

# Release Notes

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Accops HyWorks v3.3-Spring Release

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## Release Notes Document Revision History

<b><i>Date</i></b>	<b><i>Changes</i></b>
05-Mar-2020	Patch details are added for v3.3-Spring
29-Feb-2020	Details of release notes document for v3.3-Spring added
06-Aug-2019	Draft of release notes document for v3.3-RC1 prepared

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## Introduction

HyWorks v3.3-Spring release is having major features, enhancements and bug-fixes to improve reservation management system, scalability improvement with dedicated desktop deliveries. All released features, enhancements and bug-fixes are specified in detail in later sections of this document.

HyWorks v3.3- Spring release notes document is published to provide following details:

1. Information of HyWorks modules being released and download links
2. New features and enhancements HyWorks Controller, clients and other modules
3. Important bug fixes

## Prerequisite .Net 4.7.2 is must for HyWorks Servers

Windows servers to be configured with HyWorks Controller or Session Host Server must be installed with .Net 4.7.2.

- **Support for Windows 2008R2 Deprecated**

As .Net 4.7.2 is **not** supported on Windows 2008R2, thus existing or new installation must upgrade Windows 2008R2 to Windows 2008R2-SP1.

- **Supported Windows Servers**

HyWorks Controller installation will be supported in following Windows server platforms only:

- Windows 2008R2-SP1
- Windows 2012R2
- Windows 2016
- Windows 2019

## HyWorks Components being Released in HyWorks V3.3-Spring

In this section of the document, details of different HyWorks Module are being provided, which are being delivered as part of HyWorks v3.3-Spring release:

### Important Notes:

1. Release v3.3-Spring is intended for specific deployments having RMS and should not be used for any general-purpose deployments. Please contact Accops support team for any specific details.
2. **.Net 4.7.2** is required for Controller or Session Host Server installation
  - a. Support for Windows 2008R2 is deprecated and Windows 2008R2 must be upgraded to SP1 before installing HyWorks Controller or Session Host Server.

Module	Version	Remarks	Download location
<b>HyWorks Controller</b>	v3.3.0.10875	Integrated setup consists of: <ul style="list-style-type: none"> <li>• HyWorks Controller</li> <li>• Management Console/ User Workspace Portal/ RMS Service</li> <li>• All Client Setups</li> <li>• HyWorks Session Host Agent</li> <li>• HyWorks DVM Tools</li> </ul>	<a href="#">Download HyWorks Controller v10875</a> <b>MD5:</b> 58379ad62708bf9f6c bf130ad27b2355
<b>HyWorks Controller and MMC patch</b>	HF1	Customizable Linux VDI login parameter	<a href="#">Download HyWorks Patcher for v10875</a> <b>MD5:</b> b56185c676da02f8a 66de47a31946a01
<b>DVM Tools - Linux</b>	v3.3.1.9	DVM Tools for Linux desktops Note: Same as v3.3-RC1	<a href="#">Download link for Linux DVM Tools</a> <b>MD5:</b> 0f9d6676a5d2ba386 6e2cb84ed7467ef
<b>DVM Tools – Windows</b>	V3.3.1.17	DVM Tools for Windows desktops Note: Same as v3.3-RC1	<a href="#">Download link for Windows DVM Tools</a> <b>MD5:</b> c054a41d0d1662d3 5aab7ffd217687c4

## Important for Installation, Upgrade or HyWorks Deployments

### Setup Dependency on .Net 4.7.2

HyWorks Controller or Session Host Server **v3.3** requires **.Net 4.7.2**

- Before upgrading any existing installation, make sure to install .Net 4.7.2 externally
- **Support for Windows 2008R2 is deprecated:**
  - .Net 4.7.2 is not supported on Windows 2008R2 (Minimum supported: Windows 2008R2-SP1)
    - Before installation or upgrade in environments running Windows 2008R2, first upgrade the OS to SP1

**HyWorks Controller Versions Supporting Upgrade** : HyWorks V3.3 (Controller or Session Host Server) is **upgrade compatible** with only below specified HyWorks Controller or Session Host Server Versions:

- HyWorks Controller v2.5-SP1/SP2 or later installed with SQL Server

**Note:**

- HyWorks v3.3 is not upgrade compatible with any previous versions of skyControl Server.
- HyWorks v3.3 is not direct upgrade compatible with any previous versions of HyWorks Controller running with Embedded database.
  - Upgrade wizard does not support migration from Embedded Log database to SQL and thus the changes must be done manually.

## Release v3.3-Sprint Details

This section of release notes will provide details of enhancements and defect fixes in v3.3-Sprint release.

### New Features and Enhancements in v3.3-Spring Release

#### UPN Support in HyLabs (HyWorks)

Feature to support login using UPN is now integrated and users will be able to authenticate and authorize in RMS using User Principal Name.

The support will allow users having more than 20 character in user principal name to login and access HyLabs without any problems.

Login attribute will be configured from HyWorks Management Console -> Server -> Authentication Server.

Following login flow will be used:

1. User logon using only username without domain name: HyWorks will generate UPN using domain name configured in authentication server configuration. E.g. user logs-in using john.test => john.test@domain.com
2. User logon using with domain name\username: HyWorks will generate UPN using domain name and username provided by user. E.g. user logs-in using domain.com\john.test => john.test@domain.com
3. User logon using full UPN in format username@domain-name: HyWorks will use credentials as provided. E.g. user logs-in using john.test@domain.com => john.test@domain.com

#### Authentication Server Enhancement to switch Login Attribute anytime

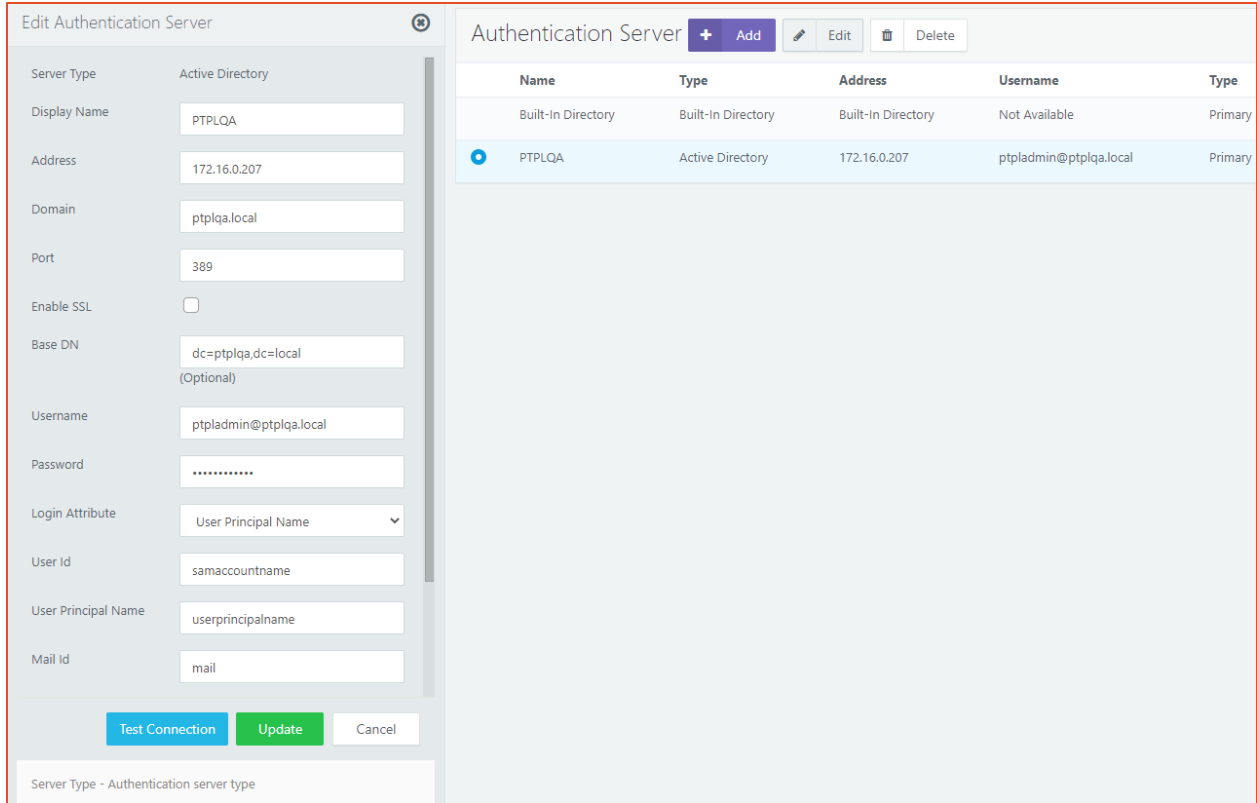
Authentication server configuration in HyWorks will now use mapping between HyWorks's Attribute and associated authentication server attribute. Refer screenshot below, which suggests,

- HyWorks login attribute = User Principal Name, where
  - HyWorks User Id = Authentication Server sAMAccountName
  - HyWorks User Principal Name = Authentication Server User Principal Name
  - HyWorks Mail Id = Authentication Server Mail attribute
  - HyWorks Phone Number = Authentication Server TelephoneNumber

Benefit of this approach is,

- Administrator will be able to change login attribute to any of the mapped HyWorks configurations.

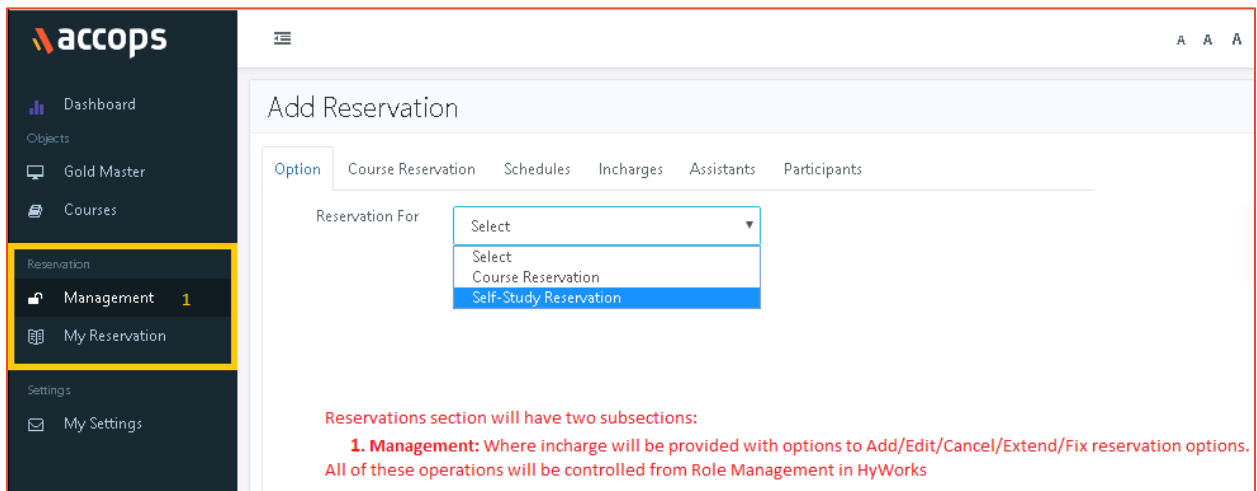


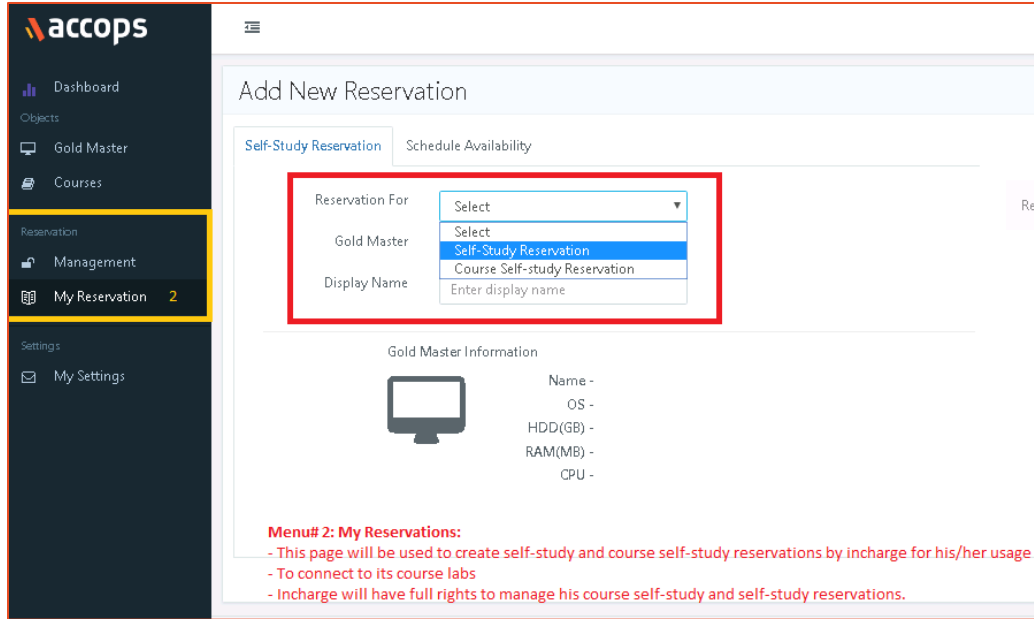


## Separate Screens for Reservation Management and My Reservations

Now incharge and assistant(TA) users will have following two different screens:

- **Management** screen: Management screen will give option to manage reservations which incharge is having access
- **My Reservation** screen: This screen can be used to create self-reservations (Self-study and course self-study), connect to reservations, perform power operations.





## Configurable Landing page and option to remove screens

Administrator will be able to change the default landing page for users and will also be able to configure the pages which should be visible to end-users. E.g. an incharge users can be configured to not to view **Gold Master** page and made to navigate directly to **My Reservations** page on successful login.

The changes are currently controlled from database.

## Self-study Restrictions

The Self-study reservations will be restricted using following enhancements:

While adding Self-study gold master, following additional restrictive fields will also be shown:

1. **Max time for self-study:**
  1. In hours: 1-24
  2. Once set the users will not be able to create a self-study for more than allowed limit
2. **Max number of self-studies allowed in a day:**
  1. 1 - 24 [default: 1]
  2. Once set users will not be able to create more than allowed number of self-studies within a day
    1. Reservation expanding between two calendar dates will be considered on the start date only
3. Participants will not be able to delete their self-study or course self-study reservations. They will be able to cancel the reservations.

## General Announcement Priorities

A problem has been reported where once multiple general announcements are sent, end-users may miss some announcements as they are not shown in specific order.

A priority field will be shown in general announcement, which can be used to show general announcements in priority order.

### Participant View of General Announcement:

The color of priority1 announcement will be dark red and for lower priorities color intensity will be reduced.

Announcement Information			
Announcement Type	Title	Content	Priority
General	General1	General1	1
General	General2	General2	2
General	General3	General3	3
General	General10	General10	10

showing 1 - 4 of 4 items

## Reservation History

Following configurations are provided in HyWorks Controller Management Console -> System -> Advance Config:

- Purge Cancelled/Expired Course self-study Reservations
- Purge Cancelled/Expired self-study Reservations
- Purge Cancelled/Expired Course Reservations

Based on above settings, HyWorks keep the cancelled or expired reservations up to allowed number of days and then will delete.

RMS		
Purge Cancelled/Expired Course self-study Reservations	180	Edit
Purge Cancelled/Expired self-study Reservations	180	Edit
Purge Cancelled/Expired Course Reservations	180	Edit

### Connection Enhancement (Self-study/Course Self-study)

User experience can be improved for end-users when their self-study and course self-study reservations are in not ready state.

The feature will be controlled from HyWorks Management Console -> System -> Advanced Config ->

#### Flow:

When user will create a self-study or course self-study reservation Connect button will be changed as per status of reservation, e.g.

- Reservation not running -> White Connect button with click not possible
- Reservation Running but customization still in progress -> Yellow Connect button
- Reservation Running but error fixing initiated -> Yellow Connect button
- Reservation running with error (agent not responding or powered off) -> Red Connect button

Even when user will try to connect to reservations with these conditions a dialog will be displayed, which will recommend the action to be taken but also showing user to continue connecting to reservation and ignoring the error.

The screenshot displays the 'Running Reservations' table with the following data:

Name	Display Name	Course Code	Classroom	OS Information	Reservation Creator	Start Date & Time	End Date & Time	Action	Current Status
Res-08D3FB	HWS1-CR	PS-HWS1	Class1	Microsoft Windows 7 (32-bit)	admin rms-001	2/29/2020 06:35 PM	2/29/2020 10:31 PM	Connect	Running Ends In: 1 Hr : 16 Min
Res-2SJ8D6	SSS	-	-	Microsoft Windows 7 (32-bit)	parms001	2/29/2020 08:45 PM	3/1/2020 12:36 AM	Connect	Running Ends In: 3 Hr : 20 Min

The error dialog box for reservation Res-2SJ8D6 contains the following information:

- Reservation Name:** Res-2SJ8D6
- Desktop Name:** PSW72SJ8D6-0001
- Desktop error:** Power status issue.
- Fix soft errors:** The system can try to resolve the soft errors by restarting the desktop related service or by rebooting the DVM. (This button is highlighted with a red box in the image)
- Fix all errors:** If the desktop can not be repaired by rebooting, the system can recreate the desktop. It can take several minutes before desktop will be ready.
- Connect anyway:** Ignore the errors and continue to connect to desktop.
- Cancel**

# Accops HyWorks v3.3-Spring Release Notes

The screenshot displays the 'Running Reservations' section of the Accops HyWorks interface. It features a table with columns for Name, Display Name, Course Code, Classroom, OS Information, Reservation Creator, Start Date & Time, End Date & Time, Action, and Current Status. Two reservations are listed: 'Res-0BD3FB' and 'Res-25J8D6'. The 'Res-25J8D6' reservation is highlighted with a yellow 'Connect' button. A blue arrow points from this button to an error dialog box titled 'Running with error'. The dialog box contains the following information:

- Reservation Name: Res-25J8D6
- Desktop Name: PSW725J8D6-0001
- Desktop error: IP address not available.
- Error resolution process is running. Please wait for sometime for process to complete...
- Cancel button

Name	Display Name	Course Code	Classroom	OS Information	Reservation Creator	Start Date & Time	End Date & Time	Action	Current Status
Res-0BD3FB	HWS1-CR	PS-HWS1	Class1	Microsoft Windows 7 (32-bit)	admin rms-001	2/29/2020 06:35 PM	2/29/2020 10:31 PM	Connect	Running Ends In 1 Hr : 11 Min
Res-25J8D6	SSS	-	-	Microsoft Windows 7 (32-bit)	pa.rms001	2/29/2020 08:45 PM	3/1/2020 12:36 AM	Connect	Running Ends In 3 Hr : 16 Min

## V3.3-Spring Release Patcher Details

A patcher has been released along with v3.3-Spring release, to have following features:

- Provide configurable user attribute to be sent to Linux DVM Agent and Client for enabling and accessing Linux VDI
  - The configuration is provided in HyWorks Management Console -> System -> Advance Configurations -> **Linux RDP Login Type**, having below three options:
    - Option# 1: Send the User Id flag of authentication server
    - Option# 2: Send user login Id as it
    - Option# 3: Send user login Id with removing the domain portion after @ flag.

RMS			
Linux RDP Login Type	<input type="text" value="2"/>	<input type="button" value="Edit"/>	This option will decide from where user name will be picked for linux RDP, Option: 1: User Id, 2: Login Id, 3: Split login Id (It will send first part of login id before @ ).
			1 Control

## Issues fixed in v3.3-Spring Release

Following defects have been fixed in HyWorks v3.3-Sprint release:

#	Subject
10675	Self-study replica having multiple vmdk files because of snapshot creation and deleting while creating linked clones. The issue has been fixed in v3.3-Spring release.
-	Bulk e-mails were receiving while Reservation was successfully creating. Emails Notifications were receiving about Interval of 1 minute , Even Reservation was in Running State and Log was generating " Reservation was successfully Created "



## Known Limitations and Issues

**Note:**

- Known issues list is being updated and accordingly release notes will also be updated.

#	Subject
<b>HyLabs access from HyWorks Client</b>	
-	Users will not be able to do any HyLabs activities (such as creating reservations, extending reservation) other than accessing available reservations from HyWorks Client
-	Users will be shown with error 'No desktops or applications are assigned to this client' in following conditions: <ol style="list-style-type: none"> <li>a. No active reservations are running</li> <li>b. Active reservations are running, but not accessible due to client group settings</li> <li>c. All reserved VMs are already consumed</li> </ol>
<b>Linux VDI</b>	
<b>5047</b>	[Eltima-Ubuntu] Removed USB devices are not getting cleared on server side
<b>6578</b>	Installer Linux offline package on xUbuntu image: UI dialog box to select domain is not appearing correctly during installation from console in HTML5 web-session of vCenter Server
<b>5062</b>	Owner name, Org name, Locale, Product OS key fields are not applicable for Linux VDI provisioned pools but shown in Customization page
<b>4821</b>	Linux DVM Tools does not support monitoring of application access inside of VDI sessions.
-	HyPrint will not work with Linux VDI with default configurations Workaround: Some minor changes will be required on HySecure to make it work
<b>DVM Tools</b>	
<b>7959</b>	In system start, DVM agent is unable to communicate with AccopsMQ server and thus may fail to send power on event. Workaround: Not available. Eventually next heartbeat should update status.
<b>7851</b>	Exception in DVM agent logs on logging out desktop session with retain my flag disabled
<b>7826</b>	In some cases, provisioned Windows 7x86 DVMs are sending false status of trust relation and thus may get reset commands; though not needed.

	Workaround: None needed.
<b>7105</b>	<p>Sysprep Generalization getting failed with windows apps installed.</p> <p>Workaround: Delete any such windows store app. Kindly contact Accops Support team for any assistance on this.</p> <p>HyPrep – Faster system customization tool has been integrated with DVM tools for the same.</p>
<b>6441</b>	Appropriate error logs are not generated when DVM Tools upgrade fails due to space crunch on DVMs
<b>536</b>	Multiple events can be seen on session disconnections of personal desktops as USB Cleaner tries to remove USB devices and some may still be in use by system
<b>RMS (Portal/ Service)</b>	
<b>10916</b>	<p>With 'Reuse VMs..' disabled in reservation, course self-studies scheduled near to course reservation end-time may fail.</p> <p>Workaround: NA</p> <p>Recommendation: Create self-studies after some time of course reservation end so that course reservation can be ended.</p>
<b>10891</b>	<p>CSV import getting fail for Unicode file format.</p> <p>Workaround: Use other supported formats like UTF-8, Shift-JIS etc.</p>
<b>10886</b>	<p>Fix reservation does not recreate the desktop which was deleted from HyWorks Management Console – Desktop VM screen</p> <p>Recommendation: RMS objects must not be altered from HyWorks Management Console unless advised by Accops team.</p>
<b>10881</b>	<p>Machine keys in IIS configuration for HyWorks web application get reset on upgrade and login from HyLite results in error page 'Server Error in '/' Application.' =&gt; Error occurred during a cryptographic operation.</p> <p>Workaround: HyWorks Management Console web application Machine keys should be backed-up before upgrade and should be restored after the upgrade.</p>
<b>10879</b>	<p>Schedule code accepts special character ` and Code validation error occurs if administrator continues to schedule reservation with provided code.</p> <p>Recommendation: The mentioned special character should not be used.</p>
<b>10878</b>	<p>For running self-study reservation, increasing end-time beyond 24 hours, does not give any error and changes the end-time.</p> <p>E.g. Self-study 20:00 to 21:00 is running and if user uses calendar to change end-time to expand it to next day until 22:00, it will change end-time of today's self-study to 22:00 and will not give any error.</p> <p>Sometimes start time also gets changed but then it does not allow to save the changes.</p> <p>Workaround: None</p> <p>Recommendation: None</p>

<b>10877</b>	No warning or information of associated course self-study is shown while redeploying course reservation Workaround: None Recommendation: None
<b>10874</b>	Course reservation with higher limits can be created if gold master is modified to reduce the previous allowed set limit. Workaround: None Recommendation: Delete and recreate the Gold Master instead of modifying the existing one.
<b>10873</b>	Deployment settings are getting saved even without selecting single day for specific window Workaround: Specify mentioned days as per requirement.
<b>10868</b>	Audit announcement is shown to the users, even when inactive Workaround: Delete audit announcement if not needed.
<b>10843</b>	While adding course GM on Usage tab, Maximum Active VMs field accepts decimal values and other non-acceptable values Workaround: None, administrator should provide appropriate values
<b>10806</b>	Running reservation time can change after editing and re importing CSV Workaround: None Recommendation: Do not update running reservations using CSV
<b>10794</b>	Unable to import users when realm name is mentioned in CSV
<b>10771</b>	Users not part of any course will not be able to access self-study reservations made by reservation admin for them. Workaround: Create a dummy course for such users
<b>10757</b>	Allow Connect option will work only when preparation time is higher than the allow connect time. Reservations must be in running state for allow connect function to work, Workaround: None Recommendation: None
<b>10716</b>	Pool creation types gets reset to 0 for RMS created desktop pools -> Leaves existing desktop pool, replica , resource pool as unmanaged Recommendation: RMS desktop pools should not be altered from HyWorks Management Console
<b>10676</b>	Course Self Study reservation option should not be present in management for assistant user Workaround: None Recommendation: This is a duplicate option in HyLabs screen for assistant user, hence no problem in allowing. If needed, add reservation option itself can be disabled for assistant user from HyWorks Management Console.

<b>10643</b>	<p>If RMS admin creates Self-study for participant in the conflicting time when participant has created self-study, Participant is unable to create more reservations</p> <p>Workaround: None</p> <p>Recommendation: Delete one of the self-study reservations for user.</p>
<b>10640</b>	<p>If RMS admin creates one self-study for participant, participant's count for "Max Self-Studies Allowed" remains intact</p> <p>Recommendation: Self-study should be initiated by end-users only and thus administrators should not create self-study reservations for them.</p>
<b>10603</b>	<p>On deleting Reservation Pool manually, its resource pool doesn't get deleted from vCenter</p> <p>Recommendation: RMS desktop pools should not be altered from HyWorks Management Console</p>
<b>10535</b>	<p>UI options are different than DB and thus create confusion.</p> <p>Recommendation: Make changes after confirmation from Accops team</p>
<b>10027</b>	<p>"Number of connections exceeded" Error displaying in schedule tab instead of Self-Study Reservation</p> <p>Recommendation: None</p>
<b>10026</b>	<p>CSV Import: Reservation is getting added, even if self-study enabled having duration as 0.</p> <p>Recommendation: Self-study duration should not be kept as 0 while being imported from CSV.</p>
<b>9044</b>	<p>MMC and RMS service config details should be restored post upgrade</p> <p>Recommendation: Backup should be taken before upgrade for smooth and faster restoration of configurations.</p>
<b>8854</b>	<p>Incorrect Japanese translation in Deployment options dialog [Need to check: Not working on Edge Chromium] [Can be kept as known]</p> <p>Recommendation: Chrome/Firefox can be used for administration.</p>
<b>8709</b>	<p>Course self-study is getting failed when "Assign network ready desktops" is enabled on Gold master</p> <p>Recommendation: Keep the flag as disabled in provisioning profiles.</p>
<b>8648</b>	<p>Reservation should be highlighted using some mechanism if they have some recommended deployment options pending</p> <p>Workaround: None</p> <p>Recommendation: None</p>
<b>8384</b>	<p>Admin, incharge can create self-study with same time as existing user self-study.</p> <p>Workaround: None</p> <p>Recommendation: None</p>
<b>8192</b>	<p>Calendar should show all reservation assigned to Participant/ Incharge / assistant</p> <p>Workaround: None</p> <p>Recommendation: None</p>

<b>7976</b>	Audio and Mic cannot be controlled from HyWorks Controller Connection Profiles in session from HyLite Workaround: Additional Command Line Params can be used
<b>7975</b>	Course extension by admin are not reflected on calendar view and hence, course self-study can be created by admin in extended period of course reservation
<b>7962</b>	[Behaviour since start - will be kept open] RMS logs-out user session though it has been disconnected from HyWorks Controller by admin
<b>7959</b>	In some cases, immediately after system start DVM agent may not get updated as powered-on due to failure in connecting to AccopsMQ Workaround: None, status will get updated in next heartbeat (Default interval 120 secs)
<b>7943</b>	Updating an existing schedule shows conflicts with expired schedule Workaround: Update schedule and change start date as today
<b>7880</b>	On changing default reservation settings, changes are not reflected on running self-study reservation
<b>7863</b>	Are you sure you want to shut down the selected reservation? confirm action dialog box is not hidden and page is stuck
<b>7850</b>	Mail comes on start event even when the reservation is failed
<b>7825</b>	Importing .txt file via CSV Import results in Object reference error
<b>7814</b>	Extension is allowed for course reservation schedules which results in conflicting of schedules of same reservation
<b>7805</b>	When creation of VMs failed during redeploy it should be updated on reservation status as failed
<b>7803</b>	Session change of connect is not updated if DVMagent counters error like [#7802]
<b>7789</b>	Timezone Issues: Reservation creation may not work correctly when users are working from different timezone as HyLabs portal displays current time of client machine whereas reservation scheduling uses server time for calculations.
<b>7786</b>	[Gap/ Limitation for Kyoto] While creating self-study reservation, extension of existing reservation is not considered, Participant is able to add reservation in conflicting schedule
<b>7771</b>	Refresh button is displayed for course default GM when only admin access flag is enabled
<b>7693</b>	Numbering by RMS is not getting used for newly created VMs after deleting the VMs from reservation
<b>7560</b>	"Finishing setup" text during installation is overlapped (Installer UI)
<b>7538</b>	Session change event for lock and unlock are not generated thus, max concurrent connection count is un-managed with Desktop concurrent connection check option as 1

<b>7522</b>	Agent status is not displayed for cloned VMs on reserved VMs wizard
<b>7518</b>	GM Limits will not get applied on existing reservations schedules post upgrade from v3.2 to v3.3
<b>7503</b>	Keeping End time of schedule1 and start time of schedule2 shows conflict e.g. two schedules (schedule1 ending at 5:30 and schedule2 starting at 5:30) cannot be created Workaround: Create schedule1 with end time as 5:29 or schedule2 with start date as 5:31
<b>7471</b>	Deployment setting are not considered for all kinds of GM limits
<b>7445</b>	Enter value less than 99999 validation message is not displayed for Max Active VMs field while adding gold master
<b>7277</b>	In some cases, one-time reservation updated end-time is not getting reflected correctly on HyLabs portal and continues to show previous date/time
<b>7257</b>	RMS: Incharge able to remove himself from the course
<b>6336</b>	Assistants can edit incharge list in reservation
<b>6251</b>	Disabling course self-study in course reservation settings after course self-study reservations creation, does not show any error and course self-studies are accessible
<b>6090</b>	[GAP] Object available through all applicable roles should be displayed for a user.
<b>5495</b>	Sometimes even after logging out of RMS portal, the next logon with user having different role causes mix-up of roles and presents improper interface to user
<b>4872</b>	[Kyoto] Reservation edit should show the redeploy settings as saved from Gold Master
<b>4842</b>	On reservation failure, it will still notify configured users through next attempt makes it successfully running
<b>4840</b>	Same CentOS and Ubuntu VDI gold master can be accessed by reservation admin, incharge, assistant
<b>4829</b>	Reservation admin will be able to modify participant created self-studies
<b>4810</b>	Computer account deletion from AD will get failed if provisioning profile has been modified to use different domain user account
<b>4226</b>	Connect button gets enabled even when reserved VMs are still in configuring state
<b>4216</b>	Multi-Schedule reservation is not displayed properly in received mails as per in E-mail Notification Settings
<b>4101</b>	Deleting participant from self-study reservation created by admin, will come into effect only in next schedule
<b>Upgrade Service</b>	
<b>5027</b>	High memory consumption by Upgrade Service with too many upgrades initiated for DVM tools

<b>HyWorks Controller Known Issues</b>	
-	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
<b>7650</b>	HyWorks v3.3 with DVM Push feature does not support DVMs with multiple IPs correctly and may still send first available IP to Controller by default.
<b>7478</b>	Power off, Reset or suspend events are not known to DVM agent and thus controller will not be notified immediately. Power status will be updated as per timeouts in HyWorks Controller
<b>7466</b>	DVM Push will not work with SQL installed in Windows authentication mode only
<b>6380</b>	Sometimes error log 'Object reference not set to an instance of an object' are generated, while restarting session host server,
<b>6331</b>	For non-persistent desktop pools, DVMs get reset on logout even though user has not accessed it
<b>6330</b>	No logs are generated, when desktop is not assigned to users due to maintenance mode on desktop pool
<b>6114</b>	HyWorks Controller requires restart to refresh time zone details
<b>6101</b>	Unable to delete organization though all visible objects in organizations are deleted Workaround: Need to clean-up everything from database as per table references mentioned in logs
<b>5729</b>	In some rare cases, HyWorks Controller installer is unable to detect correct OS type & previous installation of controller.
<b>5698</b>	Sometimes, select checkpoint in desktop pool wizard does not work in single click and may require reselection
<b>5681</b>	With large deployments Hyper-V connector may stop responding and communication issues may occur due to timeouts or SSL errors
<b>5375</b>	No desktop VM's seen in Desktop VM tab of management console with zoomed in browser settings
<b>5279</b>	Unable to authorize using built-in group *Domain Users*, when controller is not in same domain as configured AD (Both as authentication and authorization server)
<b>5278</b>	In Desktop pools - OU with special character is shown with garbage characters and after saving changes to "on" string
<b>5273</b>	HyWorks Controller does not support provisioning using templates with vCenter Server dedicated session provider
<b>5257</b>	Controller Logs does not give username clearly for assignments of VMs from Floating desktop pools with assignments to groups

<b>5117</b>	Replica is not deleted after recomposing pool from linked clone to full clone in VMWare
<b>5105</b>	Some threads continue to connect to dedicated session provider though it's made inactive
<b>5083</b>	Updated AD group membership change is not getting fetched and thus failing to assign the desktops/apps runtime Workaround: Use advanced settings to use alternate methods of fetching groups
<b>5026</b>	Desktop pools and reservations become accessible once associated client groups are deleted
<b>4840</b>	Gold master concurrent access is not restricted, and hence multiple users can access desktops which supports multi-user sessions e.g. Linux desktops
<b>HyWorks Controller Management Console</b>	
<b>7764</b>	Dashboard - License section graph gets refreshed with abrupt flickering
<b>6614</b>	Existing Custom URL's doesn't have edit option
<b>6923</b>	Same group/OU can be added multiple times while publishing applications
<b>6666</b>	Device based assignment gets removed for floating pools if user from that device is logged off
<b>6612</b>	Linux SHD server can be added as Windows SHD
<b>6125</b>	MS Edge - Unable to scroll using mouse wheel once opened User Sessions/Logs page
<b>5747</b>	Adding Application gets stuck in Loading state if size of Application Icon is greater than 3MB
<b>5675</b>	With too many authentication servers or shared hosted desktops, dashboard will appear with lots of empty space
<b>5611</b>	Search entry is removed on Groups wizard after clicking on enter
<b>5347</b>	Connection profile with same name can be added using copy action
<b>5305</b>	After enabling Use custom client window title, the Delete shortcuts on exit is out of default page size
<b>5288</b>	Launch mode for application in User Details page is always shown as Remote App
<b>5284</b>	Display name in User Details page displays garbage data if user belongs to OU with all special characters
<b>5277</b>	Unable to add OU with pipe " " operator in its name in Entitlements
<b>5276</b>	Incorrect data is displayed in Total powered on ready desktop VMs (includes shared hosted desktops as well) in event logs produced in HyWorks Controller
<b>5275</b>	In Add Desktop Pool wizard, sometimes Source VM is not getting selected in single click with Microsoft SCVMM/Hyper-V dedicated session provider
<b>5171</b>	Pervious entitlements with authorization AD can login into client when authorization is changed to built-in when removal of entitlements
<b>5149</b>	User information from User Details page is not deleted when built-in users is deleted. Trying to view user details will show error on page.



<b>5139</b>	Linux app session should be removed from HyWorks manually if stuck in initializing state
<b>5129</b>	Same address can be added as primary and secondary authentication server
<b>3142</b>	Download logs fails with Management Console in Japanese with error-61 (Japanese OS)

## Details of Previous Releases

This section provides the details of previous releases:

### Details of Previous Release - HyWorks v3.3-RC1-Hotfix1

HyWorks v3.3-RC1-Hotfix1 consists of following changes:

#### #8517: Course self-study not getting prepared if multiple self-studies are preparing at same time

With at-least two incidents where HyWorks Controller service was found consuming significant system memory due to a bug in locking mechanism during Course self-study preparation.

**Root Cause:** Whenever parent course and multiple child course self-studies are being operated at the same time e.g. a course reservation is getting ended and multiple course self-studies are being prepared at the same time, the locking function was causing multiple attempts for every self-study reservation.

These attempts were getting added in queue and them end-up in consuming system memory very rapidly.

Controller service was analyzed on two separate occasions 15<sup>th</sup> October and 30<sup>th</sup> October to consume memory due this issue.

Issue has been **fixed** by improvising locking mechanism. Patch Hotfix1 contains this fix.

#### #: Log Enhancements for Agent Status

Earlier, Desktop agent status was not logged during one error condition and thus connection failure analysis was little difficult.

Logs have been added, which will be logged before every connection attempt to help understand Desktop agent status

### Previous Release - HyWorks v3.3-RC1 Release

HyWorks v3.3-RC1 consists of following changes:

#### New Features and Enhancements

HyWorks v3.3-RC1 release is having following new features and enhancements:

##### *Reservation Management System (HyLabs) Features/ Enhancements*

Following features and enhancements for **HyLabs** are being released in HyWorks v3.3-RC1 release

##### *RMS is being renamed as HyLabs*

Reservation management system or RMS is being renamed to HyLabs.

### *HyLabs is Licensed Feature*

Feature licensing is implemented in HyWorks v3.3 and HyLabs will be enabled only after applying HyWorks license having appropriate feature (HyLabs) license enabled.

### *Separate RMS Service for load distribution*

In HyWorks v3.3 series, Accops HyWorks RMS service will be installed as a separate Windows service and can be installed on separate server as well.

The change will help in distributing performance load of RMS system and thus will result in improved performance of HyWorks Controller.

HyWorks RMS service can be installed with HyWorks Management Console for effective utilization of Windows Servers.

### *DVM Push (Desktop agents pushing status to Controller)*

In HyWorks v3.3, Windows and Linux Desktop agents have been integrated with capabilities to push state change and heartbeats to Controller.

The mechanism can be controlled from System -> Advanced Configurations -> Desktop Poll Mode.

- Set value as 1 for normal mode (HyWorks will use default poll mechanism)
- Set value as 2 for Hybrid Mode (HyWorks will expect push from desktop agents)

DVM Push will require few additional configurations and deployment of AccopsMQ and DVM Consumer microservices as well.

### *Separate Microservices AccopsMQ and DVM Consumer*

To support DVM Push feature, following two additional microservices in docker environment should be deployed. These service modules are being distributed as offline images, ready to be deployed in docker environment with simple commands.

The purpose of these two services are explained below:

- AccopsMQ: Desktop agents running in reservation VMs will push its status to AccopsMQ queue.
- DVM Consumer: DVM Consumer service will pick details from AccopsMQ queue and will send updates to HyWorks Controller.

Eventually supporting HyWorks environment to achieve:

1. Live session and power status updates by desktop agents
2. Better performance
3. Scalability
4. Offloading HyWorks Controller from polling agent status for every session

### *Gold Master Limits*

HyWorks v3.3 supports effective resource management using limits defined for every gold master image. These limits define number of reserved VMs can be deployed for a gold master. HyWorks v3.3 supports following types of gold master limits:

- Maximum Total VMs: Total number of VMs to be deployed from gold master
- Maximum Active VMs: Total number of VMs which can run in parallel in one or multiple reservations
- Concurrent Connection Limit: Total number of allowed connections to reserved VMs deployed from gold master. The feature implementation requires controller polling mode as hybrid which means DVM Push services must be active.

Consider an example gold master GM1, which has limits defined as follows:

- Maximum Total VMs = 50
- Maximum Active VMs = 40
- Concurrent Connection Limit = 20

When reservations will be deployed,

- All reservations using this gold master cannot have more than 50 VMs,
- In parallel any number of reservations can run but the count of deployment cannot exceed 40 which means there can be 1 reservation with 40 VMs or 4 reservations with 10 VMs each.
- But as concurrent connection limit = 20; which means though 40 VMs are running in parallel only 20 connections will be allowed.

### *Notifications on Reservation Delete Operation*

HyWorks v3.3 will send notifications on reservation delete operation as well. In previous versions, reservation delete operation was not having any notifications.

### *Option to Retain Desktop on Logout*

In some rare cases, users were facing issues while connecting to course reservations, but they were not able to change their VMs. In HyWorks v3.3, a new option **Retain my desktop** will be enabled.

Once enabled, **Retain my desktop** option will be shown on logout and will be by default checked. However, if user uncheck this option on logout, user assignment will be released and on next logon within same class, user will be assigned with new desktop.

### *Fix Reservation Option for Self-study and Course Self-study Reservations*

If user faces any issues while connecting to self-study and course self-study reservations, they were not having option to fix those and thus making it difficult for them to correct any possible problems which cannot be solved simply.

HyWorks v3.3 will enable Fix reservation option for end-users for self-study and course self-study reservations.

Fix reservation feature provides an opportunity to carry out soft or hard fixes.

- Soft fix will try to restore desktop agent connections or if restoration was not possible then it will reboot desktop VM.
- Hard fix will first attempt to correct out problems by applying soft fixes but if it did not work; then it will recreate the single desktop.

### *Reservation Deployment Options and Improvements*

HyWorks v3.3 provides new and improved deployment options to administrator and incharges for easy management operations.

- **Not Running Reservations:** Not running reservations can have following deployment options, depending on their current deployment state
  - **Deploy now:** Option to start deployment for reservations not yet deployed
  - **Redeploy:** Option to redeploy an already deployed reservations or reservations with redeploy pending status
  - **Deploy More:** Option to deploy more DVMs as per increased count in reservation configurations
  - **Decrease Count:** Option to delete number of DVMs in reservation as pre reduced count. Removal preferences can be set from Default **Reservation Settings**; available options are
    - **Un-assigned desktops only:** Removing only unassigned desktops
    - **Un-assigned desktops first:** Removing unassigned desktops first and then if more removal is needed then it will remove assigned desktops as well
    - **Any desktop:** Removing desktops irrespective of assignment status
- **Running Reservations:** Running reservations can have these options:
  - **Fix Reservation:** Fix desktops with errors, if DVM count is increased it will create additional desktops as well
- **Failed Reservations:** Reservations failed to deploy will present ~~f~~-Following options
  - **Retry:** To try again for deployment if complete deployment has been failed. It can further be extended to redeploy the whole reservation.
  - **Retry with redeploy:** Redeployment of reservation will be attempted

#### **Important Notes:**

- RMS will automatically detect current state of reservations and accordingly these options will be presented.

### *RMS Role Customization*

Until HyWorks v3.3; system defined roles were not editable, in HyWorks v3.3 administrator will be able to change system defined RMS roles.

#### **Important Notes:**

- Changing permissions will not come into effect immediately and may take up to 5 minutes to be reflected
- A role must have access to specific page; while modifying permissions to specific object/operations.

### *HyLabs Corporate & Education Mode support*

By default, HyLabs will run in Education mode but it can also be switched to corporate (Japanese) mode for corporate customers requiring HyLabs.

Enabling HyLabs Corporate mode will display RMS UI contents with corporate terminologies.

### *Announcement Enhancements*

Dashboard page has been enhanced to incorporate following changes:

- Option to search/ sort announcements
- Default sorting of announcements based on its priority

### *Separate Pages for Incharges and Assistants*

New pages **Assistants and Incharges** have been added in HyWorks v3.3, which will be visible to reservation admin role. Enabling reservation admin to

- List view of incharges and assistants in respective pages
- Option to modify their course mappings
- Option to delete incharge/ assistant user from respective pages
- Icons for different types of announcements

### *Gold Master Management Enhancements*

Following improvements have been done on Gold Master page for ease of management:

- Displaying desktop agent status and version on **Gold Master** page
- Option to upgrade desktop agent from **Gold Master** page

### *Configure Reservation Display Name*

In HyWorks v3.3, reservation creation wizard will also provide option to configure **Reservation Display Name** and can configure what should be shown to end-users when they access their reservations from HyWorks clients. Administrator can configure either of the following options:

- Show Course name
- Show Reservation Display Name (Default)
- Show Pool name (Pool name is system generated)
- Reservation Id (System generated)

## **Other Features and Enhancements in HyWorks v3.3-RC1 Release**

HyWorks v3.3-RC1 release is consist of following non-HyLabs features:

### *Licensing Enhancements*

Licensing is being improvised to have following features and enhancements:

- Feature License: HyLabs is now a featured license and will be enabled only when HyWorks License is having HyLabs feature enabled
- Maintenance License addition: HyWorks Controller licenses can be added with maintenance license details. On applying HyWorks license with maintenance license enabled, information will be displayed on dashboard and during major upgraded maintenance license will be checked
- Subscription Licenses: Option to add subscription licenses for supporting subscription model

- NFR Licenses: Option to create and apply NFR licenses for partners environment.

### *Connection Profile Enhancements*

Connection profiles have been improved to support more connection attributes and better control. More connection profile actions have been added for ease of management, as described below:

- **New Actions:**
  - **System defined templates as per use cases:** By default, HyWorks will have system defined templates which can be used to create new connection profiles.
  - **Create connection profile from template:** While creating a connection profile, administrator can choose to create a fresh connection profile or choose to clone it from template
  - **Reset Profile:** Template-cloned connection profile will have options to reset them to system definition

### *Integration of HyPrep in DVM Tools*

HyPrep is Accops fast system preparation tool, which will be delivered with HyWorks DVM Tools as an internal feature and can be used to run alternatively to Sysprep for faster system preparation.

While deploying new DVMs, gold image (source VM) can be modified to use Sysprep (default set) or HyPrep for customization for deployed VMs.

HyPrep can be used to configure following settings of deployed DVMs:

- Owner Name
- Organization
- Computer Name
- Local Admin User
- Local Admin Password
- Primary and Secondary DNS
- Joining machine to AD
- Joining machine to AD with specific OU
- Configuring machine in Workgroup
- Setting up Volume License Key

### *Advanced Settings Page Enhancements*

In HyWorks management console -> System -> Advanced configurations, controls and their respective settings are rearranged for relevance and better understanding. Along with following changes:

- Tagging and grouping of different settings
- Filtering of settings based on tags
- Option to search advanced settings

### **Defects Fixed in v3.3-RC1**

Following issues are resolved in HyWorks v3.3-RC1:

#	Issues Details
<b>RMS/HyWorks Issues</b>	
<b>7727</b>	Reservation DVMs status is not updated after the reservation is inactive Fix Details: After 5 minutes (configurable from advanced settings) of marking reservation as inactive, Controller will check status of DVMs and update its status
<b>6532</b>	Search Option on available client model with client type as Pool is not working on add/edit application wizard.
<b>6466</b>	No end-date schedule is not showing any conflicts with other schedules in same time duration
<b>6252</b>	Course self-study reservation gets created out of defined time slot if end-time is given as 00 hr 00 min
<b>6227</b>	Course self-study reservation creation is possible with single one-time course reservation (eventually does not work but creation is allowed)
<b>6226</b>	Cancel option for Course Self-study and self-study reservation are not available in RMS portal for assistant user
<b>6179</b>	Creator gets the email when a reservation is running with error, even when not subscribed in notification settings
<b>5028</b>	Unable to add LDAP authentication server with SSL enabled and error "Object reference not set to an instance of an object" is shown
<b>4871</b>	Workgroup field does not accept dot {.} in Provisioning profile in RMS
<b>4856</b>	Course self-study more than ' Maximum Units to be Used' can be created
<b>4835</b>	Course self-study should not be allowed to be created post expiry date of parent course reservation

### Previous Release - HyWorks v3.2-SP2-HF2

To get detailed information on previous release of HyWorks, follow the below URL:

<https://support.accops.com/support/solutions/articles/12000058721-hyworks-v3-2-sp2-hotfix2-patch>



## Support

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

## About Accops

Accops Systems Private Limited. under “Accops” brand is a globally leading developer and provider of Enterprise Mobility solutions involving Application and Desktop Virtualization, Secure Remote Access and Privilege Access Management solutions.

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

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