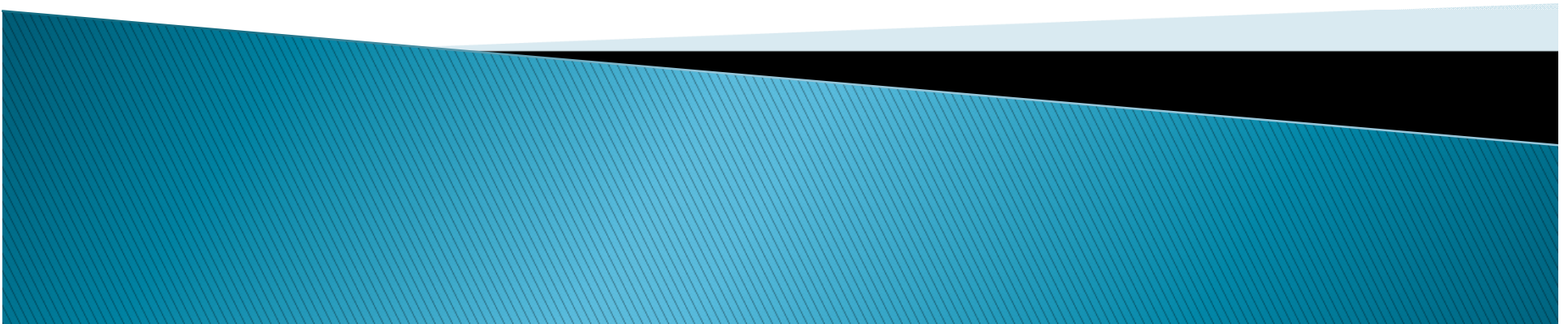


10 Things That Plague Most CF Servers

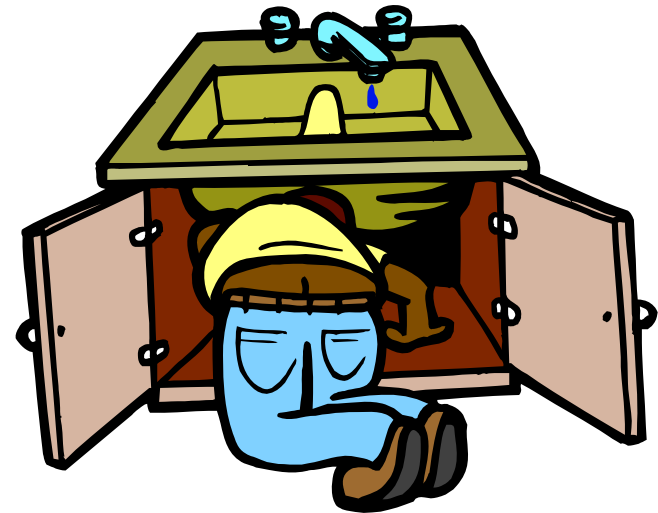
Charlie Arehart (@cf911, @carehart)



- ▶ This is an extended version of the slide deck used for my cf.objective() 2012 lightning talk
- ▶ I didn't want to clutter the slides there
 - Here I add an extra page after each with resources for more on each topic

#10: Problems with hotfixes

- ▶ Failure to apply them at all
- ▶ Misinterpreting if installed
- ▶ Applying them incorrectly

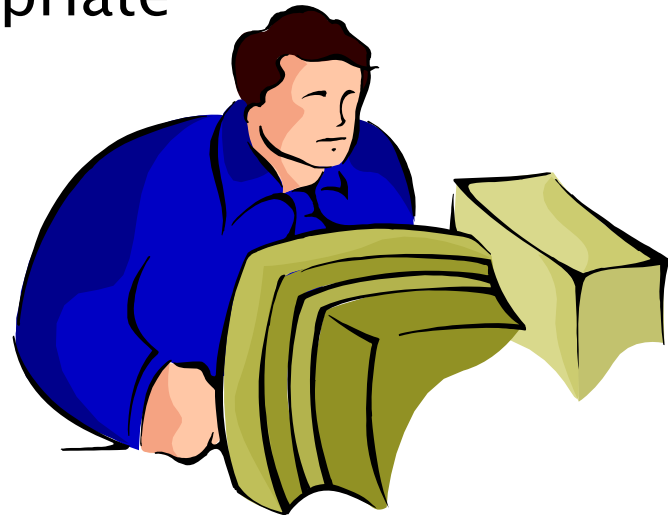


#10 Resources

- ▶ http://www.carehart.org/blog/client/index.cfm/2011/10/21/why_chfs_may_break
- ▶ http://www.carehart.org/blog/client/index.cfm/2010/12/12/cfmyths_cumulative_hotfixes
- ▶ http://www.carehart.org/blog/client/index.cfm/2010/12/11/cfmyths_latest_installer_includes_all_updates
- ▶ <http://www.cf911.com/wiki/index.cfm/Hotfixes>

#9: Coding surprises can burn you

- ▶ CFIMAGE action='resize' can be killer slow
 - Use imageresize() or ImageScaleToFit() instead
 - Setting InterpolationMethod to lower quality
- ▶ CFDOCUMENT can be killer slow
 - Use Localurl attribute if appropriate



#9 Resources

- ▶ http://help.adobe.com/en_US/ColdFusion/9.0/Developing/WSc3ff6d0ea77859461172e0811cbe12207-7fec.html#WSc3ff6d0ea77859461172e0811cbe12207-7fdc
- ▶ http://www.carehart.org/blog/client/index.cfm/2011/11/19/perf_fix_via_cfdocument_localurl_at_tribute
- ▶ http://www.cf911.com/wiki/index.cfm/CFML_Coding_Techniques

#8: Maxworkerthreads setting

- ▶ Real problem if you're on CF9 with IIS
 - And want to get more than 20 concurrent requests
- ▶ You need to uncomment, change setting in `jrun_iis6_wildcard.ini`



#8 Resources

- ▶ http://blogs.adobe.com/cfdoc/2009/12/iis_6_for_coldfusion_9_increasing_the_number_of_worker_threads.html
- ▶ http://www.carehart.org/blog/client/index.cfm/2011/2/2/iis_request_execution_limits
- ▶ http://www.cf911.com/wiki/index.cfm/Web_Server_Configuration

#7: Error handlers gone wild

- ▶ Beware error handlers that may get called way more often than you realize
 - Whether CF error handlers, CF missing template handlers, web server configured to pass 404s to CF
 - Tempting for error handling flexibility
- ▶ Problem is: may be overwhelming to CF
 - Especially failures from spiders, bots
 - All the more if you ignore result

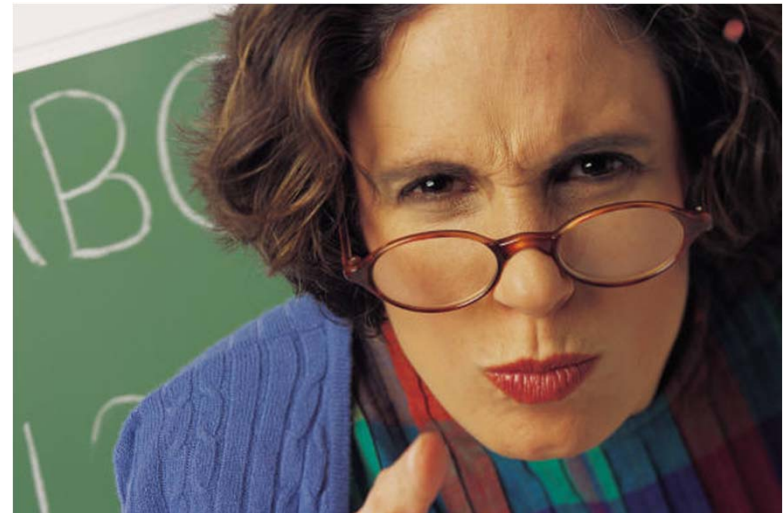


#7 Resources

- ▶ None, as yet

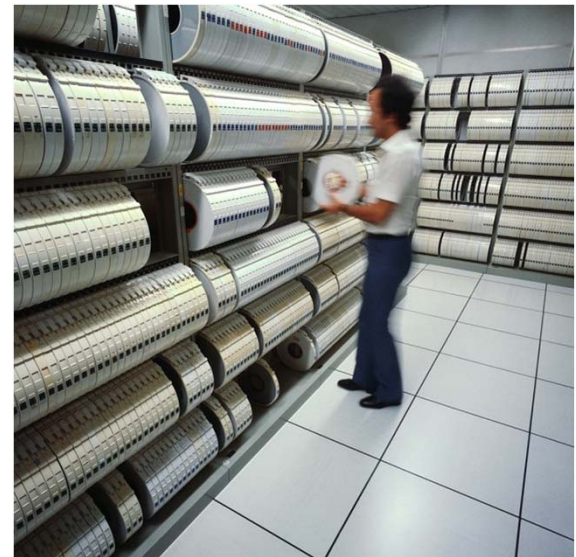
#6: Leaving CF Admin defaults

- ▶ Something you may have heard before
 - Actually many subpoints to this: bonus for you!
 - But perhaps different emphasis than you've heard



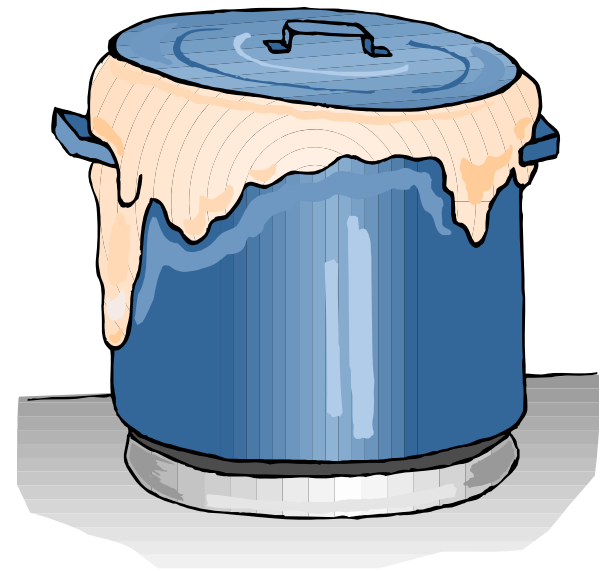
#6A: Inadequate Query Cache size

- ▶ If not sufficient, real DB i/o's still happen
 - Default size is 100
 - Can be filled by just one CFQUERY w/ dynamic SQL
- ▶ Monitoring size
 - CF 8/9 Enterprise Server Monitor
 - FusionReactor FREC plugin



#6B: Inadequate Template Cache size

- ▶ If not sufficient, template reloading can be burden on server
 - Default size is 1024
 - “Save Classes” can help determine size
- ▶ Monitoring size
 - CF 8/9 Enterprise Server Monitor
 - FusionReactor FREC plugin



#6C: Client variables can kill

- ▶ Not about whether you USE them
 - Just whether they are enabled in your apps!
- ▶ Every page request updates repo by default
 - Bots create new entry per request
- ▶ Default storage of registry kills
 - Hardly better when in DB



#6D: Memory settings and misunderstandings

- ▶ Just because memory is high does not mean CF will crash
- ▶ Not all outofmemory errors are same
 - For some, increasing heap is NOT the answer!



#6 Resources

- ▶ Query Cache
 - None, as yet
- ▶ Template Cache
 - None, as yet
- ▶ Client variables
 - http://www.carehart.org/blog/client/index.cfm/2006/10/4/bots_and_spiders_and_poor_CF_performance
 - http://www.cf911.com/wiki/index.cfm/Client_Variable_Troubleshooting
- ▶ Memory
 - http://www.carehart.org/blog/client/index.cfm/2010/11/3/when_memory_problems_arent_what_they_seem_part_1
 - http://www.carehart.org/cf911/wiki/index.cfm/High_Memory%2FMemory_Errors

#5: Not knowing # of sessions

- ▶ May be stunned to know how many active
 - Frequent cause of seeming CF “memory leak”
- ▶ See CF Server Monitor
 - Free ServerStats or CFTRacker tools otherwise
 - Also, FusionReactor 4 FREC plugin



#5 Resources

- ▶ http://www.carehart.org/blog/client/index.cfm/2009/1/22/tracking_count_of_sessions_per_application

#4: Remaining blind to running requests (counts, details)

- ▶ 4.1: Knowing how many are running, queued
 - Vital to know whether CF is “busy” or not, why
- ▶ Tools
 - CFSTAT, JRun Metrics, CFTracker
 - CF Server Monitor, FusionReactor, SeeFusion



#4: Remaining blind to running request counts, details (cont.)

- ▶ 4.2: Getting details of running requests
 - To know what a long-running request is doing
 - URL, duration, IP address, and much more
- ▶ Tools
 - CF Server Monitor, FusionReactor, SeeFusion
 - Also, JDBC wrapper features



#4: Remaining blind to running request counts, details (cont.)

- ▶ 4.3: Obtaining stack trace
 - Can know currently executing line number of long-running request!
- ▶ Tools
 - JVM tools
 - CF Server Monitor, FusionReactor, SeeFusion



#4: Remaining blind to running request counts, details (cont.)

- ▶ 4.4: Obtaining details by email
 - Since you can't always be online to do stack trace
 - Can obtain by email, when alert condition arises
- ▶ Tools
 - CF Server Monitor, FusionReactor, SeeFusion

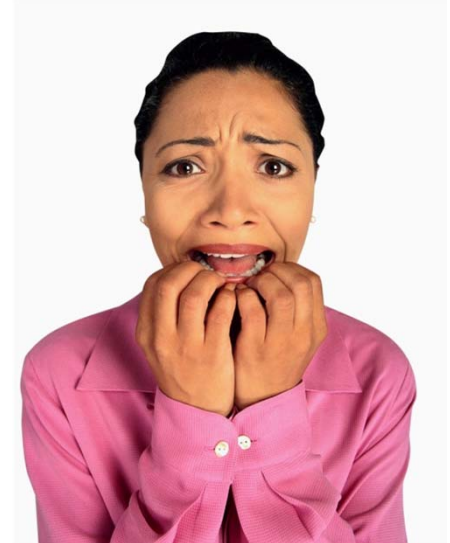


#4 Resources

- ▶ http://www.carehart.org/blog/client/index.cfm/2009/6/24/easier_thread_dumps
- ▶ http://www.carehart.org/blog/client/index.cfm/2008/7/22/fusionreactor_datasource_monitoring
- ▶ http://www.carehart.org/blog/client/index.cfm/2010/10/15/Lies_damned_lies_and_CF_timeouts
- ▶ http://www.carehart.org/blog/client/index.cfm/2008/10/31/cf911_requests_not_responding
- ▶ http://www.carehart.org/blog/client/index.cfm/2009/11/14/spy_on_orm
- ▶ http://www.carehart.org/cf911/wiki/index.cfm/Cold_Fusion_Monitoring
- ▶ http://www.carehart.org/cf911/wiki/index.cfm/Server_Hung

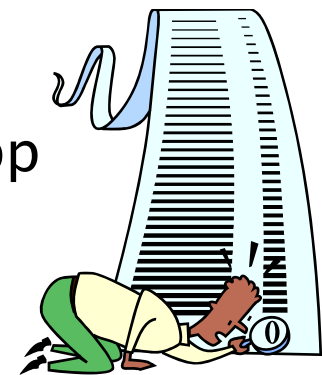
#3: Not leveraging CF monitoring tools you have

- ▶ 3.1: Misunderstanding “impact” of CF Server Monitor
 - No impact at all, if no “start” buttons enabled
 - But if enabled, they remain on if monitor is closed, and over CF restarts



#3: Not leveraging CF monitoring tools you have (cont.)

- ▶ 3.2 Not leveraging FusionReactor fully
 - Don't miss the marvelous logs it creates
 - Consider FusionAnalytics to help analyze things
 - Don't miss FREC (CF Extensions) if using FR4 to see things otherwise only in CF Server Monitor
 - And even if on CF Standard!
 - FR can monitor not just CF
 - but Railo/BD/OBD and any JEE server or app



#3 Resources

- ▶ http://www.carehart.org/blog/client/index.cfm/2008/7/30/45page_server_monitor_guide
- ▶ http://www.carehart.org/blog/client/index.cfm/2012/2/24/CF_Server_Monitor_start_buttons_remain_enabled
- ▶ <http://www.carehart.org/blog/client/index.cfm/2012/2/24/CF911-Stopping-the-ColdFusion-Server-Monitor-start-buttons-when-you-cant-get-into-the-Monitor>
- ▶ http://www.carehart.org/cf911/wiki/index.cfm/ColdFusion_Server_Monitor
- ▶ http://www.carehart.org/blog/client/index.cfm/2012/2/27/recording_of_my_adobe_eseminar_on_FusionReactor

#2 Not understanding impact of spiders, bots

- ▶ These really can be killing you
 - Have mentioned impact many times
- ▶ And really any frequent automated requests
 - Status/health checks, security scans, scheduled tasks, and more



#2 Not understanding impact of spiders, bots (cont.)

- ▶ Solutions beyond robots.txt
 - Throttle frequency of requests
 - Lower sessiontimeout for automated requests
 - Review code run on “new session” to assess impact



#2 Resources

- ▶ <http://www.carehart.org/presentations/#sess clicrash>
- ▶ http://www.carehart.org/blog/client/index.cfm/2006/10/4/bots_and_spiders_and_poor_CF_performance
- ▶ http://www.carehart.org/cf911/wiki/index.cfm/Client_Variable_Troubleshooting

#1: Not seeking troubleshooting help

- ▶ Have pointed out just a couple dozen problems
 - Again, see carehart.org/presentations for slide deck with resources
- ▶ When stuff hits the fan, will you remember it all?
- ▶ Several folks in CF community offer remote support
 - Myself included
 - See cf411.com/cfconsult for links to them

