

When this document is printed, the document needs to be stamped top and bottom with the appropriate classification.

## VL05 - Checklist Report

Unclassified UNTIL FILLED IN

CIRCLE ONE

**FOR OFFICIAL USE ONLY** (mark each page)

**CONFIDENTIAL and SECRET** (mark each page and each finding)

### Classification is based on classification of system reviewed:

Unclassified System = FOUO Checklist

Confidential System = CONFIDENTIAL Checklist

Secret System = SECRET Checklist

Top Secret System = SECRET Checklist

### Checklist: IIS Installation 6

**Vulnerability Key:** V0013698

**STIG ID:** WA000-WI035

**Release Number:** 4

**Status:** Active

**Short Name:** WA000-WI035

**Long Name:** The IISADMPWD directory has not been removed from the Web server.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** The IISADMPWD directory is included by default with IIS. It allows users to reset Windows passwords. The use of userid and passwords is a far less secure solution for controlling user

access to web applications than a PKI solution with subscriber certificates. The capability to be able to change passwords externally gives potential intruders an easier mechanism to access the system in an effort to compromise userids and passwords.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI035 (Manual)

Using Explorer, Navigate to the %systemroot%\system32\inet\_srv directory on the web server.

If the IISADMPWD directory does not exist, this is NOT a finding and you can stop the check procedure here.

NOTE: There have been numerous reports of sites not being able to delete this directory without Windows File Protection automatically restoring it. The work around for this will be to ensure the virtual directory is removed from all web sites associated with the server and to restrict access for this directory and files to the system and administrators.

If the IISADMPWD directory exists on the server, review the permissions on this directory and files within the directory. The permissions should be as follows:

Administrators - Full Control

System - Full Control

If any other user or group has permissions to this directory, this is a finding.

If the permissions are set correctly, please use the IIS Services Manager and review the web sites to see if there is a virtual directory associated with any of the sites pointing to the IISADMPWD directory.

A virtual directory will be a child directory to a web site. If any of these directories point to the IISADMPWD directory, this is a finding, even if the permissions are set correctly.

NOTE: There is a possibility that the automated check will result in a false positive condition. This could occur if you have renamed the Administrators account. If the account that is causing the finding has access to this directory is in the Administrators group, this would not be a finding.

-----

---

**Vulnerability Key:** V0006754

**STIG ID:** WA000-WI080

**Release Number:** 3

**Status:** Active

**Short Name:** WA000-WI080

**Long Name:** The IIS Internet Printing Protocol is not disabled.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 29 Jun 2005

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable	Comments:
--	-----------

☐ Not Reviewed

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** Cited by SANS as one of the five most widely exploited holes in unpatched versions of IIS in 2001, Windows 2000 and 2003 include support for the Internet Printing Protocol (IPP) via an ISAPI extension on IIS 5.x. This extension is installed by default on all Windows 2000 and 2003 systems with IIS. CERT published an advisory (also referenced by Mitre's CVE system) in May 2001 indicating that through a buffer overflow in the ISAPI extension, remote users could execute arbitrary code in the local system context (essentially the equivalent of administrator), giving the user complete control of the system. Adding the following key to the registry can disable IPP: HKEY\_LOCAL\_MACHINE\SOFTWARE\Policies\Microsoft\Windows NT\Printers\DisableWebPrinting The type of the key is REG\_DWORD, and the value should be set to 1. Administrators should note that this effort could be accomplished with a security template as described above.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1  
Guide to the Secure Configuration and Administration of Microsoft Internet Information

**Checks:** WA000-WI080 IIS5 (Manual)

Using the registry editor, verify the settings for the IIS printing protocol:

Start>>Run>>Regedt32>>navigate to  
\\Hkey\_Local\_Machine\Software\Policies\Microsoft\Windows NT\Printers

Look for the following value:

DisableWebPrinting REG\_DWORD 1

The key needs to be set to a value of 1 and the type needs to be a REG-DWORD. If the registry does not exist, the value defaults to nothing, which would also be a finding.

If Internet based printing is not disabled, this is a finding.

-----

WA000-WI080 IIS6 (Manual)

For IIS6, this can be controlled via the IIS Manager. To review the settings, open IIS Manager, and expand the server you are reviewing. From there, select the "Web Service Extensions", the Internet Printing extension should be displayed in the right pane.

If the Internet Printing is set to "Allowed" this is a finding. The value of "Prohibited" is the desired value for this setting.

If the Internet Printing service extension does not exist in the Web Service Extension pane, you can check the following:

Using the registry editor:

Start>>Run>>Regedt32>>navigate to  
\\Hkey\_Local\_Machine\\Software\\Policies\\Microsoft\\Windows NT\\Printers

Look for the following value:

DisableWebPrinting REG\_DWORD 1

The key needs to be set to a value of 1 and the type needs to be a REG-DWORD. If the registry does not exist, the value defaults to nothing, which would also be a finding.

If both the registry key and web service extension are present, use the web service extension value to determine if this is a finding.

If Internet based printing is not disabled, this is a finding.

-----

---

**Vulnerability Key:** V0013700

**STIG ID:** WA000-WI100

**Release Number:** 3

**Status:** Active

**Short Name:** WA000-WI100

**Long Name:** The File System Object component, is not required and is not disabled.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** Some COM components are not required for most applications and should be removed if possible. Most notably, consider disabling the File System Object component; however, this will also remove the Dictionary object. Be aware that some programs may require components you are disabling, so it is highly recommended that this be tested completely before implementing on your production Web servers.

**Documentable:** No

**Documentable  
Explanation:**

**Potential Impacts:** Commerce Server does require this object to be registered.

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI100 (Manual)

Query the SA or Web Manager to determine if the File System Object is required. If it is, the IAO will need to document this requirement.

Check for the existence of the following registry keys. If either of the following keys exist, the FileSystemObject is enabled.

HKEY\_CLASSES\_ROOT\CLSID\{0D43FE01-F093-11CF-8940-00A0C9054228}

HKEY\_CLASSES\_ROOT\Scripting.FileSystemObject

If the File System Object is registered and is not required for operations, this is a finding.

NOTE: This vulnerability can be documented locally by the IAM/IAO if the site is running an application that requires this registration of this object if the site has operational reasons for the use of this object and if the IAM/IAO has approved this change in writing, this should be marked as Not a Finding.

-----

---

**Vulnerability Key:** V0013701

**STIG ID:** WA000-WI110

**Release Number:** 3

**Status:** Active

**Short Name:** WA000-WI110

**Long Name:** The command shell options are not disabled.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** The command shell can be used to call arbitrary commands at the Web server from within an HTML page.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI110 (Manual)

Ensure the shell command is disabled. Check the following registry key:

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\W3SVC\Parameters

For the following value:

SSIEnableCmdDirective REG\_DWORD 0

If the value is not a REG\_DWORD= 0, this is a finding.

If the registry key does not exist for IIS 5 or IIS 6, this would not be a finding as it defaults to disabled. Previous versions of IIS should be marked as a finding if the key does not exist.

-----

---

**Vulnerability Key:** V0013714

**STIG ID:** WA000-WI6080

**Release Number:** 2

**Status:** Active

**Short Name:** WA000-WI6080

**Long Name:** The AllowRestrictedChars registry entry is not defined.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:**

In Microsoft Windows Server 2003, Http.sys is the kernel mode driver that handles HTTP requests. Several registry values can be configured according to specific requirements. The default value for this key is 0. This is also the recommended value as it facilitates the task of

input validation at the server-level. If nonzero, Http.sys accepts hex-escaped chars in request URLs that decode to U+0000 – U+001F and U+007F – U+009F ranges. The allows potentially malicious characters to be hex-encoded by the attacker in an attempt to bypass input validation routines.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6080 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

AllowRestrictedChars REG-DWORD 0

If the registry value is not set to 0, this is a finding.

If the registry value is missing, this is not a finding.

-----

---

**Vulnerability Key:** V0013715

**STIG ID:** WA000-WI6082

**Release Number:** 3

**Status:** Active

**Short Name:** WA000-WI6082

**Long Name:** The EnableNonUTF8 registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:**

UTF8 lets you represent characters of many languages in an encoded form. A period and a space are ASCII characters, but UTF8 also can represent non-ASCII characters. Hackers can

use this capability to submit content in a URL that can execute in the CPU by means of a buffer overflow. The IIS 6.0 registry entry EnableNonUTF8 permits or denies UTF8.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6082 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

EnableNonUTF8 REG\_DWORD 0

If the registry key is not set to 0 or does not exist, this is a finding.

-----

---

**Vulnerability Key:** V0013716

**STIG ID:** WA000-WI6084

**Release Number:** 3

**Status:** Active

**Short Name:** WA000-WI6084

**Long Name:** The FavorUTF8 registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:**

If non-zero, Http.sys always tries to decode a URL as UTF-8 first; if that conversion fails and EnableNonUTF8 is non-zero, Http.sys then tries to decode it as ANSI or DBCS. If zero (and EnableNonUTF8 is non-zero), Http.sys tries to decode it as ANSI or DBCS; if that is not successful,



it tries a UTF-8 conversion. Overlong forms have been used to bypass security validations in high profile products including Microsoft's IIS web server. Therefore, great care must be taken to avoid security issues if validation is performed before conversion from UTF-8, and it is generally much simpler to handle overlong forms before any input validation is done. To maintain security in the case of invalid input, there are two options. The first is to decode the UTF-8 before doing any input validation checks. The second is to use a decoder that, in the event of invalid input, returns either an error or text that the application considers to be harmless. Another possibility is to avoid conversion out of UTF-8 altogether but this relies on any other software that the data is passed to safely handling the invalid data.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6084 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

FavorUTF8 REG\_DWORD 1

If the registry value is not set to 1, this is a finding.

NOTE: If check WA000-WI6082 is set correctly to "0", this registry key is optional and would not be finding if it is not present.

-----

---

**Vulnerability Key:** V0013717

**STIG ID:** WA000-WI6086

**Release Number:** 5

**Status:** Active

**Short Name:** WA000-WI6086

**Long Name:** The MaxFieldLength registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** By default, the MaxFieldLength registry entry is not present. This registry entry specifies the maximum size of any individual HTTP client request. Typically, this registry entry is configured together with the MaxRequestBytes registry entry. Setting this value to high, when the application does not require it to operate, may cause performance problems as well as denial of service issues for the web server.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:** In large environments, Outlook Web Access users may experience logon failures if the values for both these entries are not set to 32768. To enable users who are members of many Windows user groups to log on to Outlook Web Access, the MaxRequestBytes value must be configured to a larger value.

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6086 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

MaxFieldLength REG\_DWORD 16384 (or less)(decimal)

If the registry value is not set to 16384 or less, this is a finding.

If the registry value is missing, this is not a finding.

NOTE: This vulnerability can be documented locally by the IAM/IAO if the site has operational reasons for an increased value. If the IAM/IAO has approved this change in writing, this should be marked as Not a Finding.

-----

---

**Vulnerability Key:** V0013718

**STIG ID:** WA000-WI6088

**Release Number:** 3

**Status:** Active

**Short Name:** WA000-WI6088

**Long Name:** The MaxRequestBytes registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:**

IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** The MaxRequestBytes registry entry determines the upper limit for the total size of the Request line and the headers. Its default setting is 16KB. If this value is lower than MaxFieldLength, the MaxFieldLength value is adjusted. If these values are set too high, performance or denial of service conditions may appear.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:** In large environments, Outlook Web Access users may experience logon failures if the values for both these entries are not set to 32768. To enable users who are members of many Windows user groups to log on to Outlook Web Access, the MaxRequestBytes value must be configured to a larger value.

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6088 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

MaxRequestBytes REG\_DWORD 16384 (or less)(decimal)

If the registry key is not set to 16384 or less, this is a finding.

If the registry value is missing, this is not a finding.

NOTE: This vulnerability can be documented locally by the IAM/IAO if the site has operational reasons for an increased value. If the IAM/IAO has approved this change in writing, this should be marked as Not a Finding.

-----

---

**Vulnerability Key:** V0013719

**STIG ID:** WA000-WI6090

**Release Number:** 2

**Status:** Active

**Short Name:** WA000-WI6090

**Long Name:** The UrlSegmentMaxLength registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable	Comments:
--	-----------

☐ Not Reviewed

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** On IIS 6.0 the HTTP.SYS component of the service is used to set size limits on URL requests. UrlSegmentMaxLength sets the maximum number of characters in a URL path segment (the area between the slashes in the URL). Setting this value too large may cause performance or a denial of service condition on the web server.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6090 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

UrlSegmentMaxLength REG\_DWORD 260 (or less)(decimal)

If the registry value is not set to 260 or less, this is a finding.

If the registry value is missing, this is not a finding.

-----

**Vulnerability Key:** V0013720

**STIG ID:** WA000-WI6092

**Release Number:** 2

**Status:** Active

**Short Name:** WA000-WI6092

**Long Name:** The PercentUAllowed registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

☐ Open

☐ Not a Finding

☐ Not Applicable

Comments:

☐ Not Reviewed

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability** If PercentUAllowed is non-zero, Http.sys accepts the %uNNNN notation in request URLs.

**Discussion:** Allowing this type of notation, opens the web server to encoding attacks.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6092 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

PercentUAllowed REG\_DWORD 0 (boolean)

If the registry value is not set to 0 or is missing, this is a finding.

-----

**Vulnerability Key:** V0013721

**STIG ID:** WA000-WI6094

**Release Number:** 2

**Status:** Active

**Short Name:** WA000-WI6094

**Long Name:** The UriMaxUriBytes registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

☐ Open

☐ Not a Finding

☐ Not Applicable

☐ Not Reviewed

Comments:

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** On IIS 6.0 the HTTP.SYS component of the service is used to set size limits on what is cached in the kernel response cache. Setting this value to large may cause performance or denial of service conditons on the web server.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6094 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

UriMaxUriBytes REG\_DWORD 262144 (or less)(decimal)

If the registry value is not set to 262144 or less, this is a finding.

If the registry value is missing, this is not a finding.

-----

---

**Vulnerability Key:** V0013722

**STIG ID:** WA000-WI6096

**Release Number:** 2

**Status:** Active

**Short Name:** WA000-WI6096

**Long Name:** The UrlSegmentMaxCount registry entry is not set properly.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 2.2 Least Privilege

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality**

	I - Mission Critical	II - Mission Support	III - Administrative

**Grid:**

<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:**

Category II

**Vulnerability Discussion:**

The UrlSegmentMaxCount value determines the maximum number of URL path segments accepted by the server. It effectively limits the number of slashes that can be included by the user in a request URL. It is recommended that one set fairly stringent limits on this value based on the depth of the web document root tree to protect the server from a file system traversal attack. The default value for this key is 255.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1

**Checks:** WA000-WI6096 (Manual)

To verify this setting, use the registry editor and navigate to the following location in the registry:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters

UrlSegmentMaxCount REG\_DWORD 255 (or less)(decimal)

If the registry value is not set to 255 or less, this is a finding.

If the registry value is missing, this is not a finding.

-----

**Vulnerability Key:** V0002224

**STIG ID:** WA050

**Release Number:** 3

**Status:** Active

**Short Name:** WA050

**Long Name:** Trained staff are not available to respond to web server or web content problems.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 6.4 Training & Certification

**Effective Date:** 12 Nov 1999

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

<b>MAC / Confidentiality</b>		<b>I - Mission Critical</b>	<b>II - Mission Support</b>	<b>III - Administrative</b>
<b>Classified</b>				

**Grid:**

	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category III

**Vulnerability Discussion:** As web sites are available to the user 24 hours per day, 7 days a week, the potential for problems relating to the web server operations to arise at anytime is significant. Operating staff may discover a problem with the organizations web server operation or the web content. Points of Contact (staff) with the appropriate access and training must be available to respond to immediate operational needs to correct the problem.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.1  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WA050 (Manual)  
This check verifies, by discussion with the site staff, that an appropriately trained staff is available to answer questions and take corrective action.

- Site should have an SOP on how this is handled. Staff should be questioned on their knowledge of this aspect of the SOP.
- The staff should be trained to carry out their duties.
- Depending on the sensitivity of the data on the web server and the operational needs of the site, the site may have staff on-hand or on-call.

Reviewer should ensure that local procedures exist and are understood.

Proposed Questions:

Is the SA trained or certified for the operating system being used?  
Is the SA or Web Manager trained or certified for the web software being used?  
Is needed training scheduled? (This can be a comment, which mitigates the situation.)

If staff is not trained or they are not available when needed, this is a finding.

---

**Vulnerability Key:** V0002242

**STIG ID:** WA060

**Release Number:** 4

**Status:** Active

**Short Name:** WA060

**Long Name:** A public web server is not isolated in accordance with the DOD Network STIG and DOD Enclave STIG.

**IA Controls:** EBPW-1 Public WAN Connection

**Categories:** 14.5 Physical Layer Security

**Effective Date:** 10 May 2001

<input type="checkbox"/> Open	Comments:
-------------------------------	-----------



<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sensitive</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** To minimize exposure of private assets to unnecessary risk by attackers, Public web servers must be isolated from internal systems. Public web server also refers to web servers that may be located on non-public networks and that contain information that is approved for release to the entire community. Public web servers must not have trusted connections with assets outside the confines of the demilitarized zone (DMZ) or isolated separate public enclave (subnet). This trusted connection is not to be confused with a Microsoft Domain trust. A trusted connection can be an attachment to Microsoft shares, in UNIX as Network File System (NFS) mounts, as well as connections to interior enclave printers. This relationship can also be found with connections from public web servers to interior enclave databases.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer

**References:** ENCLAVE SECURITY TECHNICAL IMPLEMENTATION GUIDE  
WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.4  
Network Infrastructure Security Implementation Guide

**Checks:** WA060 (Manual)

The reviewer should question the IAO/SA/Webmaster to see where the public web server is logically located on the site's LAN. The reviewer should review the site's Network diagram, available from the NSO, to see how the web server is connected to the LAN. Based on these discussions and the LAN diagram, the reviewer should visually check the web server hardware connections to see if it is in conformance with the site's Network diagram. A public web server must be located in a DMZ. This is normally a subnet isolated from Internal LANs. An improperly located public web server is a potential threat to the entire network.

NOTE: If there is a Network Reviewer available, they should be able to provide much of the information needed to validate this check.

Proposed Questions:

What devices, i.e. router, switch, firewall, lie between the web server and Internet connectivity?  
Is the web server on a separate subnet?  
Is the web server on a LAN with servers and workstations dedicated to functions not intended for public access?

If the web server is not isolated in accordance with the DoD Enclave and Network Infrastructure STIGs, this is a finding.

**Vulnerability Key:** V0002243

**STIG ID:** WA070

**Release Number:** 3

**Status:** Active

**Short Name:** WA070

**Long Name:** A private web server is not located on a separate controlled access subnet.

**IA Controls:** EBPW-1 Public WAN Connection

**Categories:** 14.5 Physical Layer Security

**Effective Date:** 10 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

MAC / Confidentiality Grid:	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** Private web servers, which host sites that serve controlled access data, must also be protected from outside threats in addition to insider threats. Insider threat may be accidental or intentional, but in either case, can cause a disruption in service of your web server. To protect the private web server from these threats, it must be located on a separate controlled access subnet and not part of the public DMZ that houses the public web servers. It also cannot be located inside the enclave as part of the local general population LAN.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer

**References:** ENCLAVE SECURITY TECHNICAL IMPLEMENTATION GUIDE  
NETWORK INFRASTRUCTURE SECURITY TECHNICAL IMPLEMENTATION GUIDE  
WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.4

**Checks:** WA070 (Manual)

This check verifies, through a discussion with the IAO/SA/Web Manager, a check of the sites network diagram, and visual check of the web server, that the private web server is located on a separate controlled access subnet and not part of the public DMZ that houses the public web servers. In addition, the private web server needs to be isolated via a controlled access mechanism from the local general population LAN.

NOTE: If there is a Network Reviewer available, they should be able to provide much of the information needed to validate this check.

Proposed Questions:

What devices, i.e. router, switch, firewall, lie between the web server and Internet connectivity?  
Is the web server on a separate subnet?

Is the web server on a LAN with servers and workstations dedicated to functions not intended for public access?

If the web server is not located inside the premise router, switch or firewall, and is isolated via a controlled access mechanism from the general population LAN, this is a finding.

**Vulnerability Key:** V0002253

**STIG ID:** WA110

**Release Number:** 4

**Status:** Active

**Short Name:** WA110

**Long Name:** Web server access logs are not archived in accordance with the DOD Instruction 8500.2.

**IA Controls:** ECRR-1 Audit Record Retention

**Categories:** 10.5 Retention

**Effective Date:** 11 May 2001

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category III

**Vulnerability Discussion:** Audit trails (logs) are required as a minimum to determine accountability, according to DoD Instruction 8500.2. They also provide the accountability functionality of a C2 level trusted requirement. Auditing (logging) provides an investigative tool to detect misuse of the system and has been used as evidence to convict individuals of computer crime. As stated in the DoD Instruction 8500.2: Enclave and Computing Environment Integrity ECRR-1 Audit Record Retention If the DoD information system contains sources and methods intelligence (SAMI), then audit records are retained for 5 years. Otherwise, audit records are retained for at least 1 year.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** Department of Defense (DOD) Instruction 8500.2, Information Assurance (IA) Implementation  
WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.7.1

**Checks:** WA110 (Manual)

Interview the IAO and Web Manager to determine the retention and storage of the Web Server

access logs.

**Proposed Questions:**

Are you archiving your access / audit logs?  
Where are the logs maintained for one year?  
Who has access to the logs while they are archived?

If the logs are not being archived IAW policy, this is a finding.

---

**Vulnerability Key:** V0002257

**STIG ID:** WA120

**Release Number:** 4

**Status:** Active

**Short Name:** WA120

**Long Name:** The Web Manager or Webmaster has not documented the administrative users and groups that have access rights to the web server.

**IA Controls:** ECPA-1 Privileged Account Control

**Categories:** 1.3 Identity Management

**Effective Date:** 11 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category III

**Vulnerability Discussion:** As noted in section 3.3 of the Web Services STIG, there are typically several individuals and groups which are involved in running a production web site. In most cases we can identify several types of users on a web server. These are the System Administrators (SAs), Web Managers, Auditors, Authors, Developers, and the Clients. Nonetheless, only necessary user and administrative accounts will be allowed on the web server. Accounts will be restricted to those that are necessary to maintain web services, review the server's operation and the operating system. Owing to the sensitivity of web servers, a detailed record of these accounts must be maintained.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Information Assurance Manager

**References:** Web Administrator  
WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.10

**Checks:** WA120 - Windows (Manual)

Proposed Questions:

How many user accounts are associated with the Web site operation and maintenance?

Where are these accounts documented?

Using User Manager, User Manager for Domains, or Local Users and Groups examine user accounts to verify the above information.

Query the SA or Web Manager regarding the use of each account and each group.

---

**Vulnerability Key:** V0006485

**STIG ID:** WA140

**Release Number:** 1

**Status:** Active

**Short Name:** WA140

**Long Name:** Web server content and configuration files are not part of a routine backup program in order to recover from file damage and system failure.

**IA Controls:** CODB-1 Data Back-up Procedures  
CODB-2 Data Back-up Procedures  
CODB-3 Data Back-up Procedures

**Categories:** 13.4 Backup & Recovery

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category III

**Vulnerability Discussion:**

Backing up web server data and web server application software after upgrades or maintenance ensures that recovery can be accomplished up to the current version. It also provides a means to determine and recover from subsequent unauthorized changes to the software and data. A tested and verifiable backup strategy will be implemented for web server software as well as all web server data files. Backup and recovery procedures will be documented and the Web Manager or SA for the specific application will be responsible for the design, test, and implementation of the procedures. The site will have a contingency processing plan/disaster recovery plan that includes web servers. The contingency plan will be periodically tested in accordance with DoDI 8500.2 requirements. The site will identify an off-site storage facility in accordance with DoDI 8500.2 requirements. Off-site backups will be updated on a regular basis and the frequency will be documented in the

contingency plan.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.7  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WA140 (Manual)  
The reviewer should query the Information Assurance Officer (IAO) SA, Web Manager, Webmaster or developers as necessary to determine whether or not a tested and verifiable backup strategy has been implemented for web server software as well as all web server data files.

Proposed Questions:

Who maintains the backup and recovery procedures?  
Do you have a copy of the backup and recovery procedures?  
Where is the off-site backup location?  
When was the last time the contingency plan was tested? and is that documented?

If there is not a backup and recovery process for the web server, this is a finding.

NOTE: Backup media containing sensitive data needs to be compliant with DOD Memorandum: "Encryption of Sensitive Unclassified Data at Rest on Mobile Computing Devices and Removable Storage Media", dated 3 Jul 2007.

---

**Vulnerability Key:** V0013591

**STIG ID:** WA155

**Release Number:** 1

**Status:** Active

**Short Name:** WA155

**Long Name:** Classified web servers are not afforded physical security commensurate with the classification of its content.

**IA Controls:** PECF-2 Access to Computing Facilities

**Categories:** 5.9 Device Locations

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

MAC / Confidentiality	I - Mission Critical	II - Mission Support	III - Administrative

<b>Grid:</b>	<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<b>Sensitive</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Public</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** When data of a classified nature is migrated to a web server, fundamental principles applicable to the safe guarding of classified material must be followed. A classified web server needs to be afforded physical security commensurate with the classification of its content to ensure the protection of the data it houses.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.9

**Checks:** WA155 (Manual)  
The reviewer should query the Information Assurance Officer (IAO) SA, Web Manager, Webmaster or developers as necessary to determine if a classified web server is afforded physical security commensurate with the classification of its content (i.e., is located in a vault or room approved for classified storage at the highest classification processed on that system).

Proposed Questions:

Ask what the classification of the Web Server is. Based on the classification, evaluate the location of the web server to determine if it is approved for storage of that classification level.

If there is a traditional reviewer available, you can work with them to address specific conditions or questions.

If the web server is not appropriately physically protected based on its classification, this is a finding.

---

**Vulnerability Key:** V0013592

**STIG ID:** WA160

**Release Number:** 3

**Status:** Active

**Short Name:** WA160

**Long Name:** The server host platform operating system is not utilizing guidance from the appropriate STIGs as well as the Enclave STIG as a method for maintaining a secure configuration.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 12.9 Documentation

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** Specific policies and requirements that must be followed when implementing a web server. A good plan will address items such as proper hardware selection, software configuration on the server, components to be installed, and security controls to be used. Failure to follow published security guidance will increase the exposure of the host to attack and as a result increase the risk to the applications it is supporting.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3

**Checks:** WA160 (Manual)

The reviewer should query the Information Assurance Officer (IAO) SA, Web Manager, Webmaster or developers as necessary to determine if the appropriate OS, Technology Specific, and Enclave STIG is being used as a guideline for the secure configuration of the server host platform.

Proposed Questions:

What STIGs are you using to ensure the security of your server?  
How do you keep up to date with changes in the STIGs or Checklists?  
Ask them to provide evidence to indicate that they are performing self-assessments of the host operating system. This can be via VMS reporting, documented procedures in the SOP, or existence of reports that show the state of vulnerabilities on the system.

If they cannot demonstrate that they are utilizing published security configuration guidance, this is a finding.

---

**Vulnerability Key:** V0006487

**STIG ID:** WA170

**Release Number:** 6

**Status:** Active

**Short Name:** WA170

**Long Name:** Web server incident response procedures do not exist.

**IA Controls:** VIIR-1 Incident Response Planning  
VIIR-2 Incident Response Planning

**Categories:** 10.3 Review  
13.3 Coop Plans

**Effective Date:** 29 Jun 2005

<input type="checkbox"/> Open	Comments:
-------------------------------	-----------



- ☐ Not a Finding
- ☐ Not Applicable
- ☐ Not Reviewed

**Condition:** IIS Installation 6 (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** In the event that an unexpected occurrence disrupts the web server's function, a mechanism will be in place to guide the SA or Web Manager through the process of determining the cause and effect of such an event. This will involve the use of forensic techniques such as log file research as well as file and directory modification analysis.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.4

**Checks:** WA170 (Manual)

Query the IAO to determine if a plan or procedures exist to guide the SA or Web Manager through the process of unanticipated event analysis.

In the event that an unexpected occurrence disrupts the web server's function, a mechanism will be in place to guide the SA or Web Manager through the process of determining the cause and effect of such an event. This will involve the use of forensic techniques such as log file research as well as file and directory modification analysis.

If the site does not have procedures or if the SAs are not aware of the procedures, this is a finding.

**Vulnerability Key:** V0013608

**STIG ID:** WA200

**Release Number:** 1

**Status:** Active

**Short Name:** WA200

**Long Name:** The site does not have a formal migration plan for removing or upgrading the web server software prior to the date the vendor drops security patch support.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 3.1 Security Patches

**Effective Date:** 27 Apr 2007

- ☐ Open
- ☐ Not a Finding

Comments:

<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** The use of unsupported software presents a significant risk to the computing environment. When software is no longer supported by the vendor, patches are no longer supplied for the particular piece of software which can make you vulnerable to attack. Also, unsupported software is normally not included on various vulnerability notices, such as IAVMs and CVEs due to the fact that the vendors are not providing this information since the software is not supported. To prevent the use of unsupported software, the site should have, as part of their configuration management process, a detail plan for staying up to date with current software versions.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:**

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3

**Checks:** WA200 (Manual)

Query the IAO to determine if the site has a detail process as part of their configuration management plan to prevent the use of unsupported software.

If the site cannot provide a copy of the migration plan to stay up to date with software versions, this is a finding.

**Vulnerability Key:** V0013613

**STIG ID:** WA230

**Release Number:** 3

**Status:** Active

**Short Name:** WA230

**Long Name:** The site software used with the web server does not have all applicable security patches applied and documented.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 3.1 Security Patches

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** The IAVM process does not address all patches that have been identified for the host operating system, or in this case, the web server software environment. Many vendors have subscription services available to notify users of known security threats. The site needs to be aware of these fixes and make determinations based on local policy and what software features are installed, if these patches need to be applied. In some cases, patches also apply to middleware and database systems. Maintaining the security of web servers requires frequent reviews of security notices. Many security notices mandate the installation of a software patch to overcome security vulnerabilities. SAs and IAOs should regularly check the OS and application software vendor web sites for information on new security patches that are applicable to their site. All applicable security patches will be applied to the operating system and web server software. Security patches are deemed applicable if the product is installed, even if it is not used or is disabled.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** Information Assurance Officer

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3

**Checks:** WA230 - Generic (Manual)

Query the Web Manager to determine if the site has a detailed process as part of their configuration management plan to stay compliant with all security related patches.

Proposed Questions:

How does the SA stay current with vendor patches?

How is the SA notified when a new security patch is issued by the vendor? (Not IAVM)

What is the process followed for applying patches to the web server?

If the site is not in compliance with all applicable security patches, this is a finding.

---

**Vulnerability Key:** V0002234

**STIG ID:** WG040

**Release Number:** 5

**Status:** Active

**Short Name:** WG040

**Long Name:** A Public Web server has a working connection with a Private asset.

**IA Controls:** EBPW-1 Public WAN Connection

**Categories:** 14.5 Physical Layer Security

**Effective Date:** 08 May 2001

<input type="checkbox"/> Open	Comments:
-------------------------------	-----------

<input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	
--	--

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sensitive</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** This check verifies through checks of the OS and the web server configuration, that the public web server does not have a working connection with a site asset that is not also a public asset. For example, it has been proven that printer rights can be a serious vulnerability to a web server. There are three likely possibilities where a trusted relationship may be established: printers, directory server or file server. This check does not imply a "Trust" as defined by a Microsoft Domain controller. One way trusts between a database or backup server and the web server are not prohibited by this requirement.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.4  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG040 - Windows (Manual)

The reviewer should query the Information Assurance Officer (IAO) SA, Web Manager, Webmaster or developers as necessary to determine if the public web server has a trusted relationship with any systems resource, which is not also accessible to the public.

NOTE: One way trusts between a database or backup server and the web server are not prohibited by this requirement. This check does not imply a "Trust" as defined by a Microsoft Domain Controller.

Navigate to the web server content folders/directories. These directories must not be shared. Right click for Properties of the web server content folder; Select Sharing; all entries must be disabled. If Sharing is selected for any web folder, this is a finding.

Alternative method: from a command prompt type net share and enter. This will provide the available shares.

Also, Check to see if file and printer or file sharing is enabled under the Network icon in the Control Panel. If it is, and a drive, partition, printer or fax device is a shared resource, this is a finding.

Proposed Questions:

Is the public web server a part of the local LAN?  
Does the public web server have shares with the local LAN?

If the web server has a trusted relationship with any systems resource, which is not also

accessible to the public, then this is a finding.

**Vulnerability Key:** V0002232

**STIG ID:** WG050

**Release Number:** 4

**Status:** Active

**Short Name:** WG050

**Long Name:** The web server password is not entrusted to the SA or Web Manager.

**IA Controls:** IAAC-1 Account Control

**Categories:** 1.1 Passwords  
1.6 Documentation and Storage

**Effective Date:** 19 Apr 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** Web Server (Target: IIS Installation 6)

**Policy:** All Policies

MAC / Confidentiality Grid:	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** Normally, a service account is established for the web server. This is because a privileged account is not desirable and the server is designed to run for long uninterrupted periods of time. The SA or Web Manager will need password access to the web server to restart the service in the event of an emergency as the web server is not to restart automatically after an unscheduled interruption. Where possible, the account used to run the web server should be a non-privileged account.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.6  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG050 (Manual)

The reviewer should make a note the name of the account being used for the web service. This information may be needed later in the SRR. There may also be other server services running related to the web server in support of a particular web application. Such services should run as service accounts with a password that is changed annually as well.

Query the SA or Web Manager to determine if they have the web server password(s).

If the web services password(s) are not entrusted to the SA or Web Manger, this is a finding.

NOTE: For IIS installation or other Web Servers that use the LocalSystem account, the password is OS generated, so the SA or Web Manager having an Admin account on the system would meet the intent of this check.

**Vulnerability Key:** V0002235

**STIG ID:** WG060

**Release Number:** 3

**Status:** Active

**Short Name:** WG060

**Long Name:** The web server application or system password is not changed at least annually.

**IA Controls:** IAIA-1 Individual Identification and Authentication  
IAIA-2 Individual Identification and Authentication

**Categories:** 1.1 Passwords

**Effective Date:** 08 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** Normally, a service account is established for the web service to run under rather than permitting it to run as system or root. The password on such accounts must be changed at least annually. It is a fundamental tenet of security that passwords are not to be null and not to be set to never expire. Finally, given the nature and proliferation of password cracking tools, the potential for a malicious party to gain access to an atrophied web services account is significant.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** Chairman of the Joint Chiefs of Staff Manual (CJCSM) 6510.01, "Defense-in-Depth: Information Assuran  
ENCLAVE SECURITY TECHNICAL IMPLEMENTATION GUIDE  
WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 2.6

**Checks:** WG060 (Manual)

This is a query to the IAO and confirmed with the SA and Web Manager or individual in an equivalent role.

**Proposed Questions:**

What is your policy for service account passwords?  
What types of services does this policy apply to?  
How often are the service account passwords changed?

If the web services password is not changed at least annually, this is a finding.

NOTE: For IIS or other web server installations that are running as localsystem, the password is changed automatically by the OS every 7 days, so this should be marked as N/A.

**Vulnerability Key:** V0002236

**STIG ID:** WG080

**Release Number:** 7

**Status:** Active

**Short Name:** WG080

**Long Name:** A compiler will not be installed on a production web server.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 12.4 CM Process

**Effective Date:** 08 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** The presence of a compiler on a production server facilitates the malicious user's task of creating custom versions of programs and installing Trojan Horses or viruses. For example, the attacker's code can be uploaded and compiled on the server under attack. Of particular concern are C compilers.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.3  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG080 - Windows (Manual)

Using Windows Explorer, search the system for the existence of known compilers such as msc.exe, msvc.exe, Python.exe, javac.exe, Lcc-win32.exe or equivalent. Look in: all hard drives

Also, query the SA and Web Manager to determine if a compiler is present on the server.

NOTE: This check does not prohibit the use of the .Net Framework. This does not prohibit the use of the java compiler for Oracle.

NOTE: ColdFusion would not be considered a compiler as long as the site is not using the tools for development work.

Any compilers required to be present on the systems need to be restricted to Administrative users only.

---

**Vulnerability Key:** V0002251  
**STIG ID:** WG130  
**Release Number:** 4  
**Status:** Active  
**Short Name:** WG130  
**Long Name:** All utility programs, not necessary for operations, are not removed or disabled.  
**IA Controls:** ECSC-1 Security Configuration Compliance  
**Categories:** 12.4 CM Process  
**Effective Date:** 11 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

MAC / Confidentiality Grid:	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category III

**Vulnerability Discussion:** Just as running unneeded services and protocols is a danger to the web server at the lower levels of the OSI model, running unneeded utilities and programs is a danger at the application layer of the OSI model. Office suites, development tools and graphical editors are examples of such programs that are troublesome in two ways. These individual productivity tools have no legitimate place or use on an enterprise, production web server. Such tools are also prone to their own security risks and their existence on a web server adds to the inherent risk of running a web server. Such tools require patch maintenance via a separate track from the web server software and maintaining their patches and hotfixes can expose the web server to additional risks by altering configurations and introducing additional unwanted features and services.

**Documentable:** No

**Documentable Explanation:**



**Potential**

**Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.3  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG130 - WIndows (Manual)

The reviewer should query the Information Assurance Officer (IAO) SA, Web Manager, Webmaster or developers as necessary to determine if the web server is configured with unnecessary software.

The Web Server SA should be questioned to determine if processes other than those that support the web server are loaded and/or run on the web server.

Examples of software that should not be on the web server are all web development tools, office suites, (unless the web server is a private web development server) and compilers, utilities that are not part of the web server suite or the basic operating system.

Check the directory structure of the server and ensure that additional, unintended or unneeded applications are not loaded on the system.

Start >> Programs >> check for programs services such as:

Front Page (as evident by directories which begin \_vti )  
MS Access  
MS Excel  
MS Money  
MS Word  
Third party text editors  
Graphics editors

If, after review of the application on the system, the SA cannot provide justification for the requirement of the identified software, this is a finding.

NOTE: If the site requires the use of a particular piece of software, the IAO will need maintain documentation identifying this software as necessary for operations and that the software will be maintained to meet any and all released security patches. In addition, if the software is unsupported, it is not acceptable for use. If this is the case, this should be marked as Not a Finding.

---

**Vulnerability Key:** V0013617

**STIG ID:** WG135

**Release Number:** 1

**Status:** Active

**Short Name:** WG135

**Long Name:** Unnecessary services are not disabled on the web server.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 12.4 CM Process

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding Not Applicable	Comments:
---	-----------



☐ Not Reviewed

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** Active services that are not necessary for the operations of the web server will increase the potential attack surface of the web server. These services provide the potential intruder with additional methods of compromising the server and makes the system more vulnerable to attack. Services that are not necessary for the operational mission, will not be active and running on the web server.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.4

**Checks:** WG135 - Windows (Manual)

The reviewer should query the Information Assurance Officer (IAO) SA, Web Manager, Webmaster or developers as necessary to determine if the web server is configured with unnecessary services.

Web Server SA should be questioned to determine if services / processes other than those that support the operation of the web server running. This is not limited to the FTP service, you will need to review the active services on the system and question the SA regarding the operational need for anything that may not appear to be required based on the operation purpose of the server.

Examples would be if an HTTP server is running the FTP service when it is not providing that functionality. In this case the FTP should not be running.

From the Services option in Administrative Tools, review the active services for things such as FT, eMail services, collaboration tools, etc.

"Start > Control Panel > Administrative Tools > Services"

If, after review of the application on the system, the SA cannot provide justification for the requirement of the identified service, this is a finding.

---

**Vulnerability Key:** V0002246

**STIG ID:** WG190

**Release Number:** 5

**Status:** Active

**Short Name:** WG190

**Long Name:** The web server is not using a vendor-supported version of the web server software.  
**IA Controls:** ECSC-1 Security Configuration Compliance  
**Categories:** 12.4 CM Process  
**Effective Date:** 10 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** Many vulnerabilities are associated with old versions of web server software. As hot fixes and patches are issued, these solutions are included in the next version of the server software. Maintaining the web server at a current version makes the efforts of a malicious user to exploit the web service more difficult.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3

**Checks:** WG190 - Windows IIS (Manual)  
Using Explorer, find the inetinfo.exe file or move to the file  
%systemroot%\system32\inetrv\inetinfo.exe  
Right click on inetinfo.exe and select the version tab. Results should be 5.0.xx or 6.0.xx.

If the current version of the web server software is not installed and running this is a finding.

---

**Vulnerability Key:** V0006537

**STIG ID:** WG195

**Release Number:** 3

**Status:** Active

**Short Name:** WG195

**Long Name:** The anonymous access account is a privileged account or a member of a group with privileged access.

**IA Controls:** ECCD-1 Changes to Data  
ECCD-2 Changes to Data

**Categories:** 2.2 Least Privilege

**Effective Date:** 15 Jul 2005

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** Many of the security problems that occur are not the result of a user gaining access to files or data for which the user does not have permissions, but rather users are assigned incorrect permissions to unauthorized data. The files, directories, and data that are stored on the web server need to be evaluated and a determination made concerning authorized access to information and programs on the server. In most cases we can identify several types of users on a web server. These are the system SAs, Web Managers, auditors, authors, developers, and the clients (web users, either anonymous or authenticated). Only authorized user and administrative accounts will be allowed on the host server in order to maintain the web server, applications, and review the server operations.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.1  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)  
Guide to the Secure Configuration and Administration of Microsoft Internet Information

**Checks:** WG195 - IIS (Manual)

The reviewer should review the privileges assigned to the "IUSR\_Account". This can be accomplished by reviewing the groups the account is assigned to.

Start > Control Panel > Administrative Tools > Computer Management  
Select Local Users and Groups > Select Users > Double click the IUSR\_Account > Choose Member of Tab

The "IUSR\_Account" provides anonymous access to users of the web server. This will allow access without authenticating the user who is accessing the web page. The group that it is assigned to must not provide authenticated access to the external users. The use of another group created for anonymous access is the acceptable solution for group assignment.

If the IUSR\_Account is assigned to any group other than a local anonymous group, this is a finding.

NOTE: Any associations with the authenticated users group or everyone group would not make this a finding.

NOTE: The group that is created for the anonymous account needs to be restricted to the web directories, and not have access to the entire system.

**Vulnerability Key:** V0002247

**STIG ID:** WG200

**Release Number:** 6

**Status:** Active

**Short Name:** WG200

**Long Name:** Non-administrators are allowed access to the directory tree, the shell, or other operating system functions and utilities.

**IA Controls:** ECCD-1 Changes to Data  
ECCD-2 Changes to Data

**Categories:** 2.2 Least Privilege

**Effective Date:** 10 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** As a rule, accounts on a web server are to be kept to minimum. Only administrators, web managers, developers, auditors, and web authors require accounts on the machine hosting the web server. This is in addition to the anonymous web user account. The resources to which these accounts have access must also be closely monitored and controlled. Only the SA needs access to all the system's capabilities, while the Web Manager and associated staff require access and control of the web content and web server configuration files. The anonymous web user account must not have access to system resources as that account could then control the server.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 4.10  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG200 - Windows (Manual)

Search all of the systems hard drives for the command.com and cmd.exe files. The allowed permissions on these files are:

System	Full Control
Administrators	Full Control

If any other accounts have any permissions to any command.com or cmd.exe file, this is a Finding.

NOTE: Examine the list of user accounts and determine the group affiliations for the user account in question. Verify with the SA, Web Manager or IAO that the non-administrator accounts are mission essential. If they are mission essential, and this is documented locally, this would not be a finding.

NOTE: CREATOR OWNER would not be a finding if the CREATOR OWNER is an administrative account. If it is not, this is a finding.

To determine account memberships, Right Click on My Computer and select Manage. The Select Local Users and Groups.

**Vulnerability Key:** V0006577

**STIG ID:** WG204

**Release Number:** 3

**Status:** Active

**Short Name:** WG204

**Long Name:** Additional services are not installed on a separate partition.

**IA Controls:** DCPA-1 Partitioning the Application

**Categories:** 2.2 Least Privilege

**Effective Date:** 29 Jun 2005

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** To ensure a secure and functional web server, a detailed installation and configuration plan should be developed and followed. This will eliminate mistakes that arise as a result of ad hoc decisions made during the default installation of a server. Planners should not attempt to support multiple services such as Domain Name Service (DNS), e-mail, databases, search engines, and indexing or streaming media on the same server that is providing the web publishing service. In the case of File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP), and Network News Transport Protocol (NNTP), a well-defined need for these services should be documented by the IAO prior to their installation on the same platform as a web server. Primary and secondary Domain Controllers, in the Windows environment, will not share a common platform with a web server World Wide Web (WWW) service.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.3  
Web Site Administration Policies & Procedures, With Amendments and Corrections  
incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG204 (Manual)

Query the SA to ascertain if and where the additional services are installed.

Confirm that the additional service or application is not installed on the same partition as the operating systems root directory nor the web document root, if it is this is a finding.

---

**Vulnerability Key:** V0002248

**STIG ID:** WG220

**Release Number:** 4

**Status:** Active

**Short Name:** WG220

**Long Name:** Access to the web administration tool is not restricted to the Web Manager and the Web Manager's designees.

**IA Controls:** ECCD-1 Changes to Data  
ECCD-2 Changes to Data

**Categories:** 2.2 Least Privilege

**Effective Date:** 10 May 2001

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** The key web service administrative and configuration tools must only be accessible by the web server staff. As these services control the functioning of the web server, access to these tools is crucial. This would include access to the Web Admin Server in Netscape, the IIS Management Console, the Apache httpd.conf file or in Oracle, sysadmin.cfg.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.5

**Checks:** WG220 - IIS (Manual)

Access to the Microsoft Management Console (MMC), logon locally, must be limited to accounts owned by the SA and Web Manager or Web Manager designees. Check the properties, security tab, permissions button of %systemroot%\system32\inetsrv\inetmgr.exe file for access by users other than system, the administrator or web manager.

The Administrative Tool, Internet Services Manager must be limited to accounts owned by the SA and Web Manager or Web Manager's designees.

If accounts other than the System, SA and Web Manager or Web Manager designees have access to the web administration tool or equivalent, this is a finding.

**Vulnerability Key:** V0002259

**STIG ID:** WG300

**Release Number:** 6

**Status:** Active

**Short Name:** WG300

**Long Name:** Web server system files do not conform to minimum file permission requirements.

**IA Controls:** ECCD-1 Changes to Data  
ECCD-2 Changes to Data

**Categories:** 2.2 Least Privilege

**Effective Date:** 11 May 2001

<input type="checkbox"/> Open	Comments:
<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** This check verifies that the key web server system configuration files are owned by the SA or Web Manager controlled account. These same files which control the configuration of the web server, and thus its behavior, must also be accessible by the account which runs the web service. If these files are altered by a malicious user, the web server would no longer be under the control of its managers and owners; properties in the web server configuration could be altered to compromise the entire server platform.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.10  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in



red italics (latest corrections from 11 January, 2002)

**Checks:**

WG300 - IIS (Manual)

The default server root is %system%\system32\inetrv. The anonymous web user is IUSR\_computername and IWAM\_computername, which are created by default when IIS is installed. This account should be part of a group named Guests or WebUsers (IIS Lockdown creates the Web Applications and Web Anonymous Users Groups) and have read and execute permissions only to web content directories. Other permissions are as follows:

\inetpub

- Administrators (Full Control)
- System (Full Control)
- Authenticated Users (Read)

\inetpub\AdminScripts

- Administrators (Full Control)
- System (Full Control)

\inetpub\ftproot

- Administrators (Full Control)
- System (Full Control)
- Authenticated Users (Read)
- Web Anonymous Users (Deny Write)
- Web Applications (Deny Write)
- IIS\_WPG (Deny Write)

\inetpub\ftproot\ftpfiles

- Administrators (Full Control)
- System (Full Control)
- WebAdmins (Modify)
- Authenticated Users (Read)
- Web Anonymous Users (Read)
- Web Applications (Read)
- IIS\_WPG (Read)
- IIS Permissions: Read and None

FTP Uploads (if required)

\inetpub\ftproot\dropbox

- Administrators (Full Control)
- WebAdmins or FTPAdmins (Read,Write,Delete)
- SpecifiedUsers (Write)
- IIS Permissions: Write and None

\inetpub\mailroot

- Administrators (Full Control)
- System (Full Control)
- Authenticated Users (Read)
- Web Anonymous Users (Deny Write)
- Web Applications (Deny Write)
- IIS\_WPG (Deny Write)

\inetpub\wwwroot

- Administrators (Full Control)
- System (Full Control)
- Authenticated Users (Read)
- Web Anonymous Users (Deny Write)
- Web Applications (Deny Write)
- IIS\_WPG (Deny Write)

\inetpub\wwwroot\docs

- Administrators (Full Control)
- System (Full Control)
- WebAdmins (Modify)
- Authenticated Users (Read)

Web Anonymous Users (Deny Write)  
Web Applications (Deny Write)  
IIS\_WPG (Deny Write)  
IIS Permissions: Read and None

\\inetpub\\wwwroot\\images  
Administrators (Full Control)  
System (Full Control)  
WebAdmins (Modify)  
Authenticated Users (Read)  
Web Anonymous Users (Deny Write)  
Web Applications (Deny Write)  
IIS\_WPG (Deny Write)  
IIS Permissions: Read and None

\\inetpub\\wwwroot\\scripts  
Administrators (Full Control)  
System (Full Control)  
WebAdmins (Modify)  
IIS\_WPG (Traverse Folder/Execute)  
Web Anonymous Users (Traverse Folder/Execute)  
Web Applications (Traverse Folder/Execute)  
IIS Permissions: Script

NOTE: There may additional application specific content directories associated with this web server and they should follow the same guidance as the wwwroot and associated sub-directories for permissions.

\\WINNT\\system32\\inetrv  
Administrators (Full Control)  
System (Full Control)  
Users (Read & Execute)

\\WINNT\\system32\\inetrv\\data  
Administrators (Full Control)  
System (Full Control)  
Users (Read & Execute)

\\WINNT\\system32\\inetrv\\ASP Compiled Templates  
Administrators (Full Control)  
System (Full Control)

\\WINNT\\system32\\inetrv\\History  
Administrators (Full Control)  
System (Full Control)

\\WINNT\\system32\\inetrv\\iisadmin  
Administrators (Full Control)  
System (Full Control)

\\WINNT\\system32\\inetrv\\iisadmpwd  
Administrators (Full Control)  
System (Full Control)

\\WINNT\\system32\\inetrv\\inetmgr.exe  
Administrators (Full Control)  
System (Full Control)  
Web Admins (Read & Execute)  
Web Anonymous Users (Deny ALL)  
Web Applications (Deny ALL)  
IIS\_WPG (Deny ALL)

\\WINNT\\system32\\inetrv\\MetaBack

Administrators (Full Control)  
System (Full Control)

\\WINNT\system32\inetrv\urlscan  
Administrators (Full Control)  
System (Full Control)  
LocalService (Read / Execute)  
NetworkService (Read/Execute)

#### FILE SPECIFIC PERMISSIONS

\\WINNT\system32\inetrv\\*.exe  
\\WINNT\system32\inetrv\\*.bat  
\\WINNT\system32\inetrv\oblt-log.log  
\\WINNT\system32\inetrv\oblt-rep.log  
\\WINNT\system32\inetrv\oblt-undo.log  
\\WINNT\system32\inetrv\oblt-undone.log  
Administrators (Full Control)  
System (Full Control)  
Users (Read & Execute)  
Web Anonymous Users (Deny ALL)  
Web Applications (Deny ALL)  
IIS\_WPG (Deny ALL)

\\WINNT\system32\inetrv\metabase.bin  
\\WINNT\system32\inetrv\metabase.xml  
\\WINNT\system32\inetrv\MBSchema.xml  
\\WINNT\system32\inetrv\ MBSchema.bin.00000000h  
Administrators (Full Control)  
System (Full Control)

If the file permissions do not meet the minimum file permissions listed above, this is a finding.  
More restrictive file permissions would not be a finding.

NOTE: If there is a "Windows\SysWOW64\inetrv" present on the system, this check applies to that directory as well.

NOTE: To check the file permissions, you will need to navigate the directories or files using a tools such as Windows Explorer, right click on the directory or file that you are reviewing, select properties, then the security tab. The permissions will then be displayed for your review.

To check the IIS Permissions, you will need to use the Internet Services Manager, navigate to the web site you are reviewing, select properties, select the Home Directory tab. From here you can review the assigned IIS permissions for this web site.

---

**Vulnerability Key:** V0002261

**STIG ID:** WG330

**Release Number:** 3

**Status:** Active

**Short Name:** WG330

**Long Name:** A public web server does not limit email to outbound only.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 14.4 Unneeded Ports, Protocols, Hardware, and Services

**Effective Date:** 11 May 2001

<input type="checkbox"/> Open	Comments:
-------------------------------	-----------

- ☐ Not a Finding
- ☐ Not Applicable
- ☐ Not Reviewed

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

MAC / Confidentiality Grid:	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sensitive</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** Incoming E-mail has been known to provide hackers with access to servers. Disabling the incoming mail service prevents this type of attacks. Additionally, Email represents the main use of the Internet. It is specialized application that requires the dedication of server resources. To combine this type of transaction processing function with the file serving role of the web server creates an inherent conflict. Supporting mail services on a web server opens the server to the risk of abuse as an email relay. This check verifies, by checking the OS, that incoming e-mail is not supported.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** System Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 5.2  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG330 - Windows (Manual)  
This check verifies, by checking the OS, that incoming e-mail is not supported.

Windows:

Select START >> Programs >> Administrative Tools >> Services

Scroll down and review all the entries. If there is a mail program (SMTP service), then the reviewer must run that program to see if it will accept incoming e-mail. (There are too many different programs for detailed instructions.)

The reviewer should also check the Programs menu and sub-menus under start to see if there are any installed mail programs. The reviewer can also check the Add/Delete programs icon in the Control Panel to see if there are any e-mail programs installed.

If there is an e-mail program installed and that program has been configured to accept inbound e-mail, this is a finding.

---

**Vulnerability Key:** V0002266

**STIG ID:** WG380

**Release Number:** 5

**Status:** Active

**Short Name:** WG380

**Long Name:** Vulnerable programs have not been removed from the web server.  
**IA Controls:** ECSC-1 Security Configuration Compliance  
**Categories:** 11.4 Disposition  
**Effective Date:** 17 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** Several filenames and programs designed to enhance web functionality have been identified in connection with the intrusions and vulnerabilities specific to web servers. The presence of any of these files on your system should be reviewed carefully because they indicate that the web server is vulnerable to well-known malicious exploits. In many cases these vulnerabilities are found in the example installed with systems. More recently, trojans have been copied to web servers via a corrupt web request which compromises the contents of main memory on the server. Microsoft Internet Information Server (IIS) web sites can be configured to allow password change requests from remote users. By sending a malformed request to "\_AuthChangeUrl", a remote attacker can cause a denial of service attack against IIS. When this attack is performed against IIS 4.0, the program stops servicing requests completely, and CPU utilization increases to 100 percent. IIS 5.0 is not as severely affected, although it stops responding to password change requests.

**Documentable:** No

**Documentable**

**Explanation:**

**Potential**

**Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 4.1  
Web Site Administration Policies & Procedures, With Amendments and Corrections incorporated in red italics (latest corrections from 11 January, 2002)

**Checks:** WG380 - Windows (Manual)

Query the SA to determine if all directories that contain vulnerable programs have been removed from the server.

If any vulnerable programs are found on the web server, this is a finding.

NOTE: Examples of vulnerable scripts and programs include the following:

- TextCounter Versions 1.0 - 1.2 (PERL) and 1.0 - 1.3 (C++)
- guestbook.cgi
- bndform.cgi
- Cachmgr.cgi
- Classified.cgi
- Count.cgi
- dumpenv.pl

- Excite Web Search Engine
- mail-lib.pl
- Glimpse (PERL scripts) Web Search Engine
- info2www, Versions 1.0-1.1
- Webdist.cgi
- php.cgi
- files.pl
- nph-test.cgi
- nph-publish
- FormMail (PERL scripts)
- "phf" phone book script

Executables specific to Windows platform :

- ntalert.exe
- syslogged.exe
- tapi.exe
- 20.exe
- 21.exe
- 25.exe
- ecware.exe
- nc.exe
- 80.exe
- 139.exe
- 1433.exe
- 1520.exe
- 26405.exe
- i.exe
- newdsn.exe
- notworm
- readme.exe
- Wink<random characters>.exe

---

**Vulnerability Key:** V0013621

**STIG ID:** WG385

**Release Number:** 1

**Status:** Active

**Short Name:** WG385

**Long Name:** All web server documentation, sample code, example applications, and tutorials have not been removed from a production web server.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 12.4 CM Process

**Effective Date:** 27 Apr 2007

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding <input type="checkbox"/> Not Applicable <input type="checkbox"/> Not Reviewed	Comments:
---	-----------

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality** | **I - Mission Critical** | **II - Mission Support** | **III - Administrative**

**Grid:**

<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category I

**Vulnerability Discussion:** Delete all directories that contain samples and any scripts used to execute the samples. If there is a requirement to maintain these directories at the site on non-production servers for training purposes, etc., have NTFS permissions set to only allow access to authorized users, i.e., Web Admins and Administrators. Sample applications or scripts have not been evaluated and approved for use and may introduce vulnerabilities to the system.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Information Assurance Officer  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.3

**Checks:** WG385 (Manual)  
Query the SA to determine if all directories that contain samples and any scripts used to execute the samples have been removed from the server.

Each web server has its own list of sample files and this may change as with the software versions, but following are some examples of what to look for. (This should not be the definitive list of sample files, this is just an example of the common samples that are provided with the associated web server. This list will be updated as additional information is discovered):

IIS: \inetpub\iissamples\\*..\*  
Apache: \apache\manual\\*..\*

If there is a requirement to maintain these directories at the site for training purposes, etc., have permissions set to only allow access to authorized users, i.e., WebAdmins and administrators

If any sample files are found on the web server, this is a finding.

NOTE: For IIS installations, the presence of the Adminscripts directory would not be a finding if the permissions were restricted to Administrators and WebAdmins.

---

**Vulnerability Key:** V0002271

**STIG ID:** WG440

**Release Number:** 4

**Status:** Active

**Short Name:** WG440

**Long Name:** Monitoring software does not include CGI or equivalent programs in the set of files which it checks.

**IA Controls:** ECAT-1 Audit Trail, Monitoring, Analysis and Reporting  
ECAT-2 Audit Trail, Monitoring, Analysis and Reporting

**Categories:** 12.4 CM Process

**Effective Date:** 25 May 2001

<input type="checkbox"/> Open <input type="checkbox"/> Not a Finding	Comments:
---	-----------

<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC /  
Confidentiality  
Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
Classified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sensitive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability  
Discussion:** By their very nature, CGI type files permit the anonymous web user to interact with data and perhaps store data on the web server. In many cases CGI scripts exercise system level control over the servers resources. Thus these files make appealing targets for the malicious user. If these files can be modified or exploited, the web server can be compromised. These files must be monitored by a security tool that reports unauthorized changes to these files.

**Documentable:** No

**Documentable  
Explanation:**

**Potential  
Impacts:**

**Responsibility:** System Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 4.2

**Checks:** WG440 (Manual)

CGI or equivalent files must be monitored by a security tool that reports unauthorized changes. It is the purpose of such software as to monitor key files for unauthorized changes.

The reviewer should query the IAO, SA and Web Manager or Webmaster on this point and verify the information provided by asking to see the template file or configuration file of the software being used to accomplish this security task.

Example file extensions for files considered to provide active content are, but not limited to: .cgi, .asp, .aspx, .class, .vb, .php, .pl, .c.

If the site does not have a process in place to monitor changes to CGI program files, this is a finding.

---

**Vulnerability Key:** V0002264

**STIG ID:** WG470

**Release Number:** 3

**Status:** Active

**Short Name:** WG470

**Long Name:** Wscript.exe and Cscript.exe are accessible by users other than the SA and Web Manager.

**IA Controls:** ECCD-1 Changes to Data  
ECCD-2 Changes to Data

**Categories:** 2.2 Least Privilege

**Effective Date:** 11 May 2001

<input type="checkbox"/> Open	Comments:
-------------------------------	-----------



<input type="checkbox"/> Not a Finding	
<input type="checkbox"/> Not Applicable	
<input type="checkbox"/> Not Reviewed	

**Condition:** Web Server AND Windows (Target: IIS Installation 6)

**Policy:** All Policies

MAC / Confidentiality Grid:	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category II

**Vulnerability Discussion:** Windows Scripting Host (WSH) is installed under either a Typical or Custom installation option of a Microsoft Network Server. This technology permits the execution of powerful script files from the Windows NT command line. This technology is also classified as a Category I Mobile Code. If the access to these files is not tightly controlled, a malicious user could readily compromise the server by using a form to send input to these scripting engines. This is a web related vulnerability which could exist on any NT / Win 2000 system regardless of the web server software being used on the platform.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 4.11  
Guide to the Secure Configuration and Administration of Microsoft Internet Information

**Checks:** WG470 (Manual)  
Start >> Find >> Files and Folders >> Search for instances of Wscript.exe and Cscript.exe  
  
Move to these files, if found, and right click on them to view their Properties.  
  
Permissions should only exist for System, the SA and Web Manager, who may have Full Control. User accounts with access to these files that are unknown or unintended to the SA or Web Manager should be removed.  
  
If these files have permission for others than SA, System, or Web Manager, this is a finding.

**Vulnerability Key:** V0006724

**STIG ID:** WG520

**Release Number:** 3

**Status:** Active

**Short Name:** WG520

**Long Name:** Web server and/or operating system information is advertised.

**IA Controls:** ECSC-1 Security Configuration Compliance

**Categories:** 11.2 Dissemination

**Effective Date:** 29 Jun 2005

<input type="checkbox"/> Open	Comments:
-------------------------------	-----------

- ☐ Not a Finding
- ☐ Not Applicable
- ☐ Not Reviewed

**Condition:** IIS Installation (Target: IIS Installation 6)

**Policy:** All Policies

**MAC / Confidentiality Grid:**

	I - Mission Critical	II - Mission Support	III - Administrative
<b>Classified</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sensitive</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Public</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Severity:** Category III

**Vulnerability Discussion:** The web server response header of an http response can contain several fields of information including the requested html page. The information included in this response can be web server type and version, operating system and version, and ports associated with the web server. This provides the malicious user valuable information without the use of extensive tools.

**Documentable:** No

**Documentable Explanation:**

**Potential Impacts:**

**Responsibility:** System Administrator  
Web Administrator

**References:** WEB SERVER SECURITY TECHNICAL IMPLEMENTATION GUIDE Section 3.4  
Guide to the Secure Configuration and Administration of Microsoft Internet Information

**Checks:** WG520 - IIS5 (Manual)

Query the SA regarding the publishing of the server operating system. The SA should be able to show that the web server is configured to not display the web server or host operating system of the web server.

The URLScan tool is capable of removing this information from the return response header.

Using explorer, find the urlscan.ini file. The default location is c:\winnt\system32\inet\urlscan. Open the URLScan.ini in a text editor. In the [options] section, RemoveServerHeader prevents the user from knowing the server/version being used. If RemoveServerHeader is set to 1, the server header will not be transmitted.

Note: If RemoveServerHeader is set to 1, the server header will not be transmitted; however, Front Page server extensions will break. If RemoveServerHeader is set to 0, then the option AlternateServerName can be used to specify an alternative name to return. This option helps deter hackers as it gives invalid information.

Two conditions may exist qualifying this as a finding:

1 .If the setting for RemoveServerHeader is not set to 1  
or

2. The RemoveServerHeader is set to 0 and the setting for AlternateServerName is not set to specify an alternative server name.

If the web server or operating system information are sent to the client via the server response header, this is a finding.

-----

WG520 - IIS6 (Manual)

Query the SA regarding the publishing of the web server or operating system information. The SA should be able to show that the web server is configured to not display the host operating system

of the web server.

The reviewer should review the following registry key using the registry editor:

HKLM\SYSTEM\CurrentControlSet\Services\HTTP\Parameters\DisableServerHeader (REG-DWORD)

If the value is not set to 1, this is a finding.

---

## **Vulnerability Count - 42**