



**accops**  
HYWORKS

# HyWorks v3.0-SP2 Release Details

## HyWorks 3.0

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## Release Notes Document Revision History

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## TABLE OF CONTENTS

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Table of Contents.....	3
Introduction .....	5
How to get HyWorks V3.0-SP2.....	5
Module Versions .....	5
Installing HyWorks Controller V3.0-SP2.....	5
Upgrade Support.....	6
Features and Details of Changes HyWorks v3.0-SP2 .....	7
Feature: Allow Multiple Sessions using Single User Credential .....	7
Feature: Session Host Cloning Support.....	8
Feature: Disable Endpoint Activity Monitoring .....	9
Bug Fixes in HyWorks v3.0-SP2 .....	9
Features and Details of Changes in Previous Releases.....	11
Features and Details of Changes in V3.0-SP1 .....	11
New Features and Enhancements .....	11
Issues Fixed in HyWorks v3.0-SP1 Release.....	13
V3.0-GA Release Changes .....	16
New Features and Enhancements .....	16
Issues Fixed in HyWorks v3.0-GA Release .....	18
RC5 Release Changes .....	19
New Features and Enhancements .....	19
Issues Fixed in HyWorks v3.0-RC5 Release .....	23
RC4 Release Changes .....	26
New Features and Enhancements .....	26
Issues Fixed in HyWorks v3.0-RC4/RC3.....	34
Deprecated Features .....	34
Support for Embedded DB.....	34
Support for Built-in USB Redirection Driver with Windows Clients.....	34
Known Issues .....	34
Logs Management .....	34
Licensing .....	35
Session Management.....	35

Application Delivery .....	36
HyWorks Controller Management Console Browser Compatibility .....	36
Entitlements.....	36
Remote Control Advanced Configurations .....	37
User Synchronization, Built-In Directory and CSV Import .....	37
Controller Configuration and Installer Issues .....	37
Authentication Domain.....	38
Organizations .....	38
Connection Profiles.....	38
Session Providers .....	39
HyWorks Controller Cluster .....	40
Dedicated VDI and Provisioning Issues .....	40
Application and Shared Desktop Delivery .....	42
Backup, Restore and SMTP Configurations .....	42
USB Redirection .....	43
Special Characters Support.....	43
UI Issues .....	43
Endpoint Issues .....	44
HyLite – HyWorks Integration .....	44
HyWorks Client (Windows) .....	45
HySecure + HyWorks Client .....	45
HyDesk (Hy3000/ Hy4000/ Hy3020/Hy2000) Known Issues.....	46
HyDesk Hy2000 – v256226 (v3.0-SP1) Compatible Known Issues.....	47
Auto Login (Device Settings).....	48
HyWorks User Portal.....	48
Appendix A: HyWorks v3.0-SP1 Logging Configurations .....	49
Increasing Maximum Number of Records to be kept .....	49
Sending the Logs to SQL Server.....	50
Appendix B: Configuring Syslog Server in HyWorks Controller for Archiving.....	53
Process to Configure External Syslog Server .....	53
Support .....	55

## INTRODUCTION

This release notes document describes the details of features being delivered with different modules of HyWorks V3.0-SP2. The SP2 release is a hotfix release after v3.0-SP1 release having few enhancements and multiple bug-fixes.

## HOW TO GET HYWORKS V3.0-SP2

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-SP1.

Module	Version	Remarks	Download location
HyWorks v3.0-SP2 Patch	SP2-Patch	Integrated setup consists of: <ul style="list-style-type: none"> <li>HyWorks Controller</li> <li>Management Console</li> <li>User Workspace Portal</li> <li>Windows On-demand/ Full Client, HyDesk3000/4000 Upgrade</li> <li>HyWorks Session Host Agent</li> <li>HyWorks Session Host Monitoring Service</li> </ul>	<a href="#">Download HyWorks v3.0-SP2 Patch</a>
HyWorks Session Host Server	SP2-Patch	The single patch to be installed on HyWorks Controller as we	<a href="#">Download HyWorks v3.0-SP2 Patch</a>
HyWorks DVM Tools	V3.2.1.57	Strictly to be used for Session Host Server Provisioning	<a href="#">Download Latest DVM Tools</a>

### INSTALLING HYWORKS CONTROLLER V3.0-SP2

1. Download the HyWorks Controller V3.0-SP2 patch installer from the specified download link in section [Getting HyWorks V3.0-SP2](#) and follow the HyWorks Controller patch setup wizard with default options. The patch will check the installed roles on the server and will install relevant patches.
2. The SP2 patch is an integrated patch, having fixes for following components:

- a. HyWorks Controller
  - b. HyWorks Controller Management Console
  - c. HyWorks Session Host Server
3. Basics of various roles and modules for simplest deployment:

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

## UPGRADE SUPPORT

HyWorks V3.0-SP2 (Controller or Session Host Server) is **upgrade compatible** with only below specified HyWorks Controller or Session Host Server Versions:

- HyWorks Controller v3.0-SP1/1.1

**Note:**

- HyWorks v3.0-SP2 is not upgrade compatible with any previous versions of skyControl Server.
- HyWorks v3.0-SP2 is not direct upgrade compatible with any previous versions of HyWorks Controller running with Embedded database.

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

## FEATURES AND DETAILS OF CHANGES HYWORKS V3.0-SP2

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### FEATURE: ALLOW MULTIPLE SESSIONS USING SINGLE USER CREDENTIAL

In HyWorks v3.0-SP2, feature to allow multiple user sessions with single user credentials is integrated. The feature will be useful in environments where end-users are using single credentials to connect and get different sessions.

### HOW TO ENABLE

To enable multiple sessions of single user following configurations must be done:

#### Enable from HyWorks Controller:

1. Go to System - Advanced Configurations
2. Locate the configuration **Enable Multiple User Session**
3. Click on **Edit** button and set as **True** (Default value – False)
4. Click on **Update** button to save the settings
5. To disable this feature, mark the flag as **False** and update the settings. (Pl. note, it is recommended to clean up all user sessions before changing the configuration)

#### Enable Multiple Session Support on Session Host Server

Following group policy must be set to disabled to support multiple sessions of a single user:

1. Open the start screen (press the Windows key) and type **gpedit.msc** and open it
2. Go to **Computer Configuration > Administrative Templates > Windows Components > Remote Desktop Services > Remote Desktop Session Host > Connections**.
3. Set **Restrict Remote Desktop Services user to a single Remote Desktop Services session** to **Disabled**.
4. Open Run prompt and type **gpupdate /force** – Press **Enter** to push the changes

### WORKING SCENARIOS

Following use cases will work perfectly to allow multiple user and desktop/ application sessions by a single user credential:

1. Applications access in Shell mode
2. User based shared hosted desktop pools
3. Device based shared hosted desktop pools
4. Device based permanent dedicated desktop pools
5. Device based temporary dedicated desktop pools



## NOT WORKING SCENARIOS (LIMITATIONS)

Following use cases will not work as per expectations to allow multiple user and desktop/ application sessions by a single user credential:

1. User based permanent dedicated desktop pools
2. User based temporary dedicated desktop pools
3. Access from HyLite (As controller won't be able to recognize endpoints differently, the multi session feature will not work with HyLite as client.
4. Applications access in Remote App (Seamless) mode: The access is not **completely** blocked but reconnection prompts the user with all disconnected sessions and thus may give existing disconnected sessions from other endpoints.

To avoid this situation following configurations can be enabled:

**a. Configure users to be logged out on disconnect:** In connection profile – Session Timeout section – Configure option **On Client Disconnect** as **Logout the user session**: The configuration will ensure that no disconnected sessions are there, hence reconnect will not prompt the user to connect to any existing sessions.

**b. Configure Group Policy:**

- i. Open the start screen (press the Windows key) and type **gpedit.msc** and open it
- ii. Go to **Computer Configuration > Administrative Templates > Windows Components > Remote Desktop Services > Remote Desktop Session Host > Session Time Limits**
- iii. Configure **Set Time Limit for disconnected sessions Services session** to **Enabled** Set time limit as 1 minute so that any disconnected session wont long for more than 1 minute.
- iv. Open Run prompt and type **gpupdate /force** – Press **Enter** to push the changes

**Pl. note, these configurations will logout the disconnected sessions and hence user won't be able to reconnect to any disconnected session.**

### Note:

1. Even with **Enable Multiple User Session** flag as FALSE (disabled), **device based SHD** desktop pool, will serve different sessions, if same user credentials are used from multiple endpoints.

## FEATURE: SESSION HOST CLONING SUPPORT

With v3.0-SP2 patch, it is possible to install latest HyWorks DVM Tools and Session Host Server module on the same server.

Installation of DVM Tools, is required for deployment and customization of sessions host server. The feature support can be used in the following manner:

1. Install HyWorks Session Host Server v3.0-SP1 – Install v3.0-SP2 patch on it
2. Install latest HyWorks DVM Tools (Select only HyWorks DVM Agent component) during installation (The download link is provided in section [Getting HyWorks V3.0-SP2](#))

3. Use the configured Session Host Server as Source image to create a deployed desktop pool with customization – to create multiple session host server with identical configurations
4. Add the newly deployed session host servers into an existing/new session team from Session Provider section.
5. Publish applications/ SHD pools to be consumed by end user.

## LIMITATIONS OR KNOWN CASES

1. Automatic configuration of session host servers into Session Team is not yet implemented
2. HyWorks v3.0-SP2 does not support static IP configurations during deployments and hence session host servers must be configured with static IP, post cloning and customization.
  - a. This IP distribution will not be preserved by HyWorks Controller on recompose operation.

## FEATURE: DISABLE ENDPOINT ACTIVITY MONITORING

In previous releases, HyWorks Controller was consuming the user activity details provided by clients and thus, as a known limitation, the user sessions were not getting idle even when the user was not working on HyWorks client or accessed apps or desktops; as client cannot differentiate activity on accessed desktop/apps or on local machine.

On enabling this configuration, HyWorks Controller will ignore the activity details by HyWorks client if no desktop or apps sessions are running and hence the idle session monitoring for the device will get started,

## HOW TO ENABLE

The configuration can be enabled from HyWorks Controller Management Console – System Advanced Configuration:

1. Locate the configuration **Disable HyDesk Activity Monitoring**
2. Click on **Edit** button and set as **True** (Default value – False)
3. Click on **Update** button to save the settings

## BUG FIXES IN HYWORKS V3.0-SP2

Following defect fixes are included in HyWorks v3.0-SP2 release:

#	Subject	Affected Module
3437	1) Send Test mail by default was using [Enable SMTP Authentication as TRUE] - so SMTP Username, SMTP Username was used to send mails even though Enable SMTP Authentication was false.	SMTP Configurations

	2) SMTP Username & SMTP Password empty was not supported. Save & Update was failing if SMTP Username or SMTP Password was empty.	
3800	Multiple user sessions are getting created, when same user is logging in using different logging-in format e.g. demo1, Accops/demo1 and <a href="mailto:demo1@accops.com">demo1@accops.com</a> will result in 3 different user sessions.	Session Management
3808	Unable to navigate to user sessions pages using pagination numbers or next button	Management Console
4404	Shared hosted desktop session remain connected in case of fast disconnect and re-connect.	Session Management

## FEATURES AND DETAILS OF CHANGES IN PREVIOUS RELEASES

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### FEATURES AND DETAILS OF CHANGES IN V3.0-SP1

Following new features and bug fixes are included in HyWorks v3.0-SP1 release:

### NEW FEATURES AND ENHANCEMENTS

Following new features or enhancements are being delivered in HyWorks v3.0-SP1 release:

#### BRANDING CHANGES

All HyWorks modules are released under the Name of Accops Systems Pvt. Ltd.

#### OPTION TO DELIVER ONLY NETWORK (RDP) READY DESKTOPS

Option **Assign Network Ready Desktops** to check DVMs RDP readiness has been added in the desktop pool. Enabling this option on desktop pool, keeps on checking the RDP readiness of the desktops and only those desktops are assigned to the users which are currently network ready and thus avoiding assignment of those VMs which are not ready.

General	Desktops	Devices	Desktop Assignment	Advance	Summary
Keep Desktops in Power On state					
Not configured					
Power action when user logs off					
Not configured					
User Permission					
<input type="checkbox"/>					
Dedicated Linux VM Pool					
<input type="checkbox"/>					
Use last known IP Address					
<input type="checkbox"/>					
Assign Network Ready Desktops					
<input type="checkbox"/>					
Use Pool Credentials					
<input type="checkbox"/>					

#### OPTION TO LOGIN INTO DESKTOPS USING COMMON POOL CREDENTIALS

Option in Desktop Pool has been added to configure a common pool credential, which will be used to login into the desktops of the corresponding desktop pool.  
The configuration is useful where all the users are going to use desktops for some common purpose.

The screenshot shows the 'Advance' tab of the Accops HyWorks Client configuration. The 'Use Pool Credentials' checkbox is checked and highlighted with a red box. Below it, the 'User Name' field contains 'demo-user', the 'Password' field is masked with dots, and the 'Domain Name' field contains 'demo.accops.com'. These three fields are also highlighted with a red box.

## HYPER-V CONNECTOR V3.0.0.4 RELEASE

Hyper-V Connector version 3.0.0.4 is now being released with HyWorks v3.0-SP1 release, having multiple fixes having following enhancements:

### Custom Restart

A custom soft restart mechanism is implemented which will invoke VM shutdown and then start operation to replicate **Restart** operation. If the target VM fails to shut down in timely manner, the power-off operation will be used instead.

## Upgrade Support over HyWorks v2.5

HyWorks v3.0-SP1 supports upgrade over HyWorks Controller v2.5-GA(SP1/SP2/SP3) deployed with SQL Server. However, a close interaction with Accops team will be needed before upgrading any production deployments so that successful migration can be ensured.

## SERVICE RELIABILITY

To ensure that all HyWorks modules are running reliably for continuous applications or desktop deliveries, multiple enhancements have been done which will ensure that all services are up and running all the time.

## INTEGRATION OF ACCOPS LEGACY PRINTER

To support printing on LPT and COM based legacy printers, legacy printer support has been added. The integrated module will be delivered with HyWorks Session Extensions (Client and Server) modules.

A more detailed supporting document will be published soon for the usage of legacy printer.

## TSE SUPPORT AS EXTERNAL SESSION PROVIDER

Propalms TSE will be continued to provide session under the category of External Session Provider, the support has been refurbished and re-verified in HyWorks v3.0-SP1.

## ISSUES FIXED IN HYWORKS V3.0-SP1 RELEASE

Following issues are fixed in HyWorks v3.0-SP1 release:

#	Subject	Affected Module
3035	Incorrect error on HyWorks Client in case of license count being exceeded – In some cases, HyWorks Client was not showing the complete error with no information to the user for expected action	Client-HyDesk-Hy3000
3083	Managed SHD, Shell Mode Apps support on HyDesk Hy3000/Hy4000 with RDP7 Protocol – In earlier release apps and SHD was not working correctly with RDP7 Protocol	Client-HyDesk-Hy3000
2861	HyWorks Client to prompt for changing the organization, after organization is marked as inactive – In previous release HyWorks Clients were not showing any option to the users.	Client-HyDesk-Hy3000
2644	Accops OS - Realm Settings not working Realms Settings were not getting applied on Accops OS client. The issue is fixed now	Client-Linux-Accops OS
2942	Hybrid (HySecure + HyWorks) installer with support silent mode installation support	Client-Windows-Full
2631	In some cases, applications were failed to open in RemoteApp mode when configured with Auto-launch mode	Client-Windows-Full
445	Though Eltima is not fully supported with HyWorks v3.0, service crash is observed in Windows clients	Client-Windows-Full
1929	In some cases, device logs from on-demand client was not getting downloaded	Client-Windows-On-demand
2823	Device delete operation was failing if any sessions are running	Controller-Application Delivery
2770	Option to serve only RDP (Network Ready) VMs to end user	Controller-Application Delivery
2767	Option to logoff user on session disconnect is removed from Desktop pool - Conflict with Connection Profile	Controller-Application Delivery
2757	Advance configuration to handle cloning failures due to timeouts	Controller-Application Delivery
2748	Entitlements not getting saved if authentication and authorization server are different	Controller-Application Delivery
2491	Application with blank name can be created through copy application operation	Controller-Application Delivery

2758	Configuring AD with user administrator was failing with exception	Controller-Authentication
2450	Login failure when AD user is member of group or OU with special character & (More Characters to be identified)	Controller-Authentication
3039	Non-applicable power operations are available after suspending VM from session provider.	Controller-Dedicated VDI Delivery
2747	Finish button remain enabled though clicked once and causing issues	Controller-Dedicated VDI Delivery
2745	Deployment page should not be editable while cloning/recompose is in progress	Controller-Dedicated VDI Delivery
523	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)	Controller-Dedicated VDI Delivery
3067	User session goes back to active state after disconnection of running sessions	Controller-Dedicated VDI Delivery
2750	[JA Saga] Support for Pool User Credential -	Controller-Dedicated VDI Delivery
2648	Advance Pool Settings - Power off on user logout was not functioning correctly and VM is powered off on user session disconnect as well	Controller-Dedicated VDI Delivery
2456	All Options become editable without recompose in Edit Desktop Pool wizard once error occurs	Controller-Dedicated VDI Delivery
1469	Entitlements - OUs page didn't show OUs with same name and makes it difficult to change entitlements	Controller-Entitlements
1793	Option to unselect connection profile in Connection Profiles page	Controller-Entitlements
2902	Create SDF DB backup copy while Monitoring Service & Session Host installation	Controller-Installer
2842	Multiple level handling on Session Host Server and Desktop agent to make corresponding services reliable and starting them if they get stopped in between	Controller-Installer
3051	Management Console is responding very slow with 50+ endpoints registered	Controller-Management Console
3005	Dashboard is not shown correctly on projector	Controller-Management Console
2906	New configuration information in Summary screen of Desktop Pool	Controller-Management Console
2479	Authentication server status in Server tab does not show alert if Authentication server goes down	Controller-Management Console
2166	On action refresh implementation on VDI Session/ App Sessions page	Controller-Management Console

2663	More than 500 users displayed in list even though message says maximum 500 search results are displayed on App entitlement wizard [KIC]	Controller-Management Console
2032	'Back' button on organization page not functioning correctly in some cases.	Controller-Organizations
1789	In some cases, organization page was not showing any details	Controller-Organizations
2469	Validation messages for organization name/code fields improved to suggest supported characters	Controller-Organizations
2026	If we delete same name connection profile from one organization then sometimes it gets deleted from another organization also or remains assigned to user in organization from which it was deleted.	Controller-Organizations
2025	If we delete user entitlement from one organization, entitlement deletes from other organization also.	Controller-Organizations
2875	In some case, HyWorks Controller service was getting crashed on stopping SQL Service	Controller-Other
2703	Session provider with same name can be added while modifying the session provider	Controller-Other
2536	Search improvisations on different pages of HyWorks Controller Management Console	Controller-Other
2351	Banner image is getting saved without saving default device settings	Controller-Other
1993	Session Management Enhancement: Existing session will be logged out on login from another client	Controller-Session Management
1802	Reboot and shutdown power actions will be disabled on multi-selection	Controller-Other
2506	View Default Device Settings without view permission	Controller-Roles and Administration
2505	Deleting Virtual Profiles without delete permission	Controller-Roles and Administration
2504	Deleting App session without Delete Permission	Controller-Roles and Administration
1729	Desktop Pools module is not available for helpdesk role	Controller-Roles and Administration
3004	Endpoints section shows last logged-in username instead of current user	Controller-Session-Mgmt
2961	Support for changing license mechanism has been added to support cloud environments where licenses are getting expired over reboot	Controller-SHD Delivery
2925	Internal Refresh Time Interval configurable in Advance config	Controller-SHD Delivery



2899	Endpoints tab to show device IP instead of network IP	Controller-SHD Delivery
2879	Custom Restart (Shutdown + Start) implementation is integrated to avoid Reset	Controller-SHD Delivery
2876	Support over v2.5 with SQL server is being added in HyWorks v3.0-SP1 Release	Controller-SHD Delivery
2880	Double click enabled while creating a child organisation due to which two requests goes to controller as a result, an error is shown.	Controller-SHD Delivery
2305	Web portal >> App doesn't launch on fresh VM win8.1, please check your network setting and HyWorks Controller availability error occurred	Controller-User Workspace Portal
3065	Import CSV fails with no error if previous attempt to import CSV was failed due to improper file format	Controller-User Management
3082	Logging all session disconnect/ Logout event for monitoring – The improvement will help in analysing sessions correctly.	DVM Tools
3031	Logs Enhancement: Timeouts are not being logged in Session Host Server Logs	DVM Tools
3018	In some cases, desktop agent is shown with not responding due to timeout issue	DVM Tools
2769	DVM tools installer to support silent mode installation	DVM Tools
3028	New Company, logo and Copy Right incorporation in all components	Hyper-V Connector

## V3.0-GA RELEASE CHANGES

Following changes are incorporated in HyWorks v3.0-GA release:

## NEW FEATURES AND ENHANCEMENTS

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

### ACTIVE DIRECTORY ENHANCEMENTS

- **Configurable Secure Communication**

In HyWorks v3.0-GA release, option to enable SSL based communication with active directory can be configured. The option is available in Add Authentication Server wizard for Microsoft Active Directory.

- **Configurable Port and Domain Name Configurations**

Add/Edit Authentication server wizard now have options to configure following two options as well:

- Port: Port on which active directory is available
- Domain Name: Text field, the domain name to be used while connecting the sessions

## WINDOWS CLIENTS RENAMING

Windows Clients are now renamed and follow the below nomenclature:

1. HyWorks Lite Client -> HyWorks On-demand Client
2. HyWorks Full Client -> HyWorks Client

## TEMPORARY DESKTOP POOL ENHANCEMENTS

In HyWorks v3.0-GA release, logical enhancements are done in temporary desktop pools; where desktops released recently by a client will be given last priority.

The change has been made to avoid conflicting assignments in temporary desktop pool.

## RECONNECTION OF SHELL MODE APPLICATIONS

In HyWorks v3.0, reconnection of shell mode apps is supported with following types of endpoints:

1. Windows Clients
2. HyDesk Hy3000/Hy4000

HyLite still does not support reconnection of shell mode applications.

## HYWORKS DVM TOOLS ENHANCEMENTS

Following enhancements are incorporated in HyWorks DVM Tools:

- **Renaming**  
HyWorks Tools are now renamed to HyWorks DVM Tools.
- **Reliability**  
To ensure HyWorks Desktop Agent availability, another monitoring service is included, which will periodically check the status of HyWorks Desktop Agent service and if it is found stopped, then it will start it.
- **Error Logging While Failing to Perform Tasks**  
Detailed logs are expected in HyWorks Desktop Agent when it fails to add users to **Remote Desktop Users** group or **Administrators** group.
- **USB Disconnection Utility Installation Optional**  
Installation of USB Disconnection Utility is made optional and thus if not required, can be unchecked during manual setup installation.
- **Built-in USB Redirection Driver Installation/ Uninstallation Optional**  
HyWorks DVM Tools setup uses integrated setup of Built-in USB Redirection Driver, the option is now optional in installation and in uninstallation.

## DESKTOP AGENT REFRESH INTEGRATION IN REFRESH CALL

In GA release, **Refresh** operation will also check the status of desktop agent.

## TAB LEVEL CONTROL IN CONNECTION PROFILES

In Connection Profiles, tab level controls can be given using configurations in **Advanced Settings**. Following changes will be required to disable the access of Administrators or Custom Roles on specific tabs of Connection Profiles:

In System -> Advanced Settings:

1. **Connection Profile Tab Control**: Update it to true to enable connection profile tab control



2. **Disable Edit on Connection Profile Tabs**: Provide the tab number (Comma Separated) on which edit should be disabled.



## DEFAULT CONNECTION PROFILE CONFIGURATION CHANGES

Default connection profile has been modified to use new configurations. The default connection profile will now use **Connection Type** as **Modem** with no desktop experience feature enabled.

## WORKING DIRECTORY FIELD ENABLED AND FUNCTIONING

Working directory field is now enabled and available in Application (Add/Edit) wizards.

## ISSUES FIXED IN HYWORKS V3.0-GA RELEASE

1. Bug #2786: Double communication with Active Directory: The active directory server was being connected twice if Authentication Domain is configured to use domain name from Authentication server.
2. Bug #2625: Recompose was skipping creation of few VMs: Defect has been fixed and now the recompose will create exactly same number of desktops as available in provisioned desktop pool
3. Bug #2603: Linked clone option was getting enabled while editing the provisioned desktop pool with SCVMM session provider. Issue is fixed now and option will remain disabled.
4. Bug #2563: User without add permission can add HyWorks controller. Issue is fixed now and user with appropriate permission will be able to add HyWorks Controller.

5. Bug #2559: Able to edit Pool entitlements even the permission is not assigned: Issue is fixed now and user with appropriate permission will be able to edit entitlements.
6. Bug #2554: Unable to install controller on server when logged-in with domain user and windows authentication: Controller installation was not possible if SQL is configured with Windows authentication with domain user and using same user HyWorks Controller service was being configured during installation.
7. Bug #2506: View Default Device Settings without view permission: Issue is fixed now and user with appropriate permission will be able to view default device settings.
8. Bug #2499: Session Provider refresh during recompose or periodic: Dedicated Session Provider refresh (periodic/ during recompose) was causing issues with provisioning and now has been handled correctly to avoid conflicts.
9. Bug #2455: Stop provisioning functioning considerations: UI fix to dismiss desktop pool wizard if stop provisioning is clicked and making sure to cancel provisioning of desktops pending for cloning.
10. Bug #2450: Login failure when AD user is member of group having special characters e.g. "&": Logging-in to HyWorks was failing with error 51, if the user is member of a group with special characters e.g. "&". Issue is fixed now and users will be able to login with no such exceptions.
11. Bug #2383: No error on HyDesk Hy3000/Hy4000 devices if remote connection fails. The issue is resolved to show generic error to users.
12. Bug #2243: DVM Agent Status shown as Responding for some time even when its being powered-off from Management Console. This issue is fixed now and Desktop Agent status will be displayed as not available.
13. **Hyper-V Connector v3.0.0.4 Fixes:**
  - a. Bug #2153: Hyper-V Cloning of VM having multiple checkpoint fails with import xml error: Issue is fixed now and provisioning with Hyper-V 2012R2 will work as expected.
  - b. Support for soft Restart operation on VM on Hyper-V. Hyper-V does not support soft Restart operation and thus Hyper-V connector v3.0.0.4 has integrated feature to shutdown the VM and then start it to perform soft restart.
14. Bug #2009: Desktop requiring Sysprep or pending for Sysprep will not get assigned and will be made available to users only when Sysprep is completed.
15. Bug #1901: Command line does not work correctly with some special characters: Issue is fixed now and the command line will work for usual cases.

## RC5 RELEASE CHANGES

## NEW FEATURES AND ENHANCEMENTS

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

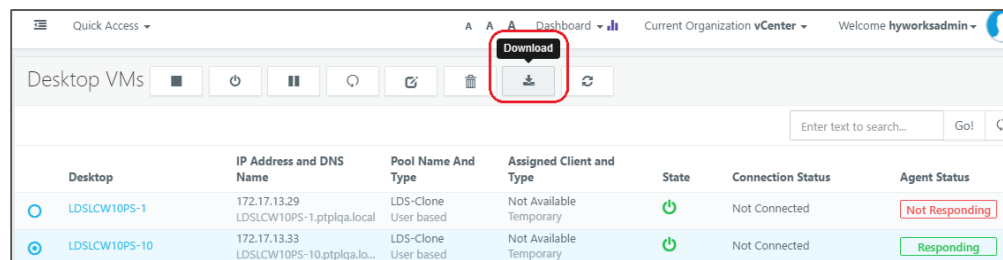
### HYWORKS DVM TOOLS ENHANCEMENTS

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 login -> 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.



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:

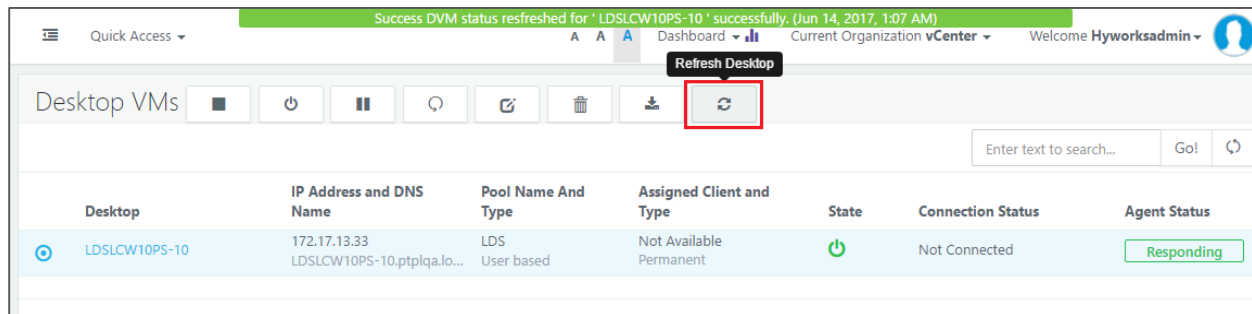
- Being dependent on Desktop Agent availability, the button to download logs will only be displayed for Desktop VMs with Agent Status as Responding.

## 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.

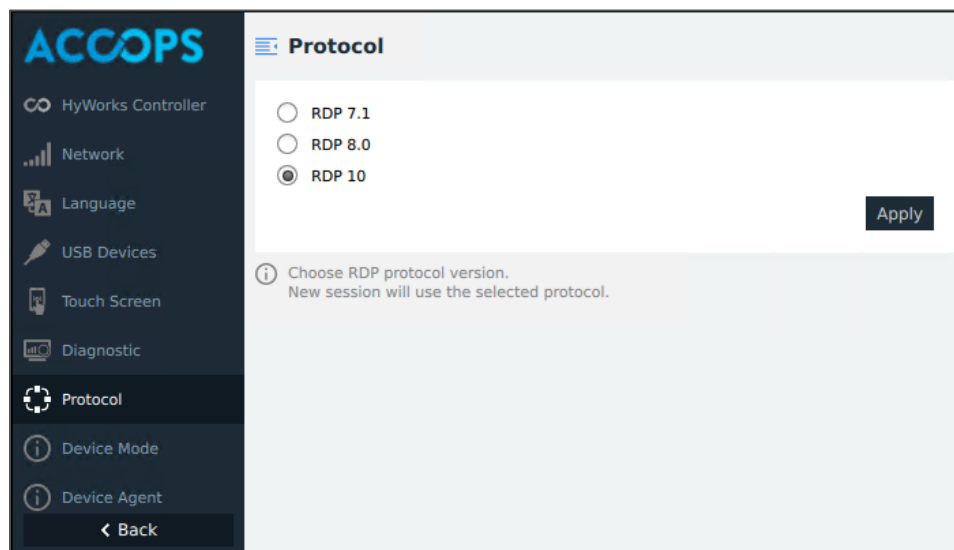


**Future Enhancement:** The same feature will be enhanced in future to refresh the desktop agent status for the selected desktop VM.

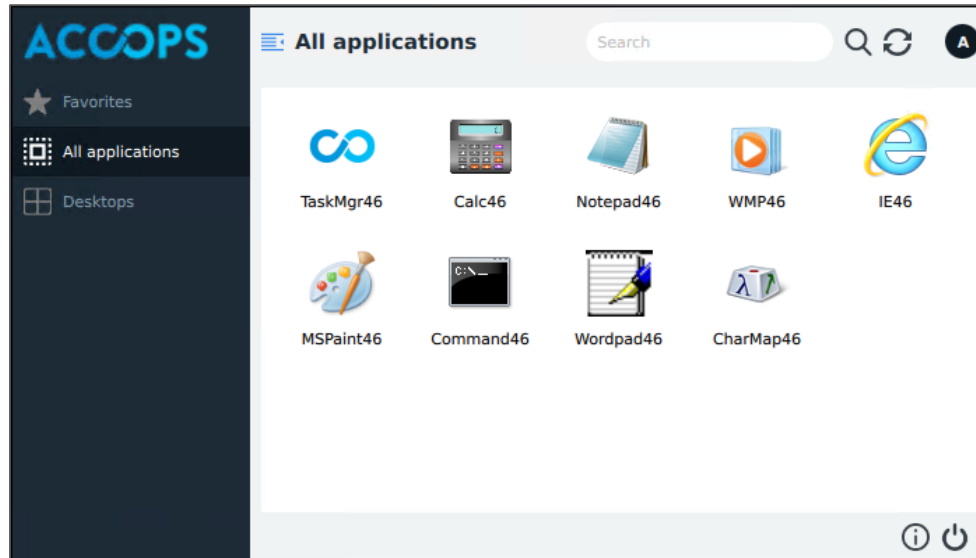
### HYDESK HY3000/HY4000-RC5 RELEASE (V300935)

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:**
    - i. **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
    - ii. **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.

Configuration Login Settings Display UI Controls Upgrade Settings Power saving mode **Advanced Settings**

Remote Session Set Manually

Remote Shell ☒

Set Custom Password ☒  
.....  
☐ Show

Remote Control ☒

Require User Confirmation ☒

Set Remote Control Password ☒  
.....  
☐ Show

## 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

Following issues are 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 RC5 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.

## RC4 RELEASE CHANGES

## 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.

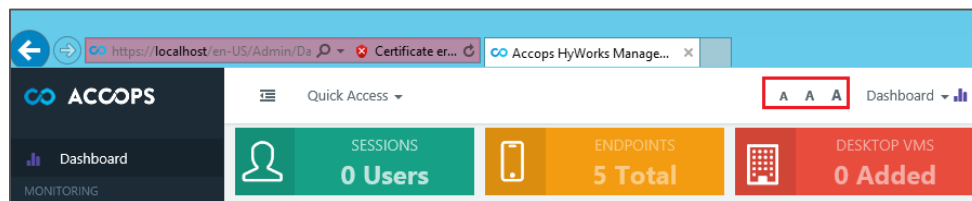
## MANAGEMENT CONSOLE UI ENHANCEMENTS

### *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.



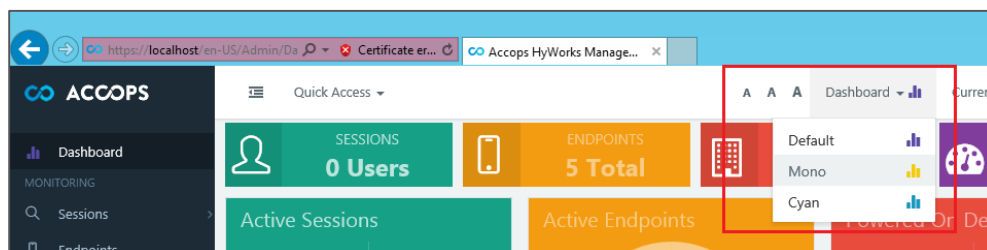
### *Control to Adjust Dashboard Theme*

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.



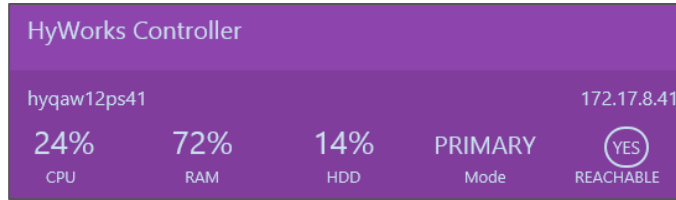
## HYWORKS CONTROLLER MONITORING

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

Session Team : T1-41 - Weighted Round Robin

Download Logs Upgrade RDS Back

Name	Address	Version	Server Status	Session Host Agent Status	Monitor Service Status	Sessions	CPU (%)	RAM (%)	Disk (%)	Score	Weight
2012-41	172.17.8.41	3.0.0.4347	Reachable	Responding	Responding	-	17	72	14	-	100

Back

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.

Session Team : T1-41 - Weighted Round Robin

Download Logs Upgrade RDS

Name	Address	Version	Server Status	Session Host Agent Status	Monitor Service Status	Sessions
2012-41	172.17.8.41	3.0.0.4347	Reachable	Responding	Responding	-

## SEPARATE INSTALLER SETUP FOR SESSION HOST SERVER

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

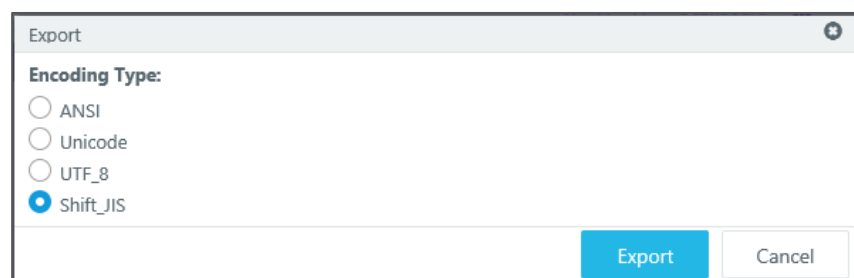
Connection profile are used in following priority

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

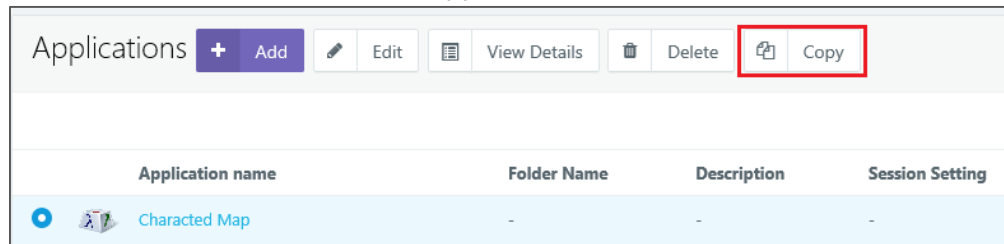
When searching for users and group in large active directory or LDAP environment, the search could take long time. Enhancements are done to improve performance of search operation

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.

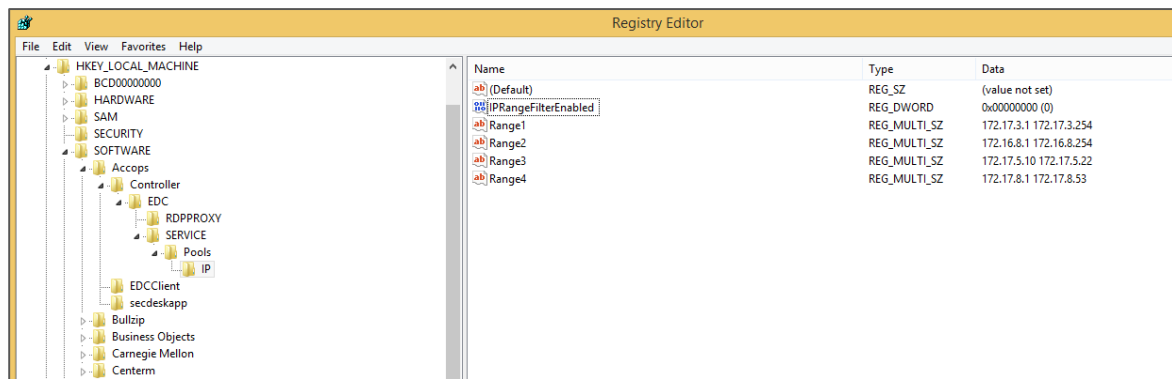
## SUPPORTING VIRTUAL DESKTOPS WITH MULTIPLE IP ADDRESSES

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



## 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

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### SUPPORT FOR EMBEDDED DB

Controller installation with Embedded DB is deprecated from RC4 release onwards. 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.

### SUPPORT FOR BUILT-IN USB REDIRECTION DRIVER WITH WINDOWS CLIENTS

Though integrated and working in certain cases, built-in USB redirection driver is not supported on HyWorks Windows Clients. Please avoid using Built-in USB Redirection Driver with HyWorks Windows Clients.

## KNOWN ISSUES

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Following limitations and issues are known in HyWorks v3.0-SP1 Release:

### LOGS MANAGEMENT

1. HyWorks v3.0-SP1 does not archive the logs and thus on reaching the maximum allowed records, it starts cleaning the old records. [#3209]  
**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. [#2103]

## LICENSING

1. Upgrade over any previous v3.0 releases (lower than v4649), will make the license invalid and reactivation of license will be required. Please contact Accops Support team before doing any upgrade. [#3210]

## 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. [#963]
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 from HyLite, will not get reconnected [#1963]
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. [#1735]
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. [#3212]
5. With desktop pools of Shared hosted desktops/dedicated desktops having device based assignments, login from same username will result in reconnection of existing session and multiple sessions from same username will not be allowed. []
6. Application Auto-launch will not function when being accessed from HyLite, the feature works fine with HyWorks Clients. [#1720]
7. Different behavior for shared hosted desktop and dedicated desktop session removal from controller by Administrator
  - 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. Intermittently 'Object reference errors' may be logged, when sessions from HyDesk devices are initiated and failing. [#2658]
  10. Disconnected since value displays incorrect time for VDI sessions: it displays the time from when the session was established instead when the session was disconnected.
  11. Continuous disconnection notification messages in logs for older devices that do not support disconnect request.
  12. When connection fails, on HyWorks Controller Management Console -> VDI session is being displayed in Idle state [#3155]

## APPLICATION DELIVERY

1. All Remote Apps get disappeared when we click on adobe reader's prompt message [#2016]
2. Skype as remote application does not work correctly on HyDesk Hy3000/Hy4000 [#1246]

## 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.

## ENTITLEMENTS

1. Select All and remove not working on any of entitlements or add/edit entitlements if selection includes more than 100 records.
2. More than 500 users displayed in list even though message says maximum 500 search results are displayed on App entitlement wizard
3. Groups having special character "|" in name are not getting added in HyWorks entitlements.
4. OU and Group based environments are not supported with Novell eDirectory or Open LDAP authentication servers.

## 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. The advanced configurations (Custom Shell and Remote-Control Password) 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.

## 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.

## AUTHENTICATION DOMAIN

1. Entitlements won't get removed if authentication server configuration in Authentication domain is changed or users are deleted from authentication server
  - a. All entitlements will be deleted if respective authentication server is deleted
2. With LDAP server configures as both Authentication and Authorization server, domain name is being sent as blank.

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

3. 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 logon.
  - a. On Login User Synchronization Type is slower than the normal AD/LDAP based login since user account must be synchronized on every login with assigned desktop or shared session host server.

## ORGANIZATIONS

1. Deletion of an organization depends 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.
3. Object reference error while changing Auth Domain settings from Inherit to create Auth Domain. The error condition will only be corrected by reverting the Auth domain settings to previous values. [#2634]

## 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. [#2273]
2. Connection profile is randomly picked, if a user belongs to two diverse groups and both groups are assigned with different connection profiles.
3. Not all configurations of connection profile are applicable for all types endpoints and these options should be configured correctly.
  - a. In some cases, connection profile specified option does not work as expected e.g. Desktop background does not get disabled with LAN connection type and desktop background option is unchecked. [#]
4. Additional command line option does not support commands using comma and may cause session failures. [#2690]

## SESSION PROVIDERS

1. Supported Hyper-V Servers: Only following Hyper-V servers are supported in HyWorks v3.0 configurations
  - a. Hyper-V server 2012R2 with GUI
  - b. Supported SCVMM Servers:
    - i. SCVMM Windows 2012R2
    - ii. SCVMM Windows 2016
2. Saved state of VMs is not supported in HyWorks and thus should not be used for VMs from Hyper-V or SCVMM servers.
3. High memory consumption up to 3GB has been observed by Hyper-V Connector on SCVMM 2016/2012R2 server. The issue is not observed on Hyper-V Servers.
4. 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.

5. With TSE configured as desktop provider and having more applications with strings 'Desktop' in name, desktop session will not get launched
6. If TSE and Pano Controller both are configured in HyWorks, session from Pano Controller will fail and thus the configuration is not recommended.
7. If TSE is configured as Active Session Provider in any organization, Shared Hosted Desktop from same server will not be provided.

**Resolution:** Use organizational structure to deliver TSE and SHD desktops from two different organizations.

8. It is not possible to resume suspended DVMs from Pano Controller and will require administrator to manually resume the DVMs from hypervisor management console
9. Sometimes 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.

10. 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
11. 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.
12. In Weighted Round Robin Load Balancing, weight cannot be specified as 1. The action is denied on the management console itself.
13. 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, first remove all existing remote sessions manually and then initiate the upgrade.

14. Session provider with same name can be created by modifying the provider name and then entering same name as another session provider.



15. Single sign-on with HyWorks Windows Client is not working correctly if NLA is enabled on target Desktop.

**Workaround:** NLA should be disabled for delivery from HyWorks.

16. Dedicated Desktop provider can be added without providing username or password or both. [#2938]

## 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. In some cases, cloning with SCVMM 2012R2 is getting failed with unknown error. [#3173]
2. Full clone creation with SCVMM (2012R2/2016) fails if the gold image does not have any network card attached to it.
3. Dedicated VDI: In case of multiple IP address being assigned to Desktop VM, the HyWorks DVM Agent status will throw object reference error

**Resolution:** Configure IP Range to be used for desktop pools.

4. HyWorks Tools upgrade is supported only on following HyWorks Tools versions:
  - a. Version 2.5.4.1 (HyWorks 2.5-GA Release)

- b. Version 3.0.2.27 (HyWorks 3.0-RC5 Release)
- 5. 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
- 6. 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.
- 7. 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

- 8. Linked Clone creation fails, if length of Base VM name exceeds 35 characters. [#3194]
- 9. 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)
- 10. 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.
- 11. Recompose will skip creating desktops which are provisioned and removed from controller but not removed from session provider or removed from session provider.
- 12. Cloning with independent ESXi Server is not reliable and may have multiple issues
- 13. 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.
- 14. Provisioning with Hyper-V may fail with timeout error with gold image having big disk file. Timeouts can be configured to control the failures to certain level.
- 15. Controller may assign desktops from desktop pool associated with an inactive dedicated session provider. The issue may be observed only when users are assigned with applications and dedicated desktops both.
- 16. HyWorks DVM Tools upgrade may fail sometimes due to timeout issue. [#2688]

**Resolution:** Please contact Accops Support team for increasing the timeout value in appropriate upgrade service configuration file.

- 17. Sometimes pool creation fails with error being displayed for previously created pool.

**Resolution:** Manually reload the Desktop Pools page before creating the second pool or create the second pool without manual assignments and later update the pool to do assignments.

- 18. Customization does not work in following few conditions:
  - a. Master Image (Source VM) being used is an already cloned and sysprepped image.  
**Resolution:** Use a freshly created Windows VM for cloning.
  - b. The master image is Windows 10 and the apps have been altered to uninstall some of the preinstalled apps or new apps have been added.

**Resolution:** Please refer following knowledge base article from Microsoft

<https://support.microsoft.com/en-us/help/2769827/sysprep-fails-after-you-remove-or-update-windows-store-apps-that-inclu>

## APPLICATION AND SHARED DESKTOP DELIVERY

1. CPU/ Memory or HDD consumption information on Controller is getting updated periodically and thus sometimes may not be real-time.
2. Realm Settings changes will come into effect only after client re-registration.
  - a. For re-registration client should be exited completely and then should be re-invoked from shortcut.
3. 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.
4. Publishing explorer to enable folder access won't work in Shell mode. Kindly contact support for alternate way to access folders.
5. 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.
3. HyWorks Controller installed with **Remote** SQL Server cannot be backed up and cannot be restored using backed up database.  
**Resolution:** Restore the database using SQL Management studio first and then while re-install HyWorks Controller to use backed-up database.
4. New HyWorks Controller installation on new server with backed up database may fail if the both servers are having configurational changes such as SQL Server version, authentication modes, SQL server installation directories etc.
5. Controller will fail to send backup email if controller server is using proxy configuration for internet (SMTP server) access.

## USB REDIRECTION

1. Eltima (Built-in) USB redirection is not working with Windows Clients and is not officially supported in v3.0-SP1. Newer and improved Built-in integrated client will be released in next HyWorks release.
  2. Plugging-unplugging USB devices multiple times may cause driver load issue on Virtual machine and will require virtual machine to be rebooted
  3. Installing USB Network Gate and SEP on the desktop may affect USB redirection
  4. 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
  5. 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
  6. 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
  7. 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
8. 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

## 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.
3. HyWorks client in some rare cases does not show application icons for applications running in Shell mode.
4. HyWorks client displays notifier with application icon instead of client default icon.
5. HyWorks Controller Management Console may continue to show Authentication server as active in dashboard even when its down.
6. When changing the load balancing from adaptive to round robin, shared session host adaptive last score remains as it is and do not change to dash icon

## ENDPOINT ISSUES

HyWorks supports following endpoints as per requirement and endpoints should be used wisely with understanding the below mentioned known issues:

## HYLITE – HYWORKS INTEGRATION

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 does not happen automatically and user should 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 in HyLite.
17. Copy\Paste operation not working using menu tab for the first time  
**Workaround:** For the first time, use the shortcut 'Ctrl + V' option to paste the copied data.

## HYWORKS CLIENT (WINDOWS)

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.
3. An error event will always be logged, when HyWorks Client will attempt to check status of USB Redirection driver services.
4. Two devices with same name will be registered when a full client and lite clients are used from same windows desktop.
  - a. Device with same name already exists in HyWorks Config error is coming when we install two different window clients on same device [#3098]

## 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:** Quit the HyWorks Client and then launch again to work without HySecure Client.
3. Power management is not optimized on HySecure Client comparing to standalone windows client and thus may not give the best of user experience.
4. Auto logon configurations on HyWorks client (using REALM Settings or Device Settings) will not work when being initiated with HySecure client and may give some undesirable results.

**Workaround:** All auto-login configurations on HyWorks should be kept disabled when being deployed with HySecure.

## HYDESK (HY3000/ HY4000/ HY3020/HY2000) KNOWN ISSUES

1. Integrated Hy2000 does not have HyWorks v3.0-SP1 features integrated and thus it has not been released with HyWorks v3.0-SP1. An older release (v2.5-SP1) will still be able to connect to HyWorks Controller but it will not support Managed Shared Hosted Desktop Sessions and Application delivery.
  - a. HyDesk Hy2000 will run in minimum supported mode and should not be used with HyWorks v3.0-SP1  
**Fix:** HyDesk Hy2000 client will be released after HyWorks SP1, having integrated support managed shared hosted desktop sessions. Please check the Module version details to download the latest Hy2000 version v256226 which is HyWorks v3.0-SP1 compatible.
2. Multimonitor functionality does not work for applications in Shell Mode
3. Application access on Hy3000/Hy4000 works only using specific connection profiles. Please contact Accops support team for detailed information on the possible connection profiles.
4. 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.
5. In some cases, 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.
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. [#3196]
11. Applying touch screen driver settings on Hy3000 devices, results in client crash and client must be re-initiated. [#3167]
12. Performance will be degraded if multiple applications in RemoteApp mode are accessed simultaneously.
13. Skype application does not work on Hy3000/Hy4000 HyDesk endpoints.
14. HyWorks PDF Printer cannot be disabled on Hy3000/Hy4000 devices using flag in connection profiles. (Flag is Allow RDP Plugins in local resources.)
15. When using "Use Built-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.

16. HyWorks PDF Printer does not work with RDP7 protocol on client side.
17. Enter key does not work as expected to submit the username and passwords on HyWorks Client Login screen, instead space can be used.
18. Closing a single app in remote app mode, closes all running applications on HyDesk Hy3000/Hy4000. [#2157]
19. HyWorks Client on Hy3000 may move to hang state for a brief period when language\virtual keyboard\Touch screen setting are applied. [#2672]
20. If sessions are invoked from windows desktop machines configured with sleep timers -> User session not going back to active session after large inactivity time and machine is went into sleep mode and been re-invoked.
21. Session over proxy from Hy3000/Hy4000 device is not working with RDP7 protocol. [#3199]  
**Resolution:** Protocol RDP8/RDP10 to be used for best of experience and session over WAN/Internet.
22. Printing using HyPrint PDF Printer does not work on Hy3000/Hy4000 devices with RDP7 protocol  
**Resolution:** Protocol RDP8/RDP10 to be used for HyPrint PDF Printing on HyDesk Hy3000/Hy4000.
23. Caps-lock button is not working in Virtual Keyboard with Japanese keyboard layout [#293]

## HYDESK HY2000 – V256226 (V3.0-SP1) COMPATIBLE KNOWN ISSUES

1. HyDesk Hy2000 – v256226 release has minimal support for HyWorks v3.0-SP1
  - a. Only Dedicated VDI and Managed Shared Hosted Desktop Delivery supported
  - b. Hy2000-v256226 does not support any advance features of HyWorks v3.0-SP1
    - i. No organization support and Hy2000 devices will be registered in Default Organization only
    - ii. No support for Application delivery
    - iii. RDP10 is not yet integrated in HyDesk Hy2000 -> Only RDP8 and RDP7 is supported
2. Hy2k >> Unable to get VDI session from RDP protocol 7 with Eltima USB Redirection Driver [#3146]
3. Hy2K >> RDP7 protocol has minimal support and should be used only for troubleshooting on the advice of Accost Support team
4. Hy2K >> Device power-on operation from controller is not supported on Hy2000 model
5. Hy2K >> Multi-touch/Single-touch devices are not supported on Hy2000 model.
6. Hy2K >> German/French umlaut characters are not yet supported in username/passwords and may result in login failure
7. Hy2K >> Session over proxy from HyDesk Hy2000 does not work with RDP-7 protocol and thus RDP8 should be used.
8. Hy2k >> Disconnected sessions will be removed but will not be logged out on re-registration of the device -> This may affect the temporary assigned pools and some session management tasks [# 3285]
9. Hy2K >> Switching the protocol on device is showing an error in logs of controller [# 3284]



10. Hy2K >> Virtual Keyboards for foreign languages (Japanese and German) are not integrated.

## 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

## HYWORKS USER PORTAL

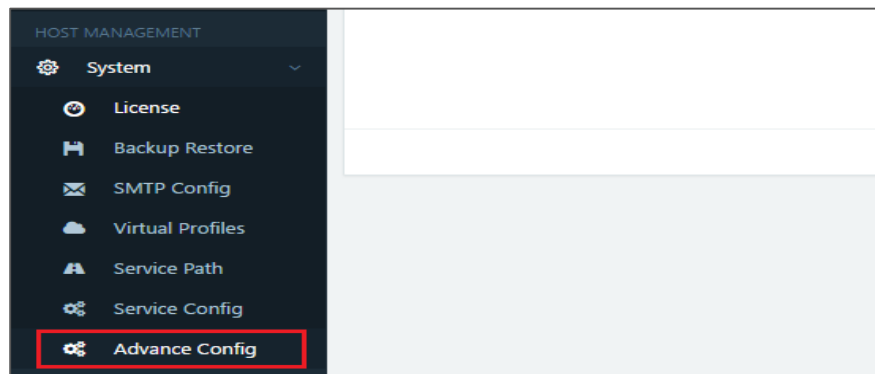
1. HyWorks User Portal is an experimental delivery mode and is not completely available for direct deployment, until being advised and configured by Accops team. Please contact Accops Team for any requirements or configurational assistance.
  - a. HyWorks User Portal does not work correctly with Windows Full client and should be tested with HyWorks On-demand client only.
  - b. Dedicated Desktop Power Management is not completely integrated and does not give best of user experience to the user if assigned desktop is powered off or suspended and requires power operation from user side.
  - c. If the client is being used independently and then being invoked by HyWorks User Portal, then it may not function correctly and user must completely exit the HyWorks Client before reattempt to login from HyWorks user portal.
  - d. 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)
  - e. While accessing Shell based application from user portal, icons for all apps will be shown as default shell icon only
  - f. Using User Workspace Portal from different browsers on same machine may cause crash of HyWorks Client and thus should be avoided.

## APPENDIX A: HYWORKS V3.0-SP1 LOGGING CONFIGURATIONS

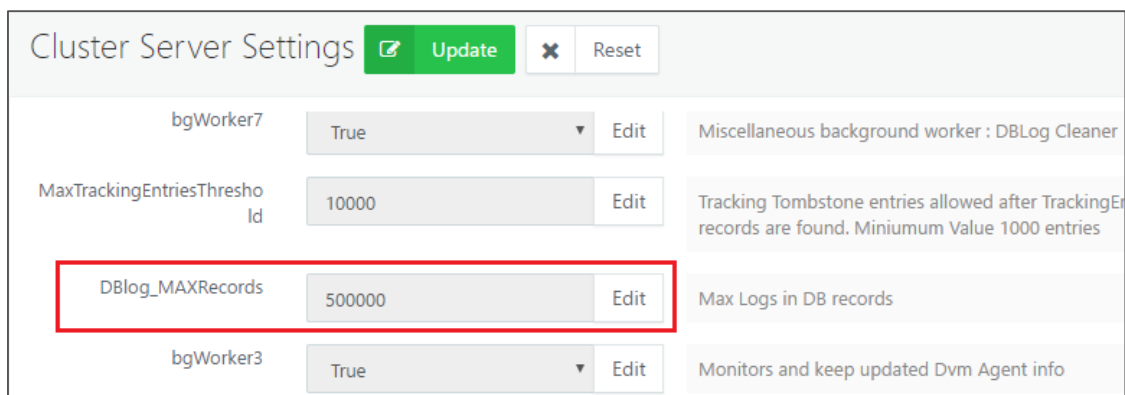
### INCREASING MAXIMUM NUMBER OF RECORDS TO BE KEPT

By default, HyWorks v3.0-SP1 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

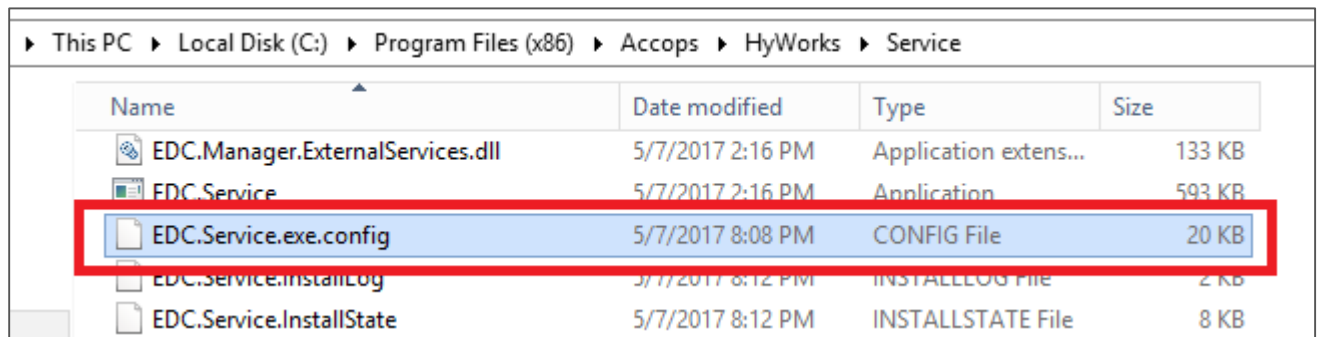
CREATE TABLE [Log] (
  [LogId] bigint IDENTITY (1,1) NOT NULL
, [Date] datetime NOT NULL
, [Level] nvarchar(100) NOT NULL
, [Logger] nvarchar(100) NOT NULL
, [Message] ntext DEFAULT NULL NULL
, [StackTrace] ntext DEFAULT NULL NULL
, [StackTraceDetail] ntext DEFAULT NULL NULL
, [ORGID] nvarchar(128) NOT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

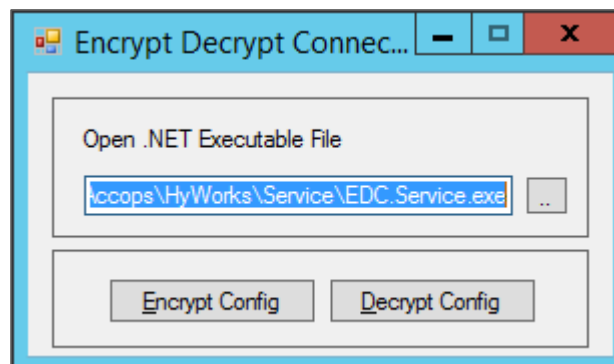


8. Copy the file and paste it as some safe location for backup
9. Download the **EncryptDecryptAppConfigFile** tool (Please ask the Accops support team for the download link)
10. Copy the tool on HyWorks Controller Server installation folder, default installation path is

**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="log4net.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> \sql express,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

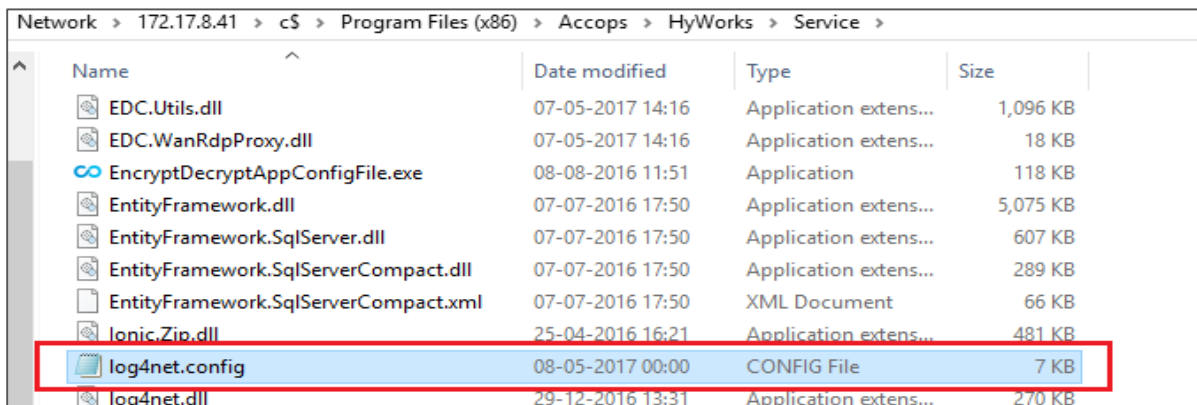
1. External syslog server is installed, running and accessible from HyWorks Controller Server
2. External syslog server is configured in UDP mode

### 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**



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
<b>log4net.config</b>	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

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Contact Accops Support team ([support.accops.com](https://support.accops.com)) for any assistance or queries.



## About Accops

About Accops 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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