Accops RMS: Incharge Operations Guide

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</table>
# Table of Contents

Table of Contents ................................................................. 3

Introduction ............................................................................. 4
  How does an incharge user get added in RMS? .......................... 4

Authorized Operations by Incharge User ....................................... 5
  Viewing Announcements ......................................................... 5
  Gold Master Connect and Content Management .......................... 6
    How to connect ..................................................................... 6
  Power Operations on Gold Master ............................................. 6
  Reservations Management ....................................................... 7
    Managing Course Reservations ............................................ 7
    Managing Self Reservations .................................................. 18
  Courses ............................................................................... 22
  My Settings ......................................................................... 22
Introduction
Incharge is faculty responsible for course and basically an AD user which can be added as an incharge while creating course.

In Accops Reservation Management System, when a user is assigned with Incharge role, enables it to perform following actions in RMS:

1. Viewing the announcements (notifications) shared by reservation admin
2. Connecting to assigned Gold Master VM and making changes as per lab (course) requirements
3. Reservation Management of the course
   a. Creating reservations for the courses
   b. Modifying course reservations
   c. Cancelling course reservations
   d. Deleting course reservations
   e. Fixing the reservations (running with errors)
4. Creating Self-study and Course Self-study reservations
5. Managing RMS users for Courses
6. Viewing notification settings under screen My Settings

All above operations will be covered in detail in later section of this document.

How does an incharge user get added in RMS?
A user can be designated as Incharge in following two manners:

- User is added under incharge category while creating course from RMS portal
- RMS Users CSV is being imported into RMS and users are given role of Incharge

Once assigned with Incharge role, user will be able to perform above specified activities.
Authorized Operations by Incharge User
In this section, all operations which an incharge user can perform in RMS are explained in detail.

Viewing Announcements
The default landing page for RMS user is Dashboard and for user with Incharge role, it displays the announcements created by reservation admin.
Incharge will be able to view the announcements but will not be able to modify it.

The announcements are shown in a list view and user can click on title (Link) to view more details.
Gold Master Connect and Content Management

An incharge will be able to connect to following types of Gold Master VMs:
- Incharge Gold Master VMs assigned by reservation admin to incharge
- Course default Gold Master (not restricted to admin only)
- Gold Master which is assigned to course and incharge is member of that course

Connection to Gold Master enables incharges for managing contents, which will be required for course.

How to connect

If a Gold Master is powered-on and ready for connection, incharge user will be able connect to it by:
1. Select Gold Master from the list view
2. Click on Connect button
3. Remote session to Gold Master will be initiated on new tab and incharge will be able to make the changes into Gold Master.
   a. On logon incharge user is also provided local administrator privileges.

Power Operations on Gold Master

Incharge will also be able to perform power operations on assigned Gold Master VMs. The power operations are displayed as per current power state of Gold Master.
- For Powered on VMs: Shutdown, Power off, Suspend and Restart operations are available
- For Powered off VMs: Option to Power on will be shown
- For Suspended VM: Option to Resume/Power on will be displayed
Reservations Management
As introduced briefly, incharge will have full control of all course reservations in which he is having the incharge role. Detailed information on reservation management is provided in this section of document:

Managing Course Reservations
Incharge is having full authority on its assigned course reservations and an Incharge can create/edit/delete/cancel operations on course reservations.

Course Reservation Creation
To create a course reservation:
Once the prerequisites are in place, a reservation can be scheduled using following steps:
1. In RMS portal go to Reservations page
2. Click on button Add New Reservation
3. In Add Reservation wizard,
   a. In Option tab, select Reservation For as Course
   b. Click on Next button to navigate to Course Reservation tab
c. In **Course Reservation** tab, select the course for which reservation must be created.
d. Selecting a course auto-fills the Classroom details and lists down the Gold Master VMs associated with the selected course.
e. Select Gold Master to be used for this course reservation (List of all gold master VMs i.e. course default and gold master assigned to this course).
f. **Clone from Snapshot**: Incharge is not allowed to change **Clone from Snapshot** configuration and setting will remain disabled for incharge user.
g. Selection of course also auto-fills the field **Total VMs**, which defines total number of VMs to be cloned from Gold Master.
   i. **Total VMs**
      1. By default, it will be populated with the total number of RMS users added to the course i.e. Incharges, Assistants and Participants, but admin can choose to change the count as well.
      2. The reservation will deploy linked clones as per the given number only.
   h. **Allow Extensions**: On enabling option **Allow Extensions**, incharge during course reservation will be able to extend the reservation by certain time as specified in the configuration. The extensions will be limited to number specified in the course configurations. Following configurations are available for extensions:
i. **Extension Duration:** Duration of extension

ii. **No. of Times:** Allowed number of extensions after the course reservation e.g. 2, then it will allow the reservation to be extended twice with duration as extension duration.

i. **Reuse VMs for each run of reservation:** Checkbox enables the reuse of provisioned VMs in every cycle of reservation, which means the provisioned VMs won’t get deleted after the first cycle is completed. Unchecking this option will provision new VMs before every occurrence of this reservation.

j. **Assignment Life Span:** Defines the assignment life span for reservation. Available options are:

   i. **Permanent:** User will be given the same desktop for all the schedules and all the occurrences of the reservation.

   ii. **Temporary:** User assignment will be limited to single occurrence and on completion of the schedule the assignment will be reset.

k. **Allow Connect Before Reservation Start:** The configuration allows the users to connect the reservation before the actual start time. By default, the setting is configured as zero which means the users will only be able to connect to VMs when reservation is running.

4. Click on **Next** button to navigate to **Schedule** tab

5. **Schedule** tab defines the date, time and pattern, when the VMs will be delivered to end users. In **Schedule** tab,

   a. Define if reservation should be scheduled **One Time** or **Recurring**

   i. For **One Time** schedule,
      1. **Schedule Code:** Provide a unique code for reservation.
      2. Provide appropriate **Start Time/End Time**
3. Provide appropriate **Start Date/ End Date**  
   ii. For **Recurring** schedule - Define recurring pattern as daily or weekly  
1. **Daily Recurring Reservation**  
   a. Provide Course **Start Time** and **End Time**: On which reservation will run (**Duration** filed will be auto-calculated as per provided time range)  
   b. Select **Recurrence Pattern** as **Daily** and provide numeric value from 1-7 for field **Recur Every** (Recur every field will define the recurring schedule, e.g.  
      i. Recur every = 1, means the schedule will occur on daily basis  
      ii. Recur every = 2, means the schedule will occur on alternate day  
      iii. Recur every = 3, means the schedule will occur on every two days and so on  
   c. Select **Recurrence Range** (Start Date and End Date: schedule can also be defined to run infinitely with no End Date)  
2. **Weekly Recurring Schedule**  
   a. Provide **Course Start Time** and **End Time**: On which reservation will run (**Duration** filed will be auto-calculated as per provided time range)  
   b. Select **Recurrence Pattern** as **Weekly** and provide numeric value from 1-52 for field **Recur Every Week(s)** (Recur every field along with selected **Day** will define the recurring schedule, e.g.  
      1. For a weekly Monday reservation: Recur every = 1 and selected day will be Monday  
      2. For a bi-weekly Tuesday, Wednesday reservation: Recur every = 2 and selected day will be Tuesday and Wednesday  
      3. Select **Recurrence Range** (Start Date and End Date: schedule can also be defined to run infinitely with no End Date)  
6. Once schedule is confirmed, click on **Add** button  
7. Proceed to next screen using **Next** button  
8. **Course Self-study Screen**: Applicable when reservation is having multiple schedules or recurring pattern. Allows the admin to enable/disable the course self-study for participants. If allowed, participants will be able to create self-study reservation after the course reservation. Following configurations are available:
a. **Enable Course Self-study:** To allow course self-study for the course reservation

b. **Maximum Units to be used:** The number of units to be allowed for self-study.

c. **Max Duration:** Maximum allowed duration for which a participant can request for self-study.

d. **Allow Extension:** Will be enabled only if extension is allowed for course. If checked, extensions will be allowed as per configurations of reservation configuration. If unchecked, the extensions in course self-study won't be allowed irrespective of configuration in course.

e. **Reservation Window:** If enabled, course self-study reservation will be allowed only in the defined timeslot and this should not be conflicting with the course reservation timing. If enabled, the start time and end time must be defined.

9. Next three tabs are for viewing and editing RMS Users i.e. **Incharges, Assistants** and **Participants** respectively.

   a. It displays the list of all RMS users

   b. Incharges, assistants or participants cannot be removed from course in **Reservation** wizard, but they can be excluded by unchecking the undesired RMS user in respective tab

      i. VMs are not created for excluded users and they won't be able to access any reserved VMs from the respective reservations.

   c. In **Access Policy** wizard, appropriate client groups can be selected which determines if reservation access should be restricted from any defined group of endpoints only.

      i. Gold Master configuration is having highest priority

      ii. Default **Access Policy** is **Inherit access policy from Gold Master**
iii. Incharge can opt to use specific policy as well but this can either be sub-set of the Gold Master configuration.

10. Click on **Save** button on to schedule the reservation.
11. Once reservation is saved, it will be listed in the **Reservations** tab.

**Connecting Course Reservations**

An incharge is authorized to connect to one of the reserved VMs from the course reservations, created in RMS; to connect to a course reservation:

1. In RMS portal go to **Reservations** page
2. Currently running reservations, will be shown with **Connect** button
3. Click on **Connect** button
4. One of the reserved VM will be assigned and configured for incharge user access and connection will be opened in a new tab

**Edit Course Reservation**

An Incharge can modify an existing course reservation by selecting a reservation of list view and click on **Edit** button. Reservation modification can be done to make changes in following properties:

- **Total VMs**: Change the count to a newer value. Reducing the numbers will not delete any existing deployed VMs but increasing the number will deploy new VMs on next preparation cycle.
• **Allow Extensions**: Enable disable or change configuration
• **Reuse VMs for each run of reservation**: Enable or disable the configuration
• **Assignment Lifespan**: Interchanging between option **Permanent** and **Temporary** is possible
• **Modify existing schedules**: Edit the schedule configurations of existing schedules. Existing schedules can also be deleted from edit wizard
• **Add new schedules**: New schedules can be added
• **Modify RMS Users (Incharges, Assistants, Participants)**
• **Modify Access Policies**

On saving reservations new configurations will be come into effect.

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<td>➢ When editing a reservation, reservation type, associated course or gold master cannot be changed.</td>
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### Cancel Course Reservation
Cancelling refers to an action which will end the reservation. While cancelling a reservation, incharge can opt to cancel only the current or upcoming run of the reservation or can cancel the whole series or all occurrences of that reservation.

To cancel a reservation, follow the below steps:

1. Select a reservation from list
2. Click on **Cancel** button
3. In Confirm **Action Dialog**,
   a. Select appropriate option **This Occurrence** or **Whole Series**
4. Re-enter the reservation name to confirm cancel operation and click on **OK** button

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<td>➢ <strong>OK</strong> button is not shown in <strong>Confirm Action</strong> dialog by default and only gets enabled when user types or pastes first 5 letters of reservation Id correctly, for information, reservation Id is shown in <strong>Confirm Action</strong> Dialog itself.</td>
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Important Points for Reservation Cancellation

➢ Cancel operation is irreversible and hence should be performed carefully and only when required.
➢ Once cancelled, a reservation will not be accessible and will get deleted automatically from RMS as per default removal period.
➢ Reservation cancellation can be done, when reservation is in any of the following steady state:
  o Not Running and Not deployed
  o Not Running and deployed
  o Running and Deployed

Reservation cancel option will not be shown when reservation is in any intermediate state, e.g. preparing, cancelling, expiring etc.

Delete Reservation

Delete refers to operation which will delete reservation and all associated entities from RMS and respective dedicated session provider.
Incharge can delete a course reservation for which he is part of. Delete reservation operation is irreversible and will delete all associated deployed VMs in backend. Thus, delete operation should be performed carefully and only when needed. To delete a reservation, follow the below steps:

1. Select a reservation from list
2. Click on Delete button
3. In Confirm Action Dialog,
   a. Re-enter the reservation name to confirm cancel operation and click on OK button
Extend Reservation
If a course reservation is configured to allow extensions, then incharge is having option to extend the reservation as per configurations.
When incharge extends a course reservation, it applies for complete class and the current occurrence will be extended.

Pre-requisite for extending Course reservation:
- Course reservation must be configured to allow extensions.
- Course must be in running state

For extending a course reservation, following steps can be used:
1. Select a running reservation
2. Click on Extend Reservation button
3. Confirm the action and course reservation will now run extended up to configured time

Fix Reservation
Fix Reservation refers to action, which enables incharge to heal the reserved VMs, not running in appropriate state for user connection.

Error Conditions and categorization:
Based on the nature of error conditions, they can be kept in following two categories:
• **Soft Errors**
  - Reserved VMs not having any IP address
  - Reserved VMs with agent status as not responding
  - Reserved VMs having customization pending or in progress

• **Critical Errors**
  - Some VMs were failed to deploy during preparation time
  - VMs are deployed but now cannot be located on DVM Provider (known as Missing)
  - Reserved VMs with customization failed

**Fix Reservation Algorithm**
As explained in above section, errors can be categorized into soft and critical error categories and to fix them two different mechanisms can be used:

• **Fix Soft Errors:** On using **Soft Error Fix**, followed backend events will happen:
  1. Check if VMs are powered on
     a. If not, then power them on
  2. Check if VMs are having IP addresses
     a. If not, re-fetch details from dedicated session provider
  3. If IP is available, check DVM Agent status
     a. If not responding then try to refresh agent status, by connecting to fetched IP
  4. If after above three steps, desktop does not come into responding state, then attempt to restart the DVM
  5. It will go for a wait of 2 minutes (refresh interval)
  6. As per the status of above operations, log the status and exit

• **Forcefully Fix Errors:** Selecting this option will use the following mechanism:
  1. VMs having soft errors:
     a. Apply soft-fix for the VMs having soft errors
     b. If soft-fix does not work, then delete and recreate those VMs
  2. VMs having critical errors:
     a. Deploy missing or failed VMs
     b. Delete VMs having customization running, pending or failed status and recreate them

**Fix Reservation Process**
To fix a reservation following process can be followed:

1. **Identify Reservations running with error:**
   - When ready VMs count in running reservation is less than total VMs then reservation is running with error and status is displayed as Red. On mouse hover, it also displays the number of reserved VMs having issues.
• If reservation is running with no errors, its status will be shown as running with **Green** background.

2. **Understanding Error Conditions:**

Whenever any reservation is shown to be running with error and shown with Red – Running status, following steps can be used to understand the error conditions:

• Hover mouse on reservation status, it should display the number of reserved VMs having issues.
• Click on **Fix Reservation** button, it will display a dialog with detailed list of reserved VMs having errors:

![Reservation Desktop Information For - 'Res-YQ884R'](#)

**Apply Fix**

Based on error details, incharge can decide the type of fix mechanism to use, following two processes can be used:

1. **Fix Soft Errors:** If there are only soft errors, then incharge can opt to go for Fix Soft errors (NOT Selecting checkbox **Forcefully fix errors**)
2. **Forcefully Fix Errors**: The option can be used in following two conditions:
   a. Errors are not corrected even after applying the soft fix
   b. Reservation is having critical errors and forceful fix is required.

Incharge can choose to either fix soft errors or select Fix All errors.
Fix reservation process will take some time. Another fix reservation operation cannot be started until first fix reservation is done.
Fix reservation will reboot the VMs if needed.
Fix All reservation will recreate VMs that are not corrected after reboot

**Managing Self Reservations**
Though incharge manages course reservation, it can also create reservations for him/her self as well.
Following two types of self-reservations are possible:
- Course Self-study
- Self-study

**Course Self-study Reservations**
Course Self-study is reservation which re-uses the VMs from parent course reservation in off course reservation hours.
Incharge can create course self-study reservation for courses for which reservation is created with course self-study enabled.

**Create Course Self-study Reservation**
To create a course self-study reservation, follow the below steps:
1. In RMS portal go to **Reservations** page
2. Click on button **Add New Reservation**
3. In **Add Reservation** wizard,
   a. In **Option** tab, select **Reservation For** as **Course Self-study**
   b. In **Course Self-study** tab, select **Course, Gold Master and Reservation** for which course self-study needs to be created and click on **Next** button
   c. In **Schedules** tab, select appropriate schedule and click on **Save** button
d. Course self-study reservation will be created and on scheduled time will be prepared for incharge.

Incharge can edit/delete/cancel/fix course self-study reservation created by him.

**Edit Course Self-study Reservation**
Incharge can edit course self-study reservation created by him to change time slot. For running course self-study reservations start time cannot be edited.

**Delete Course Self-study Reservation**
Incharge can delete course Self-study reservation created by him. Deletion operation is irreversible and hence should be performed carefully and when needed.

**Cancel Course Self-study Reservation**
Incharge can cancel course self-study reservation created by him. Cancel operation is irreversible and thus should be done carefully and when needed.

**Fix Course Self-study Reservation**
Incharge can fix course self-study reservation by him. Fix reservation process is same as defined in section Fix Reservation.

**Self-study Reservations**
Apart from course reservations and course self-studies, institutions can also have one general purpose self-study reservations, which can be used by any RMS user to do self-study. Incharge can manage self-study reservation for other users including himself.

**Create Self-study Reservation**
To create self-study reservation, following steps can be used:
1. In RMS portal go to **Reservations** page
2. Click on button **Add New Reservation**
3. In **Add Reservation** wizard,
   a. In **Option** tab, select **Reservation For** as **Course Self-study**
      i. In **Self-study** tab, select appropriate, **Gold Master** and set count for **Number of units to be used** (This specifies the number of reserved VMs which will be created for self-study reservation)
         1. While creating self-study for self only, the count should be kept as 1 only.
         2. If self-study is being created for multiple RMS users, then count should be set as per requirement
   b. In **Schedules** tab, set appropriate time slot and move to **Participants** tab
   c. In **Participants** tab, search and add appropriate participants
      i. While creating self-study for self, incharge should add his user in the list of participants
ii. If creating self-study for multiple participants, then all required participants should be added
d. Click on **Save** button, self-study reservation will be prepared as per specified timeslot.

*Edit Self-study Reservation*
Incharge can edit Self-study reservation created by him to change VM count or time or participant. For running reservations start time cannot be modified.

*Cancel Self-study Reservation*
Incharge can cancel self-study reservation created by him. Cancelling reservation will delete the VMs. Cancel reservation operation is irreversible and should be done when needed.

*Delete Self-study Reservation*
Incharge can delete self-study reservation created by him. Deleting reservation will delete the VMs created. Delete reservation operation is irreversible hence should be done carefully and when needed.

*Fix Self-study Reservation*
Incharge can fix course self-study reservation by him. Fix reservation process is same as defined in section [Fix Reservation](#).
Courses
An Incharge can view and modify course configurations, in which he is designated as incharge. Please note, an incharge cannot create a new course and will only be able to manage it once designated as incharge.

To modify a course, follow the below steps:

1. In RMS portal go to Courses page
2. Select a course from list and click on Edit button
3. Following changes can be done:
   a. Change Course Details: Course Code, Course Name, Description, Department, Group and Classroom
   b. Add or remove incharges
   c. Add or remove assistants
   d. Add or remove participants
4. Click on Save button to save the changes

My Settings
My Settings page will display the configured Email address for the Incharge. The configurations are fetched from authentication server and cannot be modified by incharge.
My settings configurations are used to send notifications to the user for his/her reservations.
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’ 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.