

IBM TRIRIGA
Version 10 Release 5

*Reservation Management
User Guide*



Note

Before using this information and the product it supports, read the information in "Notices" on page 39.

This edition applies to version 10, release 5, modification 0 of IBM TRIRIGA and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Managing reservations and reservable resources

You use the IBM® TRIRIGA® Workplace Reservation Manager application to manage the reservations of shared rooms such as meeting spaces and workspaces, shared equipment such as projectors, and shared vehicles. You can request a reservation as a self service user, create a reservation as a help desk agent, and process requests as an event center coordinator. You can incorporate service providers such as food service vendors, and work tasks such as room setup, room breakdown, equipment delivery, and equipment pickup. For added flexibility in reserving rooms, you can also integrate the application with Microsoft Exchange and Microsoft Outlook.

Chapter 2. Overview of reservation management

To manage your reservations and reservable resources with the IBM TRIRIGA Workplace Reservation Manager application, you must understand the reservation types in your company practices. You must also understand the application portals that are available to your company role.

Reservation types

From setting up the application to creating a reservation, there are many types of reservation request classifications, reservation classes, and reservation forms. The reservation request class defines which work tasks are generated for a reservation. The reservation class defines which spaces require approval, and which roles can reserve them. The reservation form defines which tabs, sections, and fields are necessary for the request or resource.

Reservation request classes

During the reservations setup, the application contains several main reservation request classifications to drive the work task process. For each request class, the service plan is defined. Then, for each service plan, the work task templates are defined. The work task templates contain the task details that are applied when work tasks are created for a reservation. The reservation request classes include the following types:

Reservation request class	Description
Meeting space reservation	This request class drives the work task templates for room setup, room breakdown, and room cleanup.
Workspace reservation	Unlike the request class for the meeting space, this request class does not drive the room setup, room breakdown, and room cleanup.
Asset reservation	This request class drives the work task templates for equipment delivery and equipment pickup.
Vehicle reservation	This request class drives the work task templates for vehicle delivery and vehicle pickup.

Reservation classes

Also, during the reservations setup, the Space form is used to identify the class of the reservable space. The reservation classes include the following types:

Reservation class	Description
Private space	This space can be reserved by the Reservation Coordinator through the Concierge Reservation form only.
Requestable space	This space can be reserved by any role, but the reservation requires approval by the Resource Owner.
Reservable space	This space can be reserved by any role, but the reservation does not require approval by the Resource Owner.

Reservation forms

Creating a reservation involves several similar forms, but each form is specific to a particular request or resource. Depending on your role, the reservation forms include the following types:

Form	Description
Request for Reservation	This form serves a particular self-service scenario. If your role is required to submit requests to a Reservation Coordinator, you can request to reserve available meeting spaces, workspaces, equipment, and vehicles.
Concierge Reservation	This form serves the concierge scenario. If you want to reserve a private space, you can call the Reservation Coordinator. Then, the Reservation Coordinator can submit a private space reservation through this form.
Room Reservation	This form serves a typical self-service scenario for many roles. You can select one or more rooms for the reservation. If a food or equipment service provider is associated with the meeting space, you can add a food or equipment order with the room reservation.
Equipment Reservation	This form serves a typical self-service scenario for many roles. You can select one or more equipment items for each equipment order.
Vehicle Reservation	This form serves a typical self-service scenario for many roles. You can select one or more vehicles for each vehicle order.

Reservation roles

When you sign into the application, you are taken to your home page. Your home page is your entrance into the application. From your home page, you can review your home portal or use the menu system to open the process portals available to your role. Use your menu bar to open other available portals. Based on your role, your application might consist of one or many portals.

The setting of the IBM TRIRIGA home page is set in the Default Portal section of your profile record. Your home portal or process portals might vary, based on your role in the company and your security and license access. However, your portals contain a combination of the components and section types described in this discussion.

In turn, each portal consists of portal sections. Each portal section serves a specific function and shows the information that applies to your business role. The portal sections in your portal are configured by your application administrator for your role in the system.

Application administrator

The application administrator is the user role that typically sets up and configures the application.

The primary responsibility of the application administrator is to manage the IBM TRIRIGA application for the company. This responsibility includes creating and managing licenses and security groups, setting up user access, and maintaining system-level and application-level standards such as classification and list values.

When you sign in as an Application Administrator role, the home portal is the Application Administrator portal. An example of the Application Administrator portal includes the following portal sections:

- Reminders – Application Administrator
- Last Visited
- Application Administration
- License and Security
- Application Administration - Utilities

Request central role

The self-service requestor is the user role that typically submits and monitors requests in the application.

The primary responsibility of the self-service requestor is to submit requests as needed with the IBM TRIRIGA application. This responsibility includes locating the spaces that are affected by service requests, viewing the calendar to request reservations, and monitoring the status of active requests. In the application, the Request Central role is tailored for the self-service requestor.

When you sign in as a Request Central role, the home portal is the Request Central portal. An example of the Request Central portal includes the following portal sections:

- Request Central
- Related Links - Request Central
- Last Visited
- Reminders – Request Central
- My Active Requests
- My Calendar
- My Reservations
- Locate Space

Contact center agent

The contact center agent is the user role that typically takes help-desk calls from employees, and specifies the call details in the application.

The primary responsibility of the contact center agent is to take help-desk calls from company employees. This responsibility includes specifying the call details in the IBM TRIRIGA application, and attempting to resolve issues during the call so that service requests can be avoided. Other responsibilities include updating the callers with the status of the service requests.

When you sign in as a Contact Center Agent role, the home portal is the Contact Center portal. An example of the Contact Center portal includes the following portal sections:

- Reminders – Contact Center
- Related Links – Contact Center
- Last Visited
- Follow-Up Tasks
- My Call Records

Reservation coordinator

The reservation coordinator is the user role that typically manages reservable rooms and their related services in the application.

The primary responsibility of the reservation coordinator is to manage a portfolio of reservable rooms in the IBM TRIRIGA application. This responsibility includes setting up the reservable room types, room layout options, and service contracts, and monitoring the delivery and pickup of food and equipment orders. Other responsibilities include serving as a concierge for private rooms, taking caller requests for reservations, and analyzing utilization metrics to optimize reservable space and equipment.

When you sign in as a Reservation Coordinator role, the home portal is the Reservation Coordinator portal. An example of the Reservation Coordinator portal includes the following portal sections:

- Reminders – Reservation Coordinator
- Performance Metrics – Reservation Coordinator
- Related Links – Reservation Coordinator
- My Meeting Spaces
- My Hoteling Spaces
- Reservation – Room Utilization
- Reservation – Equipment Utilization

Chapter 3. Setting up reservations

Before the reservation process begins, certain activities are necessary to prepare the application for your room reservations, equipment reservations, and vehicle reservations. These setup activities include editing the details of a reservable room, such as its name, layout, reservation type, calendar, group, and room services. The reservation type determines whether the room is a private, requestable, or reservable room. The reservation calendar defines the working hours and non-working events for the room. The reservation group defines the members who can manage the room.

Reservation Space Groups

A reservation space group combines two or more individual spaces to make one larger space, which can have a greater capacity than the individual spaces.

The following information applies to reservation space groups:

- Reservation space groups can be used only for single reservations, not for series reservations.
- Reservation space groups can be used only for reservations that are created in IBM TRIRIGA, not for reservations that are created in Microsoft Outlook.
- Reservation space groups are not available in IBM TRIRIGA CAD Integrator/Publisher.
- The spaces that are included in a reservation space group are called dependent spaces.
- When a reservation space group is booked for a reservation, the dependent spaces are also booked. The dependent spaces are managed by IBM TRIRIGA and are not visible to the person who makes the reservation.
- When a space that belongs to a reservation space group is booked, all of the reservation space groups that the space belongs to are also booked. The additional bookings are managed by IBM TRIRIGA and are not visible to the person who makes the reservation.
- Reservation space groups are not included in utilization metrics.
- After reservation space groups are created, they can be managed in the Location hierarchy or in the Reservation Space Groups form.

Setting up application settings

Use your application settings to specify the service activation durations, tentative booking durations, and projector specification classes. You can also specify the colors to use in calendar views for declined and dependent resource reservations. If the IBM TRIRIGA Workplace Reservation Manager application is integrated with Microsoft Exchange, specify the Microsoft Exchange properties.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Tools > System Setup > General > Application Settings**.
2. In the **Reservation Settings** tab, specify the settings.
3. Save the record.

Setting up reservation calendars

Use your reservation calendars to specify the working hours and non-working events for your reservable resources. After you activate your calendars, open each reservable resource to select its calendar.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

About this task

The steps demonstrate one way to create a reservation calendar. In this example, the resources that you associate with this reservation calendar will be available between 1 January 2015 and 31 December 2018 on Mondays - Fridays between the working hours of 08:00 and 20:00.

Procedure

1. Select **Tools > System Setup > General > Calendars**.
2. Click the **Add** action and select the **Reservation Calendar** option.
3. Name the calendar and specify the details.
4. Create the draft.
5. In the Working Hours section, click **Add**.
6. Select the **Start Date/Time** calendar icon. Select a date and time at which you want this calendar to become active , for example, 01 January 2015 at 08:00
7. Select the **Duration** calendar icon and specify a duration , for example, 3 years and 12 hours. In this example, the **End Date/Time** is displayed as 12/31/2018 20:00.
8. Select the days of the week on which this calendar is active ; for example, select the check boxes for Monday through Friday.
9. Activate the record.
10. Click **Save Recurrence**.
11. Save and active the record.

Setting up work task templates

Use your work task templates to specify the task details that are applied when work tasks are created for a reservation. The application contains several main reservation request classifications: meeting space, workspace, asset, and vehicle. For each request class, define the service plan. Then, for each service plan, define the work task templates.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Tools > Administration > Classifications**.
2. In the classification hierarchy, select **Request Class > Reservations**.
3. Open the reservation request class.
4. Open the service plan.
5. Add or edit the work task template.
6. Specify the details.
7. Save the template.

Setting up blanket purchase orders

Use your blanket purchase orders to specify the food services for your reservable spaces. After you activate your blanket purchase orders, open each reservable space to select its food service contracts.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Contracts > Contracts > Blanket Purchase Orders**.
2. Click the **Add** action.
3. Specify the details, including the details for each product and service.
4. Create the draft.
5. Activate the record.

What to do next

If you need to recalculate the formula fields when the purchase order is in Issue status, click the Refresh button.

Setting up resource entitlements

Use your resource entitlements to specify the functional role of each user, and the reservable resources that each role is entitled to reserve. For each person, define the functional role. For each reservable resource, define the resource specification. Then, for each resource specification, define the functional roles that have entitlements.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Portfolio > People**, then select a people type. The people type can be employees, consultants, or external contacts.
2. Open the people record.
3. Specify the functional role.
4. Activate the people record.
5. Open the resource record.

Resource	Action
Workspace	Select Portfolio > Locations > Spaces . Open the space record. In the Reserve tab, verify that the workspace is selected for the Room Type field. Select the space standard specification for the Work Space Entitlement field. Open the linked space standard specification.
Equipment item or vehicle	Select Portfolio > Assets , then select an asset type. Open the asset record. In the General tab, open the linked specification.

6. In the specification record, specify the entitlements.
7. Activate the specification record.
8. Activate the resource record.

Setting up inventory items

Use your inventory items to create the reservable assets when the items are received in inventory. To set up inventory, define the primary locations with their equipment and buildings. For each primary location, define the storage areas. For each inventory item, define the equipment specification, primary location, and storage area. Then, receive the items into inventory to create the assets. Finally, open each asset to define it as reservable.

Before you begin

You must sign in as an Application Administrator or Inventory Manager.

Procedure

1. Select **Inventory > Manage Inventory > Inventory Locations**.
2. In the inventory locations hierarchy, create or open a primary location.
3. In the **Service Locations** tab, specify the equipment and buildings.
4. Activate the record.
5. In the inventory locations hierarchy, create or open a storage area under a primary location.
6. Activate the record.
7. Select **Inventory > Manage Inventory > Items**.
8. Click the **Add** action.
9. Specify the equipment specification, primary location, and storage area.
10. In the **Inventory Type** field, select the reservable asset.
11. Select the **Create Asset on Receipt** check box.
12. Click the **Order/Receipt** action.
13. In the **Transaction Type** field, select the inventory received.
14. Confirm that the **Create Asset on Receipt** check box is still selected.
15. Click the **Post** action.
16. In the **Asset Details** tab, open each asset record.
17. In the **General** tab, select the **Reservable** check box.
18. In the **Reserve** tab, specify the details.
19. Activate the record.

Setting up assets

Use the **Reserve** tab of the Asset form to specify the reservation details for the equipment item, vehicle, or other asset.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Portfolio > Assets**, then select an asset type.
2. Open the asset record.
3. In the **General** tab, select the **Reservable** check box.
4. In the **Reserve** tab, specify the details.
5. Activate the record.

Setting up spaces

Use the **Reserve** tab of the Space form to specify the room name, room layout, reservation type, room services, and other reservation details for the space.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Portfolio > Locations > Spaces**.
2. Open the space record.
3. In the **General** tab, select the **Reservable** check box.
4. In the **Reserve** tab, specify the details.
5. Activate the record.

Setting up reserve bulk updates

Use the bulk update process to update the reservation details for multiple reservable resources at a time, without leaving the process form. These reservable resources can include rooms, equipment, or vehicles.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Requests > Set Up > Reserve Bulk Update**.
2. In the **Rooms** tab, specify the details.
3. Select the reservable rooms, and click the **Update** action.
4. In the **Assets** tab, specify the details.
5. Select the reservable equipment or vehicles, and click the **Update** action.

Setting up reservation groups

Use your reservation groups to specify the rooms that the group manages, and members of the group. After you save your groups, each reservable room shows its selected group.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Requests > Set Up > Reservation Group**.
2. Click the **Add** action.
3. Specify the details.
4. Create the record.

Setting up reservation space groups

To create a reservation space group, you specify the reservable spaces that are part of the reservation space group.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

About this task

Procedure

1. In the Location hierarchy, select a building and floor for the reservation space group.
2. In the **Hierarchy** menu, select **New > Reservation Space Group**.
3. In the General tab, name the reservation space group, select **Reservable**, and select the spaces for the reservation space group.
4. In the Reserve tab, specify the details and click **Create Draft**.
5. Click **Activate**.

Setting up resource downtime

Use your resource downtime records to specify the reason, duration, and resources that are going offline. After you activate your records, edit any affected reservations.

Before you begin

You must sign in as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Requests > Manage Reservations**.
2. In the Related Links portal section, select **Administration > Resource Downtime**.
3. Click the **Add** action.
4. Specify the details.

5. Create the draft.
6. Activate the record.

Setting up reservation policies

Use your reservation policies to specify how far in the future a set of rooms can be reserved, and which users can make the future reservations. For example, a company can use reservation policy records to allow advance booking by selected administrative assistants before the rooms are opened for booking by general users. Reservation policy records can also be used to designate specific rooms for specific users such as to secure a block of rooms for the use of a specific product team. After the policy time period ends, the rooms are available for other users to reserve.

Before you begin

You must sign in as an application administrator or reservation coordinator.

About this task

Reservation policy records for a specific room cannot have overlapping times. Only the specified users can make reservations within the policy time period. In the Available Rooms section, other users can see the rooms with effective reservation policies. However, when they try to book a room with an effective reservation policy, a notification informs them that the room is restricted. If no users are specified, the rooms are available to all users during the policy time period. Reservation policies that are in an Active or Revision in Process status are in effect; reservation policies in a Draft status are not in effect.

Procedure

1. Select **Requests > Set Up > Reservation Policies**.
2. Click the **Add** action.
3. Specify the details.
4. Create the record.

Implementing a defined search for a reservation query

The number of results from a reservation query can be limited. For example, you can specify that the reservation query stops processing after returning 10 results. Limiting the number of results reduces the time that is required to run a reservation query.

About this task

To set up the defined search, you modify the related business object and the form to include a `triAvailabilityResultsLimitNU` field. If the value of the `triAvailabilityResultsLimitNU` field is zero or less, or if the field does not exist, the defined search feature is disabled. The specified number of results are returned in random order.

Procedure

1. Add a `triAvailabilityResultsLimitNU` field to the contextual business object of the reservation query and publish the business object.

2. Add the `triAvailabilityResultsLimitNU` field to the form and publish the form.
3. To define the result set of a reservation query, specify the maximum number of results in the field on the form.

Chapter 4. Reserving rooms, equipment, and vehicles

You can create reservations for yourself or for someone else. Alternatively, you can request that someone else create reservations for you. To save time, you can set your preferences for payment method, meeting spaces, workspaces, and vehicles.

Reservations

There are several different methods of creating reservations that depend on your role. These roles include the Request Central role, Contact Center Agent, Reservation Coordinator, and Microsoft Outlook user. Regardless of the method that you use, these different reservation methods trigger the same set of business rules for the booking status and work tasks.

Reservation creation process flow

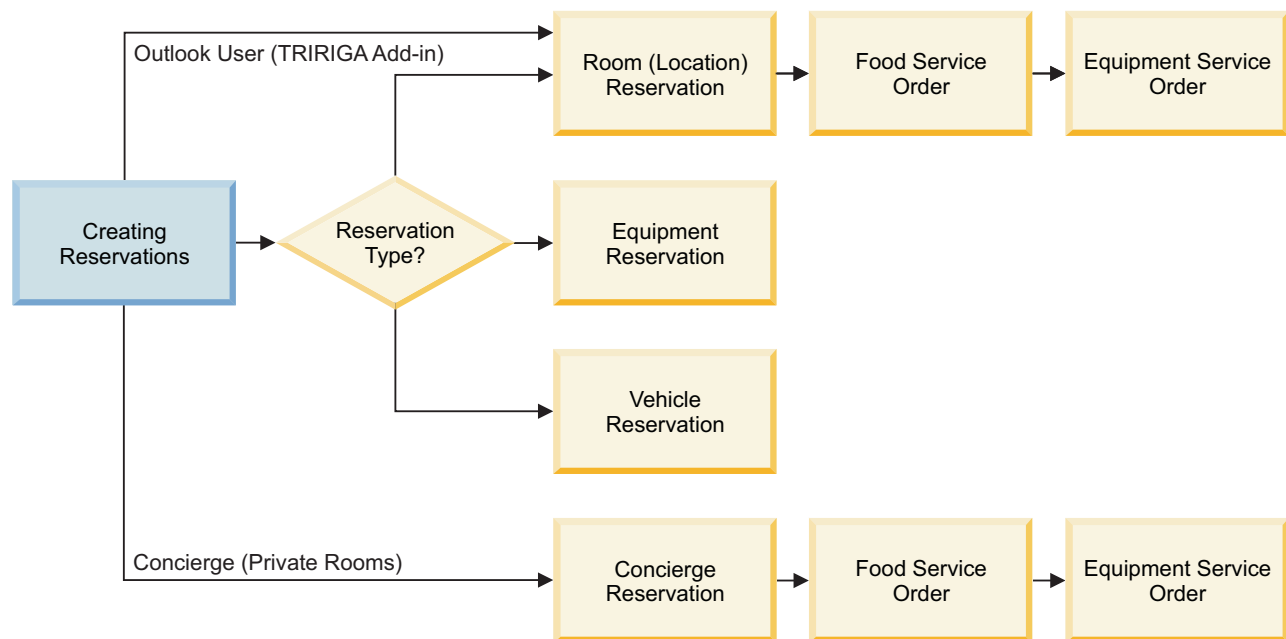


Figure 1. Flow diagram for creating the different types of reservations

Reservation roles and scenarios

Although the different methods of creating reservations are similar, the differences come from the varying portals and processes that the reservation roles use.

Role	Scenario
Request Central role	This role signs into the Request Central portal. In this self-service scenario, the Request Central role creates a reservation, specifies the details, and submits the reservation. The active request becomes visible to all of the Reservation Coordinators who manage the reservable spaces within the requested building.

Role	Scenario
Contact Center Agent	This role signs into the Contact Center Agent portal and processes caller requests to reserve non-private rooms. In this help-desk scenario, the Contact Center Agent answers a call, creates a reservation, specifies the call details, and submits the reservation for the caller.
Reservation Coordinator	This role signs into the Reservation Coordinator portal. <ul style="list-style-type: none"> The first scenario processes online requests for reservations. In this request scenario, the Reservation Coordinator receives a request, creates a reservation, specifies the request details, and submits the reservation for the requestor. The second scenario processes caller requests to reserve private rooms. In this concierge scenario, the Reservation Coordinator answers a call, creates a reservation, specifies the call details, and submits the reservation for the caller.
Microsoft Outlook user	If the IBM TRIRIGA Workplace Reservation Manager application is integrated with Microsoft Exchange, this user opens Microsoft Outlook. In this self-service scenario, the user creates a reservation, specifies the details, and submits the reservation.

Reservation creation

Creating a reservation triggers the following business rules:

- When you add rooms to the reservation before you submit the reservation, the booking status of each added room changes to Tentative. If the added rooms are still available after you submit the reservation, the booking status of each added room changes from Tentative to Accepted. If the room is not available and the status is Declined, you can select a new room for reservation or adjust the meeting time. If the rooms are available after you submit the reservation, the booking status changes to Accepted.
- In the User calendar, you can view only the reservation time. If a room layout includes a setup time and breakdown time, these times are blocked off as busy periods before and after the reservation duration. Work tasks are also created for room setup and room breakdown. You can view the reservation times and the busy periods in the Space/Room calendar. You can view available rooms with the busy periods blocked off in the **Find Available Times** tab. The **Available Rooms- List View** tab shows only the available rooms without the busy periods.
- If you order food services, a purchase order record is created.
- If you reserve equipment or order equipment services, the equipment is reserved for the same reservation duration. Work tasks are also created for equipment delivery and equipment pickup.
- If you reserve vehicles, the vehicles are reserved for the same reservation duration. Work tasks are also created for vehicle delivery and vehicle pickup.

Reservation change

Changing a reservation triggers the following business rules:

- When you add rooms to the reservation before you submit the reservation, the booking status of each added room changes to Tentative. If the added rooms are still available after you submit the reservation, the booking status of each added room changes from Tentative to Accepted. If the room is not available and the

status is Declined, you can select a new room for reservation or adjust the meeting time. If the rooms are available after you submit the reservation, the booking status changes to Accepted.

- In the User calendar, you can view only the reservation time. If a room layout includes a setup time and breakdown time, these times are blocked off as busy periods before and after the edited reservation duration. The original work tasks are also retired and different work tasks are created for room setup and room breakdown. You can view the reservation times and the busy periods in the Space/Room calendar. You can view available rooms with the busy periods blocked off in the **Find Available Times** tab. The **Available Rooms- List View** tab shows only the available rooms without the busy periods.
- If you order food services, the original purchase order record is retired and a different purchase order record is created.
- If you reserve equipment or order equipment services, the equipment is reserved for the edited reservation duration. The original work tasks are also retired and different work tasks are created for equipment delivery and equipment pickup.
- If you reserve vehicles, the vehicles are reserved for the edited reservation duration. The original work tasks are also retired and different work tasks are created for vehicle delivery and vehicle pickup.

Reservation cancellation

Canceling a reservation triggers the following business rules:

- If a room layout includes a setup time and breakdown time, the work tasks are retired for room setup and room breakdown.
- If you cancel food services, the purchase order record is retired.
- If you cancel equipment or equipment services, the work tasks are retired for equipment delivery and equipment pickup.
- If you cancel vehicles, the work tasks are retired for vehicle delivery and vehicle pickup.

Creating reservations

Use your calendar to reserve available meeting spaces, workspaces, equipment, and vehicles. If a food or equipment service provider is associated with the meeting space, you can add a food or equipment order with the room reservation.

Before you begin

You must sign in as a Request Central role, Contact Center Agent, or Reservation Coordinator. If you are a Microsoft Outlook user, the IBM TRIRIGA Workplace Reservation Manager application must be integrated with Microsoft Exchange.

Procedure

1. Create the reservation.

Role	Action
Request Central role	In the Request Central portal section, select Reservations > My Calendar . In the Calendar section, select the day to create the reservation.
Contact Center Agent	Select Requests > Contact Center . In the Calendar section, click the Create Reservation action.

Role	Action
Reservation Coordinator (request scenario)	Select Requests > Manage Reservations . In the Requested For section, select the requestor. In the Calendar section, select the day to create the reservation.
Reservation Coordinator (concierge scenario)	Select Requests > Manage Reservations > Concierge .
Microsoft Outlook user	In a new appointment or meeting, select the IBM TRIRIGA Reserve option.

2. Specify the details.

Section	Action
Reservation For	Select the requestor who is making the reservation request, such as yourself or someone else. If you select the latter option, the form shows the Requested For section and Requested By section. The form shows this Reservation For section if you are selected by another user to be a reservation delegate for that user.
Requested For	Select the name of the indirect requestor for the reservation.
Requested By	Select the name of the direct requestor for the reservation.
Reservation Details	Specify the subject, duration, and recurrence for the reservation.
Search Criteria	For room and concierge reservations, identify the criteria for the room search.
Select Pickup Location	For equipment and vehicle reservations, identify the city, site, and building for pickup.

3. View the available rooms, equipment items, or vehicles.
4. Add one or more rooms, equipment items, or vehicles.
5. Save the reservation.
6. Submit the reservation.

Creating recurring reservations

Recurring reservations can reserve spaces, equipment, and food services for a series of meetings. If the selected space is not available for every occurrence of the series, the selected space is placed on hold for the available times, and the exceptions are displayed. You can assign available alternate spaces to the exceptions.

About this task

You can manually assign an available room to an exception or have IBM TRIRIGA automatically assign available rooms to any or all of the exceptions. For the automatic assignment, if no rooms are available on the same floor as the room that is on hold, the search expands to spaces in the same building. If there are no available rooms in the same building, the search expands to spaces in the same property.

By default, up to two months of exceptions are displayed. You can change the search duration in the **Exception Check Duration** field that is in the **Reservation Settings** tab in the Application Settings form.

Procedure

1. In the Request Central portal section, select **My Calendar**.
2. In the Calendar section, select the day to start the recurring reservation and click **Create**.
3. In the Reservation Details section of the Room Reservations form, specify the reservation type and the subject.
4. Click **Recurrence**.
5. In the **Recurrence** tab, specify the details about the recurrence and click **Save Recurrence**.
6. In the Search Criteria, specify the room search criteria.
7. Select a room and click **Book Selected Room(s)**.
8. If the room you selected is not available for all of the occurrences, in the Exceptions section, assign the room exceptions to alternate rooms and click **Accept Assignments**.
9. Review the reservation details and click **Submit**.

What to do next

If the recurring reservation has exceptions, and if food services or equipment is needed for the exceptions, you reserve those items manually. In the calendar view, open each exception and make the food services or equipment reservations for each exception.

Requesting reservations

If your role is required to submit requests to a Reservation Coordinator, you can request to reserve available meeting spaces, workspaces, equipment, and vehicles.

Before you begin

You must sign in as a Request Central role.

Procedure

1. Go to the Request Central portal section.
2. Select **Reservations > Request for Reservation**.
3. Specify the details.
4. Create the draft.
5. Submit the request.

Setting reservation preferences

To save time, you can set your preferences for payment method, meeting spaces, workspaces, vehicles, and delegates in your profile record. When you reserve rooms, equipment, and vehicles, these preferred settings are displayed by default. When you select delegates, these people can create reservations in their calendars for you.

Before you begin

You must sign in as a Request Central role, Contact Center Agent, or Reservation Coordinator.

Procedure

1. Click the **Welcome**, *User Name* link.
2. In the **Preferences** tab, specify your preferences.
3. Save the record.

Examples of reserving resources in Microsoft Outlook

In Company ABC, IBM TRIRIGA Workplace Reservation Manager is integrated with Microsoft Exchange and Microsoft Outlook. In Microsoft Outlook, users can create appointments and use IBM TRIRIGA forms to reserve company resources. Company resources can include rooms, workspaces, catering, and equipment such as projectors and video conferencing. Depending on their IBM TRIRIGA user role, users can make and manage reservations of common or private resources for themselves or for other company employees.

Creating a quick meet reservation in Microsoft Outlook

Microsoft Outlook users who need to reserve a room on short notice can quickly set up an appointment, select the attendees, reserve the room, and send the reservation information to the attendees. Typically, the users know which room to reserve, and there are no requirements for other resources such as food or equipment.

Background

Anita is a Microsoft Outlook user who is asked by her manager to find a room for an immediate staff meeting. She is familiar with the rooms in the Grand Avenue building, and she wants to book the Green Room for a one-hour meeting.

Step 1: Create the appointment

Anita opens the Microsoft Outlook application, opens a new appointment, and specifies the appointment time. In the Scheduling Assistant, she specifies the attendees and includes the Green Room as an attendee. The Microsoft Outlook appointment process searches for the Green Room availability information in the IBM TRIRIGA environment.

Step 2: Select the room

Anita checks the availability view to see when the Green Room is available. She can view the room availability as either a GANTT chart or as a graphic interface. If the Green Room is available at the specified appointment time, she selects the room. If the Green Room is not available, she slides the start and end bars to an available time and selects the room.

Step 3: Send the appointment

Anita sends the appointment invitation. If there are room charges, she specifies the payment information for the charges and submits the information. Microsoft Outlook adds the appointment to Anita's Microsoft Outlook calendar and sends the invitations to the attendees. TRIRIGA Workplace Reservation Manager creates a reservation record in the IBM TRIRIGA environment and adds the reservation to Anita's My Calendar portal. She does not need to interact with the IBM TRIRIGA reservation. She can continue to manage the appointment in Microsoft Outlook.

Reserving rooms and services in Microsoft Outlook

A meeting at an international company might require the reservation of multiple conference rooms at different geographical locations. Each location might have requirements for other company resources such as food services and equipment for the selected rooms. In Microsoft Outlook, authorized users can search for and reserve available resources that are based on their specified criteria by using the IBM TRIRIGA reservation form. Typically, the users are not familiar with the available rooms and need to compare the rooms to know which rooms to select.

Background

Anita is a Microsoft Outlook user who wants to create a reservation for two rooms that require food and equipment services. She wants to make arrangements for a four-hour meeting to occur next week. The meeting includes 10 people in the Dallas office and 5 people in the London office. The meeting requires computer projection equipment and a catered meal at both locations, plus a dial-in number and a video conference URL. The administrative rights that the system administrator set for Anita allow Anita to view and create appointments for every employee in the department.

Step 1: Create the appointment

Anita opens Microsoft Outlook to check the schedules of the required attendees. She creates an appointment for the meeting, and she attaches a Microsoft Word file of the agenda to the appointment.

Step 2: Search for the rooms

Anita selects the **IBM TRIRIGA Reserve** option to open the IBM TRIRIGA reservation form in the Microsoft Outlook appointment. She selects the main corporate campus in Dallas. She begins a search that includes the room and the services criteria:

- Meeting date, which is populated from the Microsoft Outlook appointment
- Meeting time period
- Number of attendees: 10
- Room layout: Round table
- Catering available: Yes
- Network connection: Yes
- Telephone conference: Yes
- Video conference: Yes
- Whiteboard: Yes

Step 3: Review the room results

After Anita specifies the criteria for the Dallas office, the search results include three rooms in the list view. She is familiar with the Orange Room conference room, but she checks the other two rooms to make sure that they are appropriate for the meeting. She selects the Green Room conference room, and she views images of the room. She sees a graphic view of the Green Room conference room in the floor plan view.

Step 4: Compare the room results

Anita thinks that the Green Room conference room might be too small for the meeting, so she reviews the Blue Room conference room. To help her decide, she selects the comparison view so that she can look at the characteristics of all three rooms at the same time.

Step 5: Select the room for the first location

Anita decides to reserve the Orange Room conference room because she is familiar with it. When she books the Orange Room conference room, TRIRIGA Workplace Reservation Manager tentatively reserves the room while she completes the rest of the meeting appointment. The tentative reservation prevents other employees from reserving the same room for the same time. TRIRIGA Workplace Reservation Manager also adds the selected room to the Microsoft Outlook availability view.

Step 6: Select the room for the second location

Anita searches for, reviews, compares, and selects a room for the London office. TRIRIGA Workplace Reservation Manager adds the selected room to the Microsoft Outlook availability view.

Step 7: Add resources to the first room

Anita notices that more equipment is needed for the Orange Room conference room because a computer projector is not standard equipment for that room. She opens the equipment order view in the Orange Room reservation, and she selects an available projector. Anita also needs food service for lunch and snacks in the Orange Room conference room. She opens the food order view that displays the available catering options. She selects the food service provider and menu items, and she reviews the service times and costs.

Step 8: Add resources to the second room

Anita adds a computer projector and food services to the reservation for the room in the London office. TRIRIGA Workplace Reservation Manager manages the time zone difference.

Step 9: Send the appointment

Anita sends the Microsoft Outlook appointment invitation. She reviews the costs of the room usage fees, equipment usage fees, food orders, and any alternate room layout costs. She specifies the account code to use to pay the costs. TRIRIGA Workplace Reservation Manager processes the Microsoft Outlook appointment:

- The tentatively reserved status of the resources is changed to a permanently accepted status
- The work tasks for the room setup and the room breakdown are created
- The work tasks for equipment delivery and equipment pickup are created
- The purchase orders for food services are created

Step 10: Confirm the reservation

At a predefined time before the meeting appointment, Anita receives an email request to confirm that the appointment is still valid. The email contains the actions that she uses to respond directly from the email. The actions include

buttons to confirm or cancel the reservation. Anita confirms the reservation.

Step 11: Free the rooms when the meeting ends early

The meeting does not last the scheduled four hours, so Anita opens the Microsoft Outlook reservation and clicks a button in the **IBM TRIRIGA Reserve** option to end the reservation early. The early checkout frees the room for other employees to reserve.

Step 12: Receive the survey

After the meeting concludes, Anita receives a satisfaction survey about the reservation process and the reservation experience.

Reserving a workspace in Microsoft Outlook

Employees who travel to a different company location might need to reserve a workspace to use while they are in the alternate location. In Microsoft Outlook, users can search for and reserve an available workspace that is based on their specified criteria by using the IBM TRIRIGA reservation form.

Background

Sam plans to travel to the Dallas office for an important meeting in the Grand Avenue building. Sam wants to reserve a workspace so that he can work from the Grand Avenue building while he is there. Sam knows that workspaces must be reserved and that employees can reserve only the workspaces that match their functional role.

Step 1: Create the appointment

Sam opens the Microsoft Outlook application and opens a new appointment. Sam specifies the appointment information and the dates that he plans to be in the Grand Avenue building.

Step 2: Search for a workspace

Sam opens the IBM TRIRIGA reservation form in the Microsoft Outlook appointment and specifies that the search is for a workspace.

Step 3: Select the workspace

Sam selects the Grand Avenue building location. Sam views the workspaces that are available for the specified time frame and for his functional role. Sam selects and reserves a workspace. TRIRIGA Workplace Reservation Manager adds the selected workspace to the Microsoft Outlook availability view.

Step 4: Check in to the workspace

The TRIRIGA administrator configured the workspace that Sam reserved with a requirement that a user must check in to the workspace before the reservation start time. Sam receives an email reminder about the check-in policy before the start time of the reservation. He clicks the link in the email to trigger the check-in action.

Step 5: Check out of the workspace

When Sam finishes using the workspace, he opens the reservation in Microsoft Outlook and selects the checkout action. If Sam does not check out, the checkout action occurs at the end time of the reservation.

Examples of reserving resources in IBM TRIRIGA

In Company ABC, IBM TRIRIGA Workplace Reservation Manager is integrated with Microsoft Exchange and Microsoft Outlook. Depending on their user role, users can make and manage reservations of common or private company resources for themselves or for other company employees. Company resources can include rooms, workspaces, catering, vehicles, and equipment such as projectors and video conferencing.

Reserving common resources in IBM TRIRIGA

IBM TRIRIGA Request Central users who need to reserve common company resources can use IBM TRIRIGA Workplace Reservation Manager to reserve the resources. The reservation process generates an email notification with the reservation information to the person for whom the reservation was made.

Background

Betty is an administrative assistant for a business unit in Company ABC. She needs a meeting room for one hour to interview a potential new hire.

Step 1: Create the appointment

From the **Request Central** portal in IBM TRIRIGA, Betty opens her **My Calendar** portal, selects the meeting date, and selects **Create**.

Step 2: Search for the rooms

Betty specifies the information for the meeting:

- Reservation type: Location
- Subject: Interview new hire
- Start and end date and time
- Room type: Meeting space
- Room layout: Conference

Step 3: Reserve the room

The search results include three rooms in the list view. Betty prefers to schedule interviews close to the elevator lobby, so she switches to the floor plan view. Betty selects a meeting room close to the lobby and reserves the room.

Step 4: Add a food order

Betty reviews the reservation summary and decides to add a food order to the reservation. Catering services are available for the reserved room. She selects the food order view, reviews the available menu items, selects bottled water, saves the food order, and returns to the reservation summary.

Step 5: Submit the reservation

Betty submits the room reservation. If there are estimated charges for this reservation, Betty reviews the charges, specifies the credit card information to use, and submits the payment information.

TRIRIGA Workplace Reservation Manager adds the reservation to Betty's **My Calendar** portal and sends an email to Betty with an iCalendar (iCal) event attached. The .iCal attachment includes the information from the IBM TRIRIGA reservation. When Betty opens and saves the attachment, the reservation is added to her Microsoft Outlook calendar.

Optional: Step 6

If the reservation needs to be modified or deleted, the changes must be made in the IBM TRIRIGA environment.

Reserving private resources in IBM TRIRIGA

Private rooms can be reserved only by IBM TRIRIGA Request Central Concierge user types who own the rooms. Concierge users reserve private resources on the behalf of other employees.

Background

Kathy manages a group of private spaces in the North Carroll building of Company ABC. A company executive calls to request that Kathy book a private room with equipment and food services for a recurring meeting.

Step 1: Create the appointment

Kathy opens the Concierge form from her IBM TRIRIGA home page, and she specifies the caller's general information and the reservation details. She opens the **Recurrence** view, specifies the details for the recurring meeting, and saves the recurrence.

Step 2: Search for the room

Kathy specifies the North Carroll building and the meeting space criteria that is based on the caller's needs:

- Number of attendees: 5
- Room layout: Round table
- Catering available: Yes
- Network connection: Yes
- Video conference: Yes

Step 3: Select the room

Kathy selects and books an available private room from the list view of the rooms that she is responsible for. The room is tentatively reserved while she completes the reservation.

Step 4: Add a food order

Kathy opens the food order view, selects the food service provider and menu items, and reviews the service times and costs. Kathy saves the food order and returns to the reservation summary.

Step 5: Submit the reservation

Kathy submits the reservation. If there are room, equipment, or food service charges, Kathy specifies the caller's account code, and submits the payment information. TRIRIGA Workplace Reservation Manager creates a reservation record, changes the resource status to accepted, and generates an email to the caller who requested the reservation. The email includes an iCalendar (iCal) event that contains the reservation information. When the user opens the .iCal attachment in Microsoft Outlook, the reservation is placed on the user's Microsoft Outlook calendar.

Step 6: Modify the reservation

Kathy receives a request to ensure that a projector is available for the second meeting in the series. In the IBM TRIRIGA environment, Kathy opens the Concierge form, specifies the name of the person for whom the reservation was made, clicks the **Calendar** tab, and views a list of the requester's reservations. Kathy left-clicks the reservation record for the second occurrence of the series and opens that occurrence. In the room reservation record, Kathy selects the equipment order view, selects an available projector, and saves the equipment order. She provides the caller's payment information for the projector charges and saves the reservation. TRIRIGA Workplace Reservation Manager sends an email with an .iCal event attachment to the caller who requested the reservation.

Chapter 5. Integrating IBM TRIRIGA with Microsoft Exchange

Integration between IBM TRIRIGA Workplace Reservation Manager and Microsoft Exchange requires two-way communication. IBM TRIRIGA sends messages to Exchange to accept or reject meeting requests for managed rooms. IBM TRIRIGA also sends free/busy data to Exchange to ensure the Exchange calendars are kept in sync with IBM TRIRIGA. This communication is done by using Exchange Web Services (EWS). Exchange sends meeting requests to IBM TRIRIGA for the room resources that IBM TRIRIGA manages. This communication is done by using the SMTP protocol. Initial configuration is required in both Exchange and IBM TRIRIGA.

Microsoft Exchange configuration

To forward mail from the Microsoft Exchange room resources to the IBM TRIRIGA application server, several connections must be configured. After configuration, the mail is forwarded from the room resources to the room resource delegates, to the server hub transport, and finally to the application server. The email address that is specified in the **Default Reserve User Email** field of the IBM TRIRIGA Reservation Settings is used by default if the user who is requesting the meeting is not an IBM TRIRIGA user. This feature works only with the IBM TRIRIGA Workplace Reservation Manager license.

Server hub transport

The Microsoft Exchange server hub transport must be configured. After the server hub transport is configured, its send connector routes the mail from the mail contact to the IBM TRIRIGA application server. The send connector must specify the following information:

- The fully qualified domain name (FQDN) that includes the preferred subdomain, for example, `reserve.tririga.abc.tririga` includes `reserve.tririga`; the IBM TRIRIGA administrator must define this subdomain in the **TRIRIGA_RESERVE_SUB_DOMAIN** property of the `TRIRIGAWEB.properties` file.
- The simple mail transfer protocol (SMTP) address space for the preferred subdomain, for example, `*.reserve.tririga.abc.tririga`.
- The mail-routing smart host with the IP address of the IBM TRIRIGA application server that runs the SMTP endpoint.

Authentication in Exchange Web Services

Authentication must be enabled in Exchange Web Services (EWS). Use the Exchange Management Shell to set the Exchange authentication settings. EWS has several authentication options. IBM TRIRIGA supports both Basic and NTLM authentication. You must enable Anonymous and one of the two other authentication options, Basic or NTLM authentication. For information on EWS, see the Microsoft Exchange Web Services documentation.

Mail contacts

The Microsoft Exchange mailbox must be configured for each mail contact. After the contact mailbox is configured, the mail is forwarded from the room resource

delegates to the server hub transport. The mail contact must specify the email address that corresponds to the simple mail transfer protocol (SMTP) address space of the server hub transport.

To use the automated procedure, you can generate Windows PowerShell scripts in IBM TRIRIGA for Microsoft Exchange.

Room resource delegates

The Microsoft Exchange mailbox must be configured for each room resource delegate. After the delegate mailbox is configured, the delegate can be assigned to a room resource. Only one Microsoft Exchange mailbox is required for the delegate to be assigned to every room resource. This mailbox is used for the **Exchange User Name** field in the IBM TRIRIGA application settings.

Room resources

The Microsoft Exchange mailbox must be configured for each room resource. After the resource mailbox is configured, the resource can accept a delegate assignment. With a delegate assignment, the free-busy information is synchronized between the Microsoft Exchange room resource and IBM TRIRIGA room. The room resource must specify the following information:

- The mail contact for the forwarding address.
- The selection to forward meeting requests to the delegate mailbox.
- The selection to give full-access permission to the delegate mailbox.

To use the automated procedure, you can generate Windows PowerShell scripts in IBM TRIRIGA for Microsoft Exchange.

Configuring Microsoft Exchange

To integrate the IBM TRIRIGA Workplace Reservation Manager application with Microsoft Exchange, you must specify the settings for the Microsoft Exchange send connector, mail contact, and room resource delegates.

Before you begin

You must be a Microsoft Exchange administrator.

Procedure

1. Configure the server hub transport so that the send connector is set to route the mail from the mail contact to the IBM TRIRIGA application server.
2. For each mail contact, configure the mailbox so that mail is forwarded from the room resource delegates to the server hub transport.
3. For each room resource delegate, configure the mailbox so that the delegate can be assigned to a room resource.
4. For each room resource, configure the mailbox and assign the delegate so that the free-busy information is synchronized between the Microsoft Exchange room resources and IBM TRIRIGA rooms.

Generating scripts in IBM TRIRIGA for Microsoft Exchange

If you add, update, or remove many reservable rooms in IBM TRIRIGA, then configuring the corresponding room resources in Microsoft Exchange can be

time-consuming. To simplify the transfer of room changes, you can generate the Windows PowerShell scripts to create, update, or remove the corresponding room resources in Microsoft Exchange.

Before you begin

You must sign into IBM TRIRIGA as an Application Administrator or Reservation Coordinator.

Procedure

1. Select **Requests > Set Up > Exchange Resource Admin**.
2. Select the reservable spaces that you want to add, update, or remove.

Section	Action
Exchange Spaces	Select the reservable spaces that you want to add or update as room resources in Microsoft Exchange. If you do not select any reservable spaces, then all of the spaces are automatically included.
Removed Exchange Spaces	Select the reservable spaces that you want to remove as room resources in Microsoft Exchange.

3. In the General section, generate the script file that creates, removes, or updates room resources.
4. Click the icon to download the script file.

What to do next

After you download the script file, the Microsoft Exchange administrator must process the script file to create, update, or remove the corresponding room resources.

Creating room resources with multibyte characters

You can generate a Windows PowerShell script to create room resources in Microsoft Exchange. However, if the room resource name and corresponding mailbox name have multibyte characters, the "create" script causes a parser error in the Exchange Management Shell. To correct this error, you must convert the script file format to UTF-8 encoding.

Before you begin

You must be a Microsoft Exchange administrator.

Procedure

1. Open the Windows PowerShell "create" script in a text editor such as Microsoft Notepad.
2. Go to **File > Save As**. Verify that the encoding is set to UTF-8.
3. Save and overwrite the same script file.
4. Run the script file again in the Exchange Management Shell. Although the multibyte characters are shown as question marks, the script runs successfully.

Configuring IBM TRIRIGA

To integrate the IBM TRIRIGA Workplace Reservation Manager application with Microsoft Exchange, you must specify the values for the IBM TRIRIGA domain, subdomain, and simple mail transfer protocol (SMTP) properties.

Before you begin

You must be an IBM TRIRIGA administrator.

Procedure

1. Verify that the incoming SMTP directory exists and the IBM TRIRIGA process has write access to the directory.

Operating System	Example Directory
Windows	C:\tririga\install\userfiles\smtp\in\
UNIX	/tririga/install/userfiles/smtp/in/

2. Configure the following properties of the TRIRIGAWEB.properties file:

Property	Description
TRIRIGA_RESERVE_SUB_DOMAIN	The subdomain for the Microsoft Exchange server, for example, reserve.tririga.
EXCHANGE_DOMAIN	The domain for the Microsoft Exchange server, for example, abc.tririga.
TRIRIGA_RESERVE_SMTP_ROOT	The simple mail transfer protocol (SMTP) root directory that is created when the reserve SMTP agent is started. For example, a Windows directory might be C:\tririga\install\userfiles\smtp\in\. A UNIX directory might be /tririga/install/userfiles/smtp/in/.
TRIRIGA_RESERVE_OUTLOOK_TAB_LABEL	The label that is displayed when a user connects the Microsoft Outlook client to the IBM TRIRIGA application server.
SMTP_CLIENT_TIMEOUT	The timeout of the SMTP endpoint in minutes.
SMTP_KEEP_EMAIL	The flag that determines whether to keep the email after SMTP processing. A value of Y (yes) keeps the email. A value of N (no) discards the email.
SMTP_PORT	The port number that is used by the reserve SMTP agent for incoming SMTP traffic, for example, 25.

3. From the IBM TRIRIGA administrator console, start the application server and start the reserve SMTP agent.

What to do next

After you configure the TRIRIGAWEB.properties file, the Microsoft Exchange administrator creates the room resources with these properties. After the room resources are created, do not change the domain, subdomain, and SMTP values in the TRIRIGAWEB.properties file. Changing these values after the room resources are created might yield unexpected behavior.

Configuring the SMTP port in Linux

Linux does not allow root users to bind port traffic to ports 1024 and below. However, the simple mail transfer protocol (SMTP) port property of the

TRIRIGAWEB.properties file has a default value of port 25. If you are running Linux, you must configure the reserve SMTP agent to listen to a custom port instead of the default port 25.

Before you begin

You must be an IBM TRIRIGA administrator. Run the commands in the following procedure as a root user.

Procedure

1. Update your firewall to open the port above port 1024 by adding the following lines to your `/.../sysconfig/iptables` file:

```
-A OUTPUT -p tcp -s serverIP -d 0/0 --dport Port_Above_1024  
-m state --state ESTABLISHED -j ACCEPT  
-A INPUT -s 0/0 -d serverIP -m state --state NEW,ESTABLISHED  
-p tcp --dport Port_Above_1024 -i eth0 -j ACCEPT
```
2. Restart your firewall:

```
/.../init.d/iptables restart
```
3. Open port 25 for forwarding:

```
/sbin/iptables -A FORWARD -p tcp --destination-port 25 -j ACCEPT;
```
4. Forward port 25 to your custom port above 1024:

```
/sbin/iptables -t nat -A PREROUTING -j REDIRECT  
-p tcp --destination-port 25 --to-port Port_Above_1024
```
5. To verify that port 25 is forwarding, start the IBM TRIRIGA application server so that it binds to your custom port, and run a telnet command:

```
telnet yourServer 25
```
6. If you do not receive a successful response, forward port 25 to a different custom port (step 4).

What to do next

This task does not permanently configure the port. If the Linux server is restarted or the IP tables service is reset from a firewall modification, then the configuration is dropped. To reconfigure the port, you must forward port 25 to your custom port (step 4) again.

Installing the IBM TRIRIGA Workplace Reservation Manager Add-in in Microsoft Outlook

The reservation features in the IBM TRIRIGA Workplace Reservation Manager application can be installed as an add-in in Microsoft Outlook. You can do an attended installation or a silent installation of the add-in.

Attended mode: Installing the IBM TRIRIGA Workplace Reservation Manager Add-in in Microsoft Outlook

To use the reservation features in the IBM TRIRIGA Workplace Reservation Manager application, you can install the IBM TRIRIGA Workplace Reservation Manager Add-in for Microsoft Outlook. When the add-in is installed, you can reserve available meeting spaces, workspaces, equipment, and vehicles.

Before you begin

Review the IBM TRIRIGA Support Matrix (<https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20TRIRIGA1/page/Support%20Matrix>) and verify that the prerequisite Microsoft software is installed. Install any missing prerequisites.

The IBM TRIRIGA application server and IBM TRIRIGA Workplace Reservation Manager Add-in client must be the same version.

Uninstall any previous versions of the add-in before you run this installer. To uninstall the add-in, use the Microsoft Windows Control Panel.

If IBM TRIRIGA runs on an Oracle WebLogic Server, the TRIRIGA Application Platform installer sets the `<enforce-valid-basic-auth-credentials>` element in the `config.xml` to `false`. This setting is a requirement for the add-in to authenticate against IBM TRIRIGA. The element cannot be set to `true`.

Procedure

1. Close all Microsoft Outlook windows.
2. Download the `install_outlook_addin_version_date.msi` installation file.
3. Install the IBM TRIRIGA Workplace Reservation Manager Add-in.
 - a. Run the `install_outlook_addin_version_date.msi` installation file by either double-clicking the MSI file or by using the command line `msiexec /i "install_outlook_addin_version_date.msi" /L*V <path_to_log>`.
 - b. Follow the installation instructions. You can specify several add-in configuration values during installation such as IBM TRIRIGA URL and Authentication Type. Note that these values are used only as initial settings to populate the add-in properties file for the first time.

What to do next

Configure the IBM TRIRIGA Workplace Reservation Manager Add-in.

Silent mode: Installing the IBM TRIRIGA Workplace Reservation Manager Add-in in Microsoft Outlook

The IBM TRIRIGA Workplace Reservation Manager Add-in for Microsoft Outlook can be installed silently by using a command line. The silent installation requires you to define properties on the command line. The properties that you specify on the command line provide the responses that a user would provide in an attended installation. A silent installation might be used for a bulk deployment or a remote installation.

Before you begin

Review the IBM TRIRIGA Support Matrix (<https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM+TRIRIGA1/page/Support+Matrix>) and verify that the prerequisite Microsoft software is installed. Install any missing prerequisites.

The IBM TRIRIGA application server and IBM TRIRIGA Workplace Reservation Manager Add-in client must be the same version.

Uninstall any previous versions of the add-in before you run this installer. To uninstall the add-in, use the Microsoft Windows Control Panel.

If IBM TRIRIGA runs on an Oracle WebLogic Server, the TRIRIGA Application Platform installer sets the `<enforce-valid-basic-auth-credentials>` element in the `config.xml` to `false`. This setting is a requirement for the add-in to authenticate against IBM TRIRIGA. The element cannot be set to `true`.

To do a silent installation of the add-in, use the Windows Installer, `msiexec.exe` on a command line.

Procedure

1. Close all Outlook windows.
2. Download the IBM TRIRIGA `install_outlook_addin_version_date.msi` installation file.
3. Run the silent installation by entering the following command on the command line. Specify the exact path to and name of the `.msi` file in quotation marks, and add the package parameters that you want:

```
msiexec /i "<path>\install_outlook_addin_version_date.msi" /qn
AGREETOLICENSE=YES package_parameters
```

Table 1. Built-in msiexec parameters and package specific properties that control the installation.

Parameter	Options
/i	Normal installation
/qn	Sets the UI level of the installation to no UI.
/L*V <path_to_log>	<p>Creates an installation log at the specified existing path and defines the level of information to write to the log, for example, <code>/L*V C:\YourDirectory\install.log</code>.</p> <p><code>/L*V</code> logs all information. The path to the log file location must exist. The installer does not create the directory structure for the log file.</p> <p>For information on command line logging options and Windows Installer error codes, see the Microsoft documentation for the Windows Installer, <code>msiexec.exe</code>.</p>
AGREETOLICENSE=	<p>Package-specific property that accepts the license agreement.</p> <ul style="list-style-type: none"> • AGREETOLICENSE=YES <p>This parameter must be set to YES or the installation fails.</p>

Table 1. Built-in msiexec parameters and package specific properties that control the installation. (continued)

Parameter	Options
AUTHTYPE=	<p>Package-specific property that specifies the authentication type in use.</p> <ul style="list-style-type: none"> Set AUTHTYPE=BASIC if you want the add-in to use basic authentication when it communicates with the IBM TRIRIGA server. In this case, the add-in uses the user name and password that the user enters during add-in configuration. Set AUTHTYPE=WINDOWS if you want the add-in to use Windows authentication when it communicates with the IBM TRIRIGA server. In this case, the add-in uses the credentials of the currently logged in Outlook user to connect to IBM TRIRIGA. Set AUTHTYPE=WINDOWS only if the IBM TRIRIGA system is configured for single sign-on (SSO) and SSO uses NTLM authentication. <p>If this parameter is not specified on the command line, the authentication type defaults to <i>BASIC</i>.</p>
ALLUSERS=	<ul style="list-style-type: none"> Set ALLUSERS=1 to specify a per machine installation. Set ALLUSERS="" to specify a per user installation. <p>If this parameter is not specified, the default is per user installation.</p>
INSTALLDIR=	<p>Specifies where the .msi package will install.</p> <p>Specify the installation directory in quotation marks, for example, INSTALLDIR="C:\IBM\YourDirectory".</p> <p>If this parameter is not specified, the add-in is installed in the default location, C:\IBM\TRIRIGA Reserve Outlook Addin.</p>
URL=	<p>Package-specific property that specifies the IBM TRIRIGA server URL.</p> <p>Specify the server URL in quotations, for example, URL="http://hostname:8080/dev".</p> <p>If this parameter is not specified, the default is null.</p>
OFFLINETIME=	<p>Package-specific property for advanced configuration of add-in behavior during communication errors.</p> <p>Specify a length of time in minutes, for example, OFFLINETIME=5.</p> <p>When in offline mode, the add-in does not attempt to connect to the IBM TRIRIGA server and therefore does not function.</p> <p>If the offline time expires, and the add-in still cannot contact IBM TRIRIGA, it goes into offline mode again. If the user wants to get out of offline mode, for example, if the connection to IBM TRIRIGA is returned within the duration, they need to restart Outlook.</p> <p>If this parameter is not specified, the default is 0 and the add-in will not go into offline mode after a communication error.</p>

Examples:

Silent installation for the current user:

```
msiexec /i "install_outlook_addin_version_date.msi" /qn  
AGREETOLICENSE=YES
```

Silent installation for all users on the machine:

```
msiexec /i "install_outlook_addin_version_date.msi" /qn  
AGREETOLICENSE=YES ALLUSERS = 1
```

Silent installation in a location different from the default and set the URL value:

```
msiexec /i "install_outlook_addin_version_date.msi" /qn  
AGREETOLICENSE=YES INSTALLDIR="C:\IBM\YourDirectory"  
URL="http://hostname:8080/dev"
```

To create an install log, use the /L* option and specify a log file:

```
msiexec /i "install_outlook_addin_version_date.msi"  
/qn /L*V C:\YourDirectory\install.log AGREETOLICENSE=YES
```

Results

If the installation process was successful, the **IBM TRIRIGA Reserve** tab is displayed in the Outlook ribbon. If not, check the installation log file for errors. The log file is located in the path that you specified in the msiexec.exe /L option.

What to do next

Configure the IBM TRIRIGA Workplace Reservation Manager Add-in.

Configuring the IBM TRIRIGA Workplace Reservation Manager Add-in in Microsoft Outlook

After you install the IBM TRIRIGA Workplace Reservation Manager Add-in, configure the add-in with the application server information.

Procedure

1. Open Microsoft Outlook, select the profile for this account, and click **OK**.
2. Sign in to the Microsoft Exchange server.
3. Open the add-in options. Select **File > Options > Add-ins**. In the Add-ins section, select the **IBM TRIRIGA Reserve Integration Addin** and select **Add-in Options**.
4. In the **URL** field, specify the web address of the IBM TRIRIGA application server.
5. In the **Authentication Type** field, select the authentication type that is in use by IBM TRIRIGA.
 - Select **BASIC** if you want the add-in to use basic authentication when it communicates with the IBM TRIRIGA server. In this case, the add-in uses the user name and password that you enter in the next step.
 - Select **WINDOWS** if you want the add-in to use Windows authentication when it communicates with the IBM TRIRIGA server. In this case, the add-in uses the credentials of the currently logged in Microsoft Outlook user to connect to IBM TRIRIGA. Select **WINDOWS** only if the IBM TRIRIGA system is configured for single sign-on (SSO) and SSO uses NTLM authentication.

6. If you selected BASIC for **Authentication Type**, specify the credentials for the user account in the **User** and **Password** fields. For basic authentication, the add-in uses these credentials to connect to the IBM TRIRIGA server.
If you selected WINDOWS for **Authentication Type**, the **User** and **Password** fields are not needed. The add-in uses the credentials of the currently logged in Outlook user to connect to the IBM TRIRIGA server. Therefore, the user name and password fields in the Add-in Options dialog are ignored.
7. Under Advanced configuration, specify debug settings if you need to debug issues with the add-in. Due to the large volume of information you might encounter in a log, set this parameter for a limited time while you are working to troubleshoot a problem.
 - a. Select **Debug** to turn on full add-in logging. When this setting is enabled, the add-in writes detailed logging messages to the outlook.log file in %LocalAppData%\IBM\TRIRIGA Reserve Outlook Addin\.
 - b. In the **Max log file size** field, specify a maximum size in megabytes for outlook.log. The add-in appends information to the log each time it runs so it continues to grow. When the file exceeds the maximum size, the add-in saves the log and creates a new one.
8. If you want the add-in to go into an offline mode when it is unable to communicate with the IBM TRIRIGA server, set a length of time in minutes in the **Offline mode duration** field.
When in offline mode, the add-in does not attempt to connect to IBM TRIRIGA and therefore does not function. If the offline duration expires, and the add-in still cannot contact IBM TRIRIGA, it goes into offline mode again. If the user wants to get out of offline mode, for example, if the connection to IBM TRIRIGA is returned within the duration, they need to restart Outlook.
9. Click **OK**.

What to do next

Ensure that Outlook and your IBM TRIRIGA profile are set to the same time zone and the same language.

Uninstalling the IBM TRIRIGA Workplace Reservation Manager Add-in

The IBM TRIRIGA Workplace Reservation Manager Add-in for Microsoft Outlook can be uninstalled either by command line or in the Microsoft Windows Control Panel.

Procedure

1. Close all Microsoft Outlook windows.
2. Uninstall the add-in by using one of the following methods.

Option	Description
To uninstall the add-in in the user interface	Use the Microsoft Windows Control Panel.
To uninstall the add-in silently	At a command prompt enter the following command: msiexec /i "<path>/install_outlook_addin__version_date.msi" /qn REMOVE=ALL

3. After uninstalling the add-in, there might be some files left behind on your system. To completely remove the add-in from your system, delete the folder, %LocalAppData%\IBM\TRIRIGA Reserve Outlook Addin.

Troubleshooting the TRIRIGA Workplace Reservation Manager Add-in

If an issue occurs when you install or use the IBM TRIRIGA Workplace Reservation Manager Add-in for Microsoft Outlook, several logs can help to diagnose the issue.

Problems during installation of the add-in

If the installation process reports errors or it completes but the **IBM TRIRIGA Reserve** add-in does not display on the Microsoft Outlook ribbon, check the installation log file for errors. The log file is in the folder that you specified for the `/L` option on the `msiexec.exe` command line.

Problems with use of the add-in

If the add-in reports errors or you encounter problems with the add-in, check the add-in log file `outlook.log` in `%LocalAppData%\IBM\TRIRIGA Reserve Outlook Addin\`.

To generate more detailed logging messages, you can enable Debug in the configuration. Due to the large volume of information you might encounter in a log, enable Debug for a limited time while you are working to troubleshoot a problem.

To enable full add-in logging, enable Debug as follows.

1. In Microsoft Outlook, open the add-in options. Select **File > Options > Add-ins**. In the Add-ins section, select the **IBM TRIRIGA Reserve Integration Addin** and select **Add-in Options**.
2. Select **Debug** to turn on full add-in logging.
3. In the **Max log file size** field, specify a maximum size in megabytes for `outlook.log`. The add-in appends information to the log each time it runs so it continues to grow. When the file exceeds the maximum size, the add-in saves the log and creates a new one.

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