripting of Java applets
```

Then set the Scripting of Java applets option to `Disable`.

Impact:

If you enable this policy setting, scripts can access applets automatically without user intervention. If you select Prompt in the drop-down box, users are queried to choose whether to allow scripts to access applets. If you disable this policy setting or do not configure this policy setting, scripts are prevented from accessing applets.

References:

1. CCE-17499-5

8.3.26 Set 'Software channel permissions' to 'Enabled:High safety' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage software channel permissions. If you enable this policy setting, you can choose the following options from the drop-down box: Low safety allows a user to be notified of software updates by e-mail, software packages to be automatically downloaded to a user's computers, and software packages to be automatically installed on a user's computers. Medium safety allows a user to be notified of software updates by e-mail and software packages to be automatically downloaded to (but not installed on) a user's computers. High safety prevents a user from being notified of software updates by e-mail, and from having software packages automatically downloaded or automatically installed on the user's computers. If you disable this policy setting, permissions are set to High safety. The recommended state for this setting is:

Enabled:High safety.

Rationale:

Any setting lower than High Safety could cause a user to install software that includes malicious code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Software channel permissions\Software channel permissions
```

Then set the Software channel permissions option to High safety.

Impact:

There should be no impact since the recommended setting is also the default.

References:

1. CCE-17375-7

8.3.27 Set 'Status bar updates via script' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether script is allowed to update the status bar within the zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

A script running in the zone could cause false information to be displayed on the status bar, which could confuse the user and cause him to perform an undesirable action.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Allow status bar updates via script\Allow status bar updates via script
```

Then set the Status bar updates via script option to `Disable`.

Impact:

If you enable this policy setting, script is allowed to update the status bar. If you disable this policy setting, script is not allowed to update the status bar. If you do not configure this policy setting, status bar updates via scripts will be disabled.

References:

1. CCE-17418-5

8.3.28 Set 'Use Pop-up Blocker' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether unwanted pop-up windows appear. Pop-up windows that are opened when the end user clicks a link are not blocked. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

Pop-up windows have been used on web sites that host malicious content to trick users into clicking on dangerous links or to confuse users by hiding elements of the browser interface.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Use Pop-up Blocker\Use Pop-up Blocker
```

Then set the Use Pop-up Blocker option to `Enable`.

Impact:

If you enable this policy setting, many unwanted pop-up windows are prevented from appearing. If you disable this policy setting, pop-up windows are not prevented from appearing. If you do not configure this policy setting, many unwanted pop-up windows are prevented from appearing.

References:

1. CCE-16772-6

8.3.29 Set 'Web sites in less privileged Web content zones can navigate into this zone' to 'Enabled:Disable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage whether Web sites from less privileged zones can navigate into this zone. The recommended state for this setting is: `Enabled:Disable`.

Rationale:

If you enable this policy setting, Web sites from less privileged zones can open new windows in, or navigate into, this zone. The security zone will run without the added layer of security that is provided by the Protection from Zone Elevation security feature.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Restricted Sites Zone\Web sites in less privileged Web content zones can navigate into this zone\Web sites in less privileged Web content zones can navigate into this zone
```

Then set the `Web sites in less privileged Web content zones can navigate into this zone` option to `Disable`.

Impact:

If you enable this policy setting, Web sites from less privileged zones can open new windows in, or navigate into, this zone. The security zone will run without the added layer of security that is provided by the Protection from Zone Elevation security feature. If you select `Prompt` in the drop-down box, a warning is issued to the user that potentially risky

navigation is about to occur. If you disable this policy setting, the possibly harmful navigations are prevented. The Internet Explorer security feature will be on in this zone as set by Protection from Zone Elevation feature control. If you do not configure this policy setting, Web sites from less privileged zones can open new windows in, or navigate into, this zone.

References:

1. CCE-16521-7

8.3.30 Set 'Use SmartScreen Filter' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether SmartScreen Filter scans pages in this zone for malicious content. If you enable this policy setting, SmartScreen Filter will scan pages in this zone for malicious content. If you disable this policy setting, SmartScreen Filter will not scan pages in this zone for malicious content. If you do not configure this policy setting, the user can configure this setting. Note: In Internet Explorer 7, this policy setting controls whether the Phishing Filter scans pages in this zone for malicious content. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

If the SmartScreen Filter is enabled globally, not enabling this setting would allow the user to disable the use of the SmartScreen Filter in this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Trusted Sites Zone\Use SmartScreen Filter\Use SmartScreen Filter
```

Then set the `Use SmartScreen Filter` option to `Enable`.

Impact:

The SmartScreen Filter will be used in this zone.

References:

1. CCE-16973-0

8.4 Local Machine Zone

8.4.1 Set 'Use SmartScreen Filter' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether SmartScreen Filter scans pages in this zone for malicious content. If you enable this policy setting, SmartScreen Filter will scan pages in this zone for malicious content. If you disable this policy setting, SmartScreen Filter will not scan pages in this zone for malicious content. If you do not configure this policy setting, the user can configure this setting. Note: In Internet Explorer 7, this policy setting controls whether the Phishing Filter scans pages in this zone for malicious content. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

If the SmartScreen Filter is enabled globally, not enabling this setting would allow the user to disable the use of the SmartScreen Filter in this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Local Machine Zone\Use SmartScreen Filter\Use SmartScreen Filter
```

Then set the Use SmartScreen Filter option to Enable.

Impact:

The SmartScreen Filter will be used in this zone.

References:

1. CCE-17017-5

8.5 Locked-Down Internet Zone

8.5.1 Set 'Only allow approved domains to use ActiveX controls without prompt' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether or not the user is prompted to allow ActiveX controls to run on Web sites other than the Web site that installed the ActiveX control. If you enable this policy setting, the user will be prompted before ActiveX controls are permitted to run from Web sites in this zone. Users may choose to allow the control to run from the current site, or from all sites. If you disable this policy setting, the user will not see the per-site ActiveX prompt and ActiveX controls will be allowed to run from all sites in this zone. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

If the user were to disable the setting for the zone, malicious ActiveX controls could be executed without the user's knowledge.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Internet Zone\Only allow approved domains to use ActiveX controls without prompt\Only allow approved domains to use ActiveX controls without prompt
```

Then set the Only allow approved domains to use ActiveX controls without prompt option to Enabled.

Impact:

Disabling this setting would allow the possibility for malicious ActiveX controls to be executed from non-approved domains within this zone without the user's knowledge.

References:

1. CCE-17260-1

8.5.2 Set 'Use SmartScreen Filter' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether SmartScreen Filter scans pages in this zone for malicious content. If you enable this policy setting, SmartScreen Filter will scan pages in this zone for malicious content. If you disable this policy setting, SmartScreen Filter will not scan pages in this zone for malicious content. If you do not configure this policy setting, the user can configure this setting. Note: In Internet Explorer 7, this policy setting controls whether the Phishing Filter scans pages in this zone for malicious content. The recommended state for this setting is: Enabled:Enable.

Rationale:

If the SmartScreen Filter is enabled globally, not enabling this setting would allow the user to disable the use of the SmartScreen Filter in this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Internet Zone\Use SmartScreen Filter\Use SmartScreen Filter
```

Then set the Use SmartScreen Filter option to Enable.

Impact:

The SmartScreen Filter will be used in this zone.

References:

1. CCE-17264-3

8.6 Locked-Down Intranet Zone

8.6.1 Set 'Use SmartScreen Filter' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether SmartScreen Filter scans pages in this zone for malicious content. If you enable this policy setting, SmartScreen Filter will scan pages in this zone for malicious content. If you disable this policy setting, SmartScreen Filter will not scan pages in this zone for malicious content. If you do not configure this policy setting, the user can configure this setting. Note: In Internet Explorer 7, this policy setting controls whether the Phishing Filter scans pages in this zone for malicious content. The recommended state for this setting is: Enabled:Enable.

Rationale:

If the SmartScreen Filter is enabled globally, not enabling this setting would allow the user to disable the use of the SmartScreen Filter in this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Intranet Zone\Use SmartScreen Filter\Use SmartScreen Filter
```

Then set the Use SmartScreen Filter option to Enable.

Impact:

The SmartScreen Filter will be used in this zone.

References:

1. CCE-16960-7

8.7 Locked-Down Restricted Sites Zone

8.7.1 Set 'Only allow approved domains to use ActiveX controls without prompt' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether or not the user is prompted to allow ActiveX controls to run on Web sites other than the Web site that installed the ActiveX control. If you enable this policy setting, the user will be prompted before ActiveX controls are permitted to run from Web sites in this zone. Users may choose to allow the control to run from the current site, or from all sites. If you disable this policy setting, the user will not see the per-site ActiveX prompt and ActiveX controls will be allowed to run from all sites in this zone. The recommended state for this setting is: Enabled:Enable.

Rationale:

If the user were to disable the setting for the zone, malicious ActiveX controls could be executed without the user's knowledge.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to `Enabled`.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Restricted Sites Zone\Only allow approved domains to use ActiveX controls without prompt\Only allow approved domains to use ActiveX controls without prompt
```

Then set the `Only allow approved domains to use ActiveX controls without prompt` option to `Enable`.

Impact:

Disabling this setting would allow the possibility for malicious ActiveX controls to be executed from non-approved domains within this zone without the user's knowledge.

References:

1. CCE-16603-3

8.7.2 Set 'Use SmartScreen Filter' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether SmartScreen Filter scans pages in this zone for malicious content. If you enable this policy setting, SmartScreen Filter will scan pages in this zone for malicious content. If you disable this policy setting, SmartScreen Filter will not scan pages in this zone for malicious content. If you do not configure this policy setting, the user can configure this setting. Note: In Internet Explorer 7, this policy setting controls whether the Phishing Filter scans pages in this zone for malicious content. The recommended state for this setting is: `Enabled:Enable`.

Rationale:

If the SmartScreen Filter is enabled globally, not enabling this setting would allow the user to disable the use of the SmartScreen Filter in this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Restricted Sites Zone\Use SmartScreen Filter\Use SmartScreen Filter
```

Then set the Use SmartScreen Filter option to Enabled.

Impact:

The SmartScreen Filter will be used in this zone.

References:

1. CCE-17233-8

8.8 Locked-Down Local Machine Zone

8.8.1 Set 'Use SmartScreen Filter' to 'Enabled:Enable' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls whether SmartScreen Filter scans pages in this zone for malicious content. If you enable this policy setting, SmartScreen Filter will scan pages in this zone for malicious content. If you disable this policy setting, SmartScreen Filter will not scan pages in this zone for malicious content. If you do not configure this policy setting, the user can configure this setting. Note: In Internet Explorer 7, this policy setting controls whether the Phishing Filter scans pages in this zone for malicious content. The recommended state for this setting is: Enabled:Enable.

Rationale:

If the SmartScreen Filter is enabled globally, not enabling this setting would allow the user to disable the use of the SmartScreen Filter in this zone.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Security Page\Locked-Down Local Machine Zone\Use SmartScreen Filter\Use SmartScreen Filter
```

Then set the Use SmartScreen Filter option to Enabled.

Impact:

The SmartScreen Filter will be used in this zone.

References:

1. CCE-17202-3

8.9 Set 'Security Zones: Do not allow users to add/delete sites' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

Enable this policy setting to disable the site management settings for security zones. (To see the site management settings for security zones, open Internet Explorer, select Tools and then Internet Options, click the Security tab, and then click Sites.) If this policy setting is disabled or not configured, users will be able to add or remove Web sites in the Trusted Sites and Restricted Sites zones, as well as alter settings in the Local Intranet zone. Note If you enable the Disable the Security page setting (located in \User Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel), the Security tab is removed from the interface and the Disable setting takes

precedence over this Security Zones: setting. The recommended state for this setting is: Enabled.

Rationale:

If you do not configure this policy setting, users will be able to add or remove sites from the Trusted Sites and Restricted Sites zones at will and change settings in the Local Intranet zone. This configuration could allow sites that host malicious mobile code to be added to these zones, which users could execute.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet  
Settings\Security_zones_map_edit
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Security Zones: Do not allow users to add/delete sites
```

Impact:

Users will not be able to change site management settings for security zones that have been established by the administrator. When users need to add or remove sites from these Internet Explorer security zones, an administrator will have to configure them. Intranet zone. This may impact some business applications if users access them using a URL that appears to be from the Internet. For example, in order to utilize all of the capabilities of Infopath Internet Explorer needs to run the content in the Intranet or Trusted Sites zone. However, if URL provided is an IP address or a fully qualified domain name IE will instead run it in the Internet zone. You can overcome issues such as this by adding the URLs to the Trusted Sites zone.

References:

1. CCE-16469-9

8.10 Set 'Security Zones: Do not allow users to change policies' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

If you enable this policy setting, you disable the Custom Level button and Security level for this zone slider on the Security tab in the Internet Options dialog box. If this policy setting is disabled or not configured, users will be able to change the settings for security zones. It prevents users from changing security zone policy settings that are established by the administrator. Note If you enable the Disable the Security page setting (located in \User Configuration\ Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel) the Security tab is removed from Internet Explorer in Control Panel and the Disable setting takes precedence over this Security Zones: setting. The recommended state for this setting is: Enabled.

Rationale:

Users who change their Internet Explorer security settings could enable the execution of dangerous types of code from the Internet and Web sites that were listed in the Restricted Sites zone in the browser.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet Settings\Security_options_edit
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Security Zones: Do not allow users to change policies
```

Impact:

Configure the Security Zones: Do not allow users to change policies setting to Enabled.

References:

1. CCE-17351-8

8.11 Set 'Security Zones: Use only machine settings' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting affects how security zone changes apply to different users. If you enable this policy setting, changes that one user makes to a security zone will apply to all users of that computer. If this policy setting is disabled or not configured, users of the same computer are allowed to establish their own security zone settings. The recommended state for this setting is: Enabled.

Rationale:

Users who change their Internet Explorer security settings could enable the execution of dangerous types of code from the Internet and Web sites that were listed in the Restricted Sites zone in the browser.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet  
Settings\Security_HKLM_only
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Enabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Security Zones: Use only machine settings
```

Impact:

Users will not be able to configure security settings for Internet Explorer zones.

References:

1. CCE-17232-0

9 Additional Settings

9.1 Set 'Disable the Advanced page' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting works in conjunction with other settings to ensure that users cannot change the settings that are configured in the Advanced tab of Internet Explorer. The recommended state for this setting is: *Enabled*.

Rationale:

Users could change some of the Internet Explorer security settings, which could enable them to visit a malicious Web site and download or execute hostile code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Control Panel\AdvancedTab
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel\Disable the Advanced page
```

Impact:

Users will no longer be able to access the Advanced page.

References:

1. CCE-17387-2

9.2 Configure 'Disable changing Automatic Configuration settings' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting removes a user's ability to change automatically configured settings. Administrators use automatic configuration to update browser settings periodically. If you enable this policy setting, the automatic configuration settings are dimmed in Internet Explorer. (These settings are located in the Automatic Configuration area of the LAN Settings dialog box.) This policy setting also removes a user's ability to change settings that are configured through Group Policy.

To view the LAN Settings dialog box

1. Open the Internet Options dialog box, and click the Connections tab.
2. Click the LAN Settings button to view the settings.

Note The Disable the Connections page setting removes the Connections tab from Internet Explorer in Control Panel and takes precedence over this Disable changing Automatic Configuration settings configuration option. If the former setting is enabled, the latter setting is ignored. The Disable the Connections page setting is located in \User Configuration

\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel in the Group Policy Object Editor. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

Users could change some of the Internet Explorer security settings, which could enable users to visit a malicious Web site and download or execute hostile code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Control Panel\Autoconfig
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

Users will be unable to change the automatic configuration settings.

References:

1. CCE-16736-1

9.3 Configure 'Disable changing connection settings' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting removes users' ability to change dial-up settings. If you enable this policy setting, the Settings button on the Connections tab in the Internet Options dialog box is dimmed. This policy setting also removes users' ability to change settings that are configured through Group Policy. You may want to disable this policy setting for laptop users if their travel requires them to change their connection settings. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

Users could alter existing connections to make it impossible for them to use Internet Explorer to browse some, or all, Web sites.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed.

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

Users will be unable to change the connection settings.

References:

1. CCE-16741-1

9.4 Configure 'Disable changing proxy settings' (Not Scored)

Profile Applicability:

- Level 1

Description:

This policy setting removes users' ability to change proxy settings. If you enable this policy setting, the proxy settings are dimmed. (The proxy settings are located in the Proxy Server area of the LAN Settings dialog box that appears when the user clicks the Connections tab and then the LAN Settings button in the Internet Options dialog box.) This policy setting also removes users' ability to change settings that are configured through Group Policy. You may want to disable this policy setting for laptop users if their travel requires them to change their connection settings. Note: If you configure the Disable the Connections page setting, you do not need to configure this policy setting. The Disable the Connections page setting removes the Connections tab from the interface. This setting is located in \User Configuration\Administrative Templates\Windows Components\Internet Explorer\Internet Control Panel in the Group Policy Object Editor. Configure this setting in a manner that is consistent with the security and operational requirements of your organization.

Rationale:

Users could alter existing proxy server settings and make it impossible for them to use Internet Explorer to browse some, or all, Web sites.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Control Panel\Proxy
```

Remediation:

Configure the following Group Policy setting in a manner that is consistent with the security and operational requirements of your organization:

Impact:

Users will be unable to change the proxy settings.

References:

1. CCE-16438-4

9.5 Set 'Prevent "Fix settings" functionality' to 'Disabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting prevents users from performing the "Fix settings" functionality related to the Security Settings Check in Internet Explorer. The recommended state for this setting is: Disabled.

Rationale:

The "Fix settings" feature is an easy way for users to restore secure settings for Internet Explorer should the settings be misconfigured in some way, disabling will prevent users from quickly returning the browser to its default configuration.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Security\DisableFixSecuritySettings
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Disabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Prevent "Fix settings" functionality
```

Impact:

If you enable this policy setting, users cannot click the Fix Settings For Me option in the Information bar context menu that appears when Internet Explorer determines that its configuration is not secure.

References:

1. CCE-17297-3

9.6 Set 'Turn off Crash Detection' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting allows you to manage the crash detection feature of add-on management in Internet Explorer. If you enable this policy setting, a crash in Internet Explorer will be similar to one on a computer that runs Windows XP Professional with Service Pack 1 (SP1) or earlier: Windows Error Reporting will be invoked. If you disable this policy setting, the crash detection feature in add-on management will be functional. If you experience frequent repeated crashes and need to report them for follow-up troubleshooting, you could temporarily configure the policy setting to Disabled. The recommended state for this setting is: *Enabled*.

Rationale:

A crash report might contain sensitive information from the computer's memory.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Restrictions\NoCrashDetection
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Turn off Crash Detection
```

Impact:

Information about crashes that are caused by Internet Explorer add-ons will not be reported to Microsoft. If you experience frequent repeated crashes and need to report them to help troubleshoot the problem, the setting should temporarily be changed to Disabled.

References:

1. CCE-16470-7

9.7 Set 'Turn off the Security Settings Check feature' to 'Disabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting turns off the Security Settings Check feature, which checks Internet Explorer security settings to determine when the settings put Internet Explorer at risk. The recommended state for this setting is: Disabled.

Rationale:

If the Security Settings Check feature is disabled then users will not be warned if their security settings are configured in such a way that Internet Explorer is at risk of compromise.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Security\DisableSecuritySettingsCheck
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to Disabled.

```
Computer Configuration\Administrative Templates\Windows Components\Internet Explorer\Turn off the Security Settings Check feature
```

Impact:

If you enable this policy setting, the security settings check will not be performed. If you disable this policy setting, the security settings check will be performed. If you do not configure this policy setting, the user will be able to change the "Disable Security Settings Check" setting.

References:

1. CCE-17255-1

9.8 Set 'Disable the Security page' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting works in conjunction with other settings to ensure that users cannot change the settings that are configured through Group Policy. This policy setting removes the Security tab from the Internet Options dialog box. If you enable this policy setting, users cannot view and change settings for security zones, such as scripting, downloads, and user authentication. The recommended state for this setting is: *Enabled*.

Rationale:

Users could change some of the Internet Explorer security settings, which could enable them to visit a malicious Web site and download or execute hostile code.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Internet Explorer\Control  
Panel\SecurityTab
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
Computer Configuration\Administrative Templates\Windows Components\Internet  
Explorer\Internet Control Panel\Disable the Security page
```

Impact:

Users will be unable to view the Security Page.

References:

1. CCE-16748-6

9.9 Set 'Disable AutoComplete for forms' to 'Enabled' (Scored)

Profile Applicability:

- Level 1

Description:

This policy setting controls automatic completion of fields in forms on Web pages. If you enable this policy setting, the AutoComplete feature will not suggest possible choices for completing a form. This can help protect sensitive data in certain environments. The recommended state for this setting is: *Enabled*.

Rationale:

It is possible that this feature will cache sensitive data and store it in the user's profile where it might not be protected as rigorously as required by organizational policy.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location:

```
HKEY_USERS\<SID>\Software\Policies\Microsoft\Internet Explorer\Main\Use FormSuggest
```

Remediation:

To implement the recommended configuration state, set the following Group Policy setting to *Enabled*.

```
User Configuration\Administrative Templates\Windows Components\Internet Explorer\Disable AutoComplete for forms
```

Impact:

If you enable this policy setting, the AutoComplete feature will not suggest possible choices for completing a form.

References:

1. CCE-16570-4

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Appendix: Change History

Date	Version	Changes for this version
06-25-2013	1.0.0	Initial Release

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