

# 10 Common CF Server Challenges & How to Find/Solve Them

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# Intro videos

- Close, but no cigar
  - <https://vine.co/v/OLY9EvWqqwX>
- Another day, another slow site...
  - <http://fast.wistia.net/embed/iframe/swl2mt99vb>

# Why might I be able to help today?

- I help folks solve CF problems daily
  - Serving about 30 different customers each month
- Just focus on CF server troubleshooting, including:
  - Performance, tuning, problem-solving
  - Installation, configuration, administration
  - Migration, security, use of tools/CF features
- Safe, secure remote support
  - Satisfaction guaranteed
- Sharing today what I see very often

# About Charlie Arehart

## Independent consultant

- 30+ in Enterprise IT
- Adobe Forum MVP, CAB member
- Frequent speaker to conf's worldwide
- Organizer, Online ColdFusion Meetup (coldfusionmeetup.com), 2800+ members
- Living in south central KY

## Web home at [www.carehart.org](http://www.carehart.org)

- 100+ presentations, 80+ articles, 400+ blog entries
- UGTV: recordings of 600+ presos by 300+ speakers
- CF411.com: 2000+ tools/resources, 150+ categories
- Hosting courtesy of EdgeWeb Hosting

# Housekeeping

- Slides available online
  - [carehart.org/presentations](http://carehart.org/presentations)
- My meta resource sites
  - [CF911.com](http://CF911.com)
  - [CF411.com](http://CF411.com)

On to the problems

# 1) Not having insight into actual site traffic, processing

- Issues

- Not knowing what requests are running or have run
- Are there many? Are there any? How long? How frequent?

- Solutions

- CF monitoring tools: FusionReactor, SeeFusion, CF Enterprise Server Monitor
- JVM tools
- Cloud-based monitoring tools (NewRelic, etc.)

- Resources

- See many blog posts, presos I've done

## 2) Not having/using diagnostics to understand crashes, hangs, restarts

- Issues

- Besides mon tools, consider (maybe first) many available logs

- Solutions

- Built-in CF logs (coldfusion-out.log, coldfusion-error.log)
- Optional CF logs (metrics, scheduler, mailsent, etc.)
- Using server log to track track restarts (or event viewer)

- Resources

- [http://www.carehart.org/blog/client/index.cfm/2014/6/24/common\\_causes\\_of\\_high\\_CPU\\_in\\_ColdFusion](http://www.carehart.org/blog/client/index.cfm/2014/6/24/common_causes_of_high_CPU_in_ColdFusion)



# 3) Not having/using diagnostics to understand memory concerns

- Issues

- What can show heap use
- Why sometimes raising heap is not solution
- What might be holding memory
- True leaks are rare
- Beware CFM “start memory tracking”
- Consider more than just heap use

- Solutions/Resources

- See previous monitoring and logging tools
- [http://www.carehart.org/blog/client/index.cfm/2010/11/3/when\\_memory\\_problems\\_arent\\_what\\_they\\_seem\\_part\\_1](http://www.carehart.org/blog/client/index.cfm/2010/11/3/when_memory_problems_arent_what_they_seem_part_1)

# 4) Not having/using diagnostics to understand sessions

- Issues

- How many sessions do you have, now and over time?
- What might be causing unexpectedly high sessions
- What can be impact? Overall and per request?
- Considering timeout of spider sessions

- Solutions

- FusionReactor 5's Metrics>Custom Series
  - And realltimestats.log
- CF Svr Monitor's Statistics>Request Statistics> Active sessions
- CF 10+ Metrics log

- Resources

- [http://www.carehart.org/blog/client/index.cfm/2006/10/4/bots\\_and\\_spiders\\_and\\_poor\\_CF\\_performance](http://www.carehart.org/blog/client/index.cfm/2006/10/4/bots_and_spiders_and_poor_CF_performance)
- [http://www.carehart.org/blog/client/index.cfm/2010/5/21/throttling\\_by\\_ip\\_address](http://www.carehart.org/blog/client/index.cfm/2010/5/21/throttling_by_ip_address)

# 5) Not applying updates

- Issues
  - CF downloaded today is NOT updated
  - May find that update fails: view the update folder's log
  - Consider manual install of update (command line)
  - Note that updates sometimes offered in prerelease
  - Beware some updates offer options to *disable* newly changes (cfproparam/dbvarname, session fixation, etc.)
- Solutions/Resources
  - Many, for many issues...

# 5) Not applying updates

- Resources

- <http://carehart.org/presentations/#cfupdates>
- [http://www.carehart.org/blog/client/index.cfm/2014/11/8/prerelease\\_offered\\_for\\_cf11\\_update\\_3](http://www.carehart.org/blog/client/index.cfm/2014/11/8/prerelease_offered_for_cf11_update_3)
- [http://www.carehart.org/blog/client/index.cfm/2014/10/30/finding\\_coldfusion\\_installers\\_and\\_updates](http://www.carehart.org/blog/client/index.cfm/2014/10/30/finding_coldfusion_installers_and_updates)
- <http://bit.ly/cfdownloads>

- CF9 and earlier resources

- [http://www.carehart.org/blog/client/index.cfm/2010/12/12/cfmyths\\_cumulative\\_hotfixes](http://www.carehart.org/blog/client/index.cfm/2010/12/12/cfmyths_cumulative_hotfixes)
- [http://www.carehart.org/blog/client/index.cfm/2012/6/18/what\\_hotfixes\\_have\\_been\\_applied](http://www.carehart.org/blog/client/index.cfm/2012/6/18/what_hotfixes_have_been_applied)
- [http://www.carehart.org/blog/client/index.cfm/2014/3/14/cf9\\_and\\_earlier\\_hotfix\\_guide](http://www.carehart.org/blog/client/index.cfm/2014/3/14/cf9_and_earlier_hotfix_guide)
- [http://www.carehart.org/blog/client/index.cfm/2013/5/21/new\\_adobe\\_summary\\_of\\_security\\_hotfix\\_tweaks](http://www.carehart.org/blog/client/index.cfm/2013/5/21/new_adobe_summary_of_security_hotfix_tweaks)

# 6) Not updating web connectors

- Issues

- Even if you update CF10 or 11, you may need to ALSO update the web server connector
- Read the update text and offered technote
- Un-updated connector often a cause of seeming “bugs”
- Don't forget to “run as admin” (on Windows), root on \*nix
- Connecting to a given instance is possible, challenging

- Solutions/Resources

- [http://www.carehart.org/blog/client/index.cfm/2013/9/13/why\\_you\\_must\\_update\\_cf10\\_webserver\\_connector](http://www.carehart.org/blog/client/index.cfm/2013/9/13/why_you_must_update_cf10_webserver_connector)
- [http://www.carehart.org/blog/client/index.cfm/2013/11/8/still\\_more\\_reasons\\_to\\_update\\_your\\_CF10\\_webconnector](http://www.carehart.org/blog/client/index.cfm/2013/11/8/still_more_reasons_to_update_your_CF10_webconnector)
- [http://www.carehart.org/blog/client/index.cfm/2015/2/26/cf\\_911\\_connect\\_sites\\_to\\_an\\_instance\\_with\\_wsconfig](http://www.carehart.org/blog/client/index.cfm/2015/2/26/cf_911_connect_sites_to_an_instance_with_wsconfig)

# 7) Not understanding when/why/how tune web connectors

- Issues

- Web server connector has initial defaults (In workers.properties)
  - Not well-suited to all environments
- Idle connection timeout – “0” means infinite
  - 60 (seconds) would be wise for most
- Poolsize, max reuse connections
- Sadly, few good tools to monitor, diagnose issues
- Consider at least CF Metrics.log and Tomcat “Status Worker”

- Solutions/Resources

- <http://blogs.coldfusion.com/post.cfm/configuring-status-worker-in-connectors>
- <http://blogs.coldfusion.com/post.cfm/coldfusion-11-iis-connector-tuning>
- <http://blogs.coldfusion.com/post.cfm/tuning-coldfusion-10-iis-connector-configuration>

# 8) Misunderstanding or misusing jvm arg tweaking

- Issues

- Some people try jvm tweaks they find offered elsewhere
- But how do you know they'll work well for you?
  - They depend on platform, config, load, and more
- I have helped some where solution was to revert to default args
- Of course, some may NEED tweaks
  - But consider many of the issues/solutions discussed so far
  - Often the real answer is to find/solve the root cause problem

- Solutions/Resources

- <http://www.aliaspooryorik.com/blog/index.cfm/e/posts.details/post/tuning-the-jvm-275>

# 9) Not updating jvm

- Issues

- CF's bundled JVM is likely not the latest available one
  - May be important security or other bug fixes you're missing
- Can get updated JVM from Oracle and point CF to that
  - CF's bundled jvm is in [coldfusion]\jre. Don't update it!
- Generally want JDK rather than JRE
- On windows, beware slashes, using such as:
  - C:\\Program Files\\Java\\jdk1.7.0\_71\\jre
- Beware also to update solr JVM
  - See C:\\[coldfusion]\\[instance]\\jetty\\jetty.lax
  - Its lax.nl.current.vm value

- Solutions/Resources

- <https://www.youtube.com/watch?v=zzC31EAIz8Y>
- [http://www.carehart.org/blog/client/index.cfm/2014/12/11/help\\_l\\_updated\\_CFs\\_JVM\\_and\\_it\\_wont\\_start](http://www.carehart.org/blog/client/index.cfm/2014/12/11/help_l_updated_CFs_JVM_and_it_wont_start)



# Tip of the iceberg

- I refer to these past 9 as “most common”
  - But they really are just the tip of the iceberg!
- There really are many more “common problems”
  - I just had to pick a limited subset
  - Some problems have been “more common” in the past
    - And others may become “more common” in the future
- But at the crux of all problems is a diagnostic approach
  - I’ve tried to share some today and in my talk yesterday
  - But the last and perhaps most common challenge I see...

# 10) Not considering to hire help

- Issues

- People often (reasonably) try and try to find solutions, implement them on their own
- But sometimes they spend far more time than the cost of hiring help

- Solutions/Resources

- There are folks like myself that do this troubleshooting for a living
  - I list them at [cf411.com/cfconsult](http://cf411.com/cfconsult)
- As for me, my goal is to help very fast, and to teach you as we go, with satisfaction guaranteed

In Conclusion

# What we've learned

- Range of problems people face, some quite common
  - Solutions are not always obvious to most
- Provided additional issues to consider
  - As well as solutions/resources to consider
- Hope you feel empowered to go solve problems!
- Feedback welcome, on twitter, email, etc