

MONITORING CF

WHAT ARE MY OPTIONS AND WHY SHOULD I

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INTRODUCTION

- Adobe asked me to give this talk, and I was thrilled
 - I spend each day helping people troubleshoot CF servers
 - And I generally help them use monitoring tools in this process
- They wanted me to review the how and why of using monitoring tools
 - Of course, 55 mins is not enough time to review them each
- Goal: why and how to best leverage the primary CF monitors
- Will present things in groups of 3 😊

- Slides are available at carehart.org

3 MAIN GOALS TODAY

- Help you see why to use the CF monitoring tools if you're not yet
- How to use them better if you are already
- Motivate you to use one or all three of them, ASAP

FIRST AND FOREMOST: THE 3 MAIN CF MONITORS

- CF Enterprise Server Monitor
 - Introduced in CF 8, available only in CF Enterprise
 - Not changed much in 9-11 but quite valuable with unique feature
- FusionReactor (fusion-reactor.com)
 - Commercial, available 14-day free trial
 - Pricing starts at \$24/month per server (all instances covered)
- SeeFusion (seefusion.com)
 - Commercial, available free trial (first 2 hours after CF startup)
 - Pricing starts at \$199 for two instances
- Of course, there's much more that will may justify expenditure, as we'll see

ABOUT CHARLIE AREHART

Independent Consultant

- 17 yrs CF experience (32 in Enterprise IT)
- Certified Adv CF Developer, Instructor
- Adobe Forum MVP, CF CAB member
- Frequent speaker to conf's worldwide
- Organizer, Online ColdFusion Meetup (coldfusionmeetup.com), 2800+ members
- Living in Alpharetta, Georgia (Atlanta)

Web home at www.carehart.org

- 100+ presentations, 80+ articles, 400+ blog entries
- UGTV: recordings of 600+ presos by 300+ speakers
- CF411.com: 1800+ tools/resources, 150+ categories
- CF911.com: CF server troubleshooting resources
- Hosting courtesy of EdgeWeb Hosting
- Consulting: available for CF troubleshooting, tuning
 - Remote or on-site; on-demand, single instance is ok

3 MAIN REASONS TO USE THE MONITORING TOOLS

- Understand/diagnose CF server problems
- Be alerted to problems (in advance of crash)
- Help set CF Admin settings

3 MAIN WAYS TO USE THE MONITORING TOOLS

- User Interface / graphs / charts / reports
- Alerts (arriving by email)
- Logs

3 MOST COMMON CF SERVER PROBLEMS

- High CPU usage
 - carehart.org/blog/client/index.cfm/2014/6/24/common_causes_of_high_CPU_in_ColdFusion
- High memory usage
- CF not responding to requests
 - Whether with or without the two above occurring

CHECKPOINT: LOTS OF TALKING SO FAR

- Why am I not focusing on demos?
 - Because people get lost in the interfaces
 - I want to focus on why to consider monitoring first
 - As well as some other things to keep in mind besides CF monitoring tools...

OTHER CF DIAGNOSTIC TOOLS TO CONSIDER

- CFStat
- Windows Perfmon counters
- CF10+ Metrics logging

OTHER NON-CF DIAGNOSTIC TOOLS TO CONSIDER

- JVM monitoring tools and logs
- OS monitoring tools and logs
- Web server monitoring tools and logs
- Database server monitoring tools and logs

3 MAIN CF ADMIN SETTINGS TO TWEAK BASED ON MONITORING TOOLS

- Maximum Simultaneous Requests
- Heap size
- Template and query cache sizes

3 OTHER MAIN USES OF MONITORING TOOLS

- Query monitoring
- Stack tracing
- Session tracking
- Bonus: uptime monitoring

- Still so many features to the tools, problems they can solve
 - Will close with some hidden gems and gotchas in each tool

SOME HIDDEN GEMS IN EACH TOOL

- CF Server Monitor
 - Note that you do not NEED to turn on the start buttons to get value
 - Note the graph buttons on several pages (esp. active requests, active sessions)
- FusionReactor
 - Can monitor not just CF but Railo, BlueDragon, Tomcat, anything Java
 - Can view session count also
 - Can view request by status code, including seeing error details
 - Can enable user experience monitoring
 - Can view memory spaces
- SeeFusion
 - Can enable monitoring rules (under “configuration” button)
 - Nifty “debug output” panel

SOME GOTCHAS IN EACH TOOL

- CF Server Monitor
 - “start” buttons do add overhead, more for “profiling” and especially for “memory tracking”
 - If “start” buttons don’t appear, refresh browser
 - Limited history, no logs
 - “max memory” is not really heap max, but currently allocated amount
 - If “start memory tracking” not enabled, beware variables shown are only simple vars
 - Is a Flash interface
- FusionReactor
 - Be sure to stay updated with the relatively frequent releases

SOME GOTCHAS IN EACH TOOL (CONT)

- SeeFusion
 - “max memory” is not really heap max, but currently allocated amount
 - Stack trace feature is current thread, not current request
 - Licensing is per 2 instances
 - Need to wrap datasources to monitor them
 - Is a Flash interface

UPDATES COMING FOR THE TOOLS

- FusionReactor
 - A pending 5.2.4 update will include many nice tweaks
 - A pending v6 is coming with substantial improvements
 - A “cloud” version is coming that will change the game
- SeeFusion
 - A new release is in the oven, just about to be pulled out!
 - Will also be a dramatic revision to the tool

3 KEY MISCONCEPTIONS ABOUT CF MONITORS

- Want to close by explaining away a couple of common misconceptions:
 - These CF monitoring tools add overhead
 - These CF monitoring tools run “out of process”
 - You have to sit around watching the monitors
- Bonus: beware the problem may be elsewhere
 - Web server, database server, network, file system, firewall, load balancer

3 WAYS TO GET HELP WITH MONITORING TOOLS

- Docs, blogs (google)
- Direct assistance from vendors
- Myself and others
 - cf411.com/cfconsult

CONCLUSION

- I'll take questions in a moment
- Recall my goals:
 - Help you see why to use the CF monitoring tools if you're not yet
 - How to use them better if you are already
 - Motivate you to use one or all three of them, ASAP
- Did I achieve my objective? You can show by your applause
- Questions?