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
• 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

• My meta resource sites
  • CF911.com
  • 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
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 CFSM “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
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 realtimestats.log
  • CF Svr Monitor’s Statistics>Request Statistics> Active sessions
  • CF 10+ Metrics log

• Resources
  • 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 (cfprocparam/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/2014/10/30/finding_coldfusion_installers_and_updates

• 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/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/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/2013/11/8/still_more_reasons_to_update_your_CF10_webconnector
  • http://www.carehart.org/blog/client/index.cfm/2015/2/26/cf911_connect_sites_to_an_instance_with_wsconfig
7) Not understanding when/why/how to 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/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 FilesJavajdk1.7.0_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_I_updated_CFsWith_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
  - 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