

ACCOPS



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HYWORKS

HyWorks v3.0-RC5 Release Details

HyWorks 3.0

Last Updated: 24 June 2017

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Release Notes Document Revision History

<i>Date</i>	<i>Changes</i>
15-Feb-2017	V3.0-RC2 Release Changes integrated
06-May-2017	V3.0- RC4 Release Changes Integrated
16-June-2017	V3.0-RC5 Release Changes Integrated

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INTRODUCTION

This release notes document describes the details of features being delivered with different modules of HyWorks V3.0 RC5. The RC5 release is the last release candidate version which will be followed by the general available release.

HOW TO GET HYWORKS V3.0-RC5

Follow the links in this section to download the installers.

MODULE VERSIONS

The table below lists all the important modules of HyWorks released in HyWorks v3.0-RC5.

Module	Version	Remarks	Download location
HyWorks Controller	v3.0.0.4625	Integrated setup, consists of: <ul style="list-style-type: none"> HyWorks Controller Management Console User Workspace Portal Lite/ Full Client, HyDesk3000/4000 Upgrade HyWorks Session Host Agent HyWorks Session Host Monitoring Service 	Download HyWorks Controller
HyWorks Session Host Server	v3.0.0.4625	The setup includes following components: <ul style="list-style-type: none"> HyWorks Session Host Agent HyWorks Session Host Monitoring Service 	Download Session Host
HyWorks Lite Client for Windows	3.0.0915.300936		Available for download from HyWorks User Portal
HyWorks Full Client for Windows	3.0.0915.300936	To be used on Windows/ HyDesk Hy3020 devices with requirement of USB Redirection Will also be available as a "Download" on HyWorks User workspace portal	Available for download from HyWorks User Portal
HyDesk Hy3000/Hy4000 Upgrade Patch	3.0.0915.300935	Embedded with Controller setup and can be used to upgrade existing HyDesk 3000/4000 devices running following client versions	Integrated with

		<ul style="list-style-type: none"> v2.5-SP1(256033) v2.5-SP2(256075) 	Controller setup
HyWorks RDP Extensions	3.0.1.0	Embedded with HyWorks Session Host/ HyWorks DVM Tools Module. Required for HyWorks PDF Printing and Messaging	Embedded with Session Host Server/ DVM Tools Setup
HyWorks DVM Tools	3.0.2.27	To be installed in each DVM	Available for download from HyWorks Management Console Help Page

INSTALLING HYWORKS CONTROLLER V3.0 RC5

- Download the HyWorks Controller V3.0 RC5 zipped file from the specified download link in section [Getting HyWorks V3.0 RC5](#) and follow the HyWorks Controller Installation guide. Following HyWorks roles can be configured with HyWorks v3.0:
 - HyWorks Controller Service: Core of HyWorks Suite
 - Management Console and User access portal: Web files that provides web based management interface and web portal for users
 - HyWorks Session Host Server: To be installed on Windows servers to be configured as Session Host server
- Basics of various roles and modules for simplest deployment:

Target Machine	OS	HyWorks Module	Purpose
VM / Physical Host 1	Windows Server 2008 R2/2012 R2/ 2016	HyWorks Controller, HyWorks Web files (management console, user portal), SQL Express,	Infrastructure machine
VM / Physical Host 2	Windows Server 2008 R2/2012 R2/ 2016	HyWorks Session Host	Application Session Host for Shared Hosted Desktop or Application Virtualization
VM / Physical Host 2	Windows Server with Hyper-V or SCVMM	HyWorks Hyper-V Connector	Hyper-V Management for Virtual Desktops based on Hyper-V/SCVMM
VM	Windows 7/8/10	HyWorks DVM Tools	Tools to manage Virtual Desktop, needs to be installed on each VM
User PC	Windows 7/8/10/Linux	HyWorks Desktop Client	For accessing hosted applications and desktops

UPGRADE SUPPORT

HyWorks V3.0 RC5 (Controller or Session Host Server) is **upgrade compatible** with only below specified HyWorks Controller or Session Host Server Versions:

- HyWorks Controller v3.0.0.3721 or later

Note:

- HyWorks v3.0-RC5 is not upgrade compatible with HyWorks Controller v2.5 or any previous versions of skyControl Server.

Kindly contact Accops support before attempting any upgrade to production or evaluation deployments.

FEATURES AND DETAILS OF CHANGES IN V3.0-RC5

NEW FEATURES AND ENHANCEMENTS

This section provides the details of the new features and enhancements being delivered in HyWorks V3.0-RC5 release.

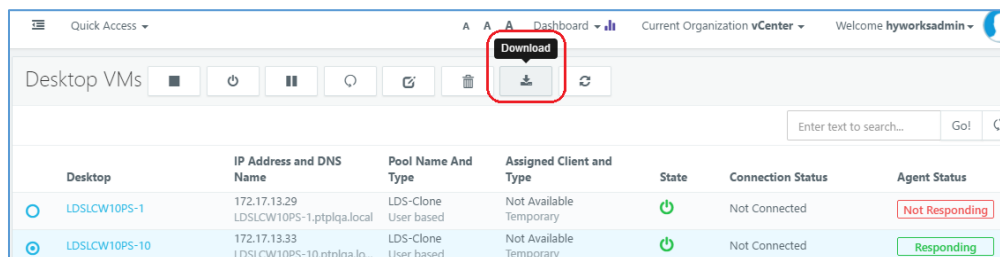
HYWORKS DVM TOOLS ENHANCEMENTS

HyWorks DVM Tools v3.0.2.27 is packaged with HyWorks v3.0-RC5 release and has the following enhancements

1. **Renamed** to HyWorks DVM Tools
2. **Reliable:** Modifications have been done to make the Desktop Agent service more reliable over desktop power operations. More enhancements to be done in the future release.
3. **Upgrade Compatibility and Enhancements:** HyWorks Tools v2.5.4.1 can be directly upgraded to HyWorks DVM Tools version 3.0.2.27 using manual setup or upgrade from controller
 - a. In another enhancement, HyWorks DVM Tools upgrade won't push Eltima if Enhanced USB Redirection Driver is present in the desktop
4. **USB Disconnection Utility now runs in background:** In all previous versions of HyWorks DVM Tools, a black command prompt window was launched by USB disconnection utility on user logon -> The prompt is now suppressed to keep USB Disconnection utility running in background
5. **Enhanced Logging Mechanism:** More detailed logs are now added in desktop agent to troubleshoot any possible communication issues with Controller and support has been added to collect the logs from Controller itself.

COLLECT DESKTOP AGENT LOGS FROM CONTROLLER

Select a desktop in Desktops section will enable the administrator to collect the desktop agent logs from Controller Management Console itself.



Desktop	IP Address and DNS Name	Pool Name And Type	Assigned Client and Type	State	Connection Status	Agent Status
LDSLCW10PS-1	172.17.13.29 LDSLCW10PS-1.ptplqa.local	LDS-Clone User based	Not Available Temporary	🟢	Not Connected	Not Responding
LDSLCW10PS-10	172.17.13.33 LDSLCW10PS-10.ptplqa.local	LDS-Clone User based	Not Available Temporary	🟢	Not Connected	Responding

This feature is an effort to make analysis of Desktop Agent and HyWorks Controller communication easier than before, which was requiring the administrator to log-into Desktop for collecting all relevant logs.

Clicking on **Log Download** button will download compressed log file of respective desktop.

Limitations:

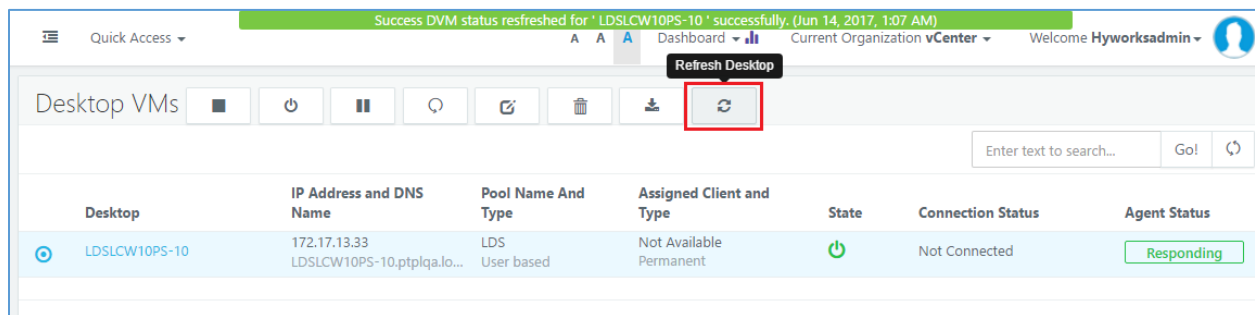
- Being dependent on Desktop Agent availability, the button to download logs will only be displayed for Desktop VMs with Agent Status as Responding.

REFRESH SINGLE DVM

Refresh button with feature to get recent details from dedicated session provider has been implemented.

The feature will help in getting the up-to-date information (Power state, FQDN/ IP Address) from the respective desktop provider.

The button will be available in the Monitoring -> Desktops section.

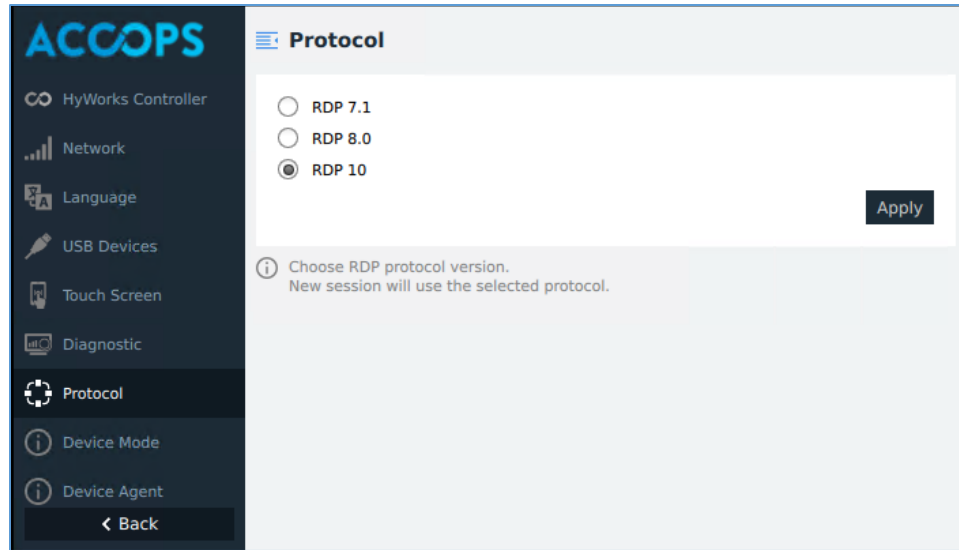


Future Enhancement: The same feature will be enhanced in future to refresh the desktop agent status for the selected desktop VM.

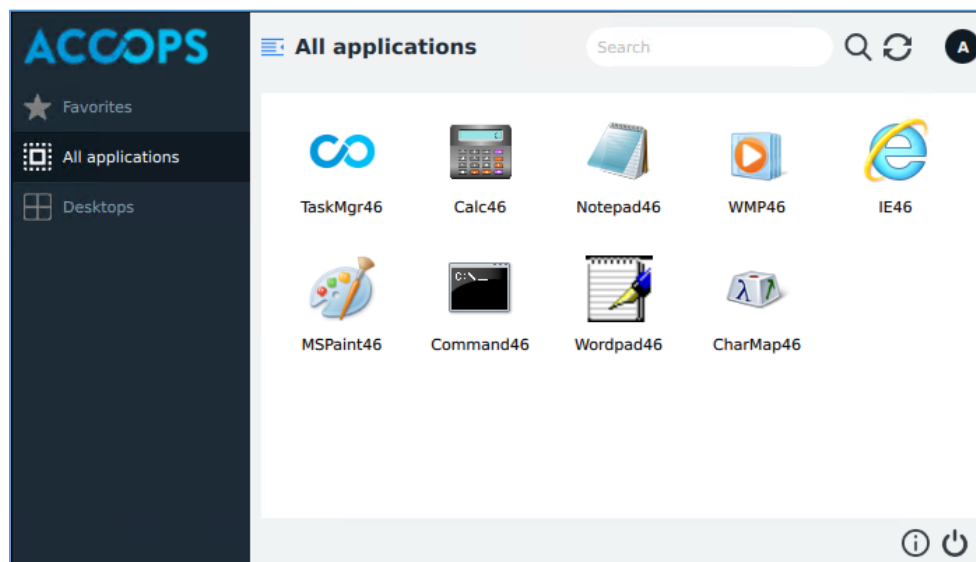
HYDESK HY3000/HY4000-RC5 RELEASE (V300935)

HyWorks v3.0-RC5 release is consists of upgrade patch for HyDesk Hy3000/Hy4000 endpoints. This is the very first release of Hy3000/Hy4000 endpoints and having some very encouraging features, as mentioned below:

1. **Support for RDP10:** RDP10 is now integrated in HyDesk Hy3000/Hy4000 firmware which is having better support for Windows 10 and Windows 2016 servers. RDP 10 protocol will enable the end users to have rich multimedia experience while working on VDI environment.



2. **Support for Application Delivery:** v3.0-RC5 upgrade patch for HyDesk Hy3000/Hy4000 will enable the end users to connect to assigned applications from HyWorks Controller in Shell or Remote App mode.
One of the most awaited feature to support application deliveries on HyDesk devices in zero mode.



3. **Enhanced Remote Shell and Remote Viewer Features:** HyDesk Hy3000/Hy4000 with latest HyWorks RC5 upgrade patch will enable the following advanced remote-control configurations:
 - a. **Ability to Specify Custom Shell Password:** Administrator can now choose to specify custom password to access HyDesk Devices using SSH Client. In addition, administrators will also be able to change the password remotely from Controller

Management Console itself. The settings are available in Device Settings -> Advanced Configurations section

- b. Customization Remote Viewing Options: Administrators will now be able to configure the remote viewing on the devices with following options:**
- Enable Option to Seek User Confirmation for Remote Control:** The option will help in keeping users notified about the possible remote viewing or control of the devices
 - Configure Custom Remote-Control Password:** In addition to User Permission, administrator can also specify custom password to access Device remotely using VNC Viewers to make it accessible to only authenticated users with password. The second advantage of custom Remote-Control password is that now the shell (root) password can be kept different from the remote-control password.

The screenshot shows the 'Advanced Settings' tab in the HyWorks Management Console. The settings are as follows:

- Remote Session:** Set Manually (dropdown menu with a red info icon)
- Remote Shell:** ☒
- Set Custom Password:** ☒ (password field with masked characters and a 'Show' checkbox)
- Remote Control:** ☒
- Require User Confirmation:** ☒
- Set Remote Control Password:** ☒ (password field with masked characters and a 'Show' checkbox)

INSTALLER ENHANCEMENTS

DATABASE BACKUP ON INSTALLER INVOKE

HyWorks Controller setup to take backup, whenever the installer will be invoked.

The feature will help in restoring the controller to previous state if the setup fails during installation, upgrade or repair.

DISABLE NLA DURING INSTALLATION OF SESSION HOST SERVER

In previous Session Host Server setups, NLA was getting enabled by default during installation and configuration, the behavior has been improvised to disable NLA during installation.

ISSUES FIXED IN HYWORKS V3.0-RC5 RELEASE

DUPLICATE ENTITLEMENT FIX

In all previous builds of HyWorks Controller, having duplicate users/groups/OUs across different organization was causing multiple issues and these issues are fixed now. Now administrator can have duplicate users/groups or OUs in different organizations.

Note:

- If the controller is being upgraded from v3721 or higher version, then all such duplicate entitlements need to be deleted first and then re-added to get them working.

SPECIAL CHARACTER VALIDATIONS

In all previous builds, no validations were being done on HyWorks Controller Management Console for special characters in the name or such relevant fields.

The validations have been introduced in all the wizards and dialogs. Detailed information about supported characters can be found in the respective error itself.

1. Organization code will not take any special character other than Hyphen "-" or Underscore "_" and last character must be an alphanumeric character

Note:

- If the controller is being upgraded from v3721 or higher, then all such objects should be renamed first to have only following characters: _ SPACE () {} # @: - and then initiate upgrade. Post upgrade the special characters may create some issues with object modification.

Workaround: Changes from SQL Management Studio can be done.

INSTALLER FIXES

1. Controller upgrade fails on servers running v3721 or earlier: Issue was with detecting the monitoring service configuration during installation. The issue is fixed now and controller can be upgraded smoothly.
2. Group Validation Issues for installation of Controller in Domain joined server
 - a. In previous setups, the group verification was case sensitive and thus not providing group name in exactly same case was giving error during installation -> issue is fixed now.
 - b. Exact group name was not matched and thus resulting in successful installation with incorrect group name – Issue is fixed now.
3. Controller Installation using Add New Components flow with Restore database was not working: The issue was with the file format identification. -> Issue is fixed now.

PROVISIONING FIXES

1. Shutdown instead of Power-off: In previous build Gold image was being powered off for cloning. In RC5, it is now enhanced to attempt shutdown the gold image VM (if operation is available) before power-off. Also, the monitoring the power state of gold image has been enhanced.
2. Recompose and then edit operation on provisioned pool was not following the same number sequence -> Issue is fixed now e.g. if administrator created 5 desktops initially and then recomposed the pool and then edit the pool to have 10 VMs -> Desktop-1...Desktop-10
3. Unable to identify the hosts under cluster or unable to identify clusters in datacenter: During provisioning with vCenter server, controller was not able to detect the cluster or host configurations correctly. -> Issue is fixed now to provide administrator advanced deployment option and flexibility to choose the datastores and resource pools correctly

HYWORKS CLIENT FIXES

1. Desktop sessions are not launched in full desktop mode by default: Defect is fixed now and desktop sessions will be launched in full desktop mode
2. Unable to take dedicated desktop session, if any other user is already logged in.
3. Two instances of HyWorks Client when one instance was running and another one was instantiated using HySecure client -> Issue is fixed now.
4. HyWorks Client goes into infinite loading state in some rare cases -> Issue is fixed now and HyWorks client now functioning appropriately
5. Support for "Use Build-in Credentials": HyWorks Clients were not able to connect to apps/desktops, where the credentials for RDS/ Desktops must be shared by Controller using flag **Use Build-in Credentials**, the issue is fixed in RC5 Windows and HyDesk3000/4000 clients.
6. HyWorks Client using same shell icon ins taskbar for all application sessions launched in shell mode -> The behavior is now improvised and Client will now use application specific icon.
7. HyWorks Client crashes when multiple applications are launched or reconnected simultaneously. The issue is fixed now and will be improved further in next release.

SESSION MANAGEMENT:

1. Unable to remove user sessions when session host server is not reachable -> Issues is fixed now, administrator will be able to clean up the user sessions even when session host server is not reachable
2. Enhanced Session Management: In some cases, when user sessions are being logged out not all the associated RDS sessions were logged out
 - ➔ Enhancements have been introduced to make more precise cleanup on Session Host Server.
 - ➔ Also, more detailed logs are created to understand the associated issues. More enhancements are expected in this functional area.

ADMINISTRATION DEFECT-FIXES

1. Unable to login using newly configured administrator if controller is installed with AD-group as super-administrator -> Issue is fixed now and controller functions correctly when installed with AD-group as super-administrator.
2. Non-user-friendly error while access App Sessions page with user not having view permission -> Issue is fixed and now appropriate warning message is displayed
3. Advance Configurations and Proxy Configurations will be available to Super-administrators only.

DASHBOARD

1. Dedicated Desktop counts are not included in Desktop Session count on dashboard
2. CPU/Memory/Disk information of other controller in cluster was not displayed -> Fixed in RC5 and all information will be displayed correctly
3. Incorrect (zero) CPU/Memory/Disk usage shown when the monitoring service is down on controller or session host server – Fixed to show hyphen “-”, instead of zero and alert icon to be displayed.

JAPANISATION

1. Application Folder Name in Japanese on client UI was not shown correctly -> Issue is fixed now and Japanese application folder names are

LICENSING ISSUES

1. On license expiry, on licensing service down or license exceed error, registered devices were removed from HyWorks Configuration -> Issue is fixed in RC5 release, where devices will be moved back to organization selection page.
2. Restricting Number of devices in case of concurrent session based licenses: HyWorks controller was not allowing more devices then number of concurrent session based licenses

USER PORTAL FIXES

1. In RC4 Release, login from HyWorks User Portal was not showing applications icon correctly. -> The issue if fixes now and login and application access from user portal works correctly.

FEATURES AND DETAILS OF CHANGES IN V3.0-RC4

NEW FEATURES AND ENHANCEMENTS

HIDE APPLICATIONS THAT ARE NOT ACCESSIBLE TO USER

When deploying HyWorks without active directory and in WORKGROUP environment, it is possible to use HyWorks local database for user authorization and automatically creating the user account on Microsoft RDS server which are part of WORKGROUP.

In case a user account is not created on a RDS server, but the user has access to an application published from that RDS server, the application will not be visible to the user.

HyWorks v3.0-RC4 has the support for feature of user to RDS and Application mapping and access, where user will be displayed those applications which are coming for RDS server to which the user belongs. E.g. consider the following configuration

- An organization has 4 session teams with each session team having 1 RDS server.
- User1 belong to Team1 (RDS1) so the user account is created (synched) only with RDS1
- App1 is published from all RDS servers
- App2 is available only on RDS1
- App3 is available on RDS2, RDS3 and RDS4
- User is assigned all applications; App1, App2 and App3

When User1 logs in, user will see icons for only App1 and App2, as User belongs to RDS1 and applications App1 and App2 are from RDS1. Also, when user1 will access App1, its session will only come from RDS1 not from RDS2, RDS3 or RDS4.

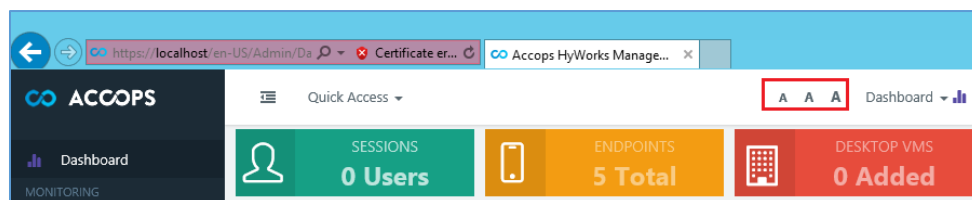
MANAGEMENT CONSOLE UI ENHANCEMENTS

CONTROL TO ADJUST FONT SIZE

Administrator will be able to adjust the font size of the controls in HyWorks Management Console by choosing the font size controls given on top of the Management Console.

All fonts will be adjusted accordingly.

The administrator's selection is stored in browser cookie. If the administrator clears the browser cache, changes the browser or changes the machine, the setting will be set to default.



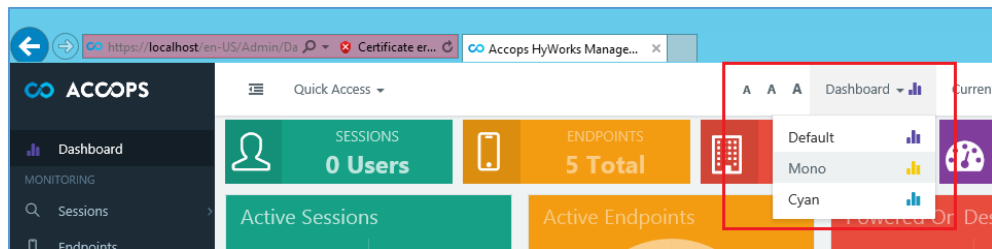
CONTROL TO ADJUST DASHBOARD THEME

Administrator will be able to change the dashboard themes, using the dropdown button shown on the top of Management Console.

The available themes are:

1. Default (With default colors)
2. Mono (With White Background)
3. Cyan (Combination of white and Cyan)

The administrator's selection is stored in browser cookie. If the administrator clears the browser cache, changes the browser or changes the machine, the setting will be set to default.

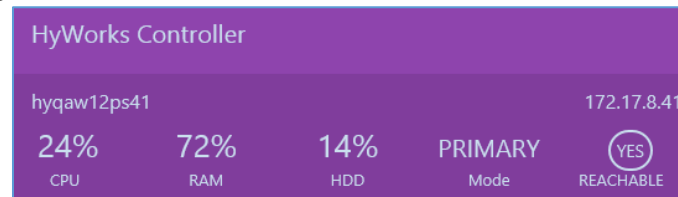


HYWORKS CONTROLLER MONITORING

On dashboard, the health of HyWorks controller is displayed.

The information will be displayed on the dashboard. Following information will be available:

- CPU Utilization
- Memory Utilization
- Hard disk Usage

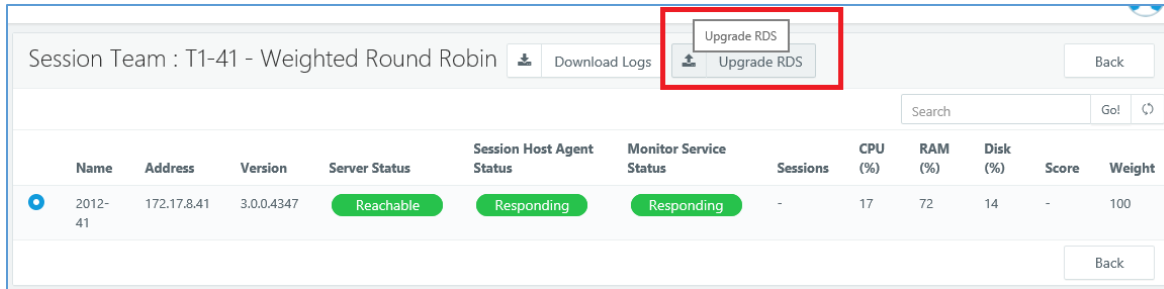


SESSION HOST SERVER UPGRADE FROM CONTROLLER

From HyWorks v3.0-RC4 onwards, it would be possible to upgrade the HyWorks session host agent from HyWorks Management Console.

The feature is available in the Server – Session teams page. Follow the below steps to upgrade configured session host server from HyWorks Controller:

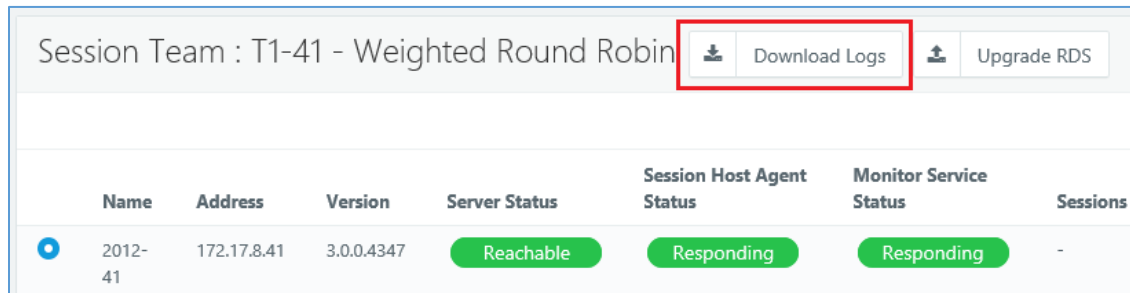
1. Click on Session Teams name to navigate to configured Session Host Servers page -> Select session host server
2. Initiate upgrade using a single click on available button



3. Session Host server will be upgraded and appropriate logs will be created.

SESSION HOST SERVER LOGS COLLECTION FROM /MANAGEMENT CONSOLE

Session teams -> Session Host Server page also provides button to collect the session host server logs.



SEPARATE INSTALLER SETUP FOR SESSION HOST SERVER

To support the upgrade, session host servers from Controller, separate installer for Session Host Server is available.

APPLICATION SPECIFIC CONNECTION PROFILE

HyWorks v3.0-RC4 enables administrators to assign connection profiles to the application. When user launches the application, the connection profile settings will be used from the application. The application specific connection profiles are used in following scenario:

1. When Shell mode is enabled, the connection setting assigned to the application is used. If no connection is assigned to the application, then the connection profile assigned to the user will be used.
2. In RemoteApp mode, the application is being accessed first

Connection profile are used in following priority

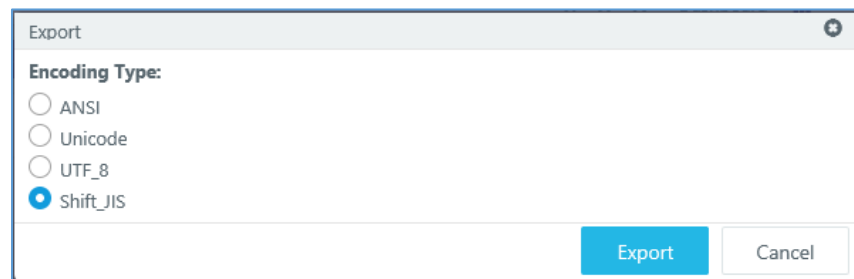
HyLite	Client Based Access
Assigned to Application	Assigned to Application

Assigned to User	Assigned to User
Assigned to User Group	Assigned to Group
Assigned to OU	Assigned to OU
Desktop Pool	Desktop Pool
Default Connection Profile	Assigned to Device
	Assigned to Device Group
	Assigned to Default Settings

CSV EXPORT

The feature to export local user account in CSV format is available. The feature also supports exporting the list in multiple file formats:

- ANSI
- UTF-8
- Unicode
- Shift_JIS



CSV IMPORT AND MULTIPLE FILE FORMAT SUPPORT

Support for importing the CSV file in multiple file format is added. The feature does not check if the file format is as per the selection. Administrator must make sure to select the appropriate file format.

- ANSI
- UTF-8
- Unicode
- Shift_JIS

LOGGING IMPROVEMENTS

DEFAULT NUMBER OF LOGS INCREASED TO 500000

Default number of logs in Controller to be kept are increased from 50,000 to 5,00,000. This will help in keeping more number of logs on Controller for admin to view. When log entry count exceeds this limit, Controller will start deleting older logs. Controller will also generate log, when it will clear the old records.

It is possible to change the limit through the newly added advanced system configuration page on management console.

SUPPORT FOR SQL BASED LOGGING

HyWorks controller create the logs in local files and SQL embedded database. To increase the scalability of logging, it is now possible to create the logs in SQL database.

This will result in enhanced performance and keeping more number of records.

To enable SQL server based logging, configuration changes are required as per Appendix A.

SUPPORT FOR EXTERNAL SYSLOG SERVER FOR LOGS ARCHIVING

It is possible to integrate external Syslog server for long time achieving.

The configuration steps for configuring external Syslog server are provided in Appendix B. Controller can do logging in SQL database and Syslog server at same time.

HyWorks Controller can show the logs stored on the HyWorks server itself (SQL logging). It cannot show the logs from Syslog server.

ADVANCE CONFIGURATIONS

HyWorks controller has many advanced configuration parameters. The options are now configurable from management console.

The configuration parameters are advanced options and must not be changed unless directed by Accops Support.

USER/GROUP SEARCH IMPROVEMENTS

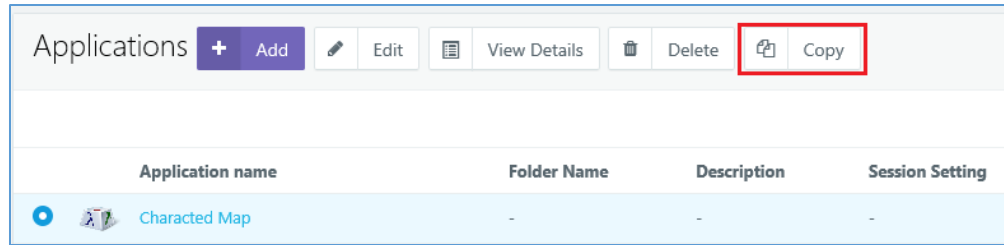
When searching for users and group in large active directory or LDAP environment, the search could take long time. Enhancements are done to improve performance of search operation

1. User and Groups can be searched with regular expressions like "Start with", "End with", "Equals" or "Contains". Using these search filters can help in searching for right user/group with minimum efforts.
2. When listing the search results, only 500 results are shown.

EASY CREATION OF DUPLICATE APPLICATIONS

It is now possible to copy an Application object and create a new Application.

In Workspace -> Applications sections, selecting an application presents option to copy the application and create an exact clone of the application.



PROVISIONING ENHANCEMENTS AND NEW HYWORKS DESKTOP TOOLS V3.0.0.10

New HyWorks Tools is has following new features:

USER SESSION MANAGEMENT

- It is now possible to disconnect or logoff user session from HyWorks management console
- All session timeouts are applicable to VDI sessions

CUSTOMIZATION IMPROVEMENTS

- **Setting DNS Before Sysprep:** For customizing the newly cloned desktop, it's not required to have a DHCP specify correct DNS server anymore. It is possible to set a specific DNS server during cloned desktop customization.
- **Create Machine object in Specific OU:** Customization section now includes AD Path object, which can be used to specify full OU path in which the computer object for the cloned desktop will be created.
- **Faster Sysprep:** For Windows8 or newer machines, Sysprep will be faster than before.

PROVISIONING ENHANCEMENTS

- **Replica Image Creation in Linked Clones with vCenter Server:** With this release, linked clones will be created using Replica Images. When creating a linked clone based pool, replica image of the parent image is created automatically. The linked clones are then created using replica image. When recomposing the desktop pool, the linked clones and replica image are deleted and a new replica image is created using the updated parent image. All linked clones in a pool use a single replica image.
- **Recompose of Desktop Pool Enhancements:** When recomposing the desktop pool, the DVM name and assignments are preserved.
- **vCenter Clustered Environment Support:** In previous HyWorks version, vCenter cluster environment was not supported and thus cloning was only possible with default options. HyWorks v3.0-RC4 supports the Cluster environment with ability to choose from different datastores and different resource pools, hosts or clusters.

- **Option to Move Replica and Cloned VMs in different datastores and Resource Pools:**
Linked clone enhancements include features to choose datastores and location for replica image and provisioned VMs.
- Deleting the Dynamic Provisioning Pool with standalone ESXi servers, will now delete the VMs from the disk. In previous versions, it was only being removed from inventory.

AUTHENTICATION SERVER ENHANCEMENTS

1. **Specify User Search Attribute:** HyWorks Authentication Server configuration wizard now provide text box based control to specify the search attribute to be used for user search. The default attribute for active directory is SAMAccountName and for OpenLdap the default search attribute is CN.

SUPPORTING VIRTUAL DESKTOPS WITH MULTIPLE IP ADDRESSES

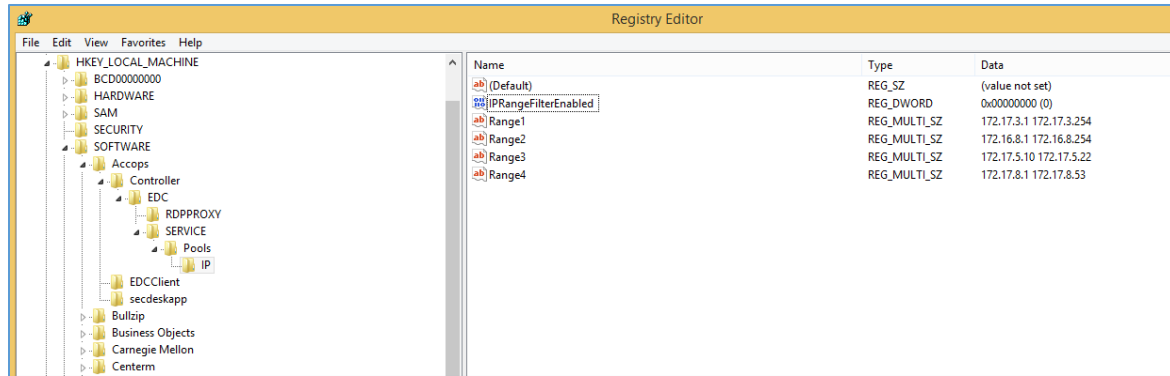
In case a virtual desktop has multiple IP addresses, for e.g. one IPv4 and one IPv6 address, in such case HyWorks controller must decide to use one of the IP address. A Virtual desktop may have multiple network card also and can get multiple IPv4 IP addresses. It is possible to configure a preferred subnet to choose when the virtual desktop has multiple IP addresses. The configuration needs to be done in registry on the host where HyWorks controllers are installed (both primary and secondary)

This Feature can be configured using following steps in Registry:

- Create Sub-Key: HKLM\SOFTWARE\Accops\Controller\EDC\SERVICE\Pools\
 - Create Sub-Key with Pool Name
 - Then Create Multi-Value String Entry
 - Its name should start with "**Range**" (so you can have multiple Range)
 - In the Value Field enter starting IP address
 - At next line enter end IP Address
 - Repeat above steps to have multiple range values
 - This feature can be enabled/disabled, by adding following
 - Add Dword "**IPRangeFilterEnabled**"
 - Set 1 to enable this feature for Pool
 - Set 0 to disable this feature for Pool

Example: Pool Name "**IP**" with Multiple Range

Accops HyWorks Client Release Details – v3.0 RC5



ISSUES FIXED IN HYWORKS V3.0-RC4/RC3

1. Reconnection to existing shared hosted desktop session is now working with few limitations, mentioned in **Known Issues** section.
2. Updating Desktop pools with editing or deleting users, sometimes display the error, that the desktop pools already exists. The issue is fixed in v3.0-RC3 release.
3. If the name of the desktop pool overlaps with another organization, you cannot edit that pool, but creation of desktop pool with same name in different organizations is possible. The issue is fixed now.
4. UI Fixes to have symmetric controls in all the wizards (Exception: Desktop Pool wizard, tab based access is not possible)
5. Validations while importing CSV to display appropriate errors for unsupported special characters

DEPRECATED FEATURES

Support for Embedded DB

HyWorks v3.0-RC4/RC5 does not support installation with Embedded DB and only supported database is SQL Server.

Please note, if any existing deployment of HyWorks v3.0 is using embedded DB and require upgrade, then direct upgrade should not be attempted as this could cause data loss. Contact Accops support team for any assistance on upgrade.

KNOWN ISSUES

Following limitations and issues are known in HyWorks v3.0-RC5 Release:

LOGS MANAGEMENT

1. HyWorks v3.0-RC5 does not archive the logs and thus on reaching the maximum allowed records, it starts cleaning the old records.
Workaround: Please contact Accops support team, on how to enable syslog archiving in HyWorks.
2. On upgrade over v3721, all existing logs will be cleared, its recommended to take backup of existing logsDb file before performing the upgrade to save existing Controller logs.

SESSION MANAGEMENT

1. Application session entries sometimes get removed for applications which starts child processes and then exists. User session on session host server will continue to run, only

HyWorks Controller will lose control over application access. Example of such applications are Internet explorer, Microsoft Word and Microsoft Excel.

2. Reconnection to existing session will not work in following conditions:
 - a. When the shared hosted desktop session is taken from HyLite and then the next session is taken from HyWorks Windows Client or vice versa
 - b. Applications accessed in shell mode, will not get reconnected
3. Sessions to old HyWorks 2.5 Client, will be unmanaged and may not be controlled; which means the session timeouts or shared hosted desktop session removal will not work. The controlled shared hosted desktop sessions are only available from Client v3.0 or HyLite.
4. Applications deleted from HyWorks Management Console, will not affect the already running user sessions, which means users will be able to access those applications, until they logout and log-in again.
5. With desktop pools of Shared hosted desktops having device based assignments, login from same username may not function correctly and would result in reconnections.
6. Application Auto-launch will not function when being accessed from HyLite, the feature works fine with HyWorks Clients.
7. Different behavior for shared hosted desktop and dedicated desktop session removal from controller
 - a. Shared hosted desktop gets logged out
 - b. Dedicated desktop gets disconnected
8. When Session Host Agent is not reachable and different sessions are removed from controller, following behavior is expected:
 - a. Removal of dedicated desktop sessions: Sessions will be removed with success, but won't be removed from desktop side
 - b. Removal of shared hosted desktop session: Sessions will be removed with success but won't be removed from server side
 - c. Removal of single application session: Sessions won't be removed and error will be displayed
 - d. Removal of Provider session with single or multiple app sessions: Session will be removed from controller with success but will not be removed from session host server
 - e. Removal of user session with single or multiple app/desktop sessions: Sessions will be removed from controller with error but corresponding app and desktop sessions won't be removed from server or desktop side
9. In some cases, where multiple VDI/ Provider/App or User sessions are removed, Session host agent fails to remove few of the sessions and these sessions may become unmanageable.

HYWORKS CONTROLLER MANAGEMENT CONSOLE BROWSER COMPATIBILITY

1. HyWorks Management Console should be used in Internet Explorer 11, Google Chrome, or Firefox browsers. On Internet explorer (v10/ v9/ v8) management console may not work as expected.

REMOTE CONTROL ADVANCED CONFIGURATIONS

1. The Remote Control advanced configurations especially custom shell password requires HyDesk devices to be rebooted. Even changing shell password requires reboot.
2. Controller does not show any warning while the configurations are being changed but HyDesk endpoints will reboot to apply new settings
3. Controller may not show any alert in case of password mismatch between Controller and registered HyDesk devices.
4. These advanced configurations won't work for old HyDesk v2.5 SP1/SP2 Clients but administrator can choose to enable only limited options i.e. Enable Remote Shell and Enable Remote Control for v2.5 Clients.
5. For HyDesk4000, the character limit for password is 5 characters only and specifying more than 5 characters will not work
6. If Devices are moved from one controller to another, shell password change won't function and won't present any error as well.

USER SYNCHRONIZATION, BUILT-IN DIRECTORY AND CSV IMPORT

1. Password policy on RDS server must be configured correctly else it may affect the user synchronization (addition and update) adversely.
2. User profiles may not get deleted if the files are in use due to running or disconnected sessions.
3. Changing the Group name can cause assignment misconfigurations and will require manual modifications in the entitlements

CONTROLLER CONFIGURATION AND INSTALLER ISSUES

1. Sometimes installer may fail to start Windows Session Host Agent or Monitoring service.
Resolution: Ignore the error and click on OK button. Manually start the services.

2. HyWorks Controller [configured with SQL Server] will fail to function correctly if SQL service is not running. If HyWorks service starts before starting SQL server, then HyWorks cannot recover from the error.

Resolution: If HyWorks Controller is using SQL Server installed on the same machine - define the dependencies using command line:

```
sc config HyWorksService depend= MSSQL$SQLEXPRESS
```

3. Secondary Controller entry will get added when restoring database during fresh install and administrator must delete the secondary controller entry manually to overcome the situation.
4. Controller cannot add itself as RDS server using hostname and may display error.
5. If HyWorks Controller is configured to have Microsoft AD group as default administrator, the groups can be modified post installation and thus can bring system to without super-administrator state.

Resolution: System can be restore back using the repair operation.

6. Installation fails with invalid credential error, when installation is attempted on server with following configuration:
 - a. Logged in with Domain user
 - b. SQL is installed with Windows Authentication
 - c. SQL Configuration in HyWorks with Windows Authentication mode and on Service Credentials – Domain user credentials are provided

Resolution: Proceed installation with local admin user credentials and post installation change the service properties to use domain user credentials.

AUTHENTICATION DOMAIN

1. Authentication servers won't get deleted, if it is being used in any organization's authentication domain
2. Entitlements won't get removed if authentication servers or users are deleted from authentication server
3. With LDAP server configures as both Authentication and Authorization server, domain name is being sent as blank.

Resolution: Administrator can specify the domain name to be used.

4. If **User Synchronization Type** is set as On Login, the user login for the first time may take some time as it will require user account to be created after login.

ORGANIZATIONS

1. Deletion of organizations depend on multiple resources and will not get deleted until all dependencies are solved. The operation may not present a very user-friendly error.
2. Registration of devices will be deleted from original organization, if the device is being moved into other organization. Please note, device deletion also deletes its entitlements.

CONNECTION PROFILES

1. Connection profile is randomly picked, if a user is assigned with two desktop pools and both pools are using different connection profiles.
2. Connection profile is randomly picked, if a user belongs to two diverse groups and both groups are assigned with different connection profiles.

SESSION PROVIDERS

1. Hyper-V Connector is not yet released in HyWorks v3.0-RC5 release due to multiple cloning issues. Please contact Accops support team for any urgent requirement of new Hyper-V Connector.
 - a. Supported Hyper-V Servers: Only following Hyper-V servers are supported in HyWorks v3.0 configurations
 - i. Hyper-V server 2012R2 with GUI
 - b. Supported SCVMM Servers:
 - i. SCVMM Windows 2012R2
 - ii. SCVMM Windows 2016
2. On Windows 2008R2, all remote applications get closed and then gets reopened on switching between applications.
Resolution: Windows 2008R2-SP1 along with few additional Microsoft patches need to be applied. Please contact Accops Support team for getting the information of the patches.
3. With TSE configured as desktop provider and having more applications with strings 'Desktop' in name, desktop session will not get launched
4. If TSE and Pano Controller both are configured in HyWorks, session from Pano Controller will fail and thus the configuration is not recommended.
5. It is not possible to resume suspended DVMs from Pano Controller and will require administrator to manually resume the DVMs from hypervisor management console
6. SCVMM does not reflect changes being made outside of SCVMM and thus HyWorks Controller connecting to SCVMM using Hyper-V Connector might not get most updated information.
Resolution: Refresh SCVMM using Refresh button provided in VMM Console.
7. DVMs from Hyper-V/ SCVMM DVM Provider will not go into any error state if Hyper-V service or Hyper-V/SCVMM Server is down
8. Installation of HyWorks Session Host Server on the TSE Application Server does not function correctly and its advised to install TSE and HyWorks Session Host Server on different machines.
9. In Weighted Round Robin Load Balancing, weight cannot be specified as 1. The action is denied on the management console itself.
10. Upgrade of HyWorks RDP Extensions may fail if any user sessions are running and virtual channels are in-use.

Workaround: While pushing upgrade from HyWorks Controller, selection option to remove all running remote sessions and perform Session host server upgrade, when no users are working

HYWORKS CONTROLLER CLUSTER

1. The servers being configured in cluster must have time synchronization else it may affect the all the HA functionalities adversely
2. In case of network disconnection or SQL Service down on HyWorks Controllers (primary or secondary), the next primary server cannot be known and may cause some data loss.
3. Currently the database of secondary server is synchronized after every 60 seconds and thus in case of failures most recent sessions or configurations i.e. established after data sync may be discarded by secondary server.
4. Administrator can configure both servers as primary or both as secondary (Not recommended) however servers will get reconfigured as primary and secondary after some time.
5. HyWorks Controllers do not work in active/ active mode and do not support any kind of load balancing in this release.
6. HyWorks Client version information and banner information is not being synchronized between HyWorks Controllers in cluster and thus on server failure the banner may get reset and devices may be shown version alert.
7. If first controller sever is completely configured with multiple organizations and license distribution and then the secondary server is added to it then on secondary it may display the license allocation with some negative numbers.

Resolution: Apply the cluster license on the secondary server and all license allocation conflicts will be solved.

8. Controller servers will become unusable if both controllers are set to Maintenance mode and then cluster is deprovisioned using removing one of the server from the cluster

Resolution: The environment is unrecoverable unless the controller databases are modified to set the mode back to primary or secondary.

DEDICATED VDI AND PROVISIONING ISSUES

1. Dedicated VDI: In case of multiple IP address being assigned to Desktop VM, the HyWorks DVM Agent status will throw object reference error

Workaround: Configure IP Range to be used for desktop pools.

2. HyWorks Tools upgrade is not supported on any previous 3.0 version, upgrade will work only over version 2.5.4.1 (HyWorks 2.5-GA Release)
3. HyWorks Tools upgrade will not work for Windows desktops running .Net version 4.7. To upgrade manually, first stop the HyWorks Desktop Agent service and then initiate the
4. Linked Clone Support: Linked clone is supported with VMware vCenter Server versions 5.5, 6.0 and 6.5 only. Linked clone feature is not supported for any other Dedicated Session Provider e.g. VMware ESXi, Hyper-V and SCVMM versions.

5. Linked clone check box may sometimes appear disabled for supported vCenter servers also

Resolution: Update the desktop provider (vCenter server in Setup – Desktop Provider section) and re-check linked clone option. It should now be enabled

6. DVMs with Cloning in Progress or Pending status will go to missing state if DVM Provider cache is updated during provisioning (Provisioning will complete and will not fail)
7. Multiple cloning will get started when controller is in process of cloning and if spare VMs need to be created, consider the example: A pool was created to have 5 full clones (with configuration to keep 2 create now and keep 2 in spare), while controller has started cloning, one user logs in gets assigned with VM1: now the spare VMs count has decreased so controller will start cloning of another spare VM in parallel of cloning already in progress.
8. Replica VM does not get deleted, when recompose is initiated using new gold image
9. Recompose will fail to create desktops which are provisioned and removed from controller but not removed from session provider.
10. Provisioning will fail if VMs with same name already exists on dedicated session provider.
11. Recompose does not work on Hyper-V
12. Provisioning with Hyper-V fails if gold image is having multiple checkpoints
13. Cloning with independent ESXi Server is not reliable and may have multiple issues
14. HyWorks DVM tools upgrade fails on windows desktops with dot net 4.7 version. Newer version of HyWorks DVM tools to be released for the support of HyWorks DVM Tools.
 - a. Uninstallation of HyWorks DVM tools on desktops with dot net 4.7 may get failed as well.

APPLICATION AND DESKTOP DELIVERY

1. CPU/ Memory or HDD consumption information on Controller is getting updated periodically and thus sometimes may not be real-time.
2. Custom logo configuration across different organization does not work correctly as versioning is not maintained organization wise.
3. Realm Settings changes will come into effect only after re-registration.
 - a. For re-registration client should be exited completely and then should be re-invoked from shortcut.
4. App sessions and shared hosted desktop sessions are not supported on other than 3389 port.
5. Limit concurrent sessions are applicable to the application instances instead of user sessions and thus a single user can also consume all the allowed concurrent sessions as well.
6. Publishing explorer to enable folder access won't work in Shell mode. Kindly contact support for alternate way to access folders.
7. In few cases, command line option does not work e.g. publishing explorer with user's home directory to be mapped using command line option "%homepath%"

8. Only single instance of Google Chrome, can be accessed in Shell mode. To allow multiple instances, an alternate configuration is required. Please contact Accops Support team for seeking appropriate configurations.

BACKUP, RESTORE AND SMTP CONFIGURATIONS

1. Restoring HyWorks Controller with backed up SQL Server database may fail due to the permission on backup folder

Resolution: Manually provide the full control on the backup folder to SQL Server

2. New installation of controller with existing database will add the same controller entry as secondary controller server. The configuration will become unusable until this secondary entry is deleted.

Resolution: Delete such entry from Server -> HyWorks Controller section.

HYLITE

1. HyLite application session does not work if NLA is enabled on Microsoft RDS server. When installing HyWorks RDS session host.
2. HyLite application/desktop connection gets logged out immediately on FIPS enabled Session Host Servers.

Resolution: Please enable Use CredSSP Flag in connection profile -> Protocol Security section

3. Users will not be able to change desktop wallpaper while working with HyLite in full desktop of shared VDI
4. SHD reconnect will only work when user will click on SHD desktop icon
5. If user reload the browser tab in which applications are running, then session will be logged out
6. If user reloads the browser on application tray page, warning dialog will be displayed and all opened application/desktop sessions will be logged out.
7. Remote session screen in browser does not match with browser screen and thus if user minimizes the application, it may not be visible. The condition can be overcome by resizing the browser or user can use shortcuts Alt + PageUp/ PageDown to switch between the opened applications.
8. HyLite may not provide exact error in misconfigurations of HySecure and HyWorks e.g. if Organization is marked as inactive but configured in HySecure -> While logging in user selects the inactive (in HyWorks) organization, the HyLite will display error for Organization mismatch.
9. Performance on Internet explorer is not as good as compared to Google chrome.
10. With multiple VDI assignments, HyLite portal won't start automatic syncing of desktop statuses from controller and will initiate statuses only after user click on any of assigned desktops.
11. HyLite, by default sends heartbeat in every 5 minutes and thus user session idle timeout should always be greater than 5 minutes.

12. If unsaved files are opened in applications and user logs out the session using Sign-out button of HyLite, the session does not get signed out completely and remains disconnected
13. Application Auto-launch configuration is not supported with HyLite and application access is only supported through manual click on App/Desktop name
14. Microsoft Excel application may go into hang state while accessing it from HyLite on IE browser.
15. Application sessions in Remote App mode on switching to full desktop mode will display white bar on the bottom
16. Windows shortcuts does not work in full screen mode as well in HyLite.

HYWORKS CLIENT

1. Client uses icon of last accessed app when option "Always combine, hide labels" for Taskbar button is selected
2. Application maximize, minimize and close operation is not working properly on windows7 machine with windows client. [Repaint Issue]

Resolution: Some Microsoft patches must be applied on affected desktop. Please contact Accops support team to get the details of patches to be used.

HYSECURE + HYWORKS CLIENT

1. HySecure installation on Windows 7x64 Enterprise does not work and on Windows 7x67 Ultimate it will require additional installation of Microsoft security patch ([KB3033929](#)).
2. HyWorks Client will not work, if it is first accessed using HySecure Client and then attempted to function independently.

Workaround: Close the HyWorks Client and then launch again.

3. Power management is not optimized comparing to standalone windows client and thus may not give the best of user experience.

HYDESK HY2000 KNOWN ISSUES

1. Please note Hy2000 v3.0 client is not yet released and thus any new features e.g. Application Delivery, Shared Hosted desktop delivery in managed mode, advanced configurations (Shell/VNC) will not be supported.
2. Few dialogs on HyWorks Client Login screen e.g. Language Change dialog may be displayed blank
3. Video Performance is not good comparing to Hy3000 or Hy4000
4. Network disconnection may cause running session to freeze requiring device to be rebooted
5. No support for any touch screen panels
6. Though protocol switching feature has been provided on client side, the RDP7 is not supported on HyDesk Hy2000 and is not the recommended to be used

7. With Enhanced USB redirection driver enabled on device, 2000 playing multimedia may become unstable and thus such options should be disabled.
8. Virtual Keyboard is not supported on Hy2000 HyDesk devices.
9. Support for only Ethernet Networks:
10. Configuring both Ethernet and Wi-Fi network may make network unstable
11. Configured Wi-Fi Networks may also get removed automatically causing the network, session and HyWorks feature failures
12. Power On operations from HyWorks Controller is not supported.
13. Remote desktop (RDP) logs are not created on Hy2000, hence the troubleshooting desktop connection failure can be difficult

HYDESK (HY3000/ HY4000/ HY3020) KNOWN ISSUES

1. Multimonitor functionality does not work for applications in Shell Mode
2. Application access on Hy3000/Hy4000 works only using specific connection profiles. Please contact Accops support team for detailed information on the possible connection profiles.
3. Using Controller over WAN/Internet: Running application sessions in Remote App mode get disconnected on trying to access next application, all applications will be reconnected on next click.
4. Applications launched in shell mode will be displayed with same title Accops HyWorks Client.
5. No errors are displayed on client side when connection to assigned desktop or application fails, even on controller the logs will show that desktop/app was connected and then logged out.
 - a. When connection to desktop or application fails and cursor is kept at the target application, waiting symbol appears and remains there forever. The cursor will become normal on moving it out from the application icon.
6. App Sessions are not supported in KIOSK mode of Hy3020.
7. In Hy3000/Hy4000, HyWorks Client login screen sometimes appear on the corner of the screen.
8. Duplicate USB devices are observed on server side when redirected through HyDesk3000/4000 devices using Enhanced USB Redirection Driver
9. If accessing multiple applications from different Session Host Server, USB redirection using enhanced USB redirection driver will only function with single session host server only, on other server USB devices won't get redirected.
10. Enhanced USB Redirection Driver is not supported with RDP10 protocol on Hy3000/Hy4000 devices.
11. Performance will be degraded if multiple applications in RemoteApp mode are accessed simultaneously.
12. Skype application does not work on Hy3000/Hy4000 HyDesk endpoints.
13. HyWorks PDF Printer cannot be disabled on Hy3000/Hy4000 devices using flag in connection profiles. (Flag is Allow RDP Plugins in local resources.)

14. When using “Use Build-in Credentials” Session with protocol RDP7 few special characters are not working and causing session connection issues. One such special character is “&”. More characters to be identified and published.
15. HyWorks PDF Printer does not work with RDP7 protocol on client side.

AUTO LOGIN (DEVICE SETTINGS)

1. “Windows login” function does not work in HyWorks Client v3.0. The feature will be re-integrated in future versions.
2. DVM Power Policies in DVM Pool may conflict with Auto-login (Auto-login will keep the machine powered-on whereas power policy may try to power-off the DVMs). Administrators are required to keep power policies as default or disabled in DVM pools if intending to have auto login on registered devices

USB REDIRECTION

1. Plugging-unplugging USB devices multiple times may cause driver load issue on Virtual machine and will require virtual machine to be rebooted
2. Installing USB Network Gate and SEP on the desktop may affect USB redirection
3. Following USB devices do not get redirected perfectly and thus USB redirection may not work as expected:
 - a. Android smart phones
 - b. Windows smart phones
 - c. USB DVD Writer
 - d. Webcam with enhanced USB redirection
4. USB Redirection Window displays the list of human interface devices in the list but these devices work in local mode only therefore human interface devices like Mouse, Keyboard etc. should not be redirected
 - a. In remote session SEP prompts user for redirecting these human interface devices as well and user should always ignore prompts for human interface devices
5. USB Network gate (built-in) shares the USB devices connected from different endpoints therefore it is not recommended to use it in shared desktop environment
6. With USB Network gate, sometimes USB devices do not get redirected and shown as waiting for connection

Resolution: Launch USB Network Gate in desktop session, disconnect the device and connect again

7. Composite USB Devices (USB devices which also mounts DVD drives along with their primary functions) may not work correctly with Built-in USB Redirection Drivers. Enhanced USB redirection driver can be used in such deployments.

SPECIAL CHARACTERS SUPPORT

1. Following special characters are not supported during logon and thus should not be used by end users during logon
 - a. Mu (**μ**) in username
 - b. French Umlaut characters ^ and °
 - c. Trailing Spaces during auto-login from HyWorks Controller

HYWORKS USER PORTAL

1. If DVM is assigned to device, and user logs in using HyWorks user portal, the virtual machine won't be displayed as its assigned to devices running in backend)
2. Dedicated Desktop Power Management is not yet fully integrated and may have some issues
3. While accessing Shell based application from user portal, icons for all apps will be shown as default shell icon only
4. All client dialogs and app sessions gets launched in the backend and does not come in front, when accessed from HyWorks User Portal.

UI ISSUES

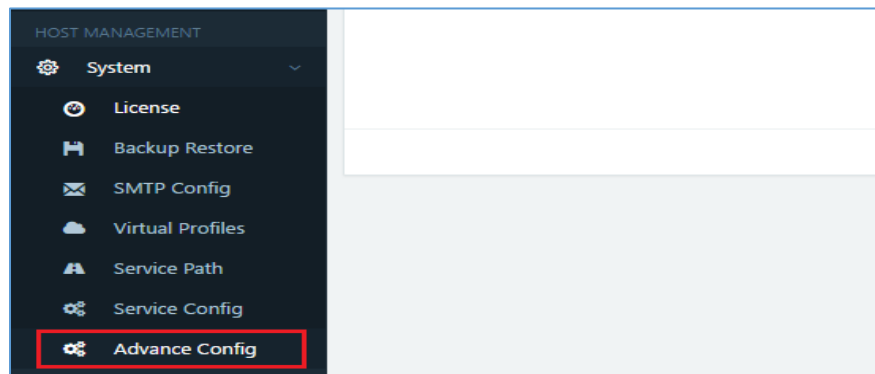
1. Searches are available only on limited columns of table views in different screens and that too may be displaying combination of strings.
2. In HyWorks client, when maximum limit of application launch count exceeds the policy, the error shown to the user is that application server is not available. The actual error reason is not shown.

APPENDIX A: HYWORKS V3.0-RC5 LOGGING CONFIGURATIONS

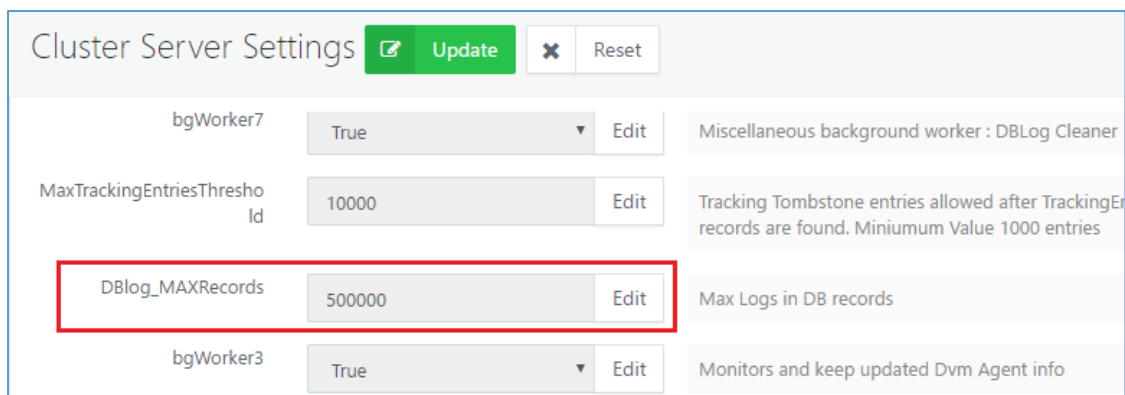
INCREASING MAXIMUM NUMBER OF RECORDS TO BE KEPT

By default, HyWorks v3.0-RC5 will keep maximum of 500000 records in its log database (which is of type SQL CE -Embedded database) and it's not recommended to increase the logs beyond this limit. If number of records are configured for 50000, on upgrade it will be automatically changed to 500000; but if the configuration of log records has been changed then it will require change to be done manually, which can be done by following steps:

1. Log-into HyWorks Controller Management Console using super administrator account.
2. Go to System -> Advance Config page



3. Locate the setting **DBlog_MAXRecords** and click on **Edit** button



4. Update the value to 500000
5. Click on button **Update**, displayed on top and bottom of the **Advance Config** section
6. New settings are saved and now Controller will keep maximum of 500000 records in default embedded log db.

SENDING THE LOGS TO SQL SERVER

To store larger number of logs in HyWorks log database, it is possible to use the full SQL server with following benefits:

- Improved Logging Performance
- More number of records to be saved

Note:

- This is manual process requires **HyWorks Controller Service restart** and should be done under the supervision of Accops Support Team
- Necessary backups of configuration files should be taken for faster restoring if any problematic effects are observed
- Configurations are required on both Controller servers if HyWorks cluster is configured

Recommended:

- It is recommended to install another SQL Instance for logging. Configure HyWorks Controller database and logging both on same instance could lead to performance degradation.

Configuration Steps to Change the Logs Server

Pre-requisites:

- Another instance of SQL Server must be created for logging. To create another database instance, run the SQL installer again and follow the installation process.

Configuration Process:

1. Open Microsoft SQL Server Management Studio and Connect using appropriate administrator credentials to the newly created SQL Server instance to be configured as Log server
2. Open a new SQL query and paste the following queries to create a new logs DB

```
CREATE DATABASE LOGDB
GO
```

3. Now new database is created, run the following query to create appropriate tables in LOGDB

```
USE LOGDB
GO

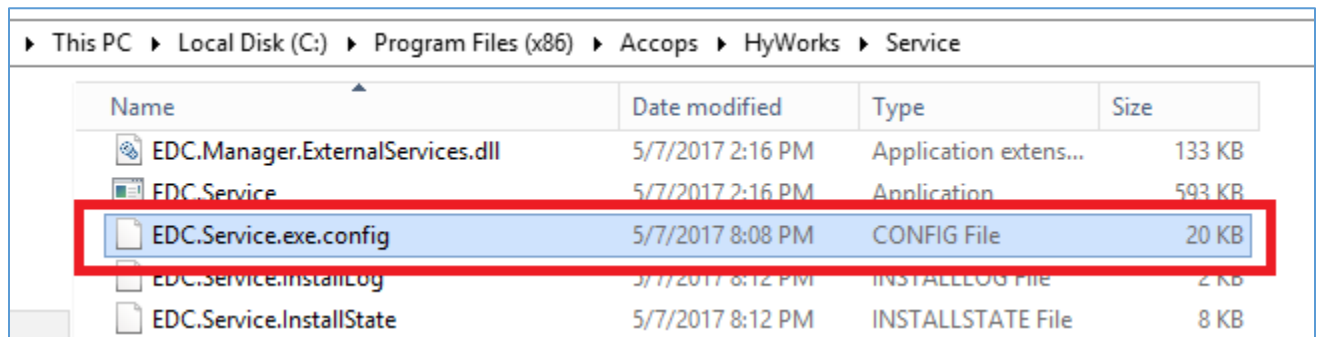
CREATE TABLE [Log] (
  [LogId] bigint IDENTITY (1,1) NOT NULL
, [Date] datetime NOT NULL
, [Level] nvarchar(100) NOT NULL
, [Logger] nvarchar(100) NOT NULL
, [Message] ntext DEFAULT NULL NULL
, [StackTrace] ntext DEFAULT NULL NULL
, [StackTraceDetail] ntext DEFAULT NULL NULL
, [ORGID] nvarchar(128) NOT NULL
, [UserName] nvarchar(128) NOT NULL
)
```

```
);
GO
ALTER TABLE [Log] ADD CONSTRAINT [PK_Log] PRIMARY KEY ([LogId]);
GO
```

4. SQL Server is ready to be configured in HyWorks Controller.
5. Connect to HyWorks Controller Server system using remote desktop connection or console session (if in HA, first connect to secondary HyWorks Controller server)
6. Go to HyWorks Controller Installation location (default installation path is mentioned below)

C:\Program Files (x86)\Accops\HyWorks\Service

7. Locate the configuration file **EDC.Service.exe.config**

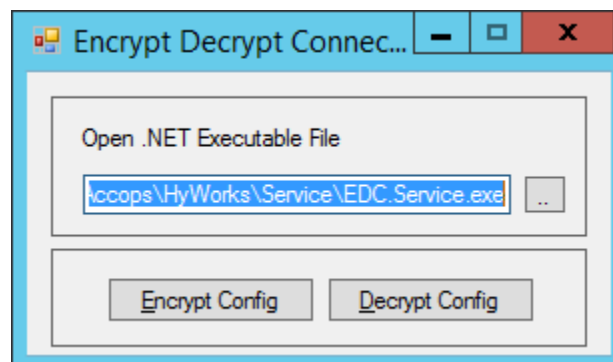


8. Copy the file and paste it as some safe location for backup
9. Download the **EncryptDecryptAppConfigFile** tool (Please ask the Accops support team for the download link)
10. Copy the tool on HyWorks Controller Server installation folder, default installation path is

C:\Program Files (x86)\Accops\HyWorks\Service

11. Run the tool with admin privileges and browse the **EDC.Service.exe** file and click on button **Decrypt Config**

Default Location is C:\Program Files (x86)\Accops\HyWorks\Service\EDC.Service.exe



12. It will decrypt the **EDC.Service.exe.config** file for next operation
13. Open the **EDC.Service.exe.config** with WordPad
14. In **ConnectionStrings** section, locate the connection strings for **LogsDBContext** which should be like the below screenshot

```
<section name="Providers.Properties.Settings" type="System.Configuration.ClientSettingsSection, System, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"
requirePermission="false" />
</sectionGroup>
<section name="log4net" type="log4net.Config.Log4NetConfigurationSectionHandler, log4net" />
<section name="entityFramework" type="System.Data.Entity.Internal.ConfigFile.EntityFrameworkSection, EntityFramework, Version=6.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"
requirePermission="false" />
<!-- For more information on Entity Framework configuration, visit http://go.microsoft.com/fwlink/?LinkID=237468 -->
<!-- For more information on Entity Framework tydy configuration, visit http://go.microsoft.com/fwlink/?LinkID=237468 -->
</configSections>
<connectionStrings>
<add name="LogDbContext" connectionString="Data Source=|DataDirectory|\Logs\ServiceLog.sdf;Password=accops@123;Persist Security Info=True;Max Database Size=4000;default lock timeout=
15000; Max Buffer Size=1024"
providerName="System.Data.SqlServerCe.4.0" />
<add name="SupportLogDbContext" connectionString="Data Source=|DataDirectory|\SupportLog\SupportLog.db;"
```

15. Replace it with the following Connection String

```
<add name="LogDbContext" connectionString="Data Source= <ServerAddress or
FQDN>\sqlexpress,1433;Initial Catalog=LOGDB;User
ID=sa;Password=password@123;Encrypt=False;Min Pool Size=100;Max Pool
Size=500;Pooling=true;TrustServerCertificate=False;MultipleActiveResultSets=true; "
providerName="System.Data.SqlClient" />
```

- a. Please note the highlighted sections should be changed as per SQL Server instance configurations, the configurations are
 - i. SQL Server Address
 - ii. SQL Server Instance Name
 - iii. SQL Server Static Port to be used
 - iv. User Id: to be used to connect to SQL Server
 - v. Password: User password

1.

16. Save the file

17. Run the tool with admin privileges and browse the **EDC.Service.exe** file and click on button **Encrypt Config**

Default Location is **C:\Program Files (x86)\Accops\HyWorks\Service\EDC.Service.exe**

18. Open Services (Open **Run** Prompt, type **Services.msc** and press **Enter**)

19. Locate and select **Accops HyWorks Controller Service** and click on **Restart** link

20. Accops HyWorks Controller Service will get restarted and will now start sending the logs to configured SQL Server

21. Perform couple of activities on HyWorks Controller Management Console, go to **Logs** section and verify if appropriate logs entries are being created

Note:

- Old logs will not be moved to the new SQL Server but will remain in previous embedded logsdb, the location of the file is:

C:\Program Files (x86)\Accops\HyWorks\Service\Logs

APPENDIX B: CONFIGURING SYSLOG SERVER IN HYWORKS CONTROLLER FOR ARCHIVING

Assumption or Prerequisites

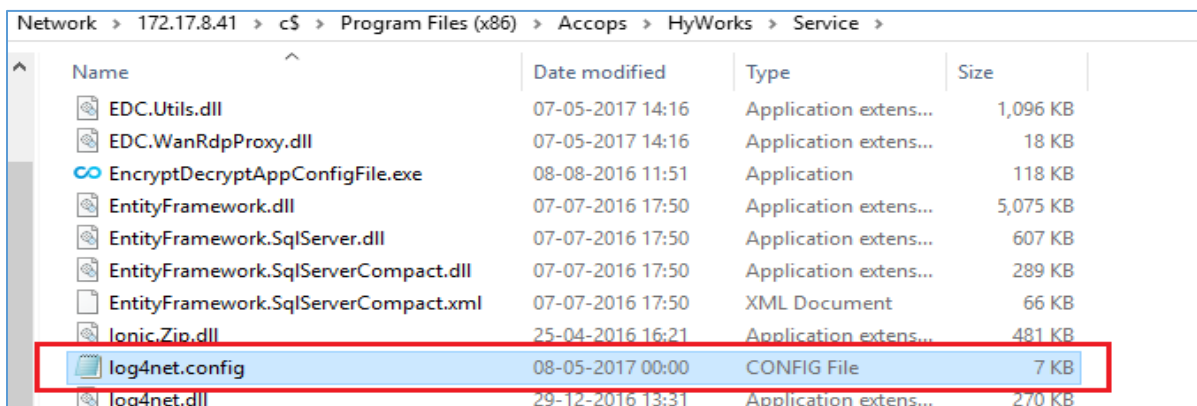
1. External syslog server is installed, running and accessible from HyWorks Controller Server
2. External syslog server is configured in UDP mode

PROCESS TO CONFIGURE EXTERNAL SYSLOG SERVER

1. Connect to HyWorks Controller Server system using remote desktop connection or console session (if in HA, first connect to secondary HyWorks Controller server)
2. Go to HyWorks Controller Installation location (default installation path is mentioned below)

C:\Program Files (x86)\Accops\HyWorks\Service

3. Locate the configuration file **log4net.config**



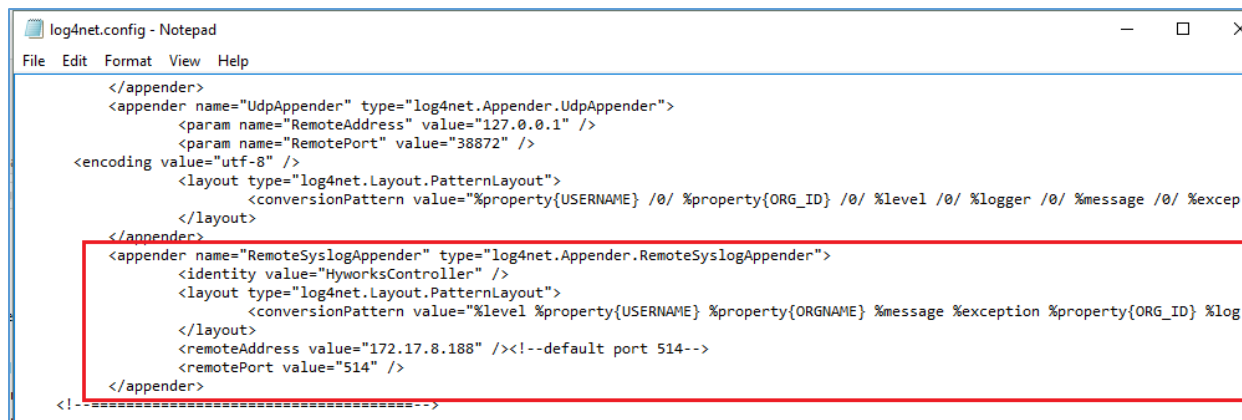
The screenshot shows a Windows Explorer window with the address bar displaying the path: Network > 172.17.8.41 > c\$ > Program Files (x86) > Accops > HyWorks > Service >. The file list contains the following items:

Name	Date modified	Type	Size
EDC.Utils.dll	07-05-2017 14:16	Application extens...	1,096 KB
EDC.WanRdpProxy.dll	07-05-2017 14:16	Application extens...	18 KB
EncryptDecryptAppConfigFile.exe	08-08-2016 11:51	Application	118 KB
EntityFramework.dll	07-07-2016 17:50	Application extens...	5,075 KB
EntityFramework.SqlServer.dll	07-07-2016 17:50	Application extens...	607 KB
EntityFramework.SqlServerCompact.dll	07-07-2016 17:50	Application extens...	289 KB
EntityFramework.SqlServerCompact.xml	07-07-2016 17:50	XML Document	66 KB
Ionic.Zip.dll	25-04-2016 16:21	Application extens...	481 KB
log4net.config	08-05-2017 00:00	CONFIG File	7 KB
log4net.dll	29-12-2016 13:31	Application extens...	270 KB

4. Update syslog server IP and port in **log4net.config**
 - In log4net.config find appender with name "RemoteSyslogAppender" (See screenshot below for reference)
 - Set Syslog Server's IP address and Port as per highlighted section below in

```
<appender name="RemoteSyslogAppender" type="log4net.Appender.RemoteSyslogAppender">
    <identity value="HyworksController" />
    <layout type="log4net.Layout.PatternLayout">
        <conversionPattern value="%level %property{USERNAME} %property{ORGNAME}
%message %exception %property{ORG_ID} %logger" />
    </layout>
    <remoteAddress value="ServerIP" /> <!--Syslog server IP address-->
    <remotePort value="514" /> <!--default port 514-->
</appender>
```

The section should now look like this:



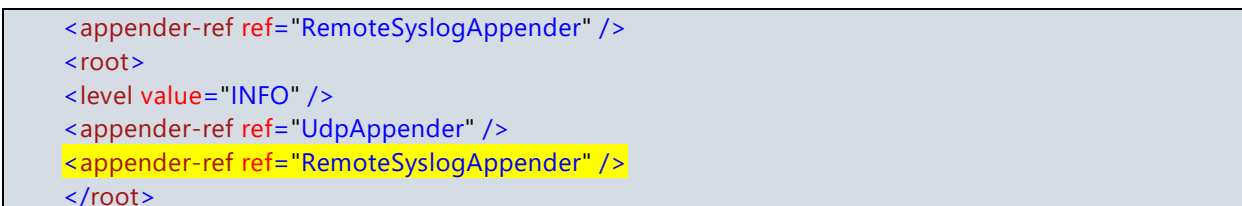
```

log4net.config - Notepad
File Edit Format View Help

    </appender>
    <appender name="UdpAppender" type="log4net.Appender.UdpAppender">
      <param name="RemoteAddress" value="127.0.0.1" />
      <param name="RemotePort" value="38872" />
    <encoding value="utf-8" />
    <layout type="log4net.Layout.PatternLayout">
      <conversionPattern value="%property{USERNAME} /0/ %property{ORG_ID} /0/ %level /0/ %logger /0/ %message /0/ %excep
    </layout>
  </appender>
  <appender name="RemoteSyslogAppender" type="log4net.Appender.RemoteSyslogAppender">
    <identity value="HyworksController" />
    <layout type="log4net.Layout.PatternLayout">
      <conversionPattern value="%level %property{USERNAME} %property{ORGNAME} %message %exception %property{ORG_ID} %log
    </layout>
    <remoteAddress value="172.17.8.188" /><!--default port 514-->
    <remotePort value="514" />
  </appender>
<!--=====-->

```

5. Enable Syslog Appender: In the **log4net.config** file, at the bottom, in root section -> Add following **Appender** xml node in <root>

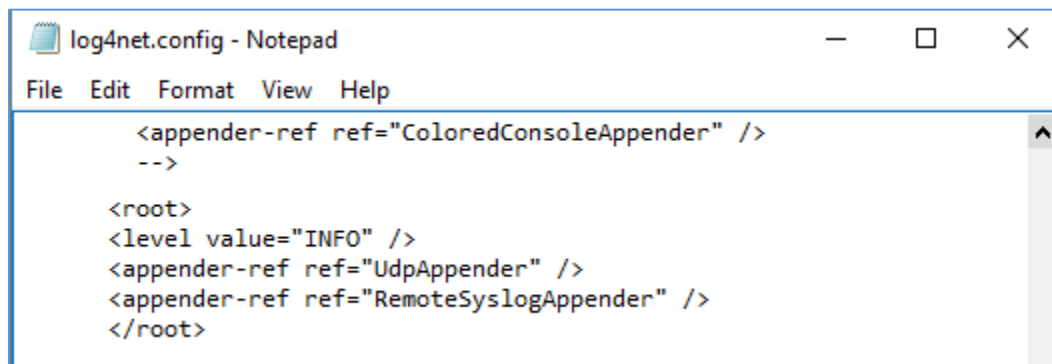


```

<appender-ref ref="RemoteSyslogAppender" />
<root>
<level value="INFO" />
<appender-ref ref="UdpAppender" />
<appender-ref ref="RemoteSyslogAppender" />
</root>

```

the section will now look like below screenshot:



```

log4net.config - Notepad
File Edit Format View Help

    <appender-ref ref="ColoredConsoleAppender" />
    -->

    <root>
    <level value="INFO" />
    <appender-ref ref="UdpAppender" />
    <appender-ref ref="RemoteSyslogAppender" />
  </root>

```

6. Save the log4net.config file
7. Open Services (Open **Run** Prompt, type **Services.msc** and press **Enter**)
8. Locate and select **Accops HyWorks Controller Service** and click on **Restart** link
9. Accops HyWorks Controller Service will get restarted and will now start sending the logs to configured syslog Server

Note:

- The configuration is tested with CentOS based rsyslog server. If any issues are observed after configuration, please contact Accops Support team.
- It requires UDP based syslog server, as the controller supports only UDP based communication with syslog server.

SUPPORT

Contact Accops Support team (support.accops.com) for any assistance or queries.

About Accops

Propalms Technologies Pvt. Ltd. under “Accops” brand is a globally leading developer and provider of Enterprise Mobility solutions involving Application and Desktop Virtualization, Secure Remote Access and Privilege Access Management solutions.

Accops’ s software and hardware products enable businesses to efficiently virtualize, secure and deliver business applications, corporate workspace and network services to their employees, partners, vendors, home users and mobile users, enabling instance access from anywhere using any device.



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