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= Changes between 7.2.5.22 and 8.0.584 =

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BES Console

- Performance Improvements

- o Loading, closing and refreshing console data is much faster.
- o Loading the console from its local cache store is now much faster than loading from the database.
- o Action propagation is now much faster.
- o Console user interface is faster (opening analyses, dashboards, computer groups, etc.)
- o Improved console responsiveness and progress reporting while uploading large files.

- User Experience Improvements

- o Added a live search capability to quickly filter console data (computers, Fixlet messages, actions, etc.)
- o Custom searches are now saved as filters and multiple filters can be saved.
- o Redesigned the console loading screen to provide better feedback on progress.
- o Redesigned the computer property picker to make selecting visible computer data easier.
- o Added backwards and forward history browsing to improve console navigation.
- o Computer, Fixlet message, Dashboard and Wizard documents have improved resizing options and can be 'taken out' of the main console into stand alone windows and positioned on separate monitors.
- o Added a toolbar to the top of documents (Fixlet messages, Actions, etc.) to provide quick links for common operations like 'Take Default Action' for Fixlet messages or 'Stop Action'.
- o The edit menu has been reorganized to be easier to use.
- o Actions now have better defaults for client UI message titles
- o Console includes a new licensing dashboard for reporting and management.

- Redesigned Fixlet site management

- o Sites are managed through top level documents (like computers or Fixlet messages) instead of the old "Manage Sites" dialog.

- o Computers subscription methods now the same for external and custom sites.

- o Site filters make browsing all the data within a single site easier.

- o Added the ability to make all users site readers by default.

- Custom action script editing improvements

- o line numbers

- o find and replace dialog

- o colorization

- o auto-completion of action commands

- o fixed width font

- o no longer limited to 32,768 characters

- Added right-click option to include copying column headings with list data.

- Exit codes are now reported for the last executed line of an action.

- Added Take Action options to for pre-caching downloads (issue #13395) and for running in the "Client Local" time or "UTC" time (issue #7894).

- Console uploads can now be greater than 2 GB (issue #7435).

- General stability improvements. Improved error handling to prevent errors from forcing the console to close.

- Improved tree control reliability.

- Added a user preference to optionally submit data to BigFix to help improve usability in future releases.

- Added quick filter buttons for "Show Hidden Content" and "Show Non-Relevant Content" that filter visible content in the BES Console.

- Importing or copying Fixlet messages and Analyses now maintain separate relevance clauses instead of combining them (issue #14661).

- Fixed an issue that caused html text not to be copyable (issue #11092).

- New Dashboard API calls. Allows deleting multiple Fixlet messages (issue #23720).
- Added globalization support for Fixlet messages and Dashboards (issue #23356).
- Changing a property definition no longer replaces existing computer values with <not reported> (issue #26960).
- Fixes for the visualization tool including drawing issues and memory leaks.
- Client offers are pre-populated with Fixlet title, category and description text (issue #18810).
- Fixed numerous issues with importing .bes files, should now work much more reliably.
- The predefined "User Name" retrieved property will now show users logged in remotely.
- Added a predefined "IPv6 Address" retrieved property.
- Tree multi-select now works in Vista and Windows 7 (issue #22243)

Web Reports

- User interface redesigned, new charting capabilities also added.
- Wizard-like report creation replaced with new "Explore Data" interface focused on exploration and iteration.
- Added Active Directory support for Web Reports user management.
- Added Report list labeling, starring, filtering, and live searching
- Added Role-based User permissions (issue #24128).
- Added new filter options for Fixlet messages properties, string comparison, nested filter logic. Improved work flow to avoid leaving the current report page when creating filters.
- Added "breadcrumbs" to help navigation around Web Reports.
- Added domain-centric user interface (issue #24129).
- Added Public Reports Page sorting abilities (issue #10753).
- Report URLs now fully contain the configuration of reports to allow easy linking of reports through cut/paste from the web browser.
- Added a preview view for new custom reports (issue #25106).

- Changed the default refresh interval from 20 minutes to 15 seconds (issue #20803).
- Significantly reduced memory usage for large deployments to prevent running out of memory and crashing by not loading Fixlet history automatically (issue #16143).
- Reduced Web Reports peak and average memory usage significantly (issue #35426 and #36491).
- Added retry behavior to reconnect lost database connections automatically to prevent a single lost connection from disabling web reports (issue #19190).
- Added streaming relevance evaluation throughout Web Reports, reduced peak memory usage of Web Reports significantly (issue #16846).
- Updated the format used to export to CSV for computer properties with multiple results, to put each result on its own line within a cell instead of adding a new row.
- Removed dependencies requiring a database name to identify reports to avoid problems caused when users rename their database.
- Added .webreport extension for Fixlet site reports so they will only be gathered and used by 8.0 deployments.
- Fixed issue when using a stand-alone web reports, the SOAP WSDL can point to the wrong hostname (issue #22299).
- Added a link to schedule a report from the main report list (issue #8740).
- Present list of DSNs on Edit Database screen (issue #10807).
- Add Last Login Time and Display Name for users in Web Reports (issue #10924).
- Fixed issues with the Web Reports "find" functionality for localized installs (issue #11993).
- Fixed an issue with exporting to CSV from graphs with IE7 (issue #12979).
- Added multi-leveled hierarchy for organizing web reports (issue #15301).
- New SOAP API methods for:
 - o Getting structured relevance results
 - o Web Reports user creation (issue #15490)
 - o Setting dashboard datastore variables (issue #29436).
- Enabled SOAP methods to accept session tokens in addition to passwords (issue #23683).
- Removed option to specify archive folder in Scheduled Activities (issue #15622).

- Find boxes on report pages should use "contains" instead of "starts with" (issue #16173).
- Added support for multiple Web Reports servers sharing one BESReporting database (issue #16349).
- Added ability for Web Reports to use multiple ODBC connections to communicate with BESReporting database and allow more parallelization of work. Improved performance in heavy user environments (issue #16993).
- Fixed an issue where Usernames could not contain non-Alphanumeric characters (issue #17722).
- Implemented 'set' dashboard data functions (issue #18627).
- Added output encoding in UTF-8 for reports (issue #18824/28459/29559).
- Removed using document type HTML 4.01 Strict valid pages to prevent issues with IE7 and Firefox (issue #18826).
- Web Reports now shows a warning message when there aren't any enabled databases (issue #20222).
- Added checks to ensure Web Reports email addresses conform to RFC standards (issue #20623).
- Updated version of SQLite that fixes inappropriate "database or disk is full" error (issue #20767).
- Web Reports should now associate session login tokens with IP address to prevent session hijacking (issue #20957).
- Enabled logging in with GET parameters (issue #21012).
- Standardized new dashboard API functions between Web Reports and the Console (issue #23756).
- Fixed an issue where the CSV export of computer properties report has extra quotes (issue #24377).
- Web Reports defaults to English if registry-specified language files do not exist instead of crashing (issue #25296).
- Fixed an issue where sub-actions of multiple action groups did not appear as a Fixlet action (issue #25646).
- Web Reports now has a favicon.
- Fixed an issue where users restricted by Console Operator did not have correctly limited Fixlet site visibility (issue #26304).
- Fixed an issue where Web reports emails had no attachments in various email clients (issue #26311).
- Web Reports QNA page now supports multiple questions and answers (issue #26652)
- Added a new initial data refresh status page that is displayed until the refresh is completed (issue #26964).

- Fixed an issue where PDF Reports in Web Reports did not work with IE8 if Windows User Access Controls are enabled (issue #27189).
- Added new domain splash page.
- Reports and Filters based off of deleted retrieved properties, Fixlet sites or computer groups are handled better (issue #27924/33147).
- Web Reports set to not generate minidumps by default (issue #27929).
- Added the "current site" session relevance inspector in Web Reports (issue #28418).
- Added global search by computer properties only (issue #28910).
- Added support for using Google Chrome Frame to support IE 6 and help out IE 7 (issue #29051).
- Changed the input field labeled "Server Name:" to "Database Name:" when editing databases for consistency (issue #29382).
- Removed a 1-second delay on all requests to the Web Reports server to allow faster custom report load time (issue #29792).
- Removed "disable graphs in reports" option (issue #30425).
- Removed "Connect all data points" and "Number of hours between sample points" user preferences (issue #30428).
- Emailed reports no longer attempt to contain charts that wouldn't be displayable in an email (issue #30581).
- Added support for IPv6 connections to Web Reports (issue #31530).
- Improved performance of session relevance engine, custom reports now load faster (issue #32946).
- Fixed an issue with the Computer report joining two computers on the same row (issue #33187).
- Fixed an issue where BESMakePDF hangs the first time it is run on Windows 7 (issue #33722).
- Improved sandboxing custom report HTML and JavaScript (issue #33837).
- Improved the session relevant engine performance for evaluating relevance that retrieves many properties for many computers which was performing worse in Web Reports than in the BES Console (issue #35467).
- Fixed an issue where the Fixlet Site inspectors where not being properly filtered based on user permissions (issue #35491).
- Removed the Global Options Email reports (issue #35679).

- Added way to specify a non-default Hello value for BESEmailer.exe (issue #36408).

BES Client

- Added client support for the following platforms:
 - o Cent OS 4, 5
 - o Oracle Enterprise Linux 4, 5
 - o SuSE Enterprise Linux 11
 - o HP-UX 11.31
 - o Windows 2008 on Itanium processors
- New Client Inspectors Added
 - o Task Manager inspector
 - o Scheduled Task inspector
 - o Named interface inspector
 - o Client evaluation time inspector
 - o Version of operating system inspector for Windows and Mac
 - o Power history inspector
 - o Battery state inspector
 - o Last relay select time inspector
 - o SMBIOS inspector to enable checking for VM computers
 - o IPv6 support in all network inspector
 - o New apparent ip address and subnet inspector which give network information on the communication path BigFix is using
 - o New comparison operations for tuples
 - o Range inspector that create enumerations of all possible values in a specified range of options
 - o 'substring <(integer, integer)> of <string>' inspector

- o Boolean inspector to quickly check the type of operating system (ie. 'windows of operating system') as a shortcut for common Fixlet relevance expressions like 'name of operating system as lowercase contains "win"

- o Modules inspector for inspector engine

- o "status value of zone" property for Solaris zone inspection

- o The bar ("|") works as an "or" operation

- o "last write time" for registry keys

- o "full gateway addresses of selected server" that returns the same as "gateway addresses of selected server" except that gaps are included as "0.0.0.0"

- o "find folders <wildcard> of <folder>" search option for enumerating folders

- o "regex escapes" inspector for turning a string into a regular expression match pattern

- o "relevant offer action" which returns all actions that include an offer

- o User, version, and size properties added to action usage summary inspector

- Improved client resource utilization, agents now run faster and have less impact on hard drives, prevent disk queuing, use less CPU and lower power consumption. (issue #13387, #18048, #29075, #29777)

- Added reporting system for action exit codes (issue #27275).

- Client group assignments will now be removed on Actionsite epoch changes (issue #5171).

- Fixed an issue where BES Clients attempt to gather a console operator site after the operator has been deleted and recreated as a master operator (issue #9138).

- Force refresh commands will now synchronizes all Fixlet sites instead of just the master actionsite (issue #11783).

- Client upgrades will no long leave the masthead registry setting behind (issue #16133).

- Fixed an issue that caused the logging of success or failure of running actions in the client log file to be incomplete in some instances (issue #16784)

- Fixed an issue that would lead to unregistered Clients attempting to gather directly from the BES Root Server (issue #18665).

- Upload Manager: Client max archive size, server/relay buffer dir and compressed file max size all have a max value of $2^{31} - 1$ (issue #18939).

- Added localization for Mac installer tools (issue #20224).
- Added DLL rebasing to decrease Client load time and page file usage (issue #20295).
- Fix an issue where the client cannot start up if WSASStartup fails (issue #22648).
- Fixed an issue where the __BESClient_UploadManager_Progress setting was not created or populated (issue #23714).
- Improved client behavior for getting downloads when there are lots of outstanding requests and some downloads aren't available (issue #23770).
- Fixed an issue where the Client fails to enter quiet mode if it is started after midnight and the quiet interval spans midnight (issue #24258).
- Removed the version number from the BESAgent service name (issue #24843).
- Fixed an issue that would prevent QnA on Unix from being run by a normal user (issue #25778).
- Fixed an issue that would prevent Solaris agents from running restart commands inside a Baseline (issue #25862).
- Fixed an issue where clients would generate unnecessary report data for stopped/expired/deleted actions and for Fixlet messages whose state had not changed (issue #26242, #26422).
- Added the action ID for download request notifications to the client log (issue #26719).
- Fixed an issue that prevented the SkipLockedConstraint from working with Baselines (issue #26821).
- Added command to shutdown the client RPM during uninstall of Linux/Unix agents (issue #27539).
- Fixed an issue where large uploads would cause the BES Client to use high CPU and not respond to shut down requests (issue #28534).
- Updated the pending restart inspector to have more consistent behavior across platforms and to fix issues where Windows systems could always be in a pending restart state (issue #28645, #28743).
- Fixed an issue with the ClientUI not recognizing some domain user memberships on Windows 2008 R2 (issue #29114).
- Fix an issue with the 'Shutdown computer after action completes' command not working if screen lock is active (issue #29489).
- Added checks to prevent Linux and Unix 32-bit clients from installing on 64-bit OS's and vice-versa (issue #29655).
- Fixed an issue displaying the Client UI to user groups that contain white spaces in the name (issue #29758).

- Fixed an issue that would lead to Clients reporting directly to the BES Server during auto relay selection (issue #29779).
- Fixed an issue on some Unix/Linux agents where the init.d script stop command hangs if client is already stopped (issue #29937).
- Fixed issues with the ArchiveManager failing to upload files held open by other programs and archiving files with non-alpha characters (issue #30017).
- Fixed an issue where the ClientUI ends when an RDP session disconnects on Windows 7 (issue #30099).
- Fixed an issue with the Upload Manager that would cause it to temporarily delete data that had already been uploaded when the archive folder changed (issue #30772).
- Fixed an issue in reading Client settings that could lead to a buffer overrun for long name (issue #30777).
- Fixed an issue where the client would crash when passing an empty inspector string to the trimmed inspector (issue #30921).
- Fixed an issue with client inspectors that would sometimes prevent USB mass storage devices from safe ejection (issue #31009).
- Fixed an issue where the Mac Client would not display messages while running actions (issue #31451).
- Standardized capitalization and naming of the agents across Linux and Unix platforms (issue #31468, #32564).
- Fixed an unexpected exception error that occurs when the __Download folder does not exist (issue #31548).
- Changed the Solaris Client init.d scripts to implement restart commands instead of stopping and starting the agent (issue #31574).
- Fixed the evaluation time for QnA on Linux (issue #31794).
- Fixed an issue where Completed Baseline actions that at a later time have a sub component actions become failed did not update the Baseline action status appropriately (issue #32185).
- Fixed an issue where Client report data could be discarded if the client is stopped while it is preparing and posting a report (issue #32225).
- Added logging to the ArchiveManager when there is not enough disk space available (issue #32480).
- Fixed an issue with downloading failures when using SSL in combination with a proxy server (issue #32901).

- Fixed an issue where the ArchiveManager fails to create an archive if one of file names contains unicode characters (issue #33194).
- Fixed an issue where clients would send unnecessary full reports after being reset (issue #33199).
- Fixed an issue where Fixlet messages with custom evaluation intervals would not be reevaluated immediately when the Fixlet definition changed (issue #34186).
- Fixed a possible client crash after reset (issue #34999).
- Changed how the Client reports action status when it is restarted during the action script to prevent Failed status from being reported during upgrades (issue #35463).
- Fixed an issue where the Client log is missing entries when the agent restarts during a wait command (issue #35700).
- Fixes issues with the Client and Relay upgrade failing on Windows 2000 systems (issue #35950).
- Fixed an issue where the Mac agent did not correctly set its brand identity (issue #36846).
- Fixed an issue on the Mac 10.6 where the BES Agent version would not show up correctly in the BESAgentControlPanel.app tool (issue #36399).
- Added the ability to create comments in relevance
- Inspector Changes
 - o Changed adapter inspectors to not return addresses for unplugged network adapters (issue #23529).
 - o Fixed an issue with the DMI Inspector not working for some SMBIOS 2.5 (issue #24024).
 - o Fixed an issue with the CPU inspector for AMD processors which would sometimes return 0 processors (issue #24124).
 - o Fixed an issue where restarting the client and relay could cause the distance to relay property to report as <unknown> (issue #25364).
 - o The "Distance to BES Relay" inspector did not work on Mac agent when 1 hop away from the relay (issue #27089).
 - o Operating system reported incorrectly for CentOS5.3 (issue #29745).
 - o Fixed the DMI inspector to be able to retrieve UUID (issue #30157).
 - o The 'apparent registration server time' inspector now handles shifts in the system clock correctly (issue #30448).

- o Fixed the 'sum' inspector for use with time intervals and floating point numbers on Unix and Mac (issue #31810, #31857).

- o Fixed the operator "integers" on Mac (issue #31860).

- o Fixed the "last relay select time" inspector on Unix and Mac (issue #31959).

- o Fixed an issue with the application usage inspectors that could cause client crashes (issue #34308).

- o Fixed an issue with the Mac client returning incorrect results for the speed of main processor inspector (issue #34896).

- o Fixed the application usage inspectors on Mac (issue #34908)

- o Fixed an issue where the 'exists logged on user' inspector could return inaccurate answer (issue #36125)

- o Fixed an issue where AD inspectors returned "<None>" when the cached AD information was actually available (issue #11865).

- o Removed ability to query non-fixed drives to prevent network access and undefined results (issue #15112).

- o Fixed an issue where special characters "]" and "%00" would not work in the regex inspector. (issue #20615).

- o Fixed multiple issues that caused the environment variable inspector not to work, particularly on Linux and Unix. (issue #22097)

- o Added localization support for the "Named security account" inspectors. (issue #24717).

- o Fixed several CPU string name issues. (issue #26984, #32486, #33719).

- o Fixed an issue where 'lines of file' would occasionally concatenate two lines together. (issue #27701).

- o Added support for CentOS and Oracle Enterprise Linux to the operating system inspector. (issue #32523)

- Action Command Changes

- o Fixed an issue where clients would fail on parameter action scripts with extra white spaces (issue #20056).

- o Clients now report action failures when attempting to set client settings below or above the min or max values. Prevents an issue where actions would reapply infinitely when an out of range value was specified. (issue #20443)

- o Removed the 'Fixlet Delete' action command, clients now report an error if attempting to run this command (issue #23116).
- o Fixed an issue that would cause actions to fail when using non-efficient mime and a custom success criteria that referenced the last active line number (issue #23241).
- o Fixed an issue that would cause the 'move' action command to fail (issue #24120).
- o Fixed an issue where the 'archive now' command does not function on Mac client (issue #24248).
- o Fixed an issue where 'createfile until' would leave an extra newline at the end of the file (issue #26997).
- o Fixed an issue where the 'download now' command would always report a failure status of 'canceled' regardless of the cause (issue #31594).
- o Fixed the folder create action on Unix and Linux (issue #32214).
- o Fixed an issue where trailing whitespace can become part of a file name (issue #32403).

Relay/Server

- Added Relay support for the following platforms:
 - o Red Hat Enterprise Linux 4, 5
 - o Solaris 10
 - o Windows 7, Server 2008 R2
- Added support for DSA replication of files uploaded via the console and Uploadmanager (issue #21794).
- License updates are now handled automatically by the BES Server and no longer require manually loading license files.
- Added support for IPv6.
- Added new relay diagnostics page for remotely gathering relay status information using a web browser (<http://<Server>:<port>/RelayDiagnostics>) (issue #25271).
- File download retries reduced from 432 to 5. Console status message updated to reflect when the next retry attempt will be (issue #10941).
- Server download code significantly improved.
 - o Now does parallel downloads for more efficient bandwidth utilization (issue #10548).

- o Improved download status reporting (issue #23677).
- o Better error messages for invalid file requests (#23574).
- o Support for download plugins to make Linux patching automatic and avoid requiring download cachers for many OSes (#27249).
- Improved server robustness during shutdown (issue #22136).
- Added 64-bit file size support (issue #26141, 26381).
- Fixed an issue that would cause the Relay to hang on startup during actionsite epoch changes (issue #29261).
- Improved download notification efficiency (issue #34094).
- Improved GatherDB robustness during shutdown (issue #34543).
- Corrected spelling of Server setting UnInterruptableReplicationSeconds -> UninterruptibleReplicationSeconds (issue #23101)
- GatherDB now hits root server once a second at idle to reduce paging (issue #25597).
- Eliminated unnecessary logging in GatherDB messages like "OpenSSL Initialized (Non-FIPS Mode)" (issue #27598).
- External site gathering is now faster (issue #11910).
- Improved propagation and actionsite gathering performance (issue #29138).
- Fixed numerous issues that occur when using a case sensitive collation in SQL (issue #20557).
- Fixed an issue in airgap deployments where Fixlet sites can get into a state where they are never successfully gathered (issue #22481).
- Fixed an issue where unmanaged asset column names were truncated in DSA deployments (issue #27344).
- Fixed an issue where replication of the action site in DSA deployments fails when clients are not installed on the servers (issue #16222).
- Improved HA/DSA code error handling (issue #16388).
- Removed intermittent "Timed out while waiting on buffer directory overload check semaphore" error from server FillDB log (issue #16273).
- BESRelay.log file now has a maximum size of 50MB by default (configurable) and has rotation.
- Added log messages when the server detects a duplicate ComputerID (issue #27015).

- Fixed an issue where the Root Server could not write the current registrationlist to disk if a ~registrationlist.txt file already exists (issue #29341).
- Fixed an issue where failure of single download showed entire set of action downloads as failed (issue #17574).
- Improved download robustness and response time when using multiple relay tiers (issue #18168).
- Fixed ManyMirror directory leak (issue #18661).
- Fixed an issue with the Relay and Server sha1 cache expiration behavior not working on Vista/Win2008 (issue #24751).
- Fixed an issue with the Relay and Root Server where they will appear to leak non-paged pool if there are sustained gather requests coming faster than they can be processed (issue #29152).

Installers

- The Client MSI installer can now be used to upgrade (issue #20427).
- Addressed issue where the BES Client MSI install fails on Windows 2003 x64 (issue #17655).
- Addressed BES Console installation and upgrade problem on XP - IDriver error (issue #7756).
- Server installer now checks database privileges when connecting to a remote database (#26724)
- Fixed an issue where BES Clients deployed to non standard install locations on x64 machines could cause upgrade issues (issue #21245).
- Addressed issue where the Client MSI install would fail on Windows Vista (#21736).
- Addressed issue where upgrading the BES Client would leave duplicate entries under Add/Remove Programs (#23669).
- Addressed issue where the BESClientLoggingService fails to restart on some machines during a client upgrade (issue #24682)
- Addressed issue with the BES Server installer where a remote database install would fail with error 'Server not found. Verify that the specified server exists. The server name cannot be empty.' (issue #25059)
- Addressed issue in the BES Server installer where setting _BESRelay_UploadManager_BufferDirectory gets reset to default after upgrade (issue #33458).
- All installers will create appropriate Windows Firewall rules (issue #17693), except web reports (known issue).

- Client service should not be "allowed to interact with the desktop" (issue #17678)
- Fixed an issue with the Evaluation install where the BES Server would fail when uninstalled and reinstalled (issue #16050).
- Added ability for the BES Server upgrade to run silently when using a remote database setup (issue #24025).
- Added a BES Server installer check for an existing client with same masthead (issue #20184).
- Fixed an issue where the stand alone WebReports install would get the servers hostname incorrect (issue #22299).

BES Admin

- Added a BES Admin option to allow users to only see their own actions.