

# WHAT WAS NEW IN CF 10, 11, AND 2016 THAT YOU MAY HAVE MISSED?



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- ▶ How many here in prod on CF2016? CF11? CF10? CF9? CF8 or earlier?
  - ▶ Do you know when 10 came out? Why it was a big deal?
- ▶ You may have skipped from CF9 or earlier to 10, 11, or 2016 (or 10 to 2016, etc.)
  - ▶ Or you may have moved to 10, 11, or 2016, but perhaps never took full advantage of it
- ▶ Goal here: broad-brush review of **key** things in 10, 11, 2016
  - ▶ Across several common categories, including features, compat, licensing, more
- ▶ Can't cover here EVERY change in each release, let alone demo them
  - ▶ See my hidden gems talk on each version
- ▶ Success: **everyone comes away learning several things that they want to try... or be aware of**
- ▶ Slides for this talk: [carehart.org/presentations](http://carehart.org/presentations)

## WHY ARE WE HERE?

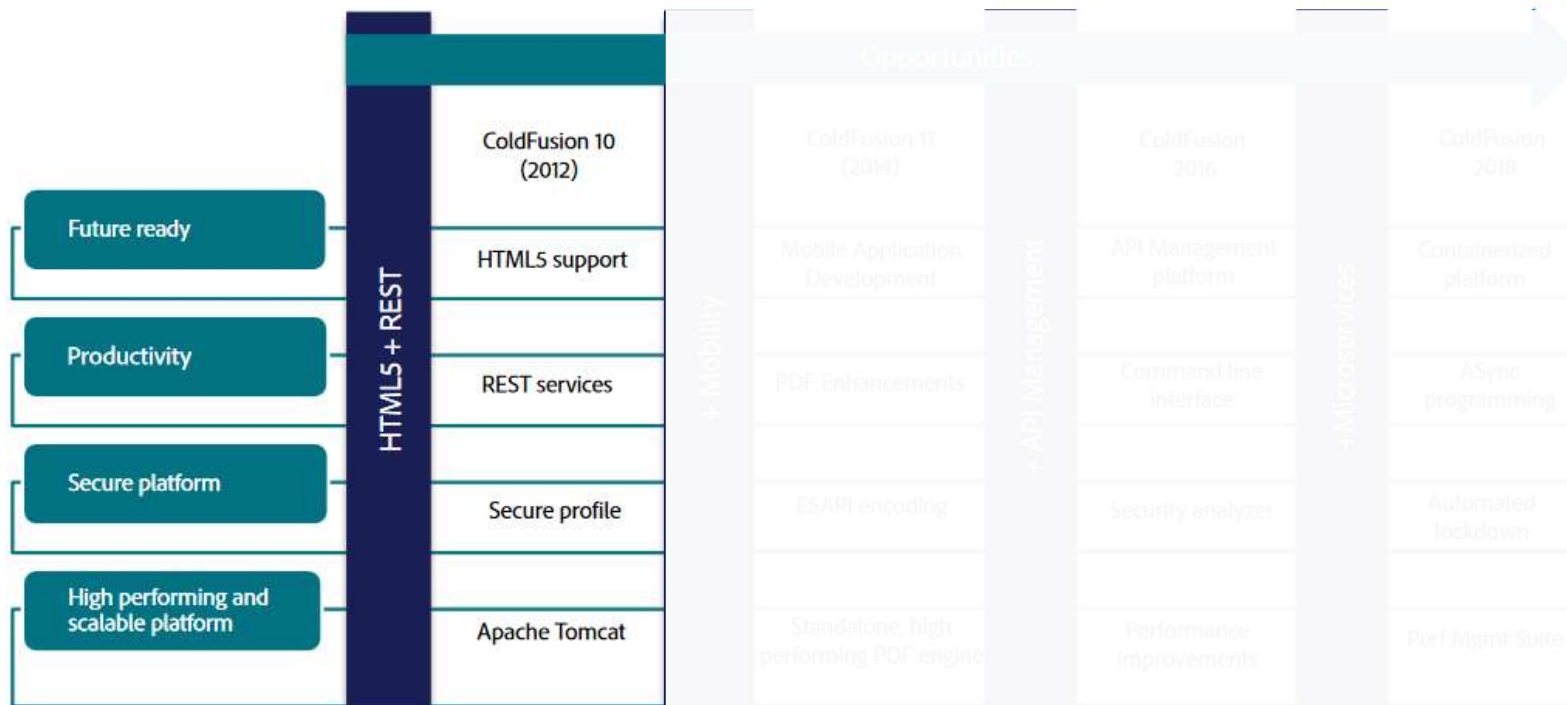
- ▶ Been chronicling CF feature changes since ...
  - ▶ CF 4 (CFDJ, Apr 99)
- ▶ Love to share info, with the community and my clients
  - ▶ Active blogger, speaker at nearly every CF conference the past 20 years
  - ▶ Contributor to/creator of many CF community resources
    - ▶ Online CFMeetup, CF411.com, UGTV, CF911.com, CFUpdate.com, and more
- ▶ My own focus is 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)
  - ▶ Focus is not just solving problems but educating you
  - ▶ Satisfaction guaranteed. More on rates, approach, etc at [carehart.org/consulting](http://carehart.org/consulting)

## ABOUT ME

- ▶ For each of CF10, 11, 2016:
  - ▶ Key major features
  - ▶ Key minor features, from coding to admin to security changes and more
  - ▶ Key changes introduced in **updates** to that release
  - ▶ About licensing changes
  - ▶ Compat issues / gotchas
  - ▶ Resources to learn more, again all the above for each release
    - ▶ While we can only briefly mention each new thing, there are docs, blog posts, articles, and/or videos on nearly every one

# TOPICS FOR TODAY

# ColdFusion - Transformation over the years

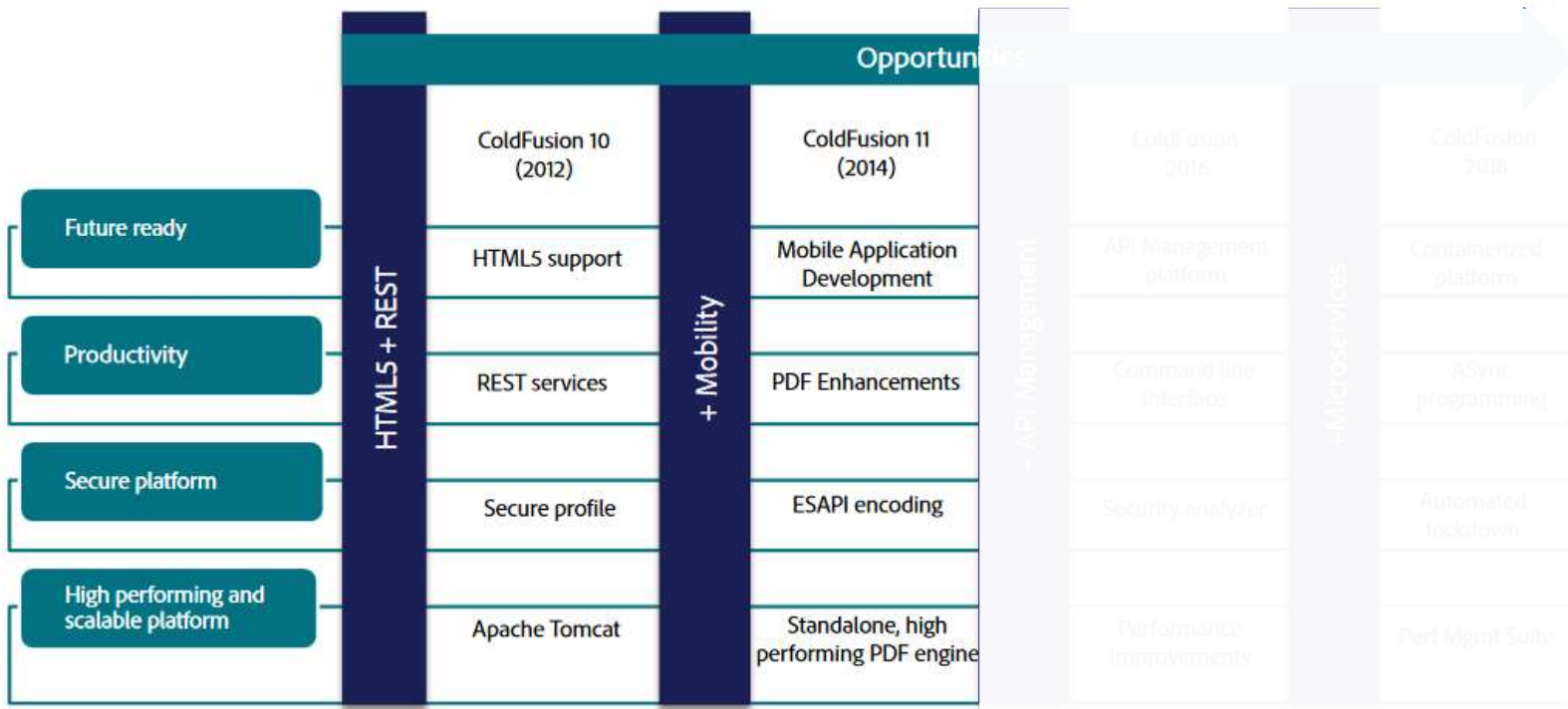


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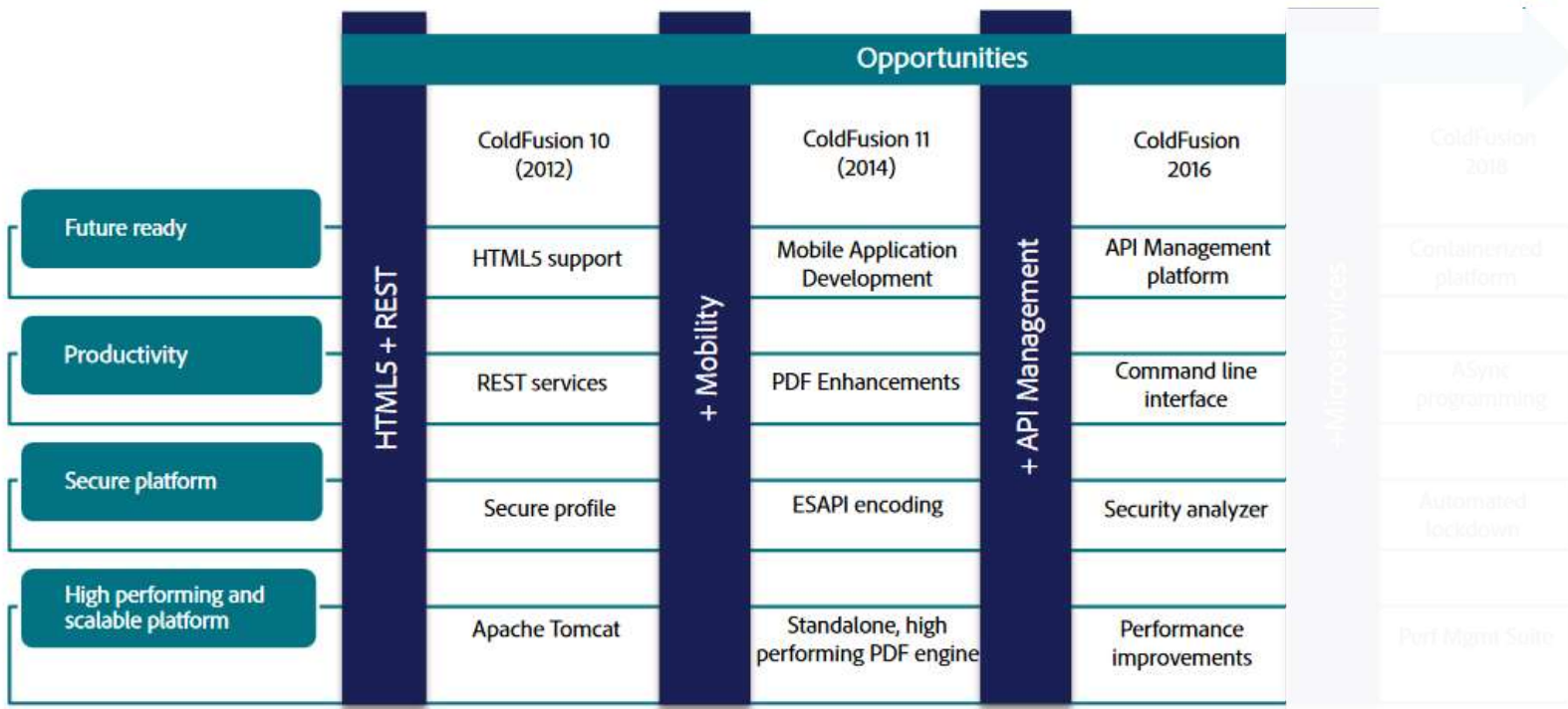


HOW ADOBE HAS HIGHLIGHTED THE 3 RELEASES (FROM ADOBE ROADMAP 2017)

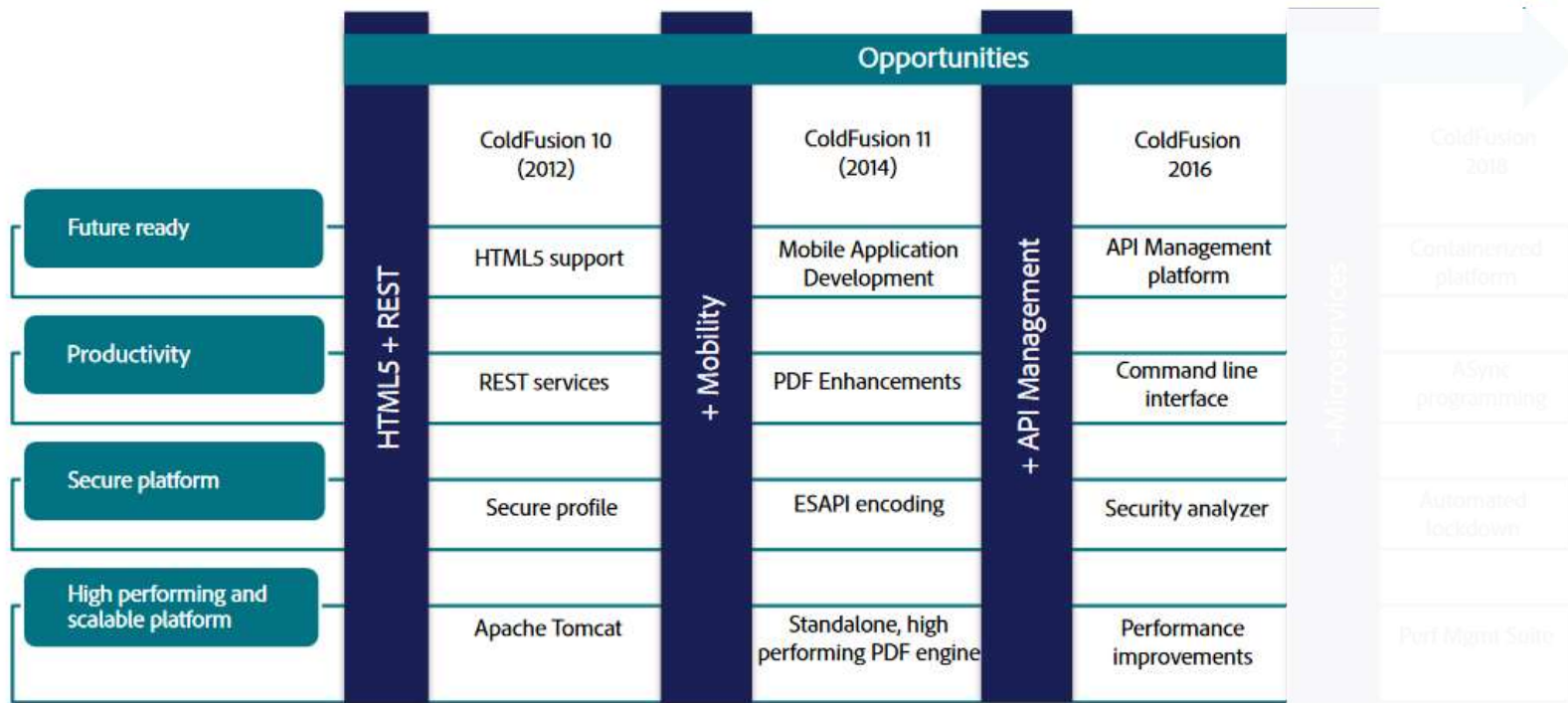
# ColdFusion - Transformation over the years



# ColdFusion - Transformation over the years



# ColdFusion - Transformation over the years



As always, there's LOTS more...



CF 10



- ▶ Changed from running on JRun to Tomcat
- ▶ Substantial increase in “tags as script”
- ▶ Many security and language enhancements (later here)
- ▶ Initial support for REST
- ▶ HTML5 charts and videos, geolocation support
- ▶ WebSockets
- ▶ Web services: AXIS 2, WSDL 2, SOAP 1.2, document literal wrapped support
- ▶ But also SO much more!

## CF10 KEY MAJOR FEATURES

- ▶ Implicit notation for arrays, structs
  - ▶ Option to use : separator for struct key assignment, as in var:value
- ▶ Implicit constructors for CFCs, implicit gettings/setters; method chaining
- ▶ Closures and inline functions
- ▶ Support for openauth: CFOauth (facebook, google, ms, github auth)
- ▶ Updated to embedded libraries (jvm, ehcache, solr, more)
- ▶ Amazon AMI

## CF10 KEY MINOR FEATURES

- ▶ “Secure Profile” feature (choice at installation only, in CF10)
- ▶ Many security enhancements regarding XSS, CSRF, Session Fixation, etc
  - ▶ New functions: encodefor\*, decodefor\*, csrf\*, canonicalize, decodeFromURL, hmac
  - ▶ New sessioninvalidate and sessionrotate functions
- ▶ New “Session Cookie Settings” on “Memory Variables” page
- ▶ Verification of mime type
  - ▶ Via optional STRICT attribute on CFFILE uploads, or fileGetMimeType() on any file
- ▶ ...

## CF10 KEY SECURITY CHANGES

- ▶ Could now restrict Admin Access by IP Address (also asked during installer)
  - ▶ Security>Allowed IP Addresses (bottom of page)
- ▶ Could now disable creation of unnamed application scopes (Server Settings>Settings)
- ▶ CFPOP adds SECURE attribute for use of SSL/TLS
- ▶ In admin:
  - ▶ New “Maximum number of POST request parameters” (Server Settings>Settings)

## CF10 KEY SECURITY CHANGES (CONT.)

- ▶ Automated hotfix mechanism
- ▶ Scheduled tasks: many improvements
  - ▶ Also, location within Admin from Debugging to Settings
- ▶ New directory structure for CF: base instance is “cfusion”, as in `c:\coldfusion10\cfusion`
  - ▶ For Enterprise, Trial, developer editions, new instances created as sibling to that
  - ▶ And each instance has own `jvm.config` and “Java and JVM” admin page
- ▶ New `audit.log` tracks most changes made in CF Admin
- ▶ New Access log, tracking every request (disabled by default in CF11+)
- ▶ Still more, in terms of hidden gems...

## CF10 KEY ADMIN CHANGES

- ▶ Old “out” log (from runtime/logs or jrun/logs) moved to main “logs” folder
- ▶ New password reset scripts (in instance’s bin folder)
- ▶ New metrics logging feature (on “debugging output” page)
- ▶ New jQuery UI element for admin “browse” buttons
- ▶ Could now enable/disable RDS in Admin (versus knowing config file tweak)
- ▶ Scheduled tasks moved to Settings section (from Debugging & Logging)
- ▶ Several AdminAPI enhancements

## CF10 KEY HIDDEN GEMS: INSTALL/ADMIN

- ▶ CFImage INTERPOLATION attribute to help performance of “resize” action
- ▶ CFStoredproc TIMEOUT attribute: time for each action within SP, not all
- ▶ New onAbort method for application.cfc (to handle CFAbort/abort)
- ▶ New datetimeformat (and Isdatetimeformat) function
- ▶ New getApplicationMetaData and sessionGetMetaData functions
- ▶ Several get... functions for obtaining system information
- ▶ Enhancements to java loading, S3, Exchange, ORM, SOLR, image processing
- ▶ CFLoop GROUP attribute
- ▶ CFInclude RUNONCE attribute
- ▶ Support in querynew/queryaddrow to add data directly, simply

## CF10 KEY HIDDEN GEMS: LANGUAGE



- ▶ Query caching now stored in ehcache by default
  - ▶ Can be changed in CF Admin or application.cfc
  - ▶ `this.cache.useinternalquerycache`, `this.cache.querysize`
- ▶ New CFQuery `cacheregion` and `cacheid` attributes for cache control mgt
  - ▶ Can remove via new `removeCachedQuery` function
- ▶ New caching functions: `cacheIdExists`, `cacheRegionNew`, `cacheRegionRemove`, `cacheRegionExists`, `cacheRemoveAll`
- ▶ Can now clear CF's template cache on per-folder basis, in Admin or Admin API
- ▶ Several VFS enhancements
  
- ▶ That's it for changes per initial CF10 release...

## CF10 KEY HIDDEN GEMS: CACHING

- ▶ Of course, each update contains either bug fixes or security updates, or both
  - ▶ And some contain several dozen bug fixes, which has been encouraging
    - ▶ As well as various updates to Tomcat, some of which are important
  - ▶ But some updates introduce fairly significant changes
- ▶ Update 11 added support for SQL Server 2012, MySQL 5.6, 64-bit COM
- ▶ Update 14 added support for Java 8, Apache 2.4
- ▶ Update 18 added support for Windows 10, OS X 10.11/El Capitan
- ▶ ...

## CF10 KEY CHANGES PER UPDATES

- ▶ Lists of updates, links to technotes, and offers jar download links!
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-10-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-10-updates.html)
- ▶ Also available for CF 11 and 2016:
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html)
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html)
- ▶ Updates are cumulative, need only apply latest!
- ▶ If you have troubles applying CF updates in 10/11/2016, see my blog post:
  - ▶ [carehart.org/blog/client/index.cfm/2016/9/6/solve\\_common\\_problems\\_with\\_CF\\_updates\\_in\\_10\\_and\\_above](http://carehart.org/blog/client/index.cfm/2016/9/6/solve_common_problems_with_CF_updates_in_10_and_above)

## ABOUT CF UPDATES

- ▶ New CF10 features that were Enterprise-only:
  - ▶ HTML 5 Charts (limitation lifted in CF11), ORM Search, Data import handler for Solr
  - ▶ Some aspects of new scheduler (chaining, listeners, exception handling, clustering, more)
  - ▶ Standard limits websockets to 100 simultaneous requests (limit lifted in CF11)
- ▶ ...

## CF10 ENTERPRISE-ONLY FEATURES

## ▶ EULA changes

- ▶ CPU-based, CPU defined as 4 cores, CF licensed for 2 CPUs (so up to 8 cores)
- ▶ Testing, staging, development remain free (as introduced in 9), as are backup and DR
- ▶ VM licensing unchanged since 9, new Cloud licensing. Differences for Std vs Enterprise
- ▶ Tweaked again in CF11 (more on that, later)
- ▶ Observe distinctions about CF Standard vs Enterprise vs Developer edition
- ▶ For questions, email [cfinstal@adobe.com](mailto:cfinstal@adobe.com)
  - ▶ CF Product Mgr, Rakshith Naresh, [rakshith@adobe.com](mailto:rakshith@adobe.com)
- ▶ More:
  - ▶ [www.images.adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/Adobe%20ColdFusion%C2%AE%2010.pdf](http://www.images.adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/Adobe%20ColdFusion%C2%AE%2010.pdf)
  - ▶ [web.archive.org/web/20121223084925/http://blogs.coldfusion.com:80/post.cfm/coldfusion-10-eula](http://web.archive.org/web/20121223084925/http://blogs.coldfusion.com:80/post.cfm/coldfusion-10-eula)
- ▶ [cfmumbojumbo.com/index.cfm/coding/coldfusion-10-eula-changes/](http://cfmumbojumbo.com/index.cfm/coding/coldfusion-10-eula-changes/)

# CF10 LICENSING CHANGES

- ▶ Verity text search engine removed, Solr carried forward from CF9
- ▶ Web services changes may break compat, easily resolved
  - ▶ See Admin-, application-, and code-level options to change wsversion, etc
- ▶ Single login at a time to CF Admin, for a given username (resolved in CF11)
- ▶ Web server connector issues/differences
  - ▶ Web server settings for 10 and up would conflict with CF9 settings on same web server
  - ▶ Need to “reconfigure” web server connectors after most CF10 updates (and 11)
  - ▶ Possible need of web server connector tuning
- ▶ ...

## CF10 COMPAT ISSUES / GOTCHAS

- ▶ Challenges with 64-bit and MS Access
  - ▶ Workaround: use Windows 32-bit ODBC control panel
  - ▶ [coldfusionmuse.com/index.cfm/2010/12/31/Access.on.64bit.ColdFusion](http://coldfusionmuse.com/index.cfm/2010/12/31/Access.on.64bit.ColdFusion)
- ▶ CF can no longer execute JSPs in website folders of external web server
  - ▶ Can only run them from CF's internal web server folder, [cf]/cfusion/wwwroot
- ▶ Finally: for any “bugs”, always try latest available update of your CF version
  - ▶ Final CF10 update was 23: no longer updated since May 2017

## CF10 COMPAT ISSUES / GOTCHAS

▶ What's new in ColdFusion 10

▶ [help.adobe.com/en\\_US/ColdFusion/10.0/Developing/WSd160b5fdf5100e8f639b4550129d6ce3d4f-8000.html](http://help.adobe.com/en_US/ColdFusion/10.0/Developing/WSd160b5fdf5100e8f639b4550129d6ce3d4f-8000.html)

▶ With links to more substantial discussions for each set of new changes

▶ [www.adobe.com/devnet/coldfusion/articles/coldfusion10-whatsnew.html](http://www.adobe.com/devnet/coldfusion/articles/coldfusion10-whatsnew.html)

▶ [tv.adobe.com/watch/coldfusion-10-deep-dives-for-developers/whats-new-in-coldfusion-10/](http://tv.adobe.com/watch/coldfusion-10-deep-dives-for-developers/whats-new-in-coldfusion-10/)

▶ Security

▶ [helpx.adobe.com/coldfusion/developing-applications/developing-cfml-applications/securing-applications/security-enhancements-in-coldfusion-10.html](http://helpx.adobe.com/coldfusion/developing-applications/developing-cfml-applications/securing-applications/security-enhancements-in-coldfusion-10.html)

▶ [www.adobe.com/devnet/coldfusion/articles/security-improvements.html](http://www.adobe.com/devnet/coldfusion/articles/security-improvements.html)

▶ [wwwimages.adobe.com/content/dam/Adobe/en/products/coldfusion/pdfs/cf10/cf10-lockdown-guide.pdf](http://wwwimages.adobe.com/content/dam/Adobe/en/products/coldfusion/pdfs/cf10/cf10-lockdown-guide.pdf)

▶ ...

## CF10 RESOURCES



- ▶ Book: Adobe ColdFusion Web Application Construction Kit: ColdFusion 10 Enhancements and Improvements by Ben Forta, et al.
- ▶ [www.akbarsait.com/cf10tutorials.cfm](http://www.akbarsait.com/cf10tutorials.cfm)
- ▶ [www.seguetech.com/upgrading-to-coldfusion-10-feature-review-part-1/](http://www.seguetech.com/upgrading-to-coldfusion-10-feature-review-part-1/)
- ▶ My talk, "What's New and Different about CF 10 on Tomcat"
- ▶ [www.carehart.org/blog/client/index.cfm/2012/3/7/charlie\\_aharts\\_ultimate\\_cf10\\_new\\_features\\_list](http://www.carehart.org/blog/client/index.cfm/2012/3/7/charlie_aharts_ultimate_cf10_new_features_list)
- ▶ And still more

## CF10 RESOURCES (CONT.)

CF 11



- ▶ Mobile app development/CFClient/CFBuilder Mobile features
- ▶ Full CFScript support
- ▶ Pixel-perfect PDF generation: CFHTMLtoPDF
  - ▶ Alternative to CFDOCUMENT, which is still supported
  - ▶ Leverages separate “CF Add-on Service”
- ▶ And still more...

## CF11 KEY MAJOR FEATURES

- ▶ New dev/production/prod+secure profile install option
  - ▶ Can enable/disable secure profile via admin
  - ▶ If secure profile enabled, cflocation defaults to addtoken="no"
- ▶ Further lock down of things by IP address (including Admin API, RDS)
- ▶ New Anti-Samy/ESAPI functions, issafehtml, getsafehtml
- ▶ New Generatepbkdf2key function
- ▶ XSS functions (encodefor...)
- ▶ ...

## CF11 KEY SECURITY CHANGES

- ▶ New limitation on what extensions can be used in CFINCLUDE
  - ▶ Settable also in cfapplication or application.cfc: compileextforinclude
- ▶ CFMail encryption
- ▶ CFHttp AUTHTYPE for NTLM login
- ▶ CFZip PASSWORD and ENCRYPTIONALGORITHM attributes
- ▶ [www.adobe.com/devnet/coldfusion/articles/security-improvements-cf11.html](http://www.adobe.com/devnet/coldfusion/articles/security-improvements-cf11.html)

## CF11 KEY SECURITY CHANGES (CONT.)

- ▶ New Express edition (not for production use)
- ▶ Could allow multiple concurrent logins to Admin by same user
- ▶ New secure profile page
- ▶ Support for session replication AND sticky sessions (separate options again)
- ▶ Auto-hotfix mechanism added new prompt to watch for status/success
- ▶ Web server connector offered new backup option
- ▶ Access log which was enabled in CF10 was disabled by default in CF11
- ▶ And more

## CF11 KEY ADMIN/INSTALL CHANGES

- ▶ Functions as first-class citizens
- ▶ Member functions
- ▶ Functional programming / higher-order functions (map, reduce)
- ▶ Elvis operator (?:)
  - ▶ *Name = userName ?: "Anonymous";*
- ▶ Over two dozen new functions

## CF11 KEY LANGUAGE CHANGES

- ▶ CFQUERYPARAM CFSQLTYPE attribute: can now leave off cf\_sql prefix for values, so either “cf\_sql\_integer” or just “integer” (Thanks to Pete Freitag for spotting that)
- ▶ Support for signatures in PDF creation
- ▶ cf\_socialplugin
- ▶ Spreadsheet, JSON, charting, websocket enhancements
- ▶ New strict number validation: if true (default), results of numeric validations (in tags, functions, return from methods) fail if value is not truly numeric
  - ▶ Settable in cfapplication or application.cfc: strictNumberValidation
- ▶ ...

## CF11 KEY HIDDEN GEMS



- ▶ New application-level datasource definition, via `application.cfc` `datasources[]` array
- ▶ Charting enhancements (some compat issues, discussed later)
  - ▶ [helpx.adobe.com/coldfusion/developing-applications/working-with-documents-charts-and-reports/creating-charts-and-graphs/charting-enhancements.html](http://helpx.adobe.com/coldfusion/developing-applications/working-with-documents-charts-and-reports/creating-charts-and-graphs/charting-enhancements.html)

## CF11 KEY HIDDEN GEMS (CONT.)

- ▶ Hundreds of bug fixes over the many updates
- ▶ Update 3 re-enabled long-dormant DBVARNAME on CFProcparam
  - ▶ Had been ignored since CF6, except briefly in 7.0.1
  - ▶ Problem: some DBs now require prefix to dbvarname value ( “:” for Oracle and “@” for SQLServer)
  - ▶ You may have old code that just says dbvarname = “param1”; would now fail
    - ▶ For SQL Server, should be dbvarname = “@param1”
  - ▶ Update 4: new jvm arg to revert (jvm arg workaround NOT supported in CF2016)
    - ▶ -Dcoldfusion.ignoredbvarname=true
  - ▶ [blogs.coldfusion.com/coldfusion-11-and-dbvarname-attribute/](https://blogs.coldfusion.com/coldfusion-11-and-dbvarname-attribute/)
- ▶ ...

## CF11 KEY CHANGES PER UPDATES

- ▶ Update 3 also added support for Java 8, SQL Server 2014, more
- ▶ Update 7 added support for Windows 10 and OS X 10.11/El Capitan/
- ▶ Update 13: CF uses CF Admin logging location for –out and –error logs
  - ▶ See [coldfusion.adobe.com/discussion/2308350/](http://coldfusion.adobe.com/discussion/2308350/)
- ▶ More: [helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html)

## CF11 KEY CHANGES PER UPDATES (CONT.)

- ▶ New CF11 features that are Enterprise-only
  - ▶ PDF signature support
  - ▶ Full DDX support
  - ▶ WebSocket cluster support
  - ▶ CFHTMLTOPDF cluster support
  - ▶ REST multisite support
- ▶ Things formerly Enterprise-only now available in Standard
  - ▶ CF archive (car) mechanism (to move CF admin settings from server to server)
  - ▶ Security Sandbox (to lockdown what code in different directories can do)
  - ▶ HTML5 charts
  - ▶ Web socket limit lifted

## CF11 ENTERPRISE/STD FEATURES

▶ EULA changes

- ▶ More changes regarding cores, VMs
- ▶ Observe distinctions about CF Standard vs Enterprise vs Developer edition
- ▶ [www.images.adobe.com/content/dam/Adobe/en/legal/licenses-terms/pdf/Adobe\\_ColdFusion-Multi-20140214\\_1311.pdf](http://www.images.adobe.com/content/dam/Adobe/en/legal/licenses-terms/pdf/Adobe_ColdFusion-Multi-20140214_1311.pdf)
- ▶ See comments, [blogs.coldfusion.com/announcing-the-launch-for-coldfusion-11-and-coldfusion-builder-3/](http://blogs.coldfusion.com/announcing-the-launch-for-coldfusion-11-and-coldfusion-builder-3/)

# CF11 LICENSING CHANGES

- ▶ CF10 installer was removed when CF11 was released. See [cfmlrepo.com](http://cfmlrepo.com)
- ▶ CFChart issues
  - ▶ Some original charting issues solved by updates (3, 4, 5, 11, 12)
  - ▶ Removed: using XML to configure charts--now must pass json
    - ▶ Tool to help: `cfchart_xmltojson` (bat/sh)
  - ▶ [helpx.adobe.com/coldfusion/cfml-reference/coldfusion-tags/tags-c/cfchart.html](http://helpx.adobe.com/coldfusion/cfml-reference/coldfusion-tags/tags-c/cfchart.html)
- ▶ See previous discussions
  - ▶ DBvarname (in `cfproccparam`) suddenly *\*honored\** in update 3
  - ▶ Strict number validation
- ▶ ...

## CF11 COMPAT ISSUES / GOTCHAS

- ▶ CF11 update 8 requires that any CF Admin queue timeout page (on request tuning page), to be an .htm file, not .cfm
  - ▶ Failure to change will cause CF to start but not run pages. See neo-runtime.xml, <var name='queue\_timeout'>
  - ▶ Does not affect CF10 (no such limit) or CF2016 (which ignores and removes if filename is a .cfm)
- ▶ CF11 update 11
  - ▶ Broke any use you may have of an /api folder off the root of your site
    - ▶ CF now uses that (like /rest folder) for REST feature
    - ▶ If you will never use that CF REST feature, could tweak/remove config file references to /api:
      - ▶ [cf]\cfusion\wwwroot\WEB-INF\web.xml (and [cf]\config\wsconfig\[n]\uriworkermap.properties)
  - ▶ Broke CFTextArea richtext editor
    - ▶ Fixed in update 12
- ▶ ...

## CF11 COMPAT ISSUES / GOTCHAS (CONT.)

- ▶ CF11 update 12 broke CFinput type="datefield"
  - ▶ Fixed in update 13 (and CF 2016 update 5)
- ▶ New, more aggressive deprecation/obsolescence
  - ▶ mostly really old tags, like cfgraph, cfservlet, etc.
  - ▶ [wikidocs.adobe.com/wiki/display/coldfusionen/Deprecated+Features](http://wikidocs.adobe.com/wiki/display/coldfusionen/Deprecated+Features)
  - ▶ [webdevsourcerer.com/index.cfm/blog/post/slug/coldfusion-11-finally-deprecating-removing-things](http://webdevsourcerer.com/index.cfm/blog/post/slug/coldfusion-11-finally-deprecating-removing-things)
- ▶ If skipping 10, consider also those compat issues discussed for CF10
- ▶ And get to latest available CF11 update (update 14, as of Apr 2018)

## CF11 COMPAT ISSUES / GOTCHAS (CONT.)



- ▶ [wikidocs.adobe.com/wiki/display/coldfusionen/New+in+ColdFusion](http://wikidocs.adobe.com/wiki/display/coldfusionen/New+in+ColdFusion)
- ▶ [helpx.adobe.com/coldfusion/release-note/coldfusion-11-release-notes.html](http://helpx.adobe.com/coldfusion/release-note/coldfusion-11-release-notes.html)
- ▶ [wikidocs.adobe.com/wiki/pages/viewpage.action?pageId=140968014](http://wikidocs.adobe.com/wiki/pages/viewpage.action?pageId=140968014)
- ▶ [wikidocs.adobe.com/wiki/display/coldfusionen/ColdFusion+Language+Enhancements](http://wikidocs.adobe.com/wiki/display/coldfusionen/ColdFusion+Language+Enhancements)
- ▶ [www.adobe.com/devnet/coldfusion/articles/security-improvements-cf11.html](http://www.adobe.com/devnet/coldfusion/articles/security-improvements-cf11.html)
- ▶ [www.adobe.com/content/dam/Adobe/en/products/coldfusion/pdfs/cf11/cf11-lockdown-guide.pdf](http://www.adobe.com/content/dam/Adobe/en/products/coldfusion/pdfs/cf11/cf11-lockdown-guide.pdf)
- ▶ [www.akbarsait.com/cf11tutorials.cfm](http://www.akbarsait.com/cf11tutorials.cfm)
- ▶ [www.seguetech.com/coldfusion-11-review](http://www.seguetech.com/coldfusion-11-review)

## CF11 RESOURCES

CF 2016



- ▶ Security code analyzer
- ▶ Performance improvements:
  - ▶ Option to change implicit scope search order
  - ▶ Option to change array passing to by reference vs default of by value
- ▶ External session storage (store CF sessions in REDIS)
  - ▶ Not J2EE sessions, but see [blog.svajlenka.com/post/125784752315/redis-and-coldfusion-because-why-not](http://blog.svajlenka.com/post/125784752315/redis-and-coldfusion-because-why-not)
- ▶ API manager (really a separate application entirely)

## CF2016 KEY MAJOR FEATURES

- ▶ Command line interface (cf.bat)  
([helpx.adobe.com/coldfusion/2016/command-line-interface.html](http://helpx.adobe.com/coldfusion/2016/command-line-interface.html))
- ▶ PDF enhancements:
  - ▶ Redaction, sanitization, export/import comments/metadata
  - ▶ Archiving, attaching files, adding stamps
  - ▶ [adobe.com/devnet/coldfusion/articles/pdf-enhancements.html](http://adobe.com/devnet/coldfusion/articles/pdf-enhancements.html)
- ▶ NTLM support for cfoject/createobject, cfinvoke, cfsharepoint
- ▶ Generation of swagger docs from RESTful APIs
- ▶ More

## CF2016 KEY MINOR FEATURES

- ▶ Safe navigation operator (?.) for handling non-existent variables/values
  - ▶ `<cfoutput>#employee?.firstname#</cfoutput>`
  - ▶ Not to be confused with elvis operator from CF11 (?:)
- ▶ Ordered/sorted collections
- ▶ Dozens of new, changed tags and functions, new member functions
- ▶ Still more query-specific higher-order functions (querymap, queryreduce, etc)
- ▶ New CFLOOP item attribute, for looping over lists, arrays, or file contents
  - ▶ *Item* holds item being looped over, *index* (if any) holds index value
- ▶ CFMAILPARAM
  - ▶ New, optional **filename** attribute, to give different name for file attached to email when using **cfmailparam** file attribute
  - ▶ **File** points to name as on server, **filename** points to name as shown in email

## CF2016 KEY LANGUAGE FEATURES

- ▶ Security Code Analyzer
  - ▶ Enterprise-only or Trial, and requires CF Builder 2016 (included with CF purchase)
- ▶ CF Admin (CFIDE folder) no longer accessible via external web server
  - ▶ cfscripts moved to separate folder which IS accessible
- ▶ CFOUTPUT
  - ▶ New **encodefor** attribute: names encoding type to be used for strings within its tags (for html, htmlattribute, url, javascript, css, xml, and so on)
  - ▶ Also offered as 2<sup>nd</sup> arg in writeoutput function
  - ▶ For more refined control, use **encodefor\*** functions added in CF10
- ▶ *[Helpx.adobe.com/coldfusion/2016/security-enhancements.html](http://helpx.adobe.com/coldfusion/2016/security-enhancements.html)*

## CF2016 KEY SECURITY CHANGES

- ▶ Requirement to use Akamai downloader removed
- ▶ Connector changes
  - ▶ No need to remove/add connector after updates (needed only once update 4)
  - ▶ New "update" option within WSCONFIG UI
  - ▶ UI now offers all 3 tunable args (adds pool size, timeout)
    - ▶ Better defaults, on Windows at least, for a 2-site setup (500/250)
  - ▶ Now offers option to configure "all" sites (to use one connector) or "all - individually" (each with own connector)
  - ▶ Fixed to properly support multiple instances
  - ▶ New "Advanced Settings" option to "skip iis custom errors"
- ▶ New applicationintent field, in DSN settings for SQL Server
- ▶ New admin setting to disable "REST discovery" by API Manager

## CF2016 KEY ADMIN CHANGES

- ▶ Update 2
  - ▶ Added some new minor language elements, and ckeditor in favor of fckeditor for cftextarea, etc (does not yet seem to be happening in CF11)
- ▶ Update 3
  - ▶ Added more minor language enhancements
  - ▶ Added support for IIS 10 (in Windows 10), Websphere 9
  - ▶ Many tag/function enhancements
- ▶ Update 4
  - ▶ Broke CFinput type="datefield"
    - ▶ Fixed in update 5 (and CF11 update 13)
- ▶ Update 6
  - ▶ Fixes CFFTP use of SFTP/FTPS with more modern protocols; fixed a cfmil text problem
- ▶ Again see [helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html)
  - ▶ Also [helpx.adobe.com/coldfusion/release-note/coldfusion-2016-updates-release-notes.html](http://helpx.adobe.com/coldfusion/release-note/coldfusion-2016-updates-release-notes.html)

## CF2016 KEY CHANGES PER UPDATES



- ▶ New installer in Dec 2016
  - ▶ Split off of API manager from CF installer. No longer GB+ in size
  - ▶ Removed portlets, spry, YUI toolkit
    - ▶ YUI used by cfcalendar, cfinput "autosuggest"/"datefield", cfmenu, cftooltip, cfsprydataset
    - ▶ These will now break. Libraries can be added back, link offered here:
      - ▶ [helpx.adobe.com/coldfusion/deprecated-features.html](http://helpx.adobe.com/coldfusion/deprecated-features.html)
  - ▶ Includes update 3 by default, and updated JVM
  - ▶ [blogs.coldfusion.com/coldfusion-2016-installer-refreshed/](http://blogs.coldfusion.com/coldfusion-2016-installer-refreshed/)
- ▶ New installer in May 2017 (64-bit Win only) adds Windows Server 2016 support
  - ▶ [blogs.coldfusion.com/coldfusion-2016-support-for-windows-server-2016/](http://blogs.coldfusion.com/coldfusion-2016-support-for-windows-server-2016/)

## NEW INSTALLERS ADDING FEATURES

▶ EULA

- ▶ Observe distinctions about facets related to whether CF Standard vs Enterprise vs Developer edition
- ▶ [www.images.adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/ColdFusion-2016.pdf](http://www.images.adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/ColdFusion-2016.pdf)

# CF2016 LICENSING CHANGES

- ▶ CF11 installer was removed when CF2016 was released
  - ▶ To “buy” CF11: [blogs.coldfusion.com/post.cfm/adobe-coldfusion-backward-licensing](https://blogs.coldfusion.com/post.cfm/adobe-coldfusion-backward-licensing)
- ▶ Deprecated features (nothing obsoleted at initial release)
  - ▶ CFMEDIAPLAYER, CFTABLE, CFCHART format=“flash”, CFFILEUPLOAD Flash component
  - ▶ Report Builder
  - ▶ [helpx.adobe.com/coldfusion/deprecated-features.html](https://helpx.adobe.com/coldfusion/deprecated-features.html)
  - ▶ [carehart.org/blog/client/index.cfm/2016/2/22/cf2016\\_deprecated\\_features](https://carehart.org/blog/client/index.cfm/2016/2/22/cf2016_deprecated_features)
- ▶ Update 3 DID remove support for portlets, spry, and YUI-based features
  - ▶ Can be added back manually
  - ▶ See bottom of [helpx.adobe.com/coldfusion/deprecated-features.html](https://helpx.adobe.com/coldfusion/deprecated-features.html)
- ▶ ...

## CF2016 COMPAT ISSUES / GOTCHAS

- ▶ CF2016 docs:
  - ▶ Web docs lack any navigational features (left nav, breadcrumb, next/prev page, etc.)
  - ▶ PDF no longer available (poor at first, being revamped)
- ▶ If skipping 10/11, consider of course those compat issues discussed for CF10/11
- ▶ And try latest available update of your version (CF2016 update 6, as of Apr 2018)

## CF2016 COMPAT ISSUES / GOTCHAS (CONT.)

- ▶ (In addition to those listed elsewhere in this section)
  - ▶ [adobe.com/devnet/coldfusion/articles/whats-new-cf-2016.html](http://adobe.com/devnet/coldfusion/articles/whats-new-cf-2016.html)
  - ▶ [helpx.adobe.com/coldfusion/whats-new.html](http://helpx.adobe.com/coldfusion/whats-new.html)
  - ▶ [helpx.adobe.com/coldfusion/2016/topics/features.html](http://helpx.adobe.com/coldfusion/2016/topics/features.html)
  - ▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html](http://helpx.adobe.com/coldfusion/2016/language-enhancements.html)
  - ▶ [helpx.adobe.com/coldfusion/2016/other-enhancements.html](http://helpx.adobe.com/coldfusion/2016/other-enhancements.html)
  - ▶ [helpx.adobe.com/coldfusion/release-note/coldfusion-2016-release-notes.html](http://helpx.adobe.com/coldfusion/release-note/coldfusion-2016-release-notes.html)
  - ▶ [helpx.adobe.com/coldfusion/home.htm](http://helpx.adobe.com/coldfusion/home.htm) (CF2016 docs)
  - ▶ Video on CF2016 (8-minute overview): [youtube.com/watch?v=Bm6dJjNSPNg](https://youtube.com/watch?v=Bm6dJjNSPNg)
  - ▶ [adobe.com/devnet/coldfusion/articles/language-enhancements-cf-2016.html](http://adobe.com/devnet/coldfusion/articles/language-enhancements-cf-2016.html)
  - ▶ [www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/coldfusion-2016-lockdown-guide.pdf](http://www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/coldfusion-2016-lockdown-guide.pdf)
  - ▶ [akbarsait.com/cf2016tutorials.cfm](http://akbarsait.com/cf2016tutorials.cfm)

## CF2016 RESOURCES

- ▶ Phew, that's a lot new in 10, 11, 2016! **So did I meet my goal?**
  - ▶ Did you learn at least a few new things you want to try?
  - ▶ Or as important, things to watch out for?
- ▶ Again, my contact info for follow-up:
  - ▶ Charlie Arehart
  - ▶ [charlie@carehart.org](mailto:charlie@carehart.org)
  - ▶ @carehart (Tw, Fb, Li, Sk, Slack, Git)

# SUMMARY