**Site Access Issues**

Symptoms:

1. Site/App keeps loading for ever
2. Site/App loads with latency
3. Site/App not able to load at all
4. Site loads fine but some links/images does not display properly
5. For above 1-4 use Section 1:Site Access Issue
6. High Definition video is not being played or played with delay. Please refer Section 2: Video Streaming issue

**Section 1: Site Access Issue**

Check list:

1. Search KB articles and relevant release notes to identify a match with any existing known issues.
2. Issue frequency. i.e. intermittent or every time
3. Issue’s scope i.e. specific client/set of clients/everyone
4. Is issue browser specific? i.e. specific version, IE, Firefox etc.
5. What is end user result?
* Error page
* Pop up
* Partially loaded page
* Other than above please specify
1. Is the issue specific to certain file types? i.e. image, JavaScript, CSS etc.
2. Are we able to reproduce?
3. Have we tried “scanning exclusion”?
4. Have we tried “bypassing” if possible?
5. If authentication is enabled, have we tried bypassing authentication? i.e. “allow” rule in “filter.config” file.
6. Have we tried disabling cache if it’s enabled?
7. In case cx has set up multiple proxies in environment, if Proxy-A is working fine and Proxy-B has an issue. Compare configuration settings i.e. records.config
8. For site-latency issue try wget from WCG.

e.g.

wget –r –nd --delete-after –t 5 WEBSITE –o filename.log

1. Is there any firewall setup in environment? If so have we tried to bypass firewall?
2. Is there any AntiVirus software/app running on client machine? If so have we tried to disable them?
3. In transparent proxy environment we should check following additionally.
	* Does the issue persist with explicit as well?
	* For v7.5 and earlier, if IP SPOOFING is enabled, then add/verify following two parameters in records.config file.

CONFIG proxy.config.wccp2.HTTP\_svc\_flags INT 17

CONFIG proxy.config.wccp2.rev\_HTTP\_svc\_flags INT 50

* + - Steps to add them in records.config
			* Stop WCG/V10K
			* Confirm WCG is deregistered from WCCP
			* Add parameters
			* Start WCG
			* Confirm WCG is registered with WCCP
	+ Starting in v7.6, if IP SPOOFING is enabled, then add/verify following.
		- Select Configure > Networking > WCCP > General > Edit file > Mode Negotiation > Advanced Settings > Assignment > Source IP address is selected.
		- 

**Steps should be performed prior to escalation to see if it helps to resolve issue:**

1. Try tweaking following configs in “records.config” file.
* Chunking enabled/disabled
* Keep alive enabled/disabled
* Http 1.1 setting set to 1 or 3
* Change “via” header settings
1. Change IE Http1.1 settings

Tools>>Internet Options>>Advanced TAB>>Use HTTP 1.1 through proxy connection

1. Change sysctl.config
* Add Followings to /etc/sysctl.config

net.ipv4.tcp\_window\_scaling = 0
net.ipv4.tcp\_timestamps = 0

net.ipv4.tcp\_sack = 0

* Run “sysctl –p”
* Check changes take place or not. You should be able to get "0".

cat /proc/sys/net/ipv4/tcp\_window\_scaling

0

cat /proc/sys/net/ipv4/tcp\_timestamps

0

cat /proc/sys/net/ipv4/tcp\_sack

0

**Data/Logs need to be collected with EI:**

1. ConfigUpLoader
2. Network Diagram
3. Firewall settings/Antivirus details, if has any in environment.
4. Proxy configuration details. i.e. Explicit/Transparent using Browsersettings/PAC/WPAD/WCCP/PBR.
5. If issue is reproducible, precise steps how to reproduce.
* If site requires any credential to login, please include if possible
1. Screen shot of end-user result
2. If issue is not reproducible in house we should collect following data.
3. Simultaneous pcap (i.e. from client and WCG) covering \*full\* issue.
* All pcaps must be collected without any filter
* In chaining case we should include pcap from child and parent proxy

e.g. On WCG dom,

tcpdump –i eth0 –s 0 –w FileName.pcap

e.g. Circular capture on WCG dom

tcpdump -i any -C 100 -W 20 -Z root -s 0 -nn -w /tmp/FileName.pcap 2>/dev/null 1>/dev/null &

With above command 20 pcap files each with size of 100MB will be generated.

1. To speed up investigation Engineering must have following information
* Client IP
* WCG IP
* Issue timestamp
* URL visited
1. Enable wtg debug

CONFIG proxy.config.diags.debug.enabled INT 1
CONFIG proxy.config.diags.debug.tags STRING wtg.\*|src.\*|wtg\_txn.\*|http.\*

1. Issue is with JAVA applet site, include JAVA console output from client box
* Start>>Control Panel>>Java (control panel)>>Advanced TAB>>Expand JAVA console in tree>>Click on radio button “Show Console”
1. If content\_gateway.out seems large in size, please clear it.
* e.g.

cat /dev/null > content\_gatway.out

1. Reproduce issue
2. After reproducing issue please collect extended.log, error.log, /var/log/messages, content\_gateway.out

**Section 2: Video Streaming issue**

Symptom:

1. High Definition video stream is not being played thru WCG proxy
2. Video playing being delayed like 5-10 mins (time may vary)

How to identify it’s Large File Support Issue:

1. Verify “CONFIG proxy.config.http.large\_file\_support INT 1”, it must be “1” (Default is 1)
2. Enable debug ta http\_large\_file\_support
3. Content\_gateway should show logs like

[Aug 16 10:57:12.582] DEBUG: (http\_large\_file\_support) bp2g exec'ing (/opt/WCG/bin/content\_bp2g 2147483911 10000 KB 30)

1. Notice the highlighted portion in RED above, it’s content length (~2.1Gig) returned from OriginServer.

Some example sites: video.foxnews.com, video.foxbusiness.com, [www.vevo.com](http://www.vevo.com), <http://wwwns.akamai.com/hdnetwork/demo/flash/default.html>

EIs: 8897,8841,7644,6777

Reason: Current design of content\_bp2g process will hold data until it finishes downloading of data specified in “frame\_size”, by default frame size is ~10MB (with HF#6@7.5.3 and V7.5.5 default installation).

Resolution: Reduce frame size to 100KB.

1. Add following to records.config

CONFIG proxy.config.http.large\_file\_download\_frame\_size INT 100

2. Run “/opt/WCG/bin/content\_line -x”

3. Test problematic site

Logs:

1. If changing frame size to 100KB is not helping we must have following logs to debug further.
2. Enable debug tag.

http\_large\_file\_support|wtg.\*|src.\*

1. Reproduce the issue with simultaneous pcap(Client and WCG dom), with no filter capturing everything.
2. Grab content\_gateway.out, pcaps, error.log, extended.log with \*ConfigUpload\*
3. If you could mention client IP with timestamp of issue that would be great.

Possible Impact:

1. If customer has lots of client streaming, they might notice high memory usage.
2. Customer could use MRTG graph to monitor memory usage.

Best solution:

1. Upgrade to v7.6, it has redesigned implementation of large file support.