Getting Started with Multiple Instances in CF
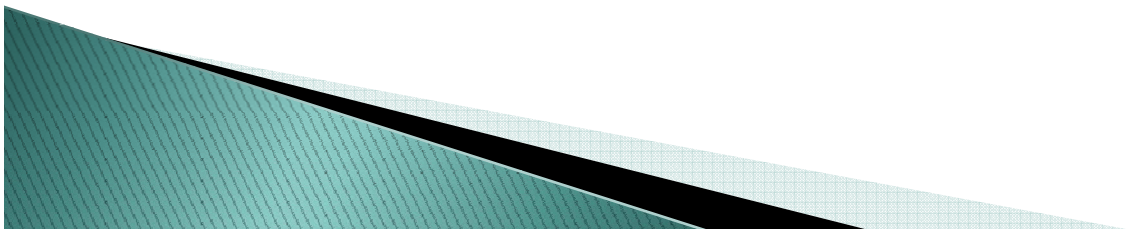
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Topics

- Introduction
- Walkthrough an Install (tips along the way)
- Other Gotchas
- Other Considerations
- Resources

About Charlie Arehart

Independent Consultant since Apr 2006

12 yrs CF experience (25 in Enterprise IT)

- Member, Adobe Community Experts
- Certified Adv CF Developer (4-8), Cert. Adobe Instructor
- Writer in FAQU, Adobe DevCenter, CommunityMX, CFDJ, more
- Contributor to all 3 Ben Forta CF8 books
- Run the 1800-member Online ColdFusion Meetup (coldfusionmeetup.com)
- Living in Alpharetta, Georgia (Atlanta)

Web home at www.carehart.org

- Host ~300 blog entries, 70+ articles, 80+ presentations
- UGTV: recordings of 300+ presentations by ~200 speakers
- CF411.com - 1000+ tools/resources in 130+ categories
- Consulting: available for troubleshooting, tuning; training
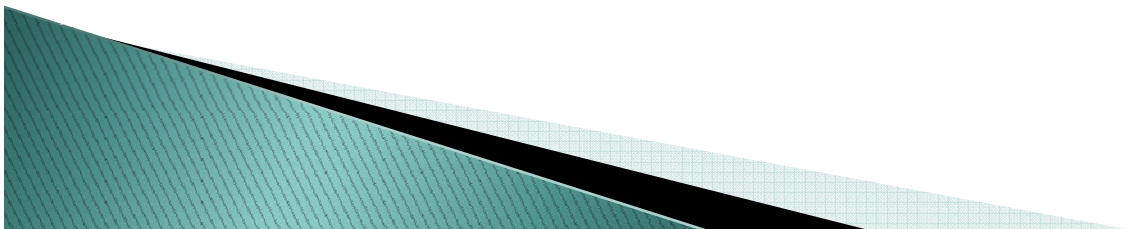 - Remote or on-site

Introduction

- One of three forms of deployment available at installation of CF Enterprise/Developer
  - Technically called Multiserver
  - Others are Server and J2EE (war/ear)
  - (CF Standard supports only Server mode)
- Installs full version of JRun 4, and implements CF under it
  - Can have multiple "instances" of CF implemented under this one JRun 4
- Available since CF 6, technically
  - Improved in 6.1
  - Improved significantly in 7, adding Enterprise Mgr

Benefits of Multiple Instances

- Instances are independent of each other
  - One can go down while another stays up
  - Admin settings are unique to instance
- Could have different instances for different apps/sites
  - One for app/site a, another for app/site b
  - Or one for dev and another for prod
    - Beware, though. Both are still on same machine
- Or could implement duplicate apps across instances
  - and add cluster/load balancing and replication
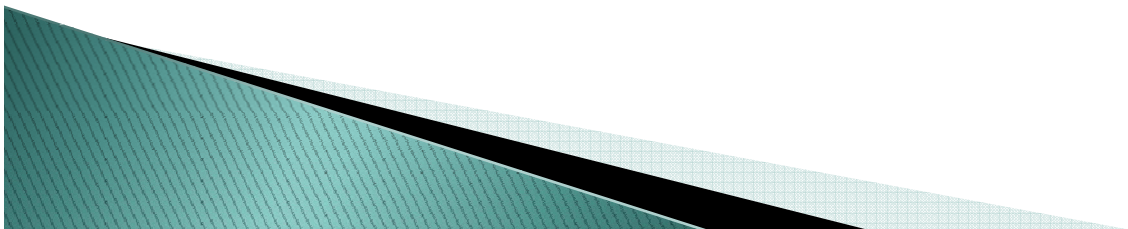- Best of all for some, instances reduce license cost

Walkthrough an Install

- Let's walk through an install
  - With tips, discussion along the way

Tip Summary
(things discussed in walkthrough)

- Might want to regard cfusion instance as just for creating new instances
  - Don't need to keep it running all the time then
- If not using the JRun admin, can stop/disable that
- Can install to built-in web server initially
  - And then add connection to external web server
  - Indeed, when creating new instances, this is assumed

Tip Summary (cont.)

- **Placement of CF templates**
  - For internal CF web server, deep inside instance `[JRun4]\servers\[instancename]\cfusion.ear\cfusion.war`
  - For external web server, wherever you want
- **Finding logs**
  - Equivalent of `[CF]\logs` are deep inside instance `[JRun4]\servers\[instancename]\cfusion.ear\cfusion.war\WEB-INF\cfusion\logs`
  - Equivalent of `[CF]\runtime\logs` are in instance `[JRun4]\logs`
- **Can share admin settings among instances**
  - Either using CAR archive feature
  - Or by setting in cfusion instance, which is used as template

Other Gotchas

- Beware: JVM.config is shared by all instances
  - Changing memory size for instance
    - No interface in CF Admin, must be done in [jrun4]\bin\jvm.config
    - So if set to 1 gig, multiply that by running instances
  - Also impacts if debugging is enabled
    - May find that if one instance goes down, others can't come up due to the first instance locking the debugger port
  - Should really consider setting each instance to have own jvm.config
    - See resources on next page

Other Gotchas (cont.)

- Discussions on handling/changing instances sharing same jvm.config
  - http://kb2.adobe.com/cps/182/tn_18206.html
  - http://mkruger.cfwebtools.com/index.cfm/2006/4/17/multiserver
  - http://www.n8williams.com/devblog/coldfusion/multiple-coldfusion-instances-with-separate-jvm-configs-as-windows-services
  - http://www.placona.co.uk/blog/post.cfm/creating-new-coldfusion-8-instances-the-easy-way-appendix

Other Gotchas (cont.)

- CFSTAT and Perfmon integration not offered
  - Available only in Server mode of deployment
- Be careful about setting scheduled tasks in multiple instances unintentionally
  - Recall that things entered in cfusion admin are propagated to new instances on creation
- CF licensing in a Virtual Machine
  - not specific to instances, but may be of interest
  - See http://john.beynon.org.uk/2008/04/04/coldfusion-801-eula-changes/

Other Considerations

- Using CF8 Multiserver Monitor
  - See part 4 of my Adobe Devnet article series on the Server Monitor
    - http://www.carehart.org/blog/client/index.cfm/2008/7/30/45page_server_monitor_guide
- Using sandbox security
  - See my 2-part Adobe Devnet series, starting at
    - http://www.carehart.org/articles/#2002_11
    - Beware need to make manual jvm.config change
      - See discussion in Adobe Install manual, next page
- May want to investigate the feature to deploy war/ear packages into instances
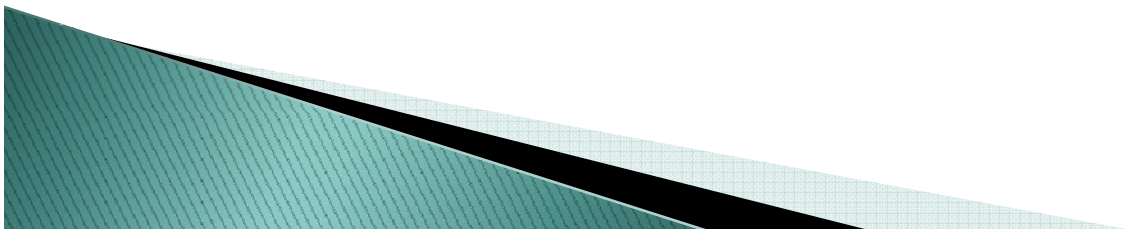 - Again, see the docs for more

Resources

- I have a blog entry pointing to several Adobe resources
  - "Resources for getting into the Multiserver (multiple instance) implementation of CF"
    - http://www.carehart.org/blog/client/index.cfm/2007/7/5/getting_into_multi_instance_implmentation_of_CF
    - Or http://bit.ly/cfinstances
  - Comments also point to non-Adobe resources
- See also CF docs
  - *Configuring and Administering ColdFusion 8*, Chapter 8
  - *Installing and Using ColdFusion 8*, Chapter 4
- Beware old resources referring to 6/6.1

Conclusion

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Summary

▸ So, did you learn something?

▸ What we covered:

◦ Introduction

◦ Walkthrough an Install (tips along the way)

◦ Other Gotchas

◦ Other Considerations

◦ Resources

▸ Hope the talk was helpful

Questions On Presentation

- I'd really appreciate your feedback
  - Feel free to share it now ☺
  - Or at http://carehart.org/feedback/
  - Or at charlie@carehart.org
- Available for ColdFusion troubleshooting, setup, implementation consulting
  - Also other developer productivity coaching, system admin and tuning support, and more
  - Remote or on-site
  - For as little as days, hours, even 15 minutes
  - http://carehart.org/consulting/