CF911:ColdFusion Tools for When the Stuff Hits the Fan
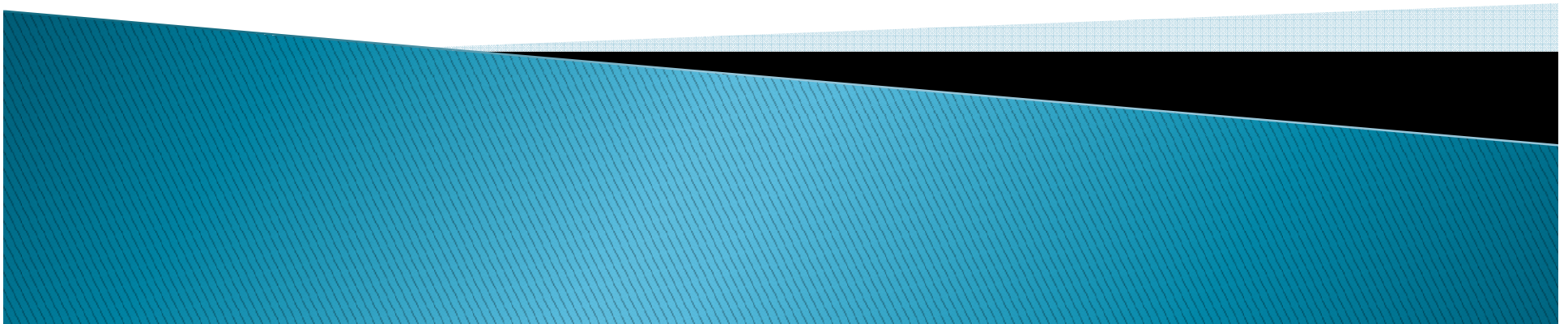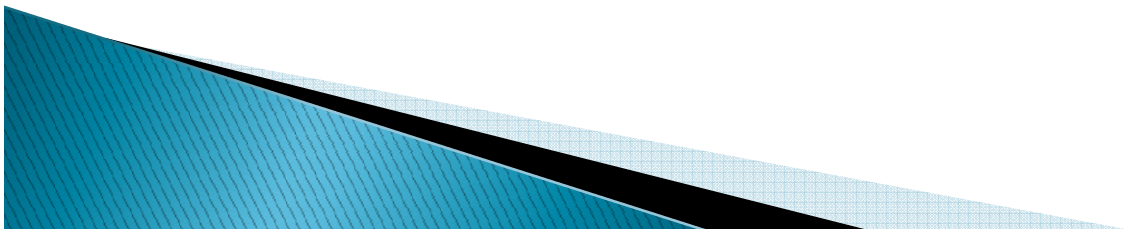
Charlie Arehart
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Last updated: 2/18/2010

Session Outline

▸ Help, my server is hung...or is it?

▸ Tools to monitor request threads

▸ Built-in CF troubleshooting tools

▸ Free third-party CF troubleshooting tools

▸ Commercial third-party CF troubleshooting tools

▸ Other tools (JVM, database, etc.)

▸ Logs & Log analysis tools

▸ Resources for learning more

About Charlie Arehart

Independent Consultant

- 13 yrs CF experience (27 in Enterprise IT)
- Member, Adobe Community Professionals
- Certified Adv CF Developer (each version since 4), Cert. Adobe Instructor
- Frequent speaker to user groups, conferences worldwide
- Run the Online ColdFusion Meetup (coldfusionmeetup.com)
- Living in Alpharetta, Georgia (Atlanta)

Web home at www.carehart.org

- Host ~300 blog entries, 80+ articles, 90+ presentations
- UGTV: recordings of ~500+ presentations by 200+ speakers
- CF411.com – 1000+ tools/resources in 125+ categories
- Consulting: available for CF troubleshooting, tuning; training
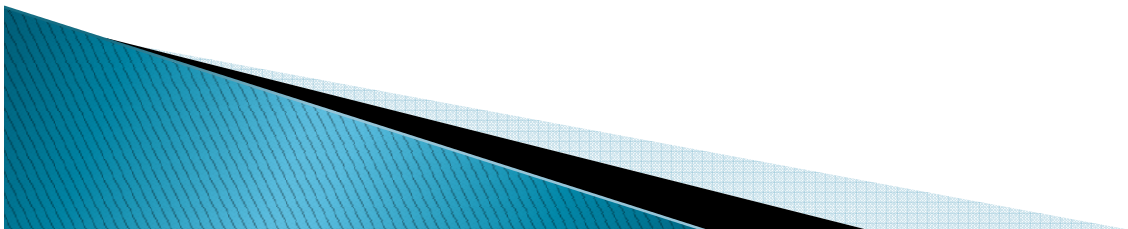 - Remote or on-site

Help, my server is hung ...or is it?
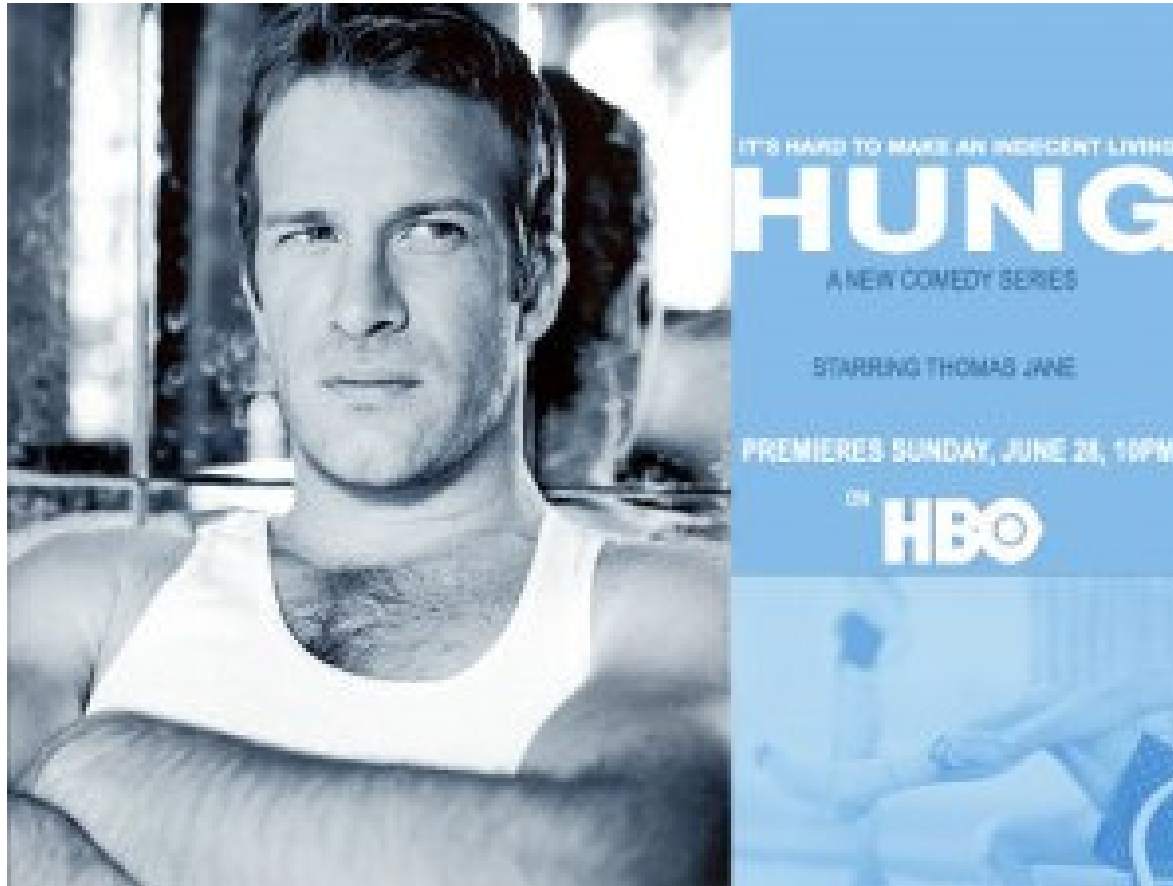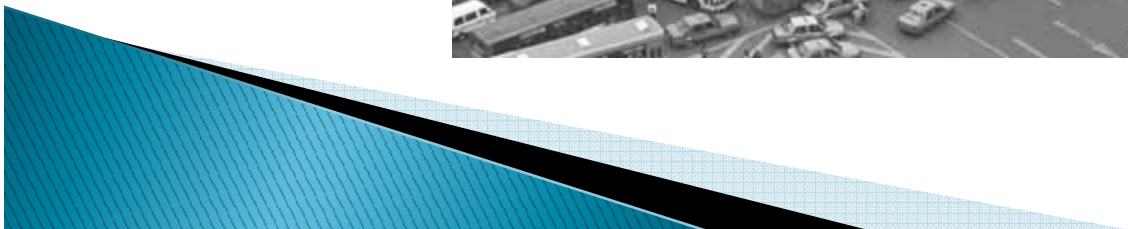
Complexity of web apps
(life of a request)
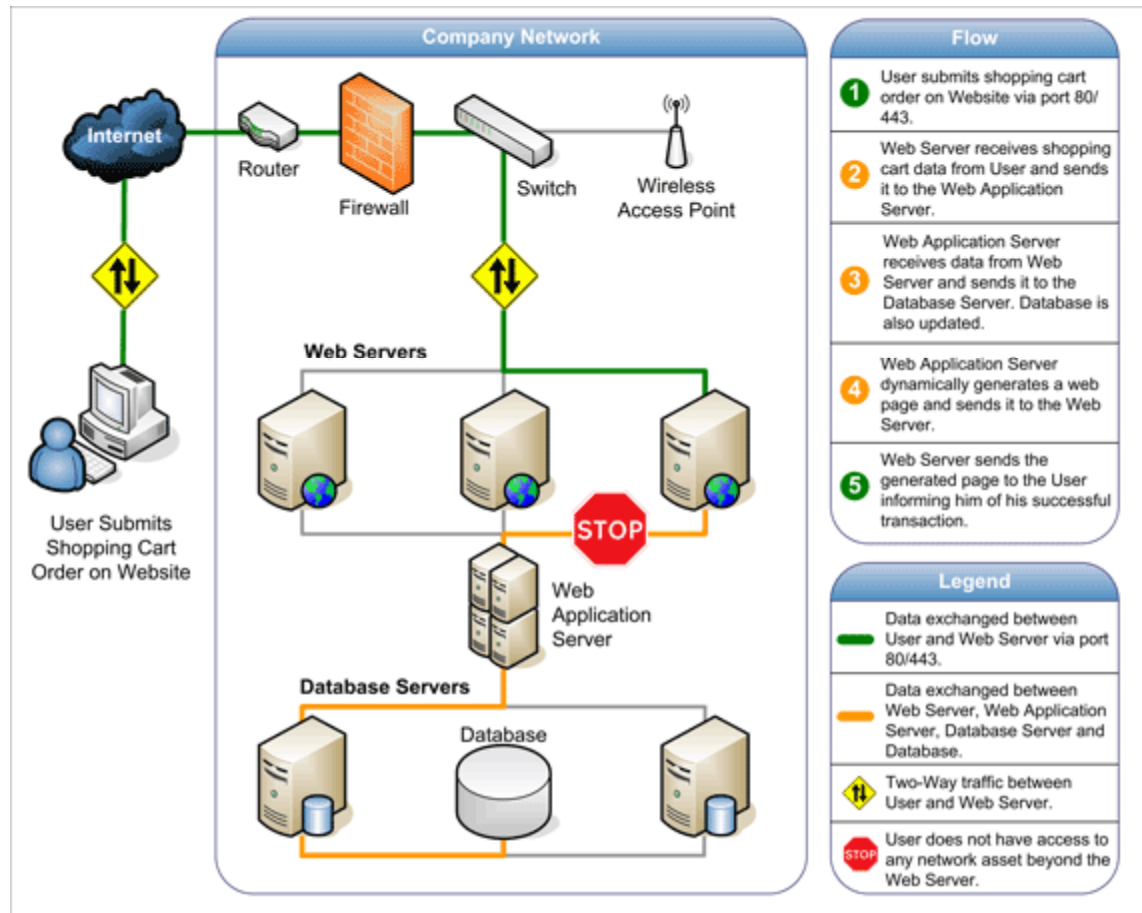
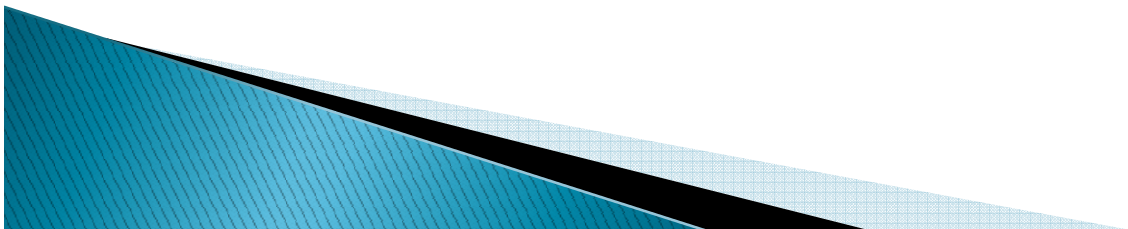# When request threads are held up...
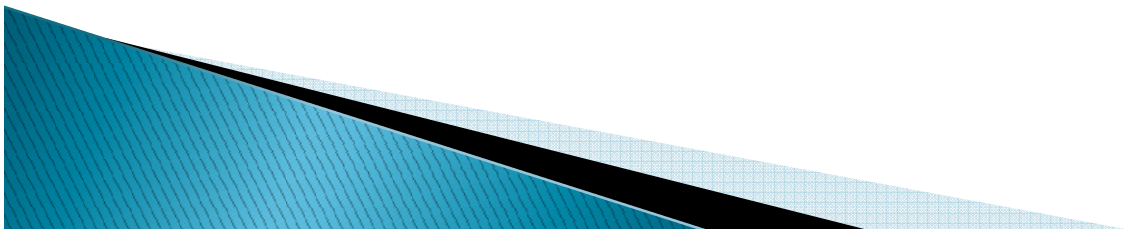
Bank Teller Analogy

...are any still getting through?

Tools to monitor request threads

Built-in CF troubleshooting tools

- CFSTAT
- Performance Monitor stats
- GetMetricData CFML function
- JRun Metrics
- ColdFusion 8/9 Enterprise Server Monitor
- ColdFusion Debugging Information

Free third-party CF troubleshooting tools

- Too many to detail
  - but more than you probably expected
- More at http://www.cf411.com/#cfmon
  - CFStatShot
  - ColdFusion AJAX System Monitor
  - ColdFusion JVM Memory Monitor
  - ColdFusion Tracker
  - FlexMon ColdFusion monitor
  - Scope Enhancer
  - ServerStats
  - WhosOn CFC

Commercial third-party CF troubleshooting tools

- FusionReactor and SeeFusion
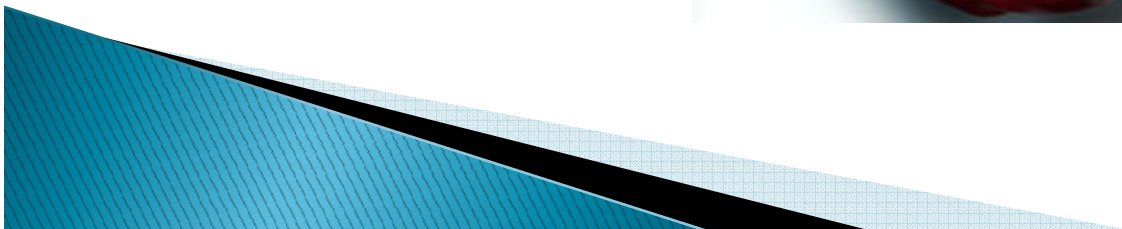
Other tools

- Remember all the moving parts in a web app
  - Tools exist to monitor those as well
- See http://www.cf411.com/#mon
  - Application Monitoring Tools
  - ColdFusion Monitoring Tools
  - Database/SQL Monitoring Tools
  - Event Log Monitoring
  - Java Monitoring/Profiling Tools
  - System Monitoring Tools
  - Web Server Analytics Tools
  - Web Server Request Monitoring Tools
 - Web Site Uptime Monitoring Tools

A Word About Java Monitoring Tools

- Note as well: JVM version is key
  - CF 6/7 run on JVM 1.4: JVM tools were spartan
  - CF 8/9 run on JVM 1.6: JVM tools after 1.5 better
- Note I haven't listed them first in this talk
  - Many problems really don't require that digging
  - Still, some will swear by them
  - Would require entire an entire session on them
    - How to set them up, use them, interpret them
- Do consider all the previous tools first
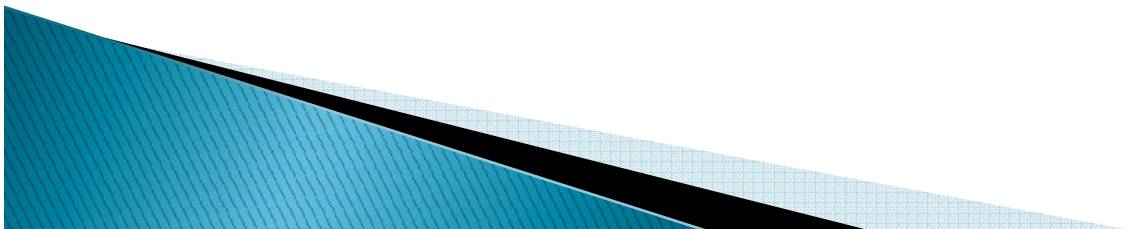
Logs

- ColdFusion Logs: two different kinds
- [cf]\logs\
  - Or in Multiserver mode:
    - [jrun]\servers*[instancename]*\cfusion-ear\cfusion-war\WEB-INF\cfusion\logs\
  - These are most common, but may be least useful
- [cf]\runtime\logs\
  - Or in Multiserver mode:
    - [jrun]\logs\
  - Less well known, but often more valuable for problem-solving
- Some logging configuration options in Admin
- FusionReactor also creates very useful logs
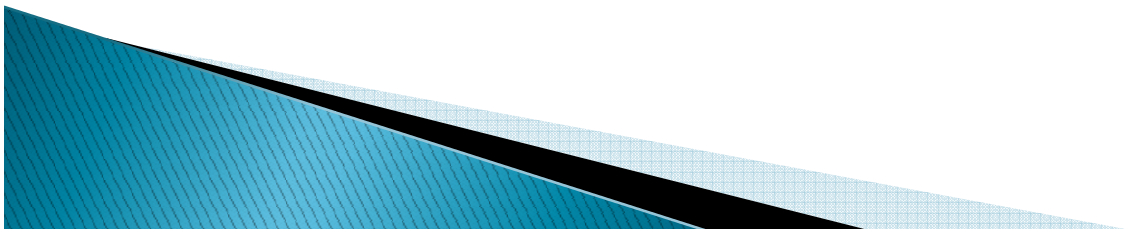
Logs (continued)

- Again, many moving parts in a web app
- Logs exist (or can be enabled) for most of those as well
  - Database (request activity and overall operation)
  - Web Server (request activity and overall operation)
  - Operating System (such as Windows Event Logs)
  - JVM
 - To name just a few
- Beyond scope of this session to detail these
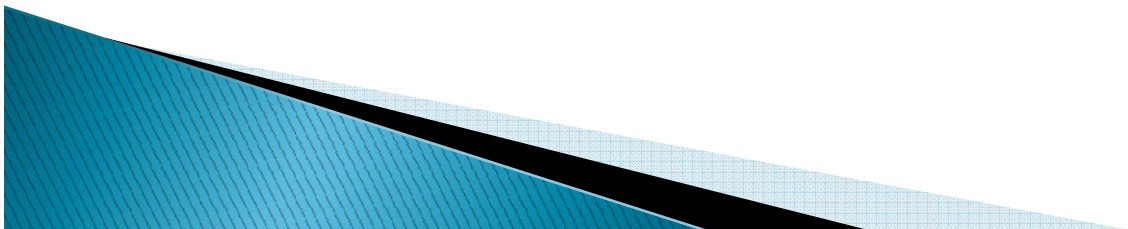
Log analysis tools

- Different kinds of logs, different kinds of tools
  - See http://www.cf411.com/#logan
    - CF Log Analysis Tools
    - Database Log Analysis Tools
    - Generic File View/Log Analysis Tools
    - Intrusion Detection Tools
    - Web Server Log Analysis Tools
- Will highlight just a couple related to CF
  - CF Admin Log Files page
  - Flogr (free)
  - Log viewer in CFBuilder
  - Universal Viewer (free)
 - LogParser
  - FusionAnalytics
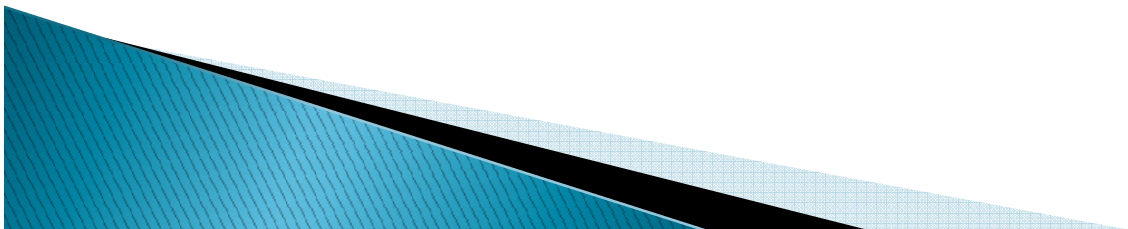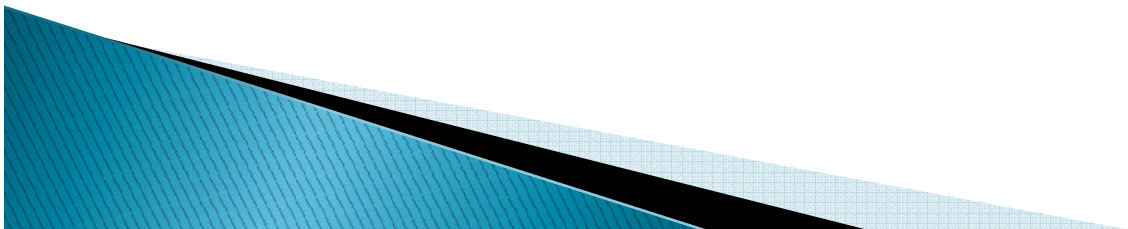
Resources for learning more
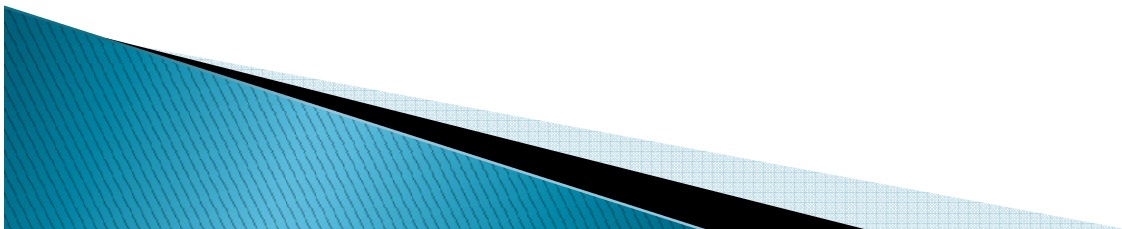
Resources for learning more

- My FAQU article of same name
  - http://www.fusionauthority.com/quarterly/
- An earlier version of this talk, more details
  - http://www.carehart.org/presentations/#cf911
- Books
  - Grant Straker's "ColdFusion MX: Performance Troubleshooting and Tuning Guide" (CF6-era)
    - Website and accompanying PDF ($50)
      - http://www.cfperformance.com/
- My cf.Objective() presentation
  - "Stack Tracing CFML Requests to Solve Problems"
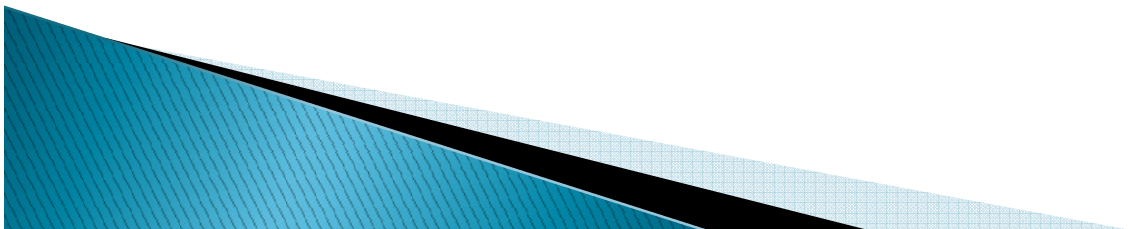
Resources for learning more

- Bloggers prone to write about CF troubleshooting, tuning
  - WebApper: http://www.webapper.com/blog/
  - Alagad: http://alagad.com/go/blog
  - Mike Brunt: http://www.cfwhisperer.com/
  - Steven Erat –http://www.talkingtree.com/blog/
  - Mark Kruger: http://www.coldfusionmuse.com/
  - Pete Freitag: http://www.petefreitag.com/
- And many classic blog entries from these folks:
  - "Sarge" –http://sargeway.com/blog/
  - Brandon Purcell – http://www.bpurcell.org/blog/
  - Robi Sen – via archive.org: http://web.archive.org/web/20080127011413/http://www.robisen.com/
- Consultants to assist with troubleshooting
  - http://www.cf411.com/#cfconsult

Summary

- With the right tools, CF is no longer a black box
  - Many situations where CF seems hung can be resolved
- We covered
  - Help, my server is hung...or is it?
  - Tools to monitor request threads
  - Built-in CF troubleshooting tools
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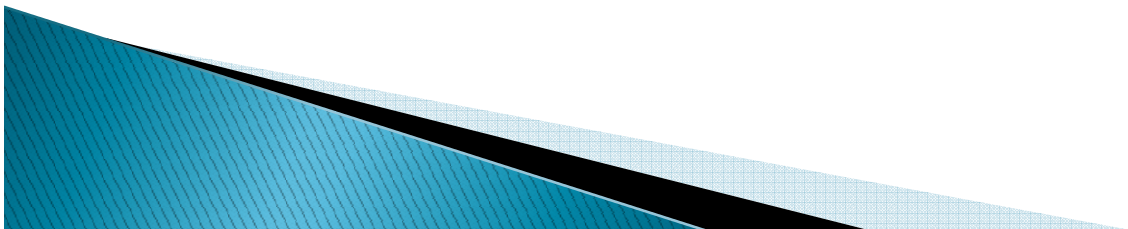
Questions On Presentation

- Charlie Arehart
  - charlie@carehart.org
- I'd really appreciate your feedback
  - http://carehart.org/feedback/
- Available for ColdFusion troubleshooting
  - Remote or on-site
  - No time minimum, satisfaction guarantee
  - http://carehart.org/consulting/