

NOTICE TO ATTENDEES AT MY CFSUMMIT SESSION

I realized after the session that the deck I showed was missing some info I'd meant to share. See new/changed slides 11, 13, 20, 22, 25, 27, 30-34, 36, 38-43.

Also, note very important clarification about CF Standard vs Enterprise on slide 36. Some misinterpreted my point about how only 1 thing NEW in enterprise was Enterprise-only. There DO still remain many OTHER differences. See offered link.

HIDDEN GEMS IN CF2018



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- ▶ Major features of CF2018 (quick overview)
- ▶ Hidden gems in many areas
 - ▶ Installation, administration, web server config, monitoring
 - ▶ New/changed features, new language constructs, etc.
- ▶ As well as other topics:
 - ▶ Updates to underlying libraries' version numbers
 - ▶ Deprecated/obsoleted features
 - ▶ What's new in Standard vs Enterprise
 - ▶ Pricing, licensing, end of life support
 - ▶ And more
- ▶ Slides carehart.org/presentations

- ▶ Focus on CF server troubleshooting, as an independent consultant
 - ▶ Assist organizations of all sizes, experience levels
 - ▶ Work remotely 99% of the time, safe, secure, easy (via shared desktop)
 - ▶ Satisfaction guaranteed. More on rates, approach, etc at carehart.org/consulting
- ▶ Love to share info, with my clients and the community
 - ▶ Active blogger
 - ▶ Speaker at nearly every CF conference
 - ▶ Contributor to/creator of many CF community resources
 - ▶ As well as CF411.com, CF911.com, and more

- ▶ How many have started using CF2018 in prod? In dev?
 - ▶ How many have at least seen resources about it?
 - ▶ Not surprised if not even many: people often wait
- ▶ Anyone “waiting for first point release”?
 - ▶ Update 1 came out last month
- ▶ How many likely won't use it until next release (CF 2020)?
- ▶ I do these talks, not just for those making the move now or soon
 - ▶ But also those who may see it in future 😊
- ▶ Anyone know when I started doing hidden gems in CF?
 - ▶ 4.0.1 in 1999

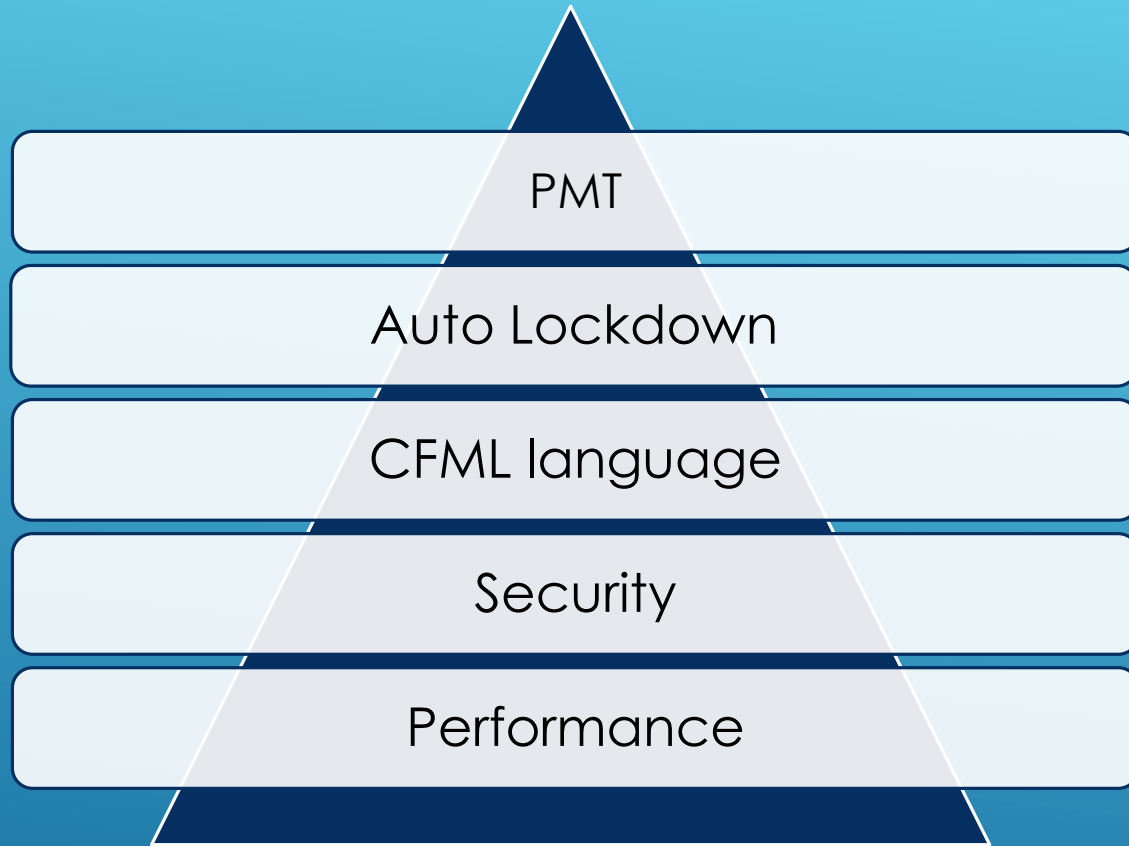
SOME INTRO QUESTIONS FOR YOU

- ▶ If you may be jumping to 2018 from 11 or earlier...
 - ▶ Don't miss changes and hidden gems I'd identified in those versions
 - ▶ See my hidden gems talks on each: carehart.org/presentations
 - ▶ I discuss also compatibility issues moving to each, as I will about 2018

JUMPING FROM CF11 OR EARLIER?

- ▶ While normally I'd be pointing to CF docs for more...
 - ▶ At CF2018 launch Adobe offered several blog posts
 - ▶ coldfusion.adobe.com/category/coldfusion-2018/
 - ▶ coldfusion.adobe.com/tagpage/?tag=coldfusion%202018
 - ▶ Sadly, doesn't list ALL of them. See my blog listing them soon after launch:
 - ▶ carehart.org/blog/client/index.cfm/2018/7/19/whats_new_in_CF2018
- ▶ Also, here at CFSummit there are several Adobe sessions on CF2018
 - ▶ Of course they go into MUCH more depth on many of the topics I'll only mention
 - ▶ Hopefully some of them will be offered online, if you miss them/for those not here

MORE ABOUT CF2018 THAN JUST IN DOCS



MAJOR FEATURES OF CF2018

- ▶ New UI for CF Admin
- ▶ Command-line REPL
- ▶ REST Playground
- ▶ New caching engines
- ▶ Changes in CF Builder
- ▶ But then many other hidden gems
 - ▶ and some also within the “noted” and “less noted” features
 - ▶ Let's proceed...

SOME LESS NOTED (BUT NOT HIDDEN) FEATURES

- ▶ We'll start with things like installation, administration, configuration
 - ▶ Then development features and more
- ▶ First up, not so much a feature but a warning for some:
 - ▶ As of CF2018 there is no longer a 32-bit installer
- ▶ More:
 - ▶ coldfusion.adobe.com/2018/10/does-adobe-coldfusion-2018-release-have-32-bit-support/

- ▶ Have you seen the CF 2018 Admin? Let's take a look
 - ▶ Real hidden gem: don't miss the offered "search" feature at the top right
 - ▶ DEMO
- ▶ Another Admin hidden gem:
 - ▶ Scheduled tasks page finally adds "pause all" and "resume all" buttons
 - ▶ CFSCHEDULE has been able to do that also, since CF10
 - ▶ In CF2018, that no longer requires use of GROUP or MODE attributes
 - ▶ But will only stop "Server" mode tasks and "application" mode tasks in same app where cfschedule tag is running
 - ▶ More:
 - ▶ helpx.adobe.com/coldfusion/cfml-reference/coldfusion-tags/tags-r-s/cfschedule.html

- ▶ Some may know CF has long had a lockdown guide
 - ▶ Written by Pete Freitag and offered as part of CF docs through CF2016
- ▶ CF2018 adds a new (optional) auto-lockdown tool
 - ▶ Tries to handle all at once the 84-pages of steps in the Lockdown Guide
- ▶ Does offer rollback and uninstall features
 - ▶ as well as logs of what it does, if it rolls back
- ▶ See [CF Home]\lockdown\
 - ▶ uninstall at ([CF Home]\lockdown\[Instance locked down]\Uninstall)
- ▶ ...

- ▶ Also offers silent install option
- ▶ Downloading it: adobe.com/support/coldfusion/downloads.html
- ▶ More:
 - ▶ helpx.adobe.com/coldfusion/using/server-lockdown.html
 - ▶ coldfusion.adobe.com/2018/07/server-auto-lockdown/
- ▶ **One potential trap:**
 - ▶ Release notes for update 1 shows extra steps to take if autolockdown applied
 - ▶ helpx.adobe.com/coldfusion/kb/coldfusion-2018-update-1.html

- ▶ New monitoring solution for CF2018
 - ▶ Is a very tool, really worthy of an entire talk, indeed multiple talks
 - ▶ There are many happening this week, today and tomorrow
 - ▶ Will share some tips to help you get started with it
- ▶ Downloading it: adobe.com/support/coldfusion/downloads.html
- ▶ Configuring it
 - ▶ Auto discovery, or manual config
 - ▶ coldfusion.adobe.com/2018/07/auto-discovery/
 - ▶ as of initial release, server auto-discovery does not support https
 - ▶ coldfusion.adobe.com/discussion/2539323/
- ▶ ...

PERFORMANCE MONITORING TOOLSET (PMT)

- ▶ Launching it: no start menu option, but instead link within CF Admin
- ▶ Something you might miss: alerts
 - ▶ coldfusion.adobe.com/2018/07/alerts-and-notification/
- ▶ Learning more:
 - ▶ helpx.adobe.com/coldfusion/user-guide.html?topic=/coldfusion/morehelp/pmt.ug.js
 - ▶ and blog posts ...

▶ Several CF team blog posts

- ▶ coldfusion.adobe.com/2018/07/monitoring-coldfusion-servers/
- ▶ coldfusion.adobe.com/2018/07/topology-birds-eye-view-of-coldfusion-deployment/
- ▶ coldfusion.adobe.com/2018/07/database-discovery/
- ▶ coldfusion.adobe.com/2018/07/external-services/
- ▶ coldfusion.adobe.com/2018/07/code-profiler/
- ▶ coldfusion.adobe.com/2018/07/server-monitor-thread-dump-analysis/
- ▶ coldfusion.adobe.com/2018/07/server-monitor-mystery-of-health-score-pmt/
- ▶ coldfusion.adobe.com/2018/07/performance-monitoring-toolset-connecting-the-dots-using-jvm-metrics/
- ▶ And others I mention elsewhere here

PERFORMANCE MONITORING TOOLSET (PMT)

- ▶ Again, there were some important improvements in CF2016
 - ▶ Much better defaults than CF10, 11, and also enhanced config options
- ▶ Still more enhancements to wsconfig UI in CF2018
 - ▶ Choice of expected “load levels”
 - ▶ Demo
- ▶ New connector auto-tuning, within PMT
 - ▶ Bummer: only for IIS, it seems
- ▶ More:
 - ▶ coldfusion.adobe.com/2018/07/connector-tuning/
 - ▶ helpx.adobe.com/coldfusion/performance-monitoring-toolset/view-list-sites-busy-connections.html

WEB SERVER CONFIG TOOL (WSCONFIG) CHANGES

- ▶ Previously CF supported ehcache
 - ▶ Now adds JCS (like ehcache, implemented within jvm)
 - ▶ And new options for distributed caching: Memcached, redis
- ▶ See CF Admin setting
- ▶ DEMO
- ▶ Can also override caching features/settings at application-level
- ▶ Also related new AdminAPI methods
- ▶ For more:
 - ▶ coldfusion.adobe.com/2018/07/distributed-caching-coldfusion-2018-release/
 - ▶ useful table at bottom
 - ▶ helpx.adobe.com/coldfusion/developing-applications/changes-in-coldfusion/caching-enhancements.html

NEW CACHING OPTIONS

- ▶ CF2016 had added new command-line interface (CLI)
 - ▶ Allowed cmd line CFML execution by pointing to a cfm file
 - ▶ Accessed using cf.bat or cf.sh in cfusion/bin folder
- ▶ CF2018 adds true REPL (read-eval-print-loop)
 - ▶ Essentially, able to write **cfscript** at command line (still via cf.bat / .sh)
 - ▶ **CAN** do tags using file approach above
 - ▶ CF does not even need to be running
 - ▶ Supports multi-line statements, either implicitly, an open “{“ block, or via “^”
 - ▶ To leave multiline mode, use special statement "multilineexit"
 - ▶ To exit repl: q or ctrl-c
 - ▶ Use “help” command to find more
- ▶ ...

- ▶ Can call CFCs **only in current** directory where cf.bat is running
 - ▶ can run cf.bat there, using path in front of it: `\coldfusion2016\cfusion]bin\cf.bat`
- ▶ Can output to terminal with `writeoutput`, `writeDump`, of course
 - ▶ But also, output gets auto-printed to the console when typing
 - ▶ an assignment
 - ▶ an expression evaluating to some value
 - ▶ a function
 - ▶ How to disable automatic printing of output in the console?
 - ▶ In `cfusion/bin/cf.bat` file, change setting `PRINT_REPL_VARS_AUTO` to `false`
- ▶ For more on REPL and CLI:
 - ▶ helpx.adobe.com/coldfusion/using/command-line-interface.html

- ▶ On the topic of “trying out code” easily, consider Adobe’s CFFiddle
 - ▶ cffiddle.org
 - ▶ Not new or CF2018-specific, but recent update: no longer need to login
 - ▶ Can save scripts to share with others, and more
- ▶ Consider also trycf.com
- ▶ Let’s move on to language feature gems

CONSIDER ALSO CFFIDDLE

- ▶ Somewhat along the same lines...
- ▶ The REST playground is a new way to work with CF rest services
 - ▶ Application bundled with CF, to help visualize, test, and debug them
- ▶ More
 - ▶ coldfusion.adobe.com/2018/07/rest-playground-ion-2018-release/
 - ▶ helpx.adobe.com/coldfusion/using/rest-enhancements-coldfusion.html#restplay

- ▶ Null support
 - ▶ coldfusion.adobe.com/2018/07/null-support-in-coldfusion-2018/
 - ▶ helpx.adobe.com/coldfusion/developing-applications/the-cfml-programming-language/using-coldfusion-variables/data-types-developing-guide.html#null-support
- ▶ Async feature
 - ▶ coldfusion.adobe.com/2018/07/asynchronous-programming-in-coldfusion-2018-release/
 - ▶ helpx.adobe.com/coldfusion/using/asynchronous-programming.html
- ▶ Enhanced support for new operator
 - ▶ coldfusion.adobe.com/2018/07/enhanced-support-for-new-operator
 - ▶ helpx.adobe.com/coldfusion/using/whats-new.html#new
- ▶ ...

- ▶ Semi-colon optional
 - ▶ coldfusion.adobe.com/2018/07/writing-cfms-without-semicolons/
 - ▶ helpx.adobe.com/coldfusion/using/whats-new.html#Otherchanges
- ▶ Closures in tags (previously only in script)
 - ▶ coldfusion.adobe.com/2018/07/closures-in-coldfusion-tags/
 - ▶ helpx.adobe.com/coldfusion/developing-applications/the-cfml-programming-language/extending-coldfusion-pages-with-cfml-scripting/using-closures.html#closure-tags
- ▶ Named parameters
 - ▶ coldfusion.adobe.com/2018/07/named-parameters-in-coldfusion/
 - ▶ <ftp://ftp.adobe.com/pub/adobe/coldfusion/2018/NamedParametersColdFusion2018.pdf>
- ▶ ...

- ▶ New control of query auto-generation of primary keys
 - ▶ cfquery attribute `disableAutoGenKeys`
 - ▶ `queryexecute`
 - ▶ Added the value `disableAutoGenKeys` in `queryOptions` struct
- ▶ Cfchart
 - ▶ Adds support for responsive client-side charts
 - ▶ Can specify the height and width in percentages

- ▶ And still more groups of changes ...

- ▶ Typed arrays
- ▶ Array negative indexes
- ▶ Array slices
- ▶ Member functions now supported for string literals
- ▶ More:
 - ▶ coldfusion.adobe.com/2018/07/arrays-and-string-enhancements-in-coldfusion-2018/

- ▶ ArrayFirst
- ▶ ArrayLast
- ▶ QueryDeleteColumn
- ▶ QueryDeleteRow
- ▶ CacheGetEngineProperties
- ▶ RunAsync
- ▶ StructIsOrdered
- ▶ More:
 - ▶ helpx.adobe.com/coldfusion/cfml-reference/new-functions-coldfusion-2018.html

- ▶ Too many to list, but in categories of:
 - ▶ query functions
 - ▶ array functions
 - ▶ xml functions
 - ▶ async functions
 - ▶ numeric functions
 - ▶ date functions
 - ▶ as well as changes to some existing member functions
- ▶ coldfusion.adobe.com/2018/07/member-functions-coldfusion-2018/
- ▶ helpx.adobe.com/coldfusion/developing-applications/building-blocks-of-coldfusion-applications/using-the-member-functions.html

NEW MEMBER FUNCTIONS

- ▶ Abstract CFCs & Methods
- ▶ Subtyping/covariant method return types
- ▶ Final variables, methods, components
- ▶ More:
 - ▶ coldfusion.adobe.com/2018/07/oop-and-coldfusion/
 - ▶ coldfusion.adobe.com/2018/07/oop-and-coldfusion-part-2/
- ▶ default functions in interface
 - ▶ coldfusion.adobe.com/2018/07/default-function-in-interface/

- ▶ We're more than half-way home. But areas remaining include...
 - ▶ Deprecated features
 - ▶ Updates to underlying libraries' versions numbers
 - ▶ What's new in Standard vs Enterprise
 - ▶ Pricing
 - ▶ Updates since initial release
 - ▶ And more!

OTHER TOPICS

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- ▶ See:
 - ▶ helpx.adobe.com/coldfusion/deprecated-features.html
- ▶ Some features listed as deprecated (there, but should not be used)
 - ▶ Mostly things rarely used by most anymore
- ▶ New concept: "retired" (feature **not enabled by default**)
 - ▶ Some may be things rarely used by most (flash remoting, flash forms, etc.)
 - ▶ Some you may use: UI tags (more on that in a moment)
- ▶ Potential trap
 - ▶ That page says only the thing removed in CF2018 is CF Server Monitor
 - ▶ I ran into some other issues...

- ▶ The pages list some things as deprecated that seem obsoleted (code fails)
 - ▶ cfschedule's timeout attribute (used in creating a new task)
 - ▶ can add cfsetting requesttimeout to page being called (if under your control)
 - ▶ cfcache's cachedirectory and timeout attributes
- ▶ Also, though not listed on the page, I found:
 - ▶ cfqueryparam failed if..
 - ▶ cfsqltype="CF_SQL_int" (should instead be "CF_SQL_integer")
 - ▶ cfsqltype=""CF_SQL_DateTime" (should be CF_SQL_date, time, or timestamp)
 - ▶ cfsocialplugin failed if width attribute specified

- ▶ Among things listed as “retired” are UI tags based on YUI javascript library
 - ▶ So these will not work out of the box with 2018, but you can “enable” them
 - ▶ This was also true as of one of the updates to CF2016 and 11 last year
- ▶ Includes these tags
 - ▶ cfmenu, cftree, cftootip, cfcalendar, cfinput (autosuggest attribute), cfinput (sourcefortooltip attribute), cfsprydataset
- ▶ To re-enable these, just copy needed YUI library files back into CF
 - ▶ See bottom of that deprecated features page

- ▶ Watch out: as part of the new OO support, CF now has an **abstract** keyword
 - ▶ As such, if you have code that uses that word, you will have a conflict/errors
 - ▶ Even if you may not think you use that, watch out that frameworks might
 - ▶ ColdSpring does
 - ▶ You need to carefully find and replace variable names, properties called “abstract”
 - ▶ May not want to do global replace, as you may have text that shouldn’t be replaced
 - ▶ Could just run through code and fix those which get errors, but that’s risky, too

- ▶ Antismy 1.5.7 (OWASP security library)
- ▶ Derby 10.11 (embedded DB)
- ▶ Ehcache 2.10.3 (caching library)
- ▶ Esapi 2.1.0 (OWASP Enterprise Security API)
- ▶ Hibernate 5.2.11 (ORM library)
- ▶ HttpClient 4.5.2 (underlies CFHTTP and more)
- ▶ Java 10.0.1 (the JVM which underlies CF)
- ▶ jQuery 3.1.1 and jQuery UI 1.12.1 (JS library which underlies various UI tags and Admin interface features)
- ▶ Lucene 6.6 (underlies Solr search engine in CF)
- ▶ POI 3.7 (underlies MS Office Integration features)
- ▶ Solr 7.2.1 (the embedded search engine, used by CFSEARCH/CFINDEX, etc.)
- ▶ Tomcat 9.0.10 (app server underlying CF, when deployed in traditional "Server" configuration)

UPDATES TO SOME UNDERLYING LIBRARIES' VERSIONS NUMBERS

- ▶ Only thing **new** that is Enterprise only is distributed caching
 - ▶ redis and memcached options
 - ▶ Standard **does** support long-standing ehcache and the new jcs option
- ▶ The CF2018 perf. whitepaper says “web server path caching” is Ent-only
 - ▶ But it’s not a new feature (has been there for many releases)
 - ▶ And I see the option in the CF2018 Admin Caching page
- ▶ LET ME BE CLEAR: **I am NOT saying that’s the ONLY difference between CF2018 Standard and Enterprise**
 - ▶ I’m saying that’s the only thing NEW in 2018 that is Enterprise-only
- ▶ For more on differences between CF Std and Ent:
 - ▶ adobe.com/products/coldfusion-standard/buying-guide.html

- ▶ And now, the shoe drops. The price of CF2018 has increased
 - ▶ Standard: 2499 (per 2 CPU cores)
 - ▶ Enterprise 9499 (per 8 CPU cores)
- ▶ Upgrade discount for those on CF2016 (none for those on CF11 or earlier)
- ▶ Consider buying CF from resellers, for still more discounts
 - ▶ [Buy-adobe-software.com](http://buy-adobe-software.com) (from makers of FusionReactor)

- ▶ No real difference from CF2016
- ▶ More:
 - ▶ adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/ColdFusion.pdf

- ▶ Release notes (bug fixes, known issues, etc.)
 - ▶ helpx.adobe.com/coldfusion/release-note/coldfusion-2018-release-notes.html
- ▶ Performance Whitepaper
 - ▶ www.images2.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/CF2018_Performance.pdf

- ▶ Released last month
- ▶ Tomcat updated to 9.0.10
- ▶ New GetCanonicalPath function
 - ▶ Was also added to CF2016 and 11 per their updates released at the same time
- ▶ Potential traps...

UPDATE 1

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- ▶ Potential trap:
 - ▶ Update adds *packetSize* to *server.xml* for the *ajp* and *http* “connector” *xml* elements
 - ▶ Someone complained they had already added that, and the update just added it again, making it a dupe and this preventing thus CF coming up!
 - ▶ And the *server.xml* file did NOT get backed up in the *hf-updates* folder
- ▶ Remember also potential trap if *autolockdown* is applied mentioned before
- ▶ More:
 - ▶ helpx.adobe.com/coldfusion/kb/coldfusion-2018-update-1.html

- ▶ Lists of updates, links to technotes, and offers jar download links!
 - ▶ helpx.adobe.com/coldfusion/kb/coldfusion-2018-updates.html
- ▶ Also available for CF 2018, 11 and 10:
 - ▶ helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html
 - ▶ helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html
 - ▶ helpx.adobe.com/coldfusion/kb/coldfusion-10-updates.html
- ▶ Again, updates are cumulative, need only apply latest!

- ▶ And finally...

- ▶ Some may know that Adobe released Docker images for CF2016
 - ▶ They have been updated for CF2018
 - ▶ And it's also been updated already for Update 1
- ▶ bintray.com/eaps/coldfusion/cf%3Acoldfusion/2018.0.1/view/readmore#release

- ▶ Built-in FTP support
 - ▶ Window>Show View>Other>Remote Systems
 - ▶ in previous releases, you'd have to know to get it, Remote Systems Explorer
 - ▶ helpx.adobe.com/coldfusion/using-coldfusion-builder/managing-servers.html#remote
- ▶ Asserted to load large files faster, and use less memory
- ▶ Support to import code profiler data from PMT
 - ▶ helpx.adobe.com/coldfusion/using-coldfusion-builder/managing-projects.html#profiler
- ▶ ...

- ▶ Cordova replaces Phonegap
 - ▶ helpx.adobe.com/coldfusion/mobile-application-development/packaging-mobile-applications.html
- ▶ Standalone edition now built upon Eclipse Oxygen 4.7.2
- ▶ More:
 - ▶ helpx.adobe.com/coldfusion/using-coldfusion-builder/whats-new-in-coldfusion-builder.html

- ▶ So, lots of changes, right? (Too many to easily count)
- ▶ Hope you may be more motivated—and informed—to consider CF2018
 - ▶ To understand if and how it may work for you
 - ▶ Or at least where things stand regarding it as of now
- ▶ Again, my contact info for followup:
 - ▶ Charlie Arehart
 - ▶ charlie@carehart.org
 - ▶ @carehart (Tw, Fb, Li, Slack)

SUMMARY