# jamf PRO

How to Configure Jamf Pro SMTP to Use the Microsoft Graph API



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#### Preface

Configuring Jamf Pro to use the Microsoft Graph API for SMTP enhances security, ensures compliance, and simplifies management, all while aligning with Microsoft's modern authentication framework. It also future-proofs your organization's Jamf Pro setup and improves the reliability of email notifications. This is particularly beneficial for organizations heavily invested in the Microsoft 365 ecosystem.

This guide is designed to complement Jamf's documentation on configuring the Microsoft Graph API for SMTP by offering a more visual, step-by-step approach. Please note that Microsoft occasionally updates the names and locations of certain items, so your experience may differ slightly. For the most up-to-date information, refer to Jamf's official documentation at:

Configuring Jamf Pro to Use Microsoft Graph API with SMTP

#### Requirements for This Guide:

Ensure you have administrative privileges for the following systems and tools:

- Jamf Pro Server: Version 11.4 or later.
- Microsoft Entra ID: Access to manage settings and configurations.
- Exchange Admin Center: Administrative access for email configuration.
- PowerShell for Mac: Version 7.4 or later installed.
- PowerShell Exchange Module: Installed and configured.
- An email account managed by your organization, such as jamfalerts@yourdomain.com.

NOTE: An Exchange administrator with at least Organization Management permissions is required to configure permissions in Exchange admin center.

#### Download Link:

PowerShell for Mac: Installing PowerShell on macOS (Version 7.4)

https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell-onmacos?view=powershell-7.4

This guide is designed for Mac administrators and demonstrates all configurations using a Mac computer. It includes instructions for installing PowerShell for Mac and the Exchange Module. If you already have these tools installed, you can skip the corresponding steps. For those following this guide on a Windows computer, some steps may differ, and your results may vary.



#### Section 1: Creating an app registration in Microsoft Entra for Jamf Pro

#### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

#### Hardware and Software:

Requirements for following along with this section:

• Access to Microsoft Entra with administrative privileges

In this section we will configure an app registration in Microsoft Entra to be used in Jamf Pro for SMTP.

1. Log in to the Microsoft Entra admin center at: <u>https://entra.microsoft.com/</u>.



- 2. Enter your password.
- 3. Click Sign in.

Microsoft		
$\leftarrow$ johnappleseed@manag	gedaccount.onmicrosof	
Enter password		
•••••	<u>ę.</u>	<u> </u>
Forgot my password		
Use an app instead		
	Sign in	-3



4. If you're using Multi Factor Authentication , approve your sign in request.



- 5. Click Applications.
- 6. Click App registrations.
- 7. Click New Registration (+).

	Microsoft Entra admin cent		Copilot 🗘 ᄨ 🕐 문
	1 Home	Home >	
	Diagnose & solve problems	7	
	★ Favorites	H New registration     H Endpoints     X Troubleshoot	👕 Refresh 🚽 Download 💀 Previe
	Identity	Starting June 30th, 2020 we will no longer add any new feat Active Directory Graph. We will continue to provide technic update: Applications will need to be upgraded to Microsoft	ures to Azure Active Directory Authentication al support and security updates but we will not 4 Authentication Library (MSAL) and Microsof
	i Overview	upuates. Applications will need to be upgraded to microsof	
	A Users	All applications Owned applications Deleted app	lications
	<sup>ሳ</sup> ድ <sup>ጵ</sup> Groups	Start typing a display name or application (client) ID to f	ilter these r
	E Devices	$\checkmark$	
5 —	- Applications	<ul> <li>This account isn't listed as an</li> </ul>	n owner of any applications in this direc
	Enterprise applications	View all ap	oplications in the directory
6 —	App registrations		
	<u> </u>		
	🤰 Learn & support	^	
		«	



#### 8. Configure the following:

- A. Name: Jamf Pro SMTP
- B. Leave all other items at their default settings
- C. Click Register

	Home	Home > App registrations >	
	Diagnose & solve problems	Register an application ×	
*	Favorites 🗸	* Name The user-facing display name for this application (this can be changed later).	
4	Identity ^	Jamf Pro SMTP	A
0	Overview		
8	Users 🗸 🗸	Supported account types	
ŝze	Groups 🗸	Accounts in this organizational directory only (Clean Air Group only - Single tenant)	
圮	Devices 🗸 🗸	Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)	
₿.	Applications	Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)	
	Enterprise applications	Personal Microsoft accounts only	
	App registrations	Help me choose	
<u></u>		Bu proceeding you care to the Microsoft Distory Delivier #3	
2	Learn & support	by proceeding, you agree to the microsoft reaconn rolicles to	
	«	Register C	J

9. Open TextEdit located in the Applications folder.



10. Create a new document and enter the following:

- A. Client ID:
- B. Tenant ID:
- C. Object ID:
- D. Service Principal ID:
- E. Client Secret Value ID:
- F. Email Group ID:

11.Save the file to your Desktop and name it: Entra\_Registration\_Info

12.Keep the document open. We will fill in the information in this document throughout the guide.

	Entra_Registration_Info
¶ - Helvetica 🗘 Regula	r ≎ 18 • ■ 🔏 B I U ≡ Ξ Ξ Ξ
Client ID:	
Tenant ID:	
Object ID:	
Service Principal ID:	
Client Secret Value ID:	
Email Group ID:	



- 13.Switch back to Microsoft Entra and copy and paste the following information into the Entra\_Registration\_Info document on your Desktop:
  - A. Application (client) ID
  - B. Object ID
  - C. Directory (tenant) ID
  - D. In the "Managed application in local directory section", Click Jamf Pro SMTP

ң Jamf Pro SMTP 🔗			
✓ Search «	🗓 Delete 🌐 Endpoints 🐼	Preview features	
Noverview	A Frankisla		
📣 Quickstart	Essentials		
💉 Integration assistant	Display name Jamf Pro SMTP		Client credentials Add a certificate or secret
X Diagnose and solve problem	Application (client) ID 77	1dc	Redirect URIs Add a Redirect URI
Manage B	Object ID f1	7f9	Application ID URI Add an Application ID URI
<ul> <li>Branding &amp; properties</li> <li>Authentication</li> </ul>	Directory (tenant) ID 7c	f7	Managed application in local directory Jamf Pro SMTP
Certificates & secrets	Supported account types My organization only		

14.Copy the Object ID and paste it into the Service Principal ID section of the Entra\_Registration\_ Info document.

NOTE: The Object ID is also known as the Service Principal ID. This is different from the Object ID in the previous step.



15.Confirm the information in the Entra\_Registration\_Info document looks similar to the picture below. Save the document but keep it open. We will need to add more info in a later step.



16. Click the back button in your browser.

Ś	Safari	File	Edit	View
•	•	÷	<	>



17.Click Certificates & secrets.



18. Click Client Secrets.

19.Click New client secret (+).

10	<ul> <li>Application registration</li> </ul>	on certificates, secrets ar	nd federated credentials can b	e found in the tabs below.
18	Certificates (0)	t secrets (0) Fede	rated credentials (0)	
	A secret string that the ap application password.	plication uses to prov	e its identity when requesti	ng a token. Also can be referred to as
19—	+ New client secret Description	Expires	Value ①	Secret ID
	No client secrets have bee	en created for this app	lication.	

20.Configure the following:

- A. Description: Jamf Pro SMTP
- B. Expires: Select a time of your choosing. This guide will select Recommended: 180 days (6months)
- C. Click Add

Add a client se	cret ×	
Description	Jamf Pro SMTP	
Expires	Recommended: 180 days (6 months)	— I
Add Cancel		



21.Copy the Value.

floor Got a second to give us some feedback? $ ightarrow$				
Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web addressable location (using an HTTPS scheme). For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.				
() Application registration certi	ificates, secrets and federated cre	edentials can be found in the tabs below.	×	
Certificates (0) Client secrets (1) Federated credentials (0) A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.				
Description	Expires	Value 🛈	Secret ID	
Jamf Pro SMTP	7/5/2025	46 I 🗅	15 99 🗅 💼	

22.Switch back to the Entra\_Registration\_Info document and paste in the Value to the Client Secret Value ID: section of the document. Save the document but keep it open. We will need to add more info in a later step.



This completes this section. In the next section, we will create a mail enabled security group to be used for sending Email from the Jamf Pro server.



## Section 2: Configuring a Mail-enabled security group in Exchange admin center

#### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

#### Hardware and Software:

- Requirements for following along with this section:
  - Exchange Admin Center access with administrative privileges

An Exchange administrator with at least Organization Management permissions is required to configure permissions in Exchange admin center. In this section we will configure a Mail-enabled security group and add members to the group that need to receive mail from the Jamf Pro server.

1. Log in to the Exchange Admin Center: https://admin.exchange.microsoft.com/#/adminRoles

Mi	crosoft
Pick	an account
à	JohnAppleseed@ManagedAccount.onmi crosoft.com
+	Use another account

- 2. Enter your password.
- 3. Click Sign in.





4. If you're using Multi Factor Authentication, approve your sign in request.



- 5. Click Recipients.
- 6. Click Groups.
- 7. Click Mail-enabled security.
- 8. Click Add a group.





9. Select the radio-button for Mail-enabled security

#### 10.Click Next.

	Exchange admin center		RG
=		Home > Groups > Add a group	
6	Home		
8	Recipients ^	Group type     Choose a group type	
	Mailboxes		
	Groups	O Basics Choose the group type that best meets your team's needs. Learn	
	Resources	more about group types	
	Contacts	O Owners	
	Mail flow $\checkmark$	Mambers Microsoft 365 (recommended)	
2	Roles 🗸	Allows teams to collaborate by giving them a group email and a shared workspace for conversations, files, and	
G	Migration	C Settings calendars. In Outlook, these are called Groups.	
цĘ	Mobile $\checkmark$	Einish     Distribution	
Ŀ	Reports $\checkmark$	Creates an email address for a group of people.	
Q	Insights	9 Mail-enabled security	
C#	Public folders	Sends messages to all members of the group and gives	
-	Organization $\checkmark$		
\$	Settings	O Dynamic distribution	
ß	Troubleshoot $\checkmark$	Sends email to all members of the list. The group's membership list is updated every 24 hours, based on the filter and an officiency events of the second	U
⊞	Other features	hitters and conditions you set.	,s
J	Microsoft 365 admin center	Next Cancel	

- 11.Configure the following: A. Name: JamfProSMTP

  - B. Description: Optional This guide will use: Used for Jamf Pro SMTP C. Click Next

	Exchange admin center				
=		Home > Groups > Add a group			
ଜ	Home				
8	Recipients ^	Group type	Set up the basics		
	Mailboxes		-		
	Groups	Basics	To get started, fill out some basic info about the group you'd		
	Resources		like to create.		
	Contacts				
	Mail flow $\checkmark$	 O Members	Name *		
2	Roles $\checkmark$		JamfProSMTP		
G	Migration	Settings	Description		
j,	Mobile ~	C Finish	Used for Jamf Pro SMTP		
Ŀ	Reports ~	U misi			
8	Insights				
C#	Public folders				
品	Organization $\checkmark$				
٢	Settings				
B	Troubleshoot $\checkmark$				
⊞	Other features				
a	Microsoft 365 admin center	Back Next Cancel			



#### 12.Click Assign owners.

Assign owners	
Group owners have unique permissions to manage the group. They can add and remove members, change group settings, rename the group, update its description, and more.	
① You have to have at least one owner. We recommend adding two, so one can help out in the other's absence.	
+ Assign owners	_

13. Select the Exchange administrator accounts that should have permissions to manage the group.

14.Click Add.





#### 15.Click Next.

Assign owners	
Group owners have unique permissions to manage the group. They con- remove members, change group settings, rename the group, update and more.	an add and its description,
You have to have at least one owner. We recommend adding two, so one o other's absence.	can help out in the
+ Assign owners	
O Display name	
KKI Keith Mitnick kmitnick@managedaccount.org	
Back	Cancel

16.Click Add members.

4	Add members
Gi m ya	roup members have access to everything the group can access, and will receive email essages sent to the group email address. By default, they can invite guests to join urr group, but they can't edit group settings.
	+ Add members
	Add your first group member
	New members will receive an email when you add them



17. Choose an account to use for sending email from the Jamf Pro server. We recommend selecting an email account managed by your organization, such as jamfalerts@yourdomain.com. NOTE: We recommend documenting the member email address that you're using in this step as you will need it when setting up SMTP on the Jamf Pro server in the last section of this guide.

#### 18.Click Add.

ſ	Add members
	Select up to 20 people to join this group as members. You can add more later from Active teams & groups.
	Search for a name or email address
	O Display name
17	JAM Jamf Alerts jamfalerts@managedaccount.org
r	
18—	Add (1) Cancel

19.Click Next.

messages sent to the group email address. By default, they can invite guests to join your group, but they can't edit group settings.			
+ Add m	nembers		
O D	isplay name		
0	JA Jamf Alerts jamfalerts@managedaccount.org		



- 20.Configure the following:
  A. Group email address: create an address of your choosing. This guide will use jamfsmtp
  B. Domains: Select your domain.
  C. Approval: Select the checkbox for "require owner approval to join the group"

  - D. Click Next

	Edit settings		
	Mail-enabled security group		
	Has all the functionality of a distribution l access to OneDrive and SharePoint.	ist and additionally can be used to control	
	Group email address *	Domains	
Α —	jamfsmtp	@ managedaccount.org	—— B
c—	Allow people outside of my organiza security group	tion to send email to this Mail-enabled roup	
	Back Next	Cancel	

21.Click Create group.

Review and finish adding group
You're almost there - make sure everything looks right before adding your new group.
Group type
Edit
Basics Name: JamfProSMTP
Description: Used for Jamf Pro SMTP Edit
Owners
Keith Mitnick Edit
Members Jamf Alerts
Edit
Settings Email: jamfsmtp@managedaccount.org Communication: Disabled Require owner approval to join the group: Yes
Back Create group Cancel



#### 22.Click Close.

JamfProSMTP is created
It can take up to an hour for JamfProSMTP group to appear in your groups list.
You can change these settings:
<ul> <li>Send copies of group conversations and events to group members' inboxes</li> <li>Let people outside the organization email this group</li> <li>Edit group settings</li> </ul>
Would you like to know more?
Using groups to collaborate effectively
Next steps
Add another group
Close

23.Confirm the group is shown in the list.

Gr	oups							
Micr	osoft 365	Distribution list	Dynamic distributior	list Mail-enabled securit	у			
٩,	Add a group				1 item		ch Mail-enabled sec	urity
	Group na	me ↑		Group email		Sync status	Created on	□;;
	JamfPro	SMTP	:	jamfsmtp@managedaccount.org		0	January 6, 2025 at 2:43 PM	

24.Open the Entra\_Registration\_Info and enter the name of your Group Email address as shown in the previous step. This guide will use jamfsmtp@managedaccount.org. Save the document but keep it open. We will need this info later on in the guide.



This completes this section. In the next section, we will install PowerShell for Mac and create a service principal to provide application specific identity.



#### Section 3: Creating a service principal using PowerShell

#### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

#### Hardware and Software:

Requirements for following along with this section:

- PowerShell for Mac: Version 7.4 or later installed.
- PowerShell Exchange Module: Installed and configured.

#### Download Link:

PowerShell for Mac: Installing PowerShell on macOS (Version 7.4)

https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell-onmacos?view=powershell-7.4

In this section we will create a service principal using PowerShell. This a security identity used by applications, automated tools, or services to access resources within an Microsoft Entra tenant. It functions like a user identity, but it is specifically designed for enabling secure access to resources with specific permissions.

1. Install PowerShell for Mac and follow all the default prompts.



2. If you're presented with this screen, following the instructions in the link below to install PowerShell for Mac.

https://support.apple.com/guide/mac-help/apple-cant-check-app-for-malicious-softwaremchleab3a043/mac



3. If you're presented with this screen, click Install and follow the default prompts to install PowerShell for Mac.





4. Open PowerShell for Mac located in the Applications folder.



5. To install the PowerShell Exchange Module, Run the command below and enter Y when prompted to install the module.

Install-Module -Name ExchangeOnlineManagement



6. Run the command below:



7. We need to create the variables for PowerShell. Open the Entra\_Registration\_Info document located on your Desktop and paste in the corresponding values between the single quotes in the sample code below. It should look similar to the picture below. Copy the filled in Sample code when done.



Sample Code:

```
$Tenant=' ';
$ClientId=' ';
$ServicePrincipal=' ';
$EmailGroupId=' ';
```

8. Paste the code into PowerShell to set the variables.

NOTE: You can copy the entire block of the code from the previous step and paste it into PowerShell to set all the variables at once.





9. Run the command below:

[PS	/Users/keith> Connect-ExchangeOnline -Organization \$Tenant
Th:	is V3 EXO PowerShell module contains new REST API backed Exchange Online cmdlets which doesn't require WinRM for Client-Server communicatio /ou can now run these cmdlets after turning off WinRM Basic Auth in your client machine thus making it more secure.
	like the EXO* prefixed cmdlets, the cmdlets in this module support full functional parity with the RPS (V1) cmdlets.
	cmdlets in the downloaded module are resilient to transient failures, handling retries and throttling errors inherently.
	ST backed EOP and SCC cmdlets are also available in the V3 module. Similar to EXO, the cmdlets can be run without WinRM basic auth enabled.
Foi	r more information check https://aka.ms/exov3-module
	orting with EXO V3.7, use the LoadCmdletHelp parameter alongside Connect-ExchangeOnline to access the Get-Help cmdlet, as it will not loade / default.

10. When prompted, enter the credentials of an Exchange account with administrative privileges.



- 11.Enter your password.
- 12.Click Sign in.





13. If you're using Multi Factor Authentication , approve your sign in request.



14. Close your web browser when you see the message below.



15.In PowerShell, run the command below to make sure Enable-OrganizationCustomization setting is enabled in the Microsoft Entra tenant.

Get-OrganizationConfig | fl Identity, IsDehydrated

NOTE: A response of False means it's configured correctly. If you get a response of True, then it's disabled. Run this command to enable it.

Enable-OrganizationCustomization



16. Run the command below to create a new service principal.

New-ServicePrinc	ipal -AppId \$ClientId -ObjectId	<pre>\$ServicePrincipal -DisplayName</pre>
Service Princip	pal"	
•••	🚞 keith — pws	h — 179×38
[PS /Users/keith> New-Servic	ePrincipal -AppId \$ClientId -ObjectId \$ServicePrincipal -Displa	yName "Service Principal"
DisplayName	ObjectId	AppId
Service Principal	d06 786	771. 41dc
PS /Users/keith>		

17. Run the command below to create a role to send mail for mail-enabled security groups.

New-ManagementRoleAssignment -App \$ClientId -Role "Application Mail.Send" -RecipientGroupScope \$EmailGroupId

● ●							
P\$ /Users/keith> New-ManagementRoleAssignment -App \$ClientId -Role "Application Mail.Send" -RecipientGroupScope \$EmailGroupId							
Name	Role	RoleAssigneeName	RoleAssigneeType	AssignmentMethod	EffectiveUserName		
Application Mail Sond-de8(876	Application Mail Sond	d09/ /7	ServicePrincipal	Direct			
Application Mail.Send-de64676.	Application Mall.Send	47	Servicerincipal	bilect			
PS /Users/keith>							

This completes this section. In the next section, we will configure the SMTP settings on the Jamf Pro server.



#### Section 4: Configuring SMTP server settings in Jamf Pro

#### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

#### Hardware and Software:

Requirements for following along with this section:

• A Jamf Pro server with administrative privileges

\*Access to an email account

In this section we will configure the Jamf Pro server to use Microsoft Graph API for SMTP.

1. Log into your Jamf pro server with administrative privileges.

	Pro Pro	
Username		
1		
Required		
Password		
		8
Required		
	Log in	

- 2. Click Settings.
- 3. Enter smtp in the search field.
- 4. Click on SMTP server.

	Pro Pro			Q 8
	👸 Dashboard		Settings	
	Computers	>		
	Devices	>	smtpl Cicar 3	olay icons
	& Users	>		
2 —	Settings		All System Global Jamfapps Self Service Server Network Computer management Device management User m	anagement
			System 1 result found for "smtp"	
			SMTP server 4	
			Integrate a server to allow Jamf Pro to send emails and invitations	



5. Click Edit.

Settings : System	
Use the switch to enable or disable the connection.	
	History Edit

6. Open the Entra\_Registration\_Info document located on your Desktop.





#### 7. Switch back to the Jamf Pro server and configure the following:

- A. Enable SMTP
- B. Authentication Method: Microsoft Graph APIC. Tenant ID: Enter the Tenant ID from the Entra\_Registration\_Info document
- D. Client ID: Enter the Client ID from the Entra\_Registration\_Info document
- E. Client Secret: Enter the Client Secret Value ID from the Entra\_Registration\_Info document.
- F. Sender email address: Enter the email address that you added as a member of the Mailenabled security group in section two of this guide.

G. Click Save.

<ul> <li>SMTP server</li> </ul>	
Use the switch to enable or disable the connection.	
Authentication settings	
Authentication method The method of authentication to use when connecting to the SMTP server	
Microsoft Graph API	
Tenant ID	
7 <u>7dc af7</u>	
Required	
Client ID	
771 dc	
Required	
Client secret	
Required	
Configuration settings	
Comparation Settings	
Sender email address SMTP account email address that Jamf Pro will send emails from	
jamfalerts@managedaccount.org	
Required	

8. On the bottom right, click Test.





9. Enter an email address that you have access to.

#### 10.Click Test.

	Settings : System > SMTP server ← Test	
	Test SMTP Server Test your SMTP server settings by sending a test email to the address below	
	Recipient Email address of the recipient	
9 —	kmitnick@hcsonline.com	10
	Required	

11.Confirm the email was sent successfully.

Settings: System > SMTP server ← Test		
Test SMTP Server Test your SMTP server settings by sending a test email to the add	fress below	
Recipient Email address of the recipient           kmitnick@hcsonline.com           Required		Test
Success A test message was successfully sent.		

12.Confirm the email was delivered.

Delete	Archive	① Report	$\sim$	Co Move	⊢ Flag	v	
@ Summa	ry by Copilot					Summarize	
Jamf Pro: 1	Test message			(	) Ø~	$\leftarrow \ll \rightarrow$	
⊙ Jamf Alerts <jamfalerts@managedaccount.org>         Today at 8:47 PM           To:         ⊙ Keith Mitnick</jamfalerts@managedaccount.org>							
This is a test message from your Jamf Pro server.							

This completes the guide.