Alexa for Business: Administration Guide
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What Is Alexa for Business?

Alexa for Business makes it easy for you to use Alexa in your organization. Alexa for Business gives you the tools you need to manage Alexa devices, enroll your users, and assign skills, at scale. You can build your own context-aware voice skills using the Alexa Skills Kit, and the Alexa for Business APIs, and you can make these available as private skills for your organization. Alexa for Business also makes it easy to voice-enable your products and services, providing context-aware voice experiences for your customers.

How to Get Started with Alexa for Business

After you set up your shared devices, you organize them by creating rooms and assigning devices to these rooms. You manage skills and settings centrally with skill groups and room profiles. You can configure the rooms to be linked to your corporate calendar and configure them to automatically join meetings.

Related Services

The Alexa Skills Kit is a collection of self-service API actions, tools, documentation, and code examples. You can create your own skill and add it to the Alexa for Business console. All of the code runs in the cloud and nothing is stored on devices. For more information, see the Alexa Skills Kit details page and Managing Skills (p. 12).

Accessing Alexa for Business

Alexa for Business is accessed through the AWS Management Console or the Alexa for Business API.

Concepts

To help you get started with Alexa for Business, review the following concepts:

**Alexa**

The cloud-based voice service that powers devices such as the Amazon Echo and Amazon Echo Dot. You can give Alexa new abilities by creating your own cloud-based service that accepts requests from Alexa and returns responses.

**Alexa device**

A device that provides access to the Alexa service. Examples include Amazon Echo, Amazon Echo Dot, and devices that use the Alexa Voice Service.

**Device Setup Tool**

A Windows-based application you can use to connect Amazon Echo devices to your Wi-Fi network and register them with Alexa for Business.
enrolled user

Employees can join an organization by enrolling their personal Amazon account. When users join their employer’s Alexa for Business organization, they can use all of the Alexa for Business features on an unlimited number of Alexa endpoints registered to the Amazon account used when they join.

master account

Some skills require account linking. If you enable a skill and link your account, this becomes the master account and is shared by default for all devices with that skill enabled. You can override this master account and link a different account inside an individual room.

room

The physical location that contains your device. Examples include conference rooms, lobbies, and hotel rooms.

room profile

A room profile is associated with a room and contains all of the settings for your devices. This enables Alexa to provide weather, time, and other location-based information. You can create a room profile that applies the same settings to all rooms in the same building. You can modify the settings in a room profile, including the default room profile, at any time.

private skill

An Alexa skill that is only available for the users and Alexa devices in your organization. A private skill never shows up in the Alexa Skills store.

skill

A stand-alone capability that an Alexa customer can discover, enable, use, and disable to add new functionality to their Alexa experience.

skill group

A skill group is a collection of one or more skills that can be added to a room. The only way to enable skills on a Alexa for Business-managed device is to add a skill group that contains the skills to enable in a room. After enabling a room, any device in that room has access to those skills.

shared device

An Alexa device placed in a shared location, such as a conference room, lobby, or hotel room.

smart home device

Smart home lights, thermostats, and drapes. Not to be confused with device, which is an Alexa device such as the Amazon Echo.

Resources

The following related resources can help you as you work with this service.

- **Classes & Workshops** – Links to role-based and specialty courses as well as self-paced labs to help sharpen your AWS skills and gain practical experience.
- **AWS Developer Tools** – Links to developer tools, SDKs, IDE toolkits, and command line tools for developing and managing AWS applications.
- **AWS Whitepapers** – Links to a comprehensive list of technical AWS whitepapers, covering topics such as architecture, security, and economics and authored by AWS Solutions Architects or other technical experts.
- **AWS Support Center** – The hub for creating and managing your AWS Support cases. Also includes links to other helpful resources, such as forums, technical FAQs, service health status, and AWS Trusted Advisor.
• **AWS Support** – The primary web page for information about AWS Support, a one-on-one, fast-response support channel to help you build and run applications in the cloud.

• **Contact Us** – A central contact point for inquiries concerning AWS billing, account, events, abuse, and other issues.

• **AWS Site Terms** – Detailed information about our copyright and trademark; your account, license, and site access; and other topics.
Prerequisites

Before you can get started with Alexa for Business, complete the following tasks:

**Tasks**
- Sign Up for AWS (p. 4)
- Create IAM Users and Policies (p. 4)

Sign Up for AWS

Your AWS account gives you access to all services, but you are charged only for the resources that you use.

If you do not have an AWS account, use the following procedure to create one.

**To sign up for AWS**
2. Follow the online instructions.

Create IAM Users and Policies

The Alexa for Business console requires a user name and password so that the service can determine whether you have permission to access its resources. We recommend that you avoid using AWS account credentials for general access because those credentials cannot be revoked or limited in any way. For more information, see AWS Security Credentials in the AWS General Reference.

Instead, use AWS Identity and Access Management (IAM) to create an IAM user and add the user to an IAM group with administrative permissions. You can then access the Alexa for Business console using the credentials for the IAM user. If you signed up for AWS but have not created an IAM user for yourself, you can create one using the IAM console. For more information, see Creating an IAM User in Your AWS Account in the IAM User Guide.

By default, IAM users don't have permissions to manage Alexa for Business resources. You must use a customer managed policy that explicitly grants IAM users those permissions, and attach the policy to the specific IAM users or groups that require those permissions. For more information, see the following topics in the IAM User Guide:
- Managed Policies and Inline Policies
- Access Management

In alignment with standard security guidelines, we recommend that you create another IAM user for the Device Setup Tool. We recommend a separate user with only the necessary permissions for Alexa for Business. For more information, see Create an IAM User for Device Setup Tool (p. 6).
Getting Started with Shared Devices

After setting your IAM permissions, you can now get started with your shared devices. The following devices can be set up as shared devices:

- Echo (1st and 2nd generation)
- Echo Dot (2nd generation)
- Echo Plus

Tasks

- Get Recommended Hardware (p. 5)
- Prepare Your Devices (p. 5)
- Create an IAM User for Device Setup Tool (p. 6)
- Run the Device Setup Tool (p. 6)
- Create Room Profile, Skill Group, and Room (p. 6)

Get Recommended Hardware

We recommend that you obtain the following hardware to simplify the setup process:

- Label printer or other equipment to print asset or identification tags for your devices
- Power strips appropriately spaced for Echo or Echo Dot power adapters
- Extra power adapters
- Windows laptop or desktop with Wi-Fi controller

Note

The Device Setup Tool requires a Windows laptop. It doesn't work on any virtual desktop running in the cloud or on Apple hardware.

Prepare Your Devices

There are several tips for preparing your devices before setup:

- After you unpack a brand new device, keep the device connected for at least 15 minutes to download the latest firmware. If your device doesn't have the latest firmware, assigning the device to a room fails.
- As you unpack your devices, label them with the last three characters of the device serial numbers (DSN), printed on the box. DSNs are not printed on some devices, and clearly labeling them helps you track them during setup. You can also create asset tags that have the full DSNs and barcode on the label.
- You need to be within a certain distance of your devices, so we recommend that you use power strips and set them up on one or two long tables. You can set up a maximum of 25 devices at a time.
- Devices stay in setup mode for only 30 minutes, and it takes about one minute to set up each device. To ensure that the last devices to set up remain in this 30-minute window, turn the power strips off while you plug in your devices. Turn them back on when you're ready to run the Device Setup Tool. If it's the first time they're turned on, the devices automatically enter setup mode.
Create an IAM User for Device Setup Tool

To create an IAM user for the Device Setup Tool
1. Open the IAM console at https://console.aws.amazon.com/iam/.
2. Choose Users, Create new users.
3. Enter a user name (for example, DeviceSetupTool), and choose Programmatic access, Next.
4. Choose Attach existing policy directly, AlexaforBusinessDeviceSetup from the list, and Next.
5. Choose Create user.
6. Download and save the IAM access key and secret key. You need them later when you configure the Device Setup Tool.

Run the Device Setup Tool

Follow these steps to run the Device Setup Tool.

To run the Device Setup Tool
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Shared Devices, Set up devices.
3. Download, install, and open the Device Setup Tool.
4. To confirm that the correct IAM access key is loaded, choose the gear icon in the upper-right corner.
5. Turn on the power strips or place 1–25 devices into setup mode.
6. To generate a list of devices in setup mode, choose Discover. Devices are listed as Amazon-XXX where “XXX” is the last three characters of the DSN.
7. Select the devices to set up. To select all, select the check box in the device list header.
8. Choose Next and enter the Wi-Fi network information.
9. Wait for the tool to complete. You can monitor progress in the tool to see which device is being set up, as well as the status of each device (Successful or Failed).

Note
After the status for a device changes to Successful, you can unplug the device even if the light ring is still orange. If all devices show as Failed, make sure that you have a strong connection to the network and that the Wi-Fi information is entered correctly.

After all of your devices have been set up, they are listed on the Shared devices page of the Alexa for Business console. To set up more devices, repeat steps 1–7 for the additional devices.

Create Room Profile, Skill Group, and Room

After you set up your devices with the Device Setup Tool, you are ready to create the following resources:
• A room (p. 8)
• A room profile (p. 9)
• A skill group (p. 15)
Managing Your Shared Devices

After you set up Alexa for Business, you can add, edit, or delete rooms, room profiles, shared devices, skills, and skill groups.

Tasks
• Managing Rooms (p. 8)
• Managing Room Profiles (p. 9)
• Managing Devices (p. 10)
• Managing Skills (p. 12)
• Managing Skill Groups (p. 15)

Managing Rooms

A room is a physical location where you can put your Alexa devices. Examples of rooms include conference rooms, lobbies, or hotel rooms.

We recommend naming your rooms with unique and meaningful identifiers that can be logically parsed by a third party. Instead of “Room 12” or “Suite 104,” pick a name like “ORD_01_0201” or “SEA_38_0021.” The ResolveRoom API action exposes the room name to third-party skill developers, including any skills that you develop privately for your organization. If you are planning to enable smart home skills in your room, we recommend naming rooms with only alphanumeric characters and the following special characters (no dots, no spaces): _ - = # ; : ? @ &.

To create a room
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Rooms, Create room.
3. For Name, enter a unique name.
4. For Profile name, select a room profile or choose Create room profile and choose Next.
5. (Optional) To add a skill group, select the check box next to the skill group to add and choose Next.
   Note
   You can assign a skill group to multiple rooms at once from the Skill group detail page.
6. (Optional) To add devices, select the check box next to the devices.
   Note
   You can also assign devices to a room from the Shared devices list view.
7. Choose Create room.

You can edit the name, description, and room profile of your room in the Rooms tab. You can also assign or unassign devices and skill groups in the same tab.

To edit a room
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Rooms and select the name of the room to edit.
3. Edit the Name, Description, or Room profile and choose Save.
4. Under Devices or Skill groups, choose Assign or Unassign.

If you no longer need a room, you can delete it. This stops the Alexa device in the room from responding to voice requests.

To delete a room
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Rooms and select the check box next to the room to delete.
3. Choose Delete room, Delete.

After your room is deleted, your Alexa devices are automatically unassigned and can be assigned to a different room. For more information, see Managing Devices (p. 10).

Echo, Echo Dot, and Echo Plus devices use on-device keyword spotting to detect a wake word. When they detect a wake word, the light ring around the top of the device turns blue to indicate that Alexa is streaming audio to the cloud. These voice recordings are anonymously stored in the cloud. You can't view or listen to the interactions that users have with the Alexa devices in a room. You can choose to delete voice recordings from all of the devices in a specific room. If you delete these recordings, it might degrade your experience using voice features.

To delete voice recordings
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Rooms and select a room.
3. Choose Delete voice recordings, Delete.

Managing Room Profiles

To simplify the process of creating and managing rooms, first define room profiles. A room profile contains the settings for your Alexa devices so that they can provide you with the weather, time, and other location-based information. For example, you can create a room profile that contains the Alexa settings that apply to all rooms in the same building.

When you create a room, you must select a room profile. If you have not created one, a default room profile is provided. You can modify the settings, including the default room profile, at any time.

To create a room profile
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Room profiles, Create room profile.
3. Fill in the following fields:
   - Profile name – Enter a unique name for the room profile. (Required)
   - Location – Enter the physical address of the building. (Required)
   - Time zone – Select the time zone for the room profile. (Required)
   - Wake word – Select the voice command that turns on the device.
   - Temperature units – Choose Fahrenheit or Celsius.
   - Distance units – Choose Feet or Meters.
   - Max volume – Choose a value between 6–10 to limit the volume output of the device to this value.
Managing Devices

You can set up your Alexa devices (Amazon Echo, Echo Dot, or Echo Plus) using the Device Setup Tool. This connects your device to your Wi-Fi network and registers it with Alexa for Business. After you set up your devices, you can assign them to your rooms.

**Note**
You need a Windows computer to use the Device Setup Tool. You cannot run the Device Setup Tool on any cloud-based, Windows streaming tool, such as Amazon WorkSpaces, or any imaged driver such as Boot Camp.

**To set up a device**
1. If you haven’t already, install the Device Setup Tool. For more information, see Run the Device Setup Tool (p. 6).
2. Note the last three characters of the device service number (DSN), printed on the box. These characters are included in the Wi-Fi network that the device broadcasts while you are setting it up. They are required when you assign your device to a room.
3. Plug your device into a power outlet, and press and hold the **Action** button (white dot) for five seconds. Wait until the device tells you that it is ready and the light ring turns orange.
   **Note**
   If the device has already been set up before, you can manually enter setup mode by pressing and holding the **Action** button for 7 seconds.
4. Open the Device Setup Tool, which discovers your device.
   **Note**
   If the Device Setup Tool doesn’t discover your devices, choose **Discover devices**.
5. Choose the devices to set up and choose **Set up devices**.
6. Enter your Wi-Fi network details and choose **Next**.
The Device Setup Tool connects your devices to your Wi-Fi network and registers them with Alexa for Business.

**To assign devices to a room**

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose *Shared devices* and select the check box next to the devices to assign to a room.
3. Choose *Assign to room*, and choose the room to which to assign the devices.
4. Unplug the device and plug it back in to restart it.

We recommend that you label the devices with the room to help ensure that the device remains in the correct room. To move devices from one room to another, unassign and then re-assign the devices.

**To list devices**

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose *Shared devices* to see a list of your registered devices and the following information for each device:
   - **Serial number** – The serial number of the device.
   - **Type** – The type of device.
   - **Device name** – The name of the device.
   - **Assigned room** – The room to which the device is assigned.
   - **Status** – The status of the skills and settings being applied to the device.
     - **Synced** – All skills and settings have been applied to the device.
     - **Sync in progress** – Alexa for Business is applying the skills and settings to the device.
     - **Sync needed** – The device was unplugged or not connected to the network when Alexa for Business was applying skills and setting to the device.

   **Note**
   To prevent your device from being offline, assign your device to a room within 24 hours of the time that you plan on plugging it into the room.

To avoid having a device respond to voice commands, unplug the device. In the rare case where you no longer want to use the device anymore (for example, if you are giving the device to a new owner), you can deregister it. You can register the device again with the Device Setup Tool. Deregistering devices requires you to re-set up devices (otherwise, they might not work).

**To deregister a device**

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose *Shared devices* and select the check box next to the device to deregister.
3. Choose *Actions, Deregister*.
   **Note**
   This action removes the device from the console.

You can reset a device to clear all timers, alarms, to-do lists, shopping lists, and Bluetooth-connected phones for a device. This also sets the volume to 5 for a shared device.

**To reset a device**

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose *Shared devices* and select the device(s) that you want to reset.
3. Choose **Actions, Reset device**.

Alexa for Business manages device accounts and settings through rooms and room profiles. When you add devices to a room, change the room of a device, update specific settings in a room profile (including the wake word, volume limit, and device setup mode), or when you reset a device, the device must be connected to the internet for the update to complete successfully. Alexa for Business retries these calls for one hour, and then the device is placed into a **Sync needed** status. To implement your changes, plug in the Alexa device, ensure that it's connected to WI-FI, and sync the device.

**To sync a device**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Shared devices** and select the all the devices with the status **Sync needed** that you want to sync.
3. Choose **Actions, Sync devices**.

---

**Managing Skills**

Skills are voice-driven capabilities that enhance the functionality of your Alexa device. Alexa for Business gives you access to all Alexa skills. To enable skills for your devices, you must first enable it for your organization and then add it to one or more skill groups that are assigned to your rooms. For more information, see **Managing Skill Groups (p. 15)**.

**To enable a skill**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Skills, Alexa Skills store**.
3. Find the skill to add by browsing the list of available skills, filtering by category, or searching by keyword. You can get more details about the skill and how to add it in the skill details.
4. Choose **Enable skill**.
5. If the skill requires it, link your master account by following the account linking steps. When you are done, you receive a success message in the console.
6. Choose **Enabled skills**, select the check box next to the skill that you just added, and choose **Add to skill group**.
7. Select the check box next to the skill group to which to add the skill, and choose **Add**.

The skill is enabled on all Alexa devices associated with the skill group.

**Note**

If there are a large number of rooms associated with the same skill group, this step might take up to five minutes.

**To remove a skill**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Skills**.
3. Choose **Disable** next to the skill that you want to remove, then choose **Disable**.

**To link a master account to a skill**

Some skills require the ability to connect with a user in another system. This is called account linking, which links a Alexa for Business account to a user account in another system.
When you add a skill that requires account linking, you are prompted to open the sign-in page of the skill provider and sign in with your user account. After you successfully sign in, Alexa obtains an access token that uniquely identifies the user within the system. Alexa for Business applies this token to all devices that receive your skill by default, making this your master account. Alexa stores this token and includes it in requests sent to the skill provider when the skill is invoked.

If you want to link a unique account for the devices in a specific room, you can override the linked account. For example, to use some smart home skill to control the lights in your conference room, you must link to the user account for that room in the smart home system.

To link a skill to a room
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Rooms and select a room.
3. In the Skills table, choose Link account to this room, Link.
4. Follow the skill account linking steps.

On the Room details page, there are optional and required actions available in the Skill configuration column, depending on skill type and account linking status:

<table>
<thead>
<tr>
<th>Account linking status/skill type</th>
<th>Master account linked</th>
<th>Account linked to room</th>
<th>No account linking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom skill</td>
<td>Link account to this room</td>
<td>Revert to master account</td>
<td>No action</td>
</tr>
<tr>
<td>Smart home skill</td>
<td>Require scope or link account to this room</td>
<td>Revert to master account and require scope</td>
<td>N/A</td>
</tr>
<tr>
<td>Private skill</td>
<td>Optional skill parameters</td>
<td>Link account to this room</td>
<td>Optional skill parameters</td>
</tr>
</tbody>
</table>

To configure the scope of a smart home skill

Note
Not all smart home skills use scope. Check with the skill developer to see if they do, and if so, what the value should be.

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Rooms and select a room.
3. In the Skills table, choose the edit icon next to the text field and enter the scope for a smart home with a master account skill linked.
4. Choose Save.

To configure a skill parameter of a private skill

Note
Not all private skills call into Alexa for Business to use the scope. Check with the skill developer to determine if this value is needed, and if so, what it should be.

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose **Rooms** and select a room.
3. In the **Skills** table, choose the edit icon next to the text field and enter the skill parameter value.
4. Choose **Save**.

**Private Skills**

In addition to public Alexa skills, developers can use the Alexa Skills Kit to publish skills privately to Alexa for Business organizations without the need to certify or have the skill available with all other Alexa skills. For more information, see [Create and Publish Private Skills](#).

**To build private skills**

1. Set up the Skills Management API (SMAPI) SDK environment. For more information, see [Alexa Skill Management API](#).
2. Download the skill manifest of the development stage skill you intend to publish as a private skill to your AWS account.

   ```
   $ ask api get-skill -s {skill_id} > skill_file_name.json
   ```
3. Add the following line in the publishingInformation section of your skill manifest file that you outputted with the command:

   ```
   "distributionMode": "PRIVATE"
   ```
4. To upload the updated skill manifest, update the skill with the modified manifest using **update-skill**. The following is an example of an update skill command:

   ```
   $ ask api update-skill -s {skill_id} -f skill.json
   ```
5. Submit your skill using the following command. This step may take up to two hours to complete. After completion, the skill is available in the live stage.

   ```
   ask api submit -s <skill_id>
   ```
6. After the skill is available in the live stage, distribute it to one or more Alexa for Business organizations. Use the ARN of the AWS account.

   ```
   ask api add-private-distribution-account -s <skillId> --stage live --account-id <id>
   ```

   **Note**
   
   --skill-id, -s is required. This is the skill ID for the skill to get and must be in the following format: amzn1.ask.skill.12345678-1234-1234-123456789123
   
   --stage is required. This is the stage for the skill. The live stage is currently the only supported stage.
   
   --account-id is required. This is the ARN of the AWS account where you want to make the skill available. Example: arn:aws:iam::123456789012:root
   
   You can remove the AWS account ARN from the private distribution account list at any time, which revokes access to the private skill from an account, by using the following command:

   ```
   ask api delete-private-distribution-account <-s|--skill-id <skillId>> --stage live --account-id <id>
   ```
   
   To list all the accounts to which the skill has been privately distributed, or that have access to the private skill, run the following command:

   ```
   ask api list-private-distribution-accounts <-s|--skill-id <skillId>> --stage live
   ```

**To manage private skills**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Skills, Private skills**.
3. In the list, select the skill that was published to your account and choose Review.
4. To enable the skill for your Alexa for Business organization, choose Enable.
5. To enable the skill for your Alexa devices, choose Enabled skills, select the check box next to the skill that you added, and choose Add to skill group.
6. To make the skill available for end users to discover and enable, choose Private skills and select the Available to users checkbox.

Managing Skill Groups

Skill groups are collections of skills that Alexa for Business uses to enable skills on the Alexa devices in your rooms. For example, you can define a skill group with all the skills for your conference rooms. When you assign an Alexa device to a room, Alexa for Business enables the skills in the skill groups assigned to the room.

You can add skills to your skill groups at any time, and Alexa for Business automatically enables them on the Alexa devices. To enable skills for a device in a room, you must first add them to a skill group, then assign that skill group to a room or group of rooms.

You can also remove a skill group from one or more rooms, or delete it.

To create a skill group

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Skill groups, Create skill group.
3. For Name and Description, enter unique values and choose Create.
4. To add skills, select the group, choose Add skills to group, and then select the skills to add.

You can now assign the skill group to your rooms.

To add or remove skills for an existing skill group

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Skill groups.
3. In the Name column, choose the name of the skill group to edit.
4. Under Skills, select the check box next to the skill to edit, and choose Add skills or Remove skills.

To assign a skill group to one or more rooms

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Skill groups.
3. In the Name column, choose the name of the skill group to assign.
4. Under Assigned rooms, select the check boxes next to the rooms to which to assign the skill group, and choose Assign to room, Assign.

To unassign a skill group from one or more rooms

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Skill groups.
3. In the Name column, choose the name of the skill group to unassign.
4. Under Assigned rooms, select the check boxes next to the rooms from which to unassign the skill group, and choose Unassign from room, Unassign.
To delete a skill group

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Skill groups.
3. Select the check box next to the skill group to delete, and choose Delete skill group, Delete.
Managing Conferencing

You can enable Alexa conferencing, as well as link Alexa for Business to your calendar system, to control conferencing with your devices and dial into meetings using your voice.

Tasks
- Set up Alexa Conferencing (p. 17)
- Link Alexa for Business to Your Calendar System (p. 18)
- Use Cisco TelePresence with Alexa for Business (p. 21)
- Manage Conferencing Providers (p. 24)

Set up Alexa Conferencing

Alexa for Business enables you to dial into meetings by just using your voice. You can use Alexa to connect to meetings by controlling existing video conferencing equipment or by using the Echo device as a speaker phone. Alexa for Business offers Alexa skills for the most common video conferencing equipment.

When Alexa hears a user request “Alexa, join my meeting,” the request is sent to the Alexa for Business conferencing service. When the meeting room has a supported video conferencing system, the request is sent to the third-party Alexa skill. The skill communicates with the video conferencing system, looks up if there is a scheduled meeting on the calendar, and prompts the user for confirmation to join this meeting. If there is no scheduled meeting, Alexa prompts the user for the meeting ID and optionally the PIN to join their meeting. The skill initiates a video conferencing call from the video conferencing system to your conferencing provider.

When the room doesn't contain a supported video conferencing setup, Alexa searches for a scheduled meeting on the calendar and prompts the user for a confirmation to join the meeting. If there is no scheduled meeting, Alexa prompts the user for the meeting ID and optionally the PIN to join the meeting, and makes a PSTN call to your conferencing provider.

Alexa for Business can join scheduled meetings of the following conferencing providers:

- Amazon Chime
- BlueJeans
- Zoom
- RingCentral Meetings
- Cisco WebEx
- Skype for Business

To configure Alexa for Business to join meetings with an Echo device

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose **Room profiles**, choose the name of the room profile associated with your meeting rooms, and enable **Outbound calling**.
3. Choose **Conference, Add provider**.

4. Choose one of the available conferencing providers, which automatically fills in the **Provider** pane.

   **Note**
   
   If the conference provider used by your organization is not available, choose **Custom conferencing provider**.

5. Review the following settings and edit them as necessary:

   - **Meeting settings** – Specify whether a meeting PIN is required to join the meeting. (Required)
   - **PSTN dial-in number** – Specify the phone number of your conferencing provider. This must be a US phone number.
   - **PSTN dial-in delays** – Specify the delays before the meeting ID and PIN are sent using DTMF.

6. Choose **Add**.

7. (Optional) To join scheduled meetings, link your calendar to Alexa for Business. For more information, see **Link Alexa for Business to Your Calendar System** (p. 18).

You can now say “Alexa, join my meeting” and Alexa prompts you to join the scheduled meeting or to provide the ID of the meeting to join.

### Link Alexa for Business to Your Calendar System

Alexa can automatically dial into scheduled meetings using your Echo devices or existing video conferencing equipment deployed in meeting rooms. To do this, connect Alexa for Business to Office 365, Google G Suite, or Microsoft Exchange.

### Tasks

- **Link Alexa for Business to Office 365** (p. 18)
- **Link Alexa for Business to Google G Suite** (p. 19)
- **Link Alexa for Business to Microsoft Exchange** (p. 20)

### Link Alexa for Business to Office 365

The administrator account has access to all of your mailboxes. Use a strong password to help protect account-level access to Office 365, or set up multi-factor authentication for this user account.

**To link Alexa for Business to Office 365**

1. Add an administrator account in your Office 365 account.
   
   a. Sign into your Office 365 account using an administrator account.
   
   b. In the **Admin Center**, choose **Users, Add a user**, and then fill in the required fields. We recommend using an email address that is easily recognizable, such as alexaforbusiness@domain.com.
   
   c. Choose **Roles**, select **Global administrator**, and choose **Add**.

2. Link the administrator account to Alexa for Business.
   
   a. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
   
   b. Choose **Calendar, Office 365**.
   
   c. Choose **Link account** and sign in with the administrator account that you created in step 1.
d. Confirm that you want to give Alexa for Business access to the account.

3. Associate the email address of your resource mailboxes in Office 365 to your Alexa for Business rooms.
   a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
   b. Choose Rooms and choose the room to which to add the email address.
   c. Choose Edit and enter the email address of your resource mailbox to associate to the Alexa for Business room.
   d. Choose Save.

4. Test the calendar integration.
   a. Create a new meeting invite in your Microsoft Outlook client.
   b. Add the room as the resource, add meeting dial-in information to your meeting invite, and send the invite to book the room.
   c. Say “Alexa, start my meeting” to the Echo device assigned to the room.

Your Echo device automatically dials into your meeting without prompting you for a meeting ID.

**Link Alexa for Business to Google G Suite**

Use a strong password to help protect account-level access to Google G Suite, or set up multi-factor authentication for this user account.

The following versions of G Suite are supported:

- G Suite Basic
- G Suite Business
- G Suite Enterprise
- G Suite for Education

**To link Alexa for Business to Google G Suite**

1. Add an administrator account in your Google G Suite organization.
   a. Sign into your Google G Suite account using an administrator account.
   b. In the Admin section, choose Users.
   c. Choose Add user and fill in the required fields. We recommend using an email address that is easily recognizable, such as alexaforbusiness@domain.com.
   d. Choose Create user.
   e. Open the user that you just created.
   f. Choose Admin roles and privileges, Manage roles.
   g. Choose Super Admin and assign it to the user.

2. Link the administrator account to Alexa for Business.
   a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
   b. Choose Calendar, G Suite.
   c. Choose Link account and sign in with the administrator account that you created in step 1.
   d. Confirm that you want to give Alexa for Business access to the account.

3. Associate the email address of your resource mailboxes in Google G Suite to your Alexa for Business rooms.
a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
b. Choose **Rooms** and choose the room to which to add the email address.
c. Choose **Edit**.
d. Enter the email address of your resource mailbox that you want to associate to the Alexa for Business room.
e. Choose **Save**.

4. Test the calendar integration.
   a. Create a new meeting invite in your Google Calendar and Add the room as the location.
   b. Add meeting dial-in information from the supported conferencing providers to your meeting invite and send it.
   c. Say “Alexa, start my meeting” to the Echo device assigned to the room.
   d. Your Echo device automatically dials into your meeting without prompting you for a meeting ID.

## Link Alexa for Business to Microsoft Exchange

### To link Alexa for Business to Microsoft Exchange

1. Confirm that you meet the following requirements:
   - You have an administrator account within your Microsoft Exchange server.
   - Microsoft Exchange is version 2010 SP1 or higher.
   - You have a valid Exchange Web Services (EWS) endpoint.
   - Basic authentication is enabled on both your Microsoft Exchange server and Autodiscover service.

2. Create a service account with access to the calendars in your organization.
   a. Open the Exchange Management Shell.
   b. Run the following command to create the service account.

   ```powershell
   New-Mailbox -UserPrincipalName alexaforbusiness@your_domain -Alias Alexa for Business -Name alexaforbusiness -OrganizationalUnit Users -FirstName Alexa -LastName Service Account -DisplayName "Alexa for Business Service Account"
   
   Note
   Make sure that "your_domain" is the domain of your organization. You are prompted to enter a password.
   
3. To look up meeting dial-in information from your resource mailboxes, configure them to include descriptions:
   a. Open the Exchange Management Shell.
   b. Run the following command to keep the descriptions in the meeting invites of your resource mailboxes:

   ```powershell
   Get-Mailbox -ResultSize unlimited -Filter {(RecipientTypeDetails -eq 'RoomMailbox' )} | Set-CalendarProcessing -DeleteComments $FALSE
   
4. Set up permissions. The service account must have permissions to access the calendars in your organization. You can enable service account access to the calendars in your organization by using one of the following two methods:
   - Method 1: Set up impersonation, which enables the service account to impersonate a given account so that it can perform all operations using the permission associated with the given account:
1. Open the Exchange Management Shell and run the following command:


- Method 2: Add the service account as delegate for each of your room mailboxes.
  1. Run the following command to give the service account access to all room mailboxes:

   `Get-Mailbox -ResultSize unlimited -Filter (RecipientTypeDetails -eq 'RoomMailbox') | Add-MailboxPermission -User alexaforbusiness -AccessRights ReadPermission`

5. Link the service account to Alexa for Business.
   a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
   b. Choose Calendar, Microsoft Exchange.
   c. Enter the User Principal Name (UPN) of your service account.
   d. Enter the service account password.
   e. Enter the URL of your EWS endpoint. The default URL for EWS is usually in the following format: https://mail.domain.com/EWS/Exchange.asmx.
   f. Select the access method you have set up.
   g. Choose Link account to complete the setup.

6. Associate the email address of your resource mailboxes in Microsoft Exchange to your Alexa for Business rooms.
   a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
   b. Choose Rooms and choose the room to which to add the email address.
   c. Choose Edit.
   d. Enter the email address of your resource mailbox that you want to associate to the Alexa for Business room.
   e. Choose Save.

7. Test the integration.
   a. Create a new meeting invite in your Microsoft Outlook client.
   b. Add the room as the resource.
   c. Add meeting dial-in information to your meeting invite.
   d. Send the invite to book the room.
   e. Say “Alexa, start my meeting” to the Echo device assigned to the room.
   f. Your Echo device prompts you to join the scheduled meeting without asking you for the meeting ID.

---

**Use Cisco TelePresence with Alexa for Business**

You can connect Alexa for Business to your Cisco TelePresence systems to control meetings with your voice.

To integrate Alexa with your Cisco TelePresence setup, download the Alexa for Business Gateway and register it with your Alexa for Business setup. After you register, you can add the Cisco TelePresence endpoints to control using Alexa. The Alexa for Business Gateway is listening to an Amazon SQS queue for control commands. When a user invokes the Alexa skill, a request is added to the queue and received by the Alexa for Business Gateway. The gateway processes the request and sends a control command to the Cisco TelePresence endpoint.

You must meet the following requirements to proceed:
• You have a Cisco TelePresence SX or DX system with latest TC software or CE software.
• HTTPS is enabled on your Cisco TelePresence system.
• You have Windows Server 2008 R2 or later to run the Alexa for Business Gateway.
• Your locally deployed Alexa for Business Gateway has access to the internet and local network access to control your Cisco TelePresence system.
• A conference provider has been added.

**To use Cisco TelePresence with Alexa for Business**

1. Set up your provider in Alexa for Business.
   a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
   b. Choose **Conference settings** and then choose the name of your default conferencing provider.
   c. Enter the H323/SIP settings if they aren't filled in. Alexa for Business uses these settings to create a dial-in string when there is no scheduled meeting on the calendar.

2. Set up IAM users and policy.
   b. Choose **Users, Add user**.
   c. Enter a user name (for example, AlexaforBusinessGatewayInstaller).
   d. For **Access type**, choose **Programmatic access**.
   e. Choose **Next, Attach existing policies directly, AlexaForBusinessFullAccess** in the list of policies, and then **Next**.
   f. Choose **Create user**.
   g. Download and save the IAM access key and secret key. You need them later when you configure the Alexa for Business Gateway.
   h. To create a second user that is used to run the Alexa for Business gateway, enter a user name (for example, AlexaforBusinessGateway).
   i. For **Access type**, choose **Programmatic access**.
   j. Choose **Next, Attach existing policies directly, AlexaForBusinessGateway** in the list of policies, and then **Next**.
   k. Choose **Create user**.
   l. Download and save the IAM access key and secret key. You need them later when you configure the Alexa for Business Gateway.

3. Enable the skill.
   a. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
   b. Choose **Conference settings and Alexa for Cisco TelePresence** in the list of conference equipment.
   c. Choose **Enable** to enable the skill.
   d. You receive a prompt to link an account. Sign in or create an Amazon.com account (for example, marymajor@example.com).
   e. Choose **Skills, Enabled skills**, and then select the skill.
   f. Choose **Assign to skill group** and choose the skill group associated with the rooms where you want to make the skill available.

4. Set up Alexa for Business Gateway to control your Cisco TelePresence systems within your local network.
   a. Choose **Download** to download the Alexa for Business Gateway installer.
   b. Run the installer on your Windows server as an administrator.
c. When prompted, enter the IAM access key and secret key of the IAM user that you created in step 2.

d. Enter a name for your gateway.

e. (Optional) Enter a description to identify the gateway in the Alexa for Business console.

f. When prompted, enter the user credentials to sign into your Cisco TelePresence system.

g. In the Alexa for Business console, refresh the Gateway section, and confirm that your gateway is listed.

5. Add your Cisco TelePresence system to Alexa for Business and add it to a room.

   a. Choose Endpoint, Add endpoint.

   b. Specify the Cisco TelePresence system name.

   c. Enter a friendly name, which can be used by the customer to identify the device. Enter an optional description.

   d. (Optional) Enter a description.

   e. Choose the Cisco TelePresence model.

   f. Specify the IP address or hostname of your Cisco TelePresence endpoint.

   g. Choose the Alexa for Business room where the Cisco TelePresence endpoint is located.

   h. Choose Add.

   i. Choose Rooms and the name of the room where you just assigned the Cisco TelePresence endpoint.

   j. Choose Discover devices to have the endpoint available in your room.

   k. Test the integration by saying “Alexa, start my meeting” and speak out the meeting ID and PIN for your meeting when prompted.

To update your Cisco TelePresence credentials

Update the credentials the Alexa for Business Gateway is using to connect to your Cisco TelePresence system.

1. Open Windows explorer and browse to the following location:

   %Program files%\AWS\Alexa for Business Gateway

2. Open the secrets.cfg file.

3. Update your credentials and save the file.

4. Choose Start. For Start Search, type services.msc and press ENTER.

5. Right-click on Alexa for Business Gateway and choose Restart.

To add a Cisco TelePresence endpoint

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.

2. Choose Conferencing settings, Alexa for Cisco TelePresence.

3. In the endpoint section, choose Add endpoint. For System name, enter Cisco TelePresence.

4. Enter a friendly name, which can be used by the customer to identify the device. Enter an optional description.

5. Choose Cisco TelePresence model and specify the IP address or hostname of your Cisco TelePresence endpoint.

6. Choose the Alexa for Business room where the Cisco TelePresence endpoint is located and choose Add.

7. Choose Rooms and the name of the room where you just assigned the Cisco TelePresence endpoint.

8. To have the endpoint available in your room, choose Discover devices.
You can now use Alexa to control your Cisco TelePresence endpoint using voice.

**To remove an endpoint**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Conferencing settings, Alexa for Cisco TelePresence**.
3. Go to the endpoint section and select the check box next to the device to deregister.
4. Choose **Remove**.

**Manage Conferencing Providers**

**To add a conferencing provider**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Conference settings, Add provider**.
3. Choose one of the available conferencing providers, which automatically fills in the **Provider** pane.
   - **Note**
     If the conference provider used by your organization is not available, choose **Other**.
4. Review the following settings and edit them as necessary:
   - **Meeting settings** – Specify whether a meeting PIN is required to join the meeting. (Required)
   - **PSTN dial-in number** – Specify the phone number of your conferencing provider. This must be a US phone number.
   - **PSTN dial-in delays** – Specify the delays before the meeting ID and PIN are sent using DTMF.
   - **SIP/H323 dial-in** – SIP/H323 dial-in settings are used to dial into meetings using your existing video conferencing equipment. (Required)
5. Choose **Add**.

You can edit the meeting settings and dial-in information for a provider at any time.

**To remove a conferencing provider**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. In the navigation bar, choose **Conference settings**.
3. On the **Conference settings** page, choose **Remove**.
   - **Note**
     You can’t remove a provider that is set as the default.

**To edit a conferencing provider**

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Conference settings** and choose the name of the provider to edit.
3. Edit the following settings as necessary:
   - **Meeting settings** – Specify whether a meeting PIN is required to join the meeting. (Required)
   - **PSTN dial-in number** – Specify the phone number of your conferencing provider. This must be a US phone number.
   - **PSTN dial-in delays** – Specify the delays before the meeting ID and PIN are sent using DTMF.
   - **SIP/H323 dial-in** – SIP/H323 dial-in settings are used to dial into meetings using your existing video conferencing equipment. (Required)
4. Choose **Save**.

**To set a conferencing provider as default**

When a user joins a meeting and there is no scheduled meeting, the user is prompted for the meeting ID and PIN of the default provider. You can only have one default provider for your account.

1. Open the Alexa for Business console at [https://console.aws.amazon.com/a4b/](https://console.aws.amazon.com/a4b/).
2. Choose **Conference settings**.
3. Select the name of the provider to set as default.
4. Choose **Set as default**.
Managing Users

You can invite users to connect to their personal Alexa account with your organization. When you send an invitation to a user, they receive an email with a temporary URL that allows them to join your organization after logging in with their Amazon account. When they join your organization, they gain access to the following features on their Alexa devices, both at home and at work:

- Discovering and enabling all the private skills that you make available to users.
- Discovering and enabling the private skills that you made available to them in their companion app.
- Joining meetings on Amazon Echo-family devices (Echo Show, Echo Plus, Echo, Echo Dot, and Echo Spot) managed by the account they used when joining your organization, and using the default conferencing provider.
- Linking their Microsoft Exchange calendar, if you issued the invitation to an email address that is part of the Exchange service account you linked in the Alexa for Business console.

In addition to the benefits available to users after joining your organization, you can require that users restrict any calendar accounts that they have linked and that match the domain of your service account configured in the Calendar section of the Alexa for Business console.

Tasks
- Set up Enrollment (p. 26)
- Invite and Remove Users (p. 27)
- Set up Microsoft Exchange Access for Users (p. 27)

Set up Enrollment

Before you can invite users, you must first set up user enrollment.

To set up user enrollment
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Settings, User enrollment, Edit.
3. For Company Name, enter the name of your company.
4. For Company contact email address, enter the full email address that your invited users can contact if they have any questions while going through the enrollment process.
5. Choose Save.

You can edit the company name, company contact email, featured private skills, and featured public skills at any time.

Note
Any invitations that have been sent before you make edits displays old information in both the email and the online webpage that a user navigates to during enrollment.

To edit the user enrollment email
1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose User Enrollment, Edit.
3. Edit the values for Company name, Company contact email address, Featured private skills, or Featured public skills.
4. Choose Save.

Invite and Remove Users

After you configure user enrollment for your organization, you can invite users.

To invite a user

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Users and select Invite new user.
3. Enter the First name, Last name, and Email address of the user to enroll.
   
   Note
   Typically, this is a corporate email address that can be mapped to a corporate identity in your system. When connecting to a Microsoft Exchange account, this must be the same email address as the one on the corporate Exchange server. Make sure that the email addresses you enter when inviting users are correct. Whoever receives the email with the unique URL can log in with their Amazon account and be a part of your organization.
4. (Optional) Choose Add another user and add the information from step 3. Repeat this step until you have entered all the information for the users to invite.
5. Choose Send invite to send an invitation to each user for whom you provided information.

To remove a user

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Users and select the check box next to the user to delete.
3. Choose Remove user, Remove.

After you remove a user, they can no longer access any of the benefits of being enrolled in your organization. If you remove a user who has not completed enrollment, the token is not valid.

A user might fail to enroll while the URL token is valid. In this case, you can resend the invitation.

To resend an expired invitation

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Users and select the check box next to the user.
3. Choose Resend invitation.

Set up Microsoft Exchange Access for Users

You can link Alexa for Business to your Microsoft Exchange server. This enables enrolled users to ask Alexa about their scheduled events or add new events to their Microsoft Exchange calendar.

To give enrolled users access to their Microsoft Exchange calendar, set up a service account on your Microsoft Exchange server to access the users' calendars. After the service account is set up, users can link Alexa to their Microsoft Exchange using the Alexa app.
If you already set up a service account to access your room calendars, skip to step 3 and give the service account permissions to your users' calendars.

Before your proceed, confirm that you meet the following requirements:

- You have an administrator account within your Microsoft Exchange server.
- Microsoft Exchange is version 2013 or higher.
- You have a valid Exchange Web Services (EWS) endpoint with a valid digital certificate purchased from a trusted public certificate authority (CA).
- Basic authentication is enabled on both your Microsoft Exchange server and Autodiscover service.

Create a service account with access to the calendars in your organization.

1. Open the Exchange Management Shell.
2. Run the following command to create the service account.

```
New-Mailbox -UserPrincipalName alexaforbusiness@your_domain -Alias Alexa for Business -Name alexaforbusiness -OrganizationalUnit Users -FirstName Alexa -LastName Service Account -DisplayName "Alexa for Business Service Account"
```

**Note**

Make sure that "your_domain" is the domain of your organization. You are prompted to enter a password.

The service account must have permissions to access the calendars in your organization. You can enable service account access to the calendars in your organization by using one of the following two methods:

- Set up impersonation, which enables the service account to impersonate a given account so that it can perform all operations using the permissions associated with the given account:

  1. Open the Exchange Management Shell and run the following command:

     ```
     ```

   2. To limit the service account, define the scope. For example, to only give the service account permissions to the room mailboxes in the organization, run the following command in Exchange Management Shell:

      ```
      New-ManagementScope -Name "UserMailboxes" -RecipientRestrictionFilter {RecipientTypeDetails -eq "UserMailbox"}
      ```

   3. To apply permissions to the service account, run the following command:

      ```
      New-ManagementRoleAssignment –Name "ResourceImpersonation" –Role ApplicationImpersonation –User alexaforbusiness –CustomRecipientWriteScope "UserMailboxes"
      ```

- Add the service account as full access and send as permissions for each of your user mailboxes.

To set up impersonation

1. Open the Exchange Management Shell and run the following command:

   ```
   ```

2. To limit the service account, define the scope. For example, to only give the service account permissions to the room mailboxes in the organization, run the following command in Exchange Management Shell:

   ```
   New-ManagementScope -Name "UserMailboxes" -RecipientRestrictionFilter {RecipientTypeDetails -eq "UserMailbox"}
   ```

3. To apply permissions to the service account, run the following command:

   ```
   New-ManagementRoleAssignment –Name "ResourceImpersonation" –Role ApplicationImpersonation –User alexaforbusiness –CustomRecipientWriteScope "UserMailboxes"
   ```

To add the service account as full access

- Run the following command to give the service account access to all user mailboxes:
To link the service account to Alexa for Business

1. Open the Alexa for Business console at https://console.aws.amazon.com/a4b/.
2. Choose Calendar, Microsoft Exchange.
3. Enter the User Principal Name (UPN) of your service account and service account password.
4. Enter the URL of your EWS endpoint. The default URL for EWS is usually in the following format:
   https://mail.domain.com/EWS/Exchange.asmx.
5. Select the access method that you have set up and choose Link account.

To test integration to access the calendar of an enrolled user

1. Open the Alexa app as an enrolled user.
2. Choose Settings, Calendar.
3. Choose Microsoft Exchange and complete the required steps.

Alexa can now read back the upcoming events on the calendar.
Logging Alexa for Business Administration Calls with AWS CloudTrail

Alexa for Business is integrated with CloudTrail. CloudTrail is a service that captures API calls made by or on behalf of Alexa for Business in your AWS account and delivers the log files to an Amazon S3 bucket that you specify. CloudTrail captures all API calls from the Alexa for Business console. Using the information collected by CloudTrail, you can determine which requests were made, the source IP address for the request, who made the request, and when it was made. For more information, including how to configure and enable CloudTrail, see the AWS CloudTrail User Guide.

When CloudTrail logging is enabled in your AWS account, API calls made from Alexa for Business on your behalf are tracked in log files. These records are written together with other AWS service records in a log file. CloudTrail determines when to create and write to a new file based on time period and file size.

You can store your log files in your bucket for as long as you want, or you can define Amazon S3 lifecycle rules to archive or delete log files automatically. By default, your log files are encrypted using Amazon S3 server-side encryption (SSE). To take quick action upon log file delivery, you can choose to have CloudTrail publish Amazon SNS notifications when new log files are delivered. For more information, see Configuring Amazon SNS Notifications for CloudTrail.

CloudTrail log files can contain one or more log entries, with each entry comprised of multiple JSON-formatted events. A log entry represents a single request and contains information about the action taken, who generated the request, where they were when they made the request, system information, and information that will vary depending on the type of request. Every log entry also contains information about who generated the request. The user identity information in the log helps you determine whether the request was made with root or IAM user credentials, with temporary security credentials for a role or federated user, or by another AWS service. For more information, see the `userIdentity` field in the CloudTrail Log Event Reference.

Log entries are not in any particular order and are not an ordered stack trace of the public API calls. Entries for Alexa for Business are identified by the `a4b.amazonaws.com` event source. Sensitive information, such as passwords, authentication tokens, file comments, and file contents, are redacted in log entries.

The following is an example of a CloudTrail log entry for Alexa for Business:

```
{
    "Records": [{
        "eventVersion": "1.05",
        "userIdentity": {
            "type": "IAMUser",
            "principalId": "EX_PRINCIPAL_ID",
            "arn": "arn:aws:iam::123456789012:user/Alice",
            "accountId": "123456789012",
            "accessKeyId": "EXAMPLE_KEY_ID",
            "userName": "Alice"
        },
        "eventTime": "2017-11-13T10:00:02Z",
        "eventSource": "a4b.amazonaws.com",
        "eventName": "CreateRoom",
        "awsRegion": "us-east-1",
```
"sourceIPAddress": "192.2.0.1",
"userAgent": "AWS Internal",
"requestParameters": null,
"responseElements": {
  "roomArn": "arn:aws:a4b:us-east-1:123456789012:room/8eed09c4ae340d2ba08b8c6c3e40970/66afda686e75c5b62fceaf60ac00e7a6",
  "requestID": "6a875d42-c859-11e7-93bc-f944dc16ba6b",
  "eventId": "2b045b94-82d9-407d-aff3-6c308b40f3eb",
  "resources": [{
    "ARN": "arn:aws:a4b:us-east-1:123456789012:profile/8eed09c4ae340d2ba08b8c6c3e40970/00491b672c651240de09540d2072f660",
    "accountId": "123456789012",
    "type": "AWS::A4B::Profile" },
  ],
  "ARN": "arn:aws:a4b:us-east-1:123456789012:room/8eed09c4ae340d2ba08b8c6c3e40970/66afda686e75c5b62fceaf60ac00e7a6",
  "accountId": "123456789012",
  "type": "AWS::A4B::Room" },
  "eventType": "AwsApiCall",
  "recipientAccountId": "123456789012"
}
Document History for Alexa for Business Administration Guide

The following table describes the documentation for this release of the Alexa for Business Administration Guide.

- **Latest documentation update:** January 26, 2018

<table>
<thead>
<tr>
<th>Change</th>
<th>Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>Assign multiple devices to a room</td>
<td>Managing Devices (p. 10)</td>
<td>January 26, 2018</td>
</tr>
<tr>
<td>Initial release</td>
<td>Initial release</td>
<td>November 29, 2017</td>
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