



esXpress

3.5/3.6 Change Log

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www.esxpress.com www.phdvirtual.com



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The esXpress products have 3 main components, each of which has their own change log associated with it. The GUI and DeDup appliance are optional plug-ins for esXpress and are not required for running esXpress backups or restores.

Current Production Release Versions

- Configuration and Deployment GUI Appliance – 3.6-11
- Data DeDuplication Appliance – 3.6-11
- Host side install base (rpm) – 3.6-11

3.6-2 introduces a Setup Wizard in the Configuration and Deployment GUI and SMB as a storage device for the DeDup appliance.

Important 3.6-2 DeDup appliance Update note – The 3.6-2 update package will do a database update to address the DeDup database growth and optimize the database. In order to run this update, additional space is required on /var partition temporarily. If you have limited space in the /var partition (less than 25% free) on the DeDup appliance, we suggest making additional space before running the update.

The update can also take a long time, possibly hours if your DeDup database is large. Please plan for the time before running the update.

3.6-1 introduces support for vSphere (ESX 4) and VBA Restores for DeDup backups

This vSphere release does not support Virtual Machines with IDE disks or the changed block table. Those features will be incorporated in a future release.

esXpress 3.6

3.6-11 Release – January 6, 2010

GUI:

- No changes this release.

DeDup:

- Fixed: Issue with Stats page displaying incorrect information since 01/01/2010

RPM Host Side:

- Fixed: Issue with running DELTA backups after 2010 reverting to FULL
- Fixed: Issue with not being able to restore backups made since 01/01/2010
- Fixed: Issue with backup logs being incorrect since 01/01/2010
- Fixed: Issue with background restore jobs not showing in phd menu
- Fixed: Issue with process identification for phd-cmd
- Fixed: Issue with restoring large VMDKs with a VBA restore

3.6-10 Release – November 4, 2009

GUI:

- No changes this release.

DeDup:

- Fixed forever loop in the delete program.
- Added Thin Option for Thinning Special Backups too, Default=No
- Added logic to check for permissions in restore program for index map

RPM Host Side:

- Added LE license back in, same as SUPPORTED
- If vSphere4 force Backup Dupe Disks = Yes
- Changed Try-Again delay from FIVE minutes to TWO minutes on VBA failure
- Added extra stats to PHDD Percentage Completed Stats
- Fixed problem with '%' in user or password in the esxpress.cfg file
- Fixed backup speeds using PHDD (faster!)
- Fixed snapshot problem, would remove all snaps, instead of just esXpress

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- Fixed when running phd-FULL, when DeDupe is the default backup mode,
 - it would run a PHDD backup for VMs in Parallel Mode
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3.6-8 Release – October 23, 2009

GUI:

- Can only run phdq_update on a GUI VM
- Put all update/deploy program in root.tgz instead of in run_update program
- Build script will copy www/index.php to all subfolders
- Deploy program will now run DB /Conv/Table scripts and /Conv/UpdateDB scripts
- Makebuild uses a lock file now, so multiple builds cannot run at once
- Makebuild will compile all perl and verify code is good (perl -c) every hour (need to set to one time)
- Changed phd-support to only take last 25m of fsck.log and mysqld.log
- Added automatic trigger of VMFS and Nets refresh for host after installation
- Added insert back into action table when lock comes from a host. This way the host action display is updated with it.
- Updated sysconfig GLOBAL:LOCK:STATUS when the out daemon starts and on RESFRESH
- Removed CTRL-ALT-DELETE from rebooting vm
- Fixed Subnet mask being reset to 255.255.255.0 in phd menu

DeDup:

- Added .new files to blocks when writing them. If no OK, then write with .new
- Can only run the PHDD update on a PHDD VM
- Put all update/deploy program in root.tgz instead of in run_update program
- Build script will copy www/index.php to all subfolders
- Deploy program will now run DB /Conv/Table scripts and /Conv/UpdateDB scripts
- Makebuild uses a lock file now, so multiple builds cannot run at once
- Makebuild will compile all perl and verify code is good (perl -c)
- Added auto check for updates in phdd_daemon. Will check for a new update once a day, after 0300.
- Added Check For Updates and Run Updates to Summary Page
- Added SYSCONFIG variables to enable and set the update time
- Added CPU speed test to phd-support
- Changed phd-support to only take last 25m of fsck.log and mysqld.log
- When running update, unmount all FLR mounts
- When creating Block Folders, run as a BG job. Make install faster
- Removed CTRL-ALT-DELETE from rebooting vm

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- Validating data-block count after doing an import.
 - Moved the check for updates and lock actions into phd_updtr daemon instead of in the phdd_daemon. This will make them snappier.
 - Fixed purge daemon, with no records it just spun out of control
 - Tweaked phdd_verify daemon a little bit more
 - Fixed Subnet mask being reset to 255.255.255.0 in phd menu
 - Stopped status program running du -a on FLR mounted file systems causing 100% CPU
 - Fixed masking of SMB password in phd menu
 - Took out the 2 million limit on phase #1 of deletes. Now it does them all.
 - Fixed typo in delete phase #1, when moving blocks to delete table
 - Fixed Data Mount space display error on F1 screen if /.data is mounted more than once.

RPM Host Side:

- Fixed, when setting ABORT lock by esXpress menu did not update Quorum
- Broke out quorum daemon in separate sub process from phd_daemon
- Changed all programs to allow quorum daemon to do all the processing
- Now update RW size in VMDK Stub to be correct when a backup starts
- In vSphere 4 Snap on Snap does not require a User/Password
- Added .new file logic for the blocks
- Put lsilogic back in for the VBA setting
- Fixed long timeout on indexing PHDD targets
- Fixed THROTTLE for PHDD Backups
- Added phd-ps as a wrapper for ps command
- When backing up in RETRY mode, add +1 minute to backup time for backup files
- Fixed HOSTNAME to be in lower case for cronjob Quorum update for /Config/ Was creating files like: UserESX35.esxpress.local-esx.conf
- Fixed reporting error in VBA CHART, would show helper 'e' when not used.
- Added extra check of MD5 of blocks being written to the backup cache
- Log WARN Message if RUN_AFTER script is not executable

3.6-7 Release – September 25, 2009

GUI:

- Removed Global Settings from Setup Wizard.

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- Added default values for some global settings.
 - Fixed issue where host could occasionally fail root login check on first attempt
 - Fixed host version in GUI info tab

DeDup:

3.6-7 release Includes DeDup changes for 3.6-6 and 3.6-7:

- 3.6-6
 - Fixed lock file removal when calling configure program.
- 3.6-7
 - Changed purge process to be faster.
 - Changed delete process to be faster.

RPM Host Side:

- Fixed setting IPs of VBAs from text menu.
- Changed DeDup backup process: now making .ok files for each block.

3.6-6 Release – September 15, 2009

GUI:

- No changes.

DeDup:

- No changes.

RPM Host Side:

- Fixed BY-Pass on default. When using PHDD target such as: `nfs:server:/share`
- Fixed timeout issue in big VMDKs when using PHDD

3.6-5 Release – September 14, 2009

GUI:

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- No changes.

DeDup:

- Fixed Bug in Daemon, not calling delete program.
- Fixed stats for VMs
- Fixed problem with making VMDK stats
- Added process to check for hung unfsd
- Fixed mode= when set to SMB
- Update stats to include Zoom By VMDK and other enchantments

RPM Host Side:

- False ERROR emails after backups
- Check for power on VBA even if command fails
- Updated stubby and stubby.phh to both restore original VMDK STUB file if available
- Fix bad configure VBA messages, vmware-cmd
- Fixed false error in daemon log for 'There seem to be multiple espress-quorum mounts.'
- Fixed calling Backup All with -force
- Changed verification of blocks on PHDD target when making a backup.
- Improved the [xTEST] for PHDD Backups

3.6-4 Release – August 27, 2009

GUI:

- Fixed Catch changed host SSH keys during install.
- Added Check Quorum WHOAMI before removing NFS mount during install.
- Fixed Quorum NFS could be left mounted after uninstall in certain conditions.
- Fixed removed web restart and tmp file cleanup from cron.
- Added restart Web services and cleanup /tmp can now be run from phd menu.
- Fixed remove duplicate log messages during install.
- Changed reduced sleep times in install script – should be faster now.
- Added writer WHOAMI file to Quorum periodically.

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- Fixed no longer require remote hostname to be resolvable for install.
 - Added save connection info before updating with remove hostname during install.
 - Target Team changes:
 - Created a default target team out of the box.
 - Made it so the last and only target team cannot be deleted.
 - No longer inherit. Set at Host only.
 - Initial setup a target team has to be selected.
 - Cannot delete a target team in use.
 - Filtered esXpress-quorum from Quick Config page.
 - Updated Message and ICON on Target team to unassign a Target from Target Team.
 - Fixed Tile wraps on small screen sizes.

DeDup:

- Changed purge process to run as a daemon.
- Broke out stats page into tabs and added color.
- Added click throughs on the stats page.
- Added new report for Trim Deletes.
- Changed logs page to work better.
- Added recheck bad block button to stats.
- Added restart web services and cleanup /tmp to phd menu.
- Fixed Block Folder creation problem.
- Make delete routine a separate process.
- Fixed Blank username error in wrong location.
- Fixed username password being filled in with old data.

RPM Host Side:

- Added backup retry to create folder if it does not exist.
- Changes to mount commands in PHDD
- Better block checking when backup is being made
- Fixed issues for Vshere4, including calls to tail. (load restore DB)
- Update daemon to do quorum updates to host
- Fixed configuration options from phd menu in Vsphere 4

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- Fixed self restore of phdd backups.
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3.6-3 Release – August 12, 2009

GUI:

- Added Support for SUDO user access for install
- Fixed Using root for unprivileged user for install
- Fixed Catch error on bad host SSH key
- Added MySQL DB dump cron job
- Added Restart Apache daily to prevent MONO errors
- Changed Filter out espress-quorum from VMFS volume list before insert to DB
- Changed All numeric spinbox controls have been converted to either drop down boxes or text boxes depending on the valid options
- Changed Wizard now will allow completed steps to be clicked on directly
- Fixed issue with VC icon getting an error when clicking it
- Changed Message when IP address specified but not hostname/gateway in phd menu.

DeDup:

- Added Summary page to WEB GUI on initial login
- Added Reboot when user changes /.data mount between SMB and NFS
- Added Removable flag set for unfsd for /.data export
- Changed Updated to UNFSD 0.9.22
- Fixed Issue with vmx not being available in the export share
- Added Changed daemon to watch for unfsd race
- Changed Un-niced unfsd launch from daemon

RPM Host Side:

- Added New Restore options. In Place restores will be attempted before a complete restore is run.
- Fixed Incremental restores sometimes failed.
- Fixed False WARN: Message about not mounting Dedup

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- Added Collect `/var/log/phd-cmd.err` in support file
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3.6-2 Release – July 29th, 2009

GUI:

- --Added Optional Configuration and Setup Wizard to assist with a step by step guide for first time installs of the configuration and deployment GUI.
- --Fixed Inheritance bug in GUI with numeric fields (spin boxes)
- --Fixed IE8 browser issue where text from the left pane was overflowing to the right pane when scrolling
- --Fixed Removed extraneous temporary files in /
- --Fixed Set OK file for VBA RPM install on Quorum
- --Fixed False "Bad Root Password" errors on installs
- --Changed Check remotely reported hostname is resolvable by GUI
- --Changed Increase timeout on install processes
- --Added Automatically try to publish license after host install
- --Added Host connection address stored separately from config hostname
- --Fixed Improved informational level of user viewable host install log
- --Added Additional logging for `phd_resize`
- --Fixed Online resize of `/var` after disk expand failing after 3.6-1 update
- --Added New fields to the Advanced Tab that were previously only edited from the phd menu (Editor, VBA SCSI device, Report Layout, Timeout Settings, Helper Attitude)
- --Changed Layout of the Config Advanced Tab to group options more logically
- --Fixed Quick Config Tab on host grid issue with Backup Window Start Time Range

DeDup:

- --Added Support for external SMB Shares for PHDD (DeDup) Storage
- --Added Home button is FLR GUI was accessed from the configuration GUI
- --Added Delete Bad Backups Button on the stats page.
- --Fixed Removed extraneous temporary files in /
- --Fixed Stats for VMDK to be `VMDK_NAME-SCSI` ID to allow for Dupe Names
- --Changed purges to run in the Background allowing imports to still run

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- --Changed Database table Maps and Blocks. Dropped Indexes, made fields smaller.
 - --Changed Maps table to no longer require null blocks.
 - --Added Additional logging for phd_resize
 - --Fixed Online resize of /var after disk expand failing after 3.6-1 update

RPM Host Side

- --Fixed Notes being overridden on vSphere hosts
- --Added SMB Bypass to the PHDD Device when it uses a SMB Backend.

3.6-1 Release – July 21st, 2009

** The 3.6-1 release announces full esXpress support for vSphere hosts.

GUI:

- No Updates in the GUI appliance for 3.6-1

DeDup:

- Changed Trim the Herd is now enabled by default with default settings for monthly and weekly backup retention

RPM Host Side

- Fixed DeDup appliance vmdk disk only can now be backed up using Delta/Full backups during the automatic backups.
 - Fixed Issue of data stores starting with esx* being possibly renamed if not running the quorum
 - Fixed Problem with False snapshot error in vSphere hosts to address random Snapshot Creation Failed issues
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esXpress 3.5

3.5-11 Release – July 19th 2009

** The 3.5-11 release is an rpm update only. The gui and dedup appliances are still at release 3.5-9

RPM Host Side

- Fixed Issue with command timeouts during backups
 - Changed Additional changes to Snapshot test logic to address occasional false snapshot error in vSphere hosts to address random Snapshot Creation Failed issues
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3.5-10 Release – July 17th 2009

** The 3.5-10 release is an rpm update only. The gui and dedup appliances are still at release 3.5-9

RPM Host Side

- Fixed Library load issue when re-indexing backup targets on vSphere hosts
 - Fixed In VBA Restores modified the count checks and added logic to restore blocks that had a communication problem.
 - --Changed Snapshot test logic to address occasional false snapshot error in vSphere hosts
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3.5-9 Release – July 15th, 2009

GUI:

- Added Quiet boot option, message output directed only to tty2
- Added new appliance networking option to choose which adaptor to use for quorum
- Added Added question to reboot appliance after applying code updates
- Fixed problem when quorum is renamed to (1), gui will now rename it properly
- Added Publish Config and License messages now written to action log
- Fixed Issue with target team being assigned when host added, not showing on the basic tab
- Fixed problem with export to CSV not working on some pages
- Fixed VC Plugin not installed message showing incorrect data

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- Changed Unassigned hosts can now be maintained from the tree view by clicking on them
 - Fixed Issue of requirements help box showing every 5 seconds if no hosts had been entered
 - Changed The default admin user can now not be Deleted from the GUI
 - Added mouse over help and inherited description lines to the GUI tabs
 - Changed Delete icon from Red X to Trash Can
 - Changed root can again be used as the install user but a warning message will show to confirm using root before allowing it
 - Fixed Auto refresh issue on Action Log for IE browsers
 - Added Two new VBA restore fields to the replication tab (Note VBA restores work with DeDup backups only)
 - Changed Host Install log messages are written to be easier to understand and follow the steps
 - Changed For new installs the 'Commit esXpress snapshots' option is enabled by default
 - Changed On new Adds of an Email Server it will default to port 25 and esXpress@localhost.com from email addresses and display name

DeDup:

- Updated e2fsrpgrogs rpm
- Changed mount options for external NFS
- Removed BG regzip for blocks and reduced BG load on verify
- Optimized FLR program (backend and gui), should be faster.
- Added Option to automatically reboot the appliance after applying updates
- Fixed Issue with esXpress not being a valid user to launch text menu in appliance
- Added Quiet boot of appliance, messages output to tty2
- Added 5% memory reservation to prevent phdd slowness when using 100% memory
- Added New Logs page for viewing the various DeDup logs (daemon, delete, update, verify)
- Logs can be viewed in real time or as a static page
- Changed the default admin user can now Not be deleted
- Added On the Options page a Group Filter drop down box
- Changed FLR logic to read from database instead of flrservice when reading files/folders

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- Changed Improved performance for SMB export share

Host side rpm

- Support for VSphere 4 (not for change block table yet or IDE drives)
- VBA Restores. Added 2 options to support this. One to Enable VBA restores, the other is the threshold of blocks to restore, to run the VBA restore. VBA restores are for DeDup backups only
- Fixed, allowing backups of DeDup appliance now, as DELTA
- Added flag to rename esXpress GUI Quorum as needed.
- Fixes to replication
- Changed VBAs now use thin disk

3.5-8 Release – June 22nd, 2009

GUI:

- Added root/esxpress as an additional default GUI login for new installs
- Added Ability to change between configuration tabs without refreshing the web page
- Fixed License Check issue when Publishing configuration changes
- Changed Replication Options can now only be maintained at the host level only
- Changed Host grid and license page automatic refresh rate is now 5 seconds
- Changed Removed the child options underneath Global Settings in the Tree View
- Added For SMB backup targets to show sample format for assigning the SMB share, removed fields from the display that are not required for SMB
- Added Edit check on the host userid field to not allow root to be used
- Fixed Inconsistencies between adding Target Teams at the Host Level and on the Basic Tab
- Fixed Issue with deleted email addresses still being interfaced to the host
- Fixed Publish to the host failing when an Email Server was not defined
- Changed License Page Headings to match license pdf sent to users
- Changed Order of configuration icons

DeDup:

- Fixed FLR tree view issue with VMs with the same name and different UUIDs
- Added Database Repair function from PHD menu
- Changed Will not import dupe backups anymore. This is good when calling the phdd_import --reimport command. Useful when rsync'g the PHDD server.
- Fixed Issue with One_of export share showing duplicate backups
- Fixed Issue with High CPU utilization showing on DeDup appliance
- Fixed PHDD restore with space in VMName
- Changed Verify processing logic that was causing high CPU utilization on appliance

Host side rpm

- Fixed check for MISSED backups when using PHDD
- Fixed snapshot problems, with existing, and with removing
- Fixed check for missing backups at end of backup run.
- Switch to SSH as transport to PHDD device. This should be faster too.
- Added Throttling for DeDup backups
- Fixed Replication Report showing as Unlicensed incorrectly

3.5-7 Release – June 8th, 2009

**** 3.5-7 is a GUI appliance update only ****

GUI:

- Fixed Snap on Snap password being blanked out
- Changed Added automatic refresh ability on hosts and license pages
- Added If a valid license is not installed default page will now be license
- Fixed GUI invalid passwords being accepted issue
- Changed Hide not required fields for PHDD targets
- Added If license count is negative do not allow Published
- Fixed Quorum lock display problem showing 3 plain text Submit Query

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- Changed expanded VC IP/DNS field to 50 characters
 - Fixed Host Grid - icons didn't scroll with page
 - Fixed Spelling error on License Tab
 - Added New help tab for quorum/vmkernel pre-requisites to host grid If no hosts are defined the help window will be displayed.
 - Fixed vmfs volume refresh issue with hosts
 - Fixed Enable Throttle not saving correctly to the host
 - Fixed VC plug-in password validation
 - Fixed Stack overflow error for IE on Basic Tab - Automation Control check boxes
 - Fixed Host install timing issue, caused if listing of vmfs volumes was slow
 - Fixed Spelling error on Publish License Confirmation Window
 - Changed Force all capitals for license data entered
 - Fixed Net Auto Delete options not lining up correctly on Destination Tab
 - Changed Increased character length for license fields
 - Fixed VC password validation
 - Fixed Appliance DHCP Gateway type
 - Fixed Trim/Auto Delete options not interfacing to Hosts properly
 - Fixed Java Script error when enabling hosts
 - Fixed SMTP authorization enabled not interfacing to Hosts properly

DeDup

- No DeDup releases in 3.5-7, the current version of DeDup is still 3.5-6

Host side rpm

- No new rpm released, current rpm version 3.5-5

3.5-6 Release – May 21st 2009

GUI:

- Fixed License Copy/Paste Issue from pdf
- Changed Additional filtering logic on action log viewer

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- Fixed VC plug-in issue caused by 2nd NIC addition

DeDup

- Fixed FLR issue showing bad backups, issue that arose from 3.5-5 release

Host side rpm

- No new rpm released, current rpm version 3.5-5
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3.5-5 Release – May 19th 2009

GUI

- Added command line to phdq_update, --rpms, to update DB with RPM versions
- Fixed If a target team existed on a target team twice if one was deleted both were being deleted
- Changed Deleting of a license assigned to a host will prompt for confirmation
- Fixed Http error Assigning Target Team if no targets exist
- Fixed Problem with Host Grid accessing pages other than the first page
- Changed When maintenance has been done on Targets, Host Groups and Licenses a 'Pending Changes to be Published' is shown
- Fixed Duplicate text on Selection Tab for Template Auto Backup All Found
- Fixed Problem with smb target user with a backslash exporting to the host Config as two backslashes
- Fixed quorum not being deleted on install/remove if VC renamed quorum to espress-quorum (1)
- Fixed Host would not install if had WARNING!! in its ssh login message
- Fixed Filter on Backup Targets Page
- Changed Removed 'Disable' check box from Email Server Page
- Added Branded logic to phd-support.

DeDup

- Resolved stats issues
- Added Disk Space warnings in GUI
- Do not run imports when space is low on /var
- Changed Proxy changes in the pull update

Host side rpm

- Fixed PHDD restore with space in VM name.

3.5-4 Release - May 8th 2009

GUI

- Fixed http proxy variable not exporting properly
- Added Additional DNS Server, separated by comma
- Added Automatically prompt to run updates
- Changed License Publish Button to say 'License Publish'
- Changed Target Team now requires a Target Name
- Fixed Problem with VBA IPs assigned from deleted hosts not being available
- Changed Reinstall button always will always show on Edit Host page
- Fixed Problem with Failed host add using IP showing in the grid as just the first part of the IP. example 10.1.1.1 showed as 10
- Fixed Target Teams Added or Deleted not refreshing in the Tree View
- Fixed tmpwatch log file issue at times causing HTTP 500 issues
- Fixed Treeview Line Break Issue
- Fixed Host Install passwords showing in clear text if \$ in password
- Fixed Issue of Host install showing as failed in cases when the install was good.
- Fixed Host Install issue causing the rpm to not be installed
- Fixed Group level inheritance problem
- Fixed Showing root password on Host install of a failed IP

DeDup

- Added prompt to automatically run updates after doing Check
- Removed beta replication option from phd menu
- Corrected problem of Text and Numeric Options not saving properly from Options Page
- Fixed FLR Tree getting '500' Error under certain conditions

Host Side rpm

- Made it so the VM_FULL_TARGETs in the local config file work for the PHDD backup too.
- Fixed phd-support for branded and to not take rpms from quorum
- Fixed license copy issue

3.5-3 Release – May 4th 2009

3.5-3 is the initial 3.5 GA production release

New Features

- Virtual Full Backups using Data De-Duplication – using the new PHDD appliance as your backup target esXpress will provide data de-duplication across VMs across all backups.
- Multi-User Instant File Level Restore – web based GUI interface using the PHDD appliance to restore specific files or folders from Linux and Windows Virtual Machines.
- Advanced Replication – replicates just the changed blocks and injects them directly to the replicate VM without having to a full restore for replication. This requires PHDD backups.
- Central GUI esXpress Installation and Configuration – web based application that can be integrated within Virtual Center or it can be accessible via a standard web browser.
 - Deploy esXpress installations to all host directly from the global GUI
 - Configuration groups with all hosts assigned to that group using the same standard configuration
 - Host Level overrides for esXpress configuration
 - Central Backup Target Teams – backup targets are created one time and then are grouped in target teams which can be assigned to groups and hosts.
- Global Configuration Policies – Provides standardization for configuration across all of your hosts. You can automate your global configuration deployment with hosts inheriting their configuration from global and host policies.
- Export Share from the DeDup Appliance to enable taking DeDup backings and making them available as uncompressed vmdks that can be copied to disk or tape.