### Einleitung

Das nachfolgende Dokument beschreibt die Einrichtung einer "Enterprise Application", welche für die Verwendung von OpenSpaces in Kombination mit Microsoft 365 und Exchange Online notwendig ist. Nach der erfolgreichen Einrichtung erhalten Sie die Parameter für das Anmelden des Dienstes OpenSpaces mittels **Modern Auth** (OAuth2) am Exchange Server. Diese können im Anschluss im Windows-Setup Tool von OpenSpaces eingetragen werden.

# **Anlegen der Enterprise Application**

Die Enterprise Application wird in Microsoft Entra ID (ehemals Azure Active Directory) eingerichtet. Diese ist nach einer Anmeldung mit einem Administratoraccount unter <u>https://entra.microsoft.com/</u> erreichbar. Klicken Sie unter "Applications" auf "App registrations" und anschließend auf "Owned applications".

Klicken Sie nun auf "+ New registration" und folgen Sie den nächsten Schritten.

Microsoft Entra admin center		$\mathcal{P}$ Search resources, services, and docs (G+/)		Q 🕸	⑦ 주	
A Home		Home > Enterprise applications   Overview > Kindern App registrations ☆ …	nann GmbH $>$ Enterprise applications   Overview $>$ App registrations $>$ Register a	an application	>	×
★ Favorites	$\sim$	+ New registration 🜐 Endpoints 🤌 Troubleshoo	ting 🖒 Refresh 🞍 Download 🐱 Preview features 🕴 🖗 Got feedback?			
Identity	$^{\sim}$	All applications <b>Owned applications</b> Deleted	applications			
(i) Overview		Start typing a display name or application (client) ID	to filter these r			
A Users	$\sim$	> searce spring a dispray name or appreciation tenency to				
<sup>ቀ</sup> х <sup>ቀ</sup> Groups	$\sim$	5 applications found Display name 个()	Application (client) ID		Created on $\uparrow\downarrow$	Certificates & secrets
E Devices	$\sim$	<ul> <li>A product with the life</li> </ul>	<ul> <li>An area to a second seco</li></ul>		12/16/2022	🕑 Current
Applications	$\sim$	<ul> <li>Appendix</li> </ul>	a tan ing ang ang ang ang ang ang ang ang ang a	a 1	10/20/2022	<ul> <li>Current</li> </ul>
Enterprise applications		<ul> <li>Algorithm Community</li> </ul>	In the second	in in	10/20/2022	🕑 Current
		<ul> <li>and a state spectrum</li> </ul>	A MARKAN A M	~	4/4/2023	🕑 Current
App registrations		<ul> <li>The second state</li> </ul>	<ul> <li>A state of the state of the state of the state</li> </ul>		2/27/2023	🕑 Current
Protection	$\sim$					
Identity governance	$\sim$					
External Identities	~					
Learn & support	^					
	~					

Vergeben Sie im nächsten Fester einen eindeutigen, frei wählbaren Namen für die Applikation. In unserem Beispiel vergeben wir "Kindermann\_OpenSpaces". Wählen Sie als "Supported account types" die erste Option "Accounts in this organizational directory only ([Unternehmenskennung] only - Single tenant)".

Bestätigen Sie mit "Register".

Microsoft Entra admin center	, P Search resources, services, and docs (G+/)	Q 43	जि	KINDERMANN GMBH
A Home	Home > Enterprise applications   Overview > Kindermann GmbH > Enterprise applications   Overview > App registrations > Register	an applicatio	n > App regist	crations >
	Register an application			×
★ Favorites ~				
Identity	* Name			
① Overview	Kindermann_OpenSpaces			
<sup>ቀ</sup> ጽ <sup>4</sup> Groups 🗸 🗸	Supported account types			
🔁 Devices 🗸 🗸	Who can use this application or access this API?  Accounts in this organizational directory only (Kindermann GmbH only - Single tenant)			
B Applications	Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)			
Enterprise applications	<ul> <li>Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)</li> </ul>			
App registrations	Personal Microsoft accounts only			
A Protection V	Help me choose			
Identity governance	Redirect URI (optional)			
External Identities				
Learn & support	By proceeding, you agree to the Microsoft Platform Policies 🗗			
«	Register			

Damit ist die Applikation angelegt. In der nächsten Anzeige sehen Sie bereits die benötigte "Application (client) ID". Kopieren / Vermerken Sie diese; ein späteres Auslesen ist möglich.

Microsoft Entra admin center		$\mathcal P$ Search resources, services, and do	pcs (G+/)	🖓 🛞 🕐 🖓 📩 👫 👪 👘	
1 Home		··· > Enterprise applications   Overview Kindermann_OpenSp	> Kindermann GmbH > Enterprise applications   Overview > App registration           Daces         \$\vee\$           Date         \$\vee\$	s $>$ Register an application $>$ App registrations $>$ $\times$	
★ Favorites	$\sim$	✓ Search «	📋 Delete 🌐 Endpoints 💿 Preview features		
Identity	^	Overview	i Got a second? We would love your feedback on Microsoft identity platform (previou	usly Azure AD for developer). $\rightarrow$	
(i) Overview		Quickstart			
A Users	$\sim$	💉 Integration assistant	↑ Essentials		
<sup>ቀ</sup> አ <sup>4</sup> Groups	$\sim$	Manage	Display name <u>Kindermann_OpenSpaces</u>	Client credentials Add a certificate or secret	
🔁 Devices	$\sim$	Branding & properties	Application (client) ID	Redirect URIs Add a Redirect URI	
B Applications	^	Certificates & secrets	Object ID	Application ID URI Add an Application ID URI	
Enterprise applications		Token configuration	Directory (tenant) ID	Managed application in local directory Kindermann OpenSpaces	
App registrations		API permissions	Supported account types		
A Protection	$\sim$	<ul> <li>Expose an API</li> <li>App roles</li> </ul>	My.organization only		
Identity governance	$\sim$	A Owners			
III External Identities	$\sim$	Roles and administrators	Puild your application with th	o Microsoft idontity platform	
🙎 Learn & support	^	Manifest	Build your application with th	e microsoft identity platform	
	~	Support + Troubleshooting	The Microsoft identity platform is an authentication servi tools. You can create modern, standards-based authentic	ice, open-source libraries, and application management cation solutions, access and protect APIs, and add sign-	

Über der "Application (client) ID" finden Sie den Button "Endpoints". Klicken Sie diesen an.

Microsoft Entra admin center		$\mathcal{P}$ Search resources, services, and a	docs (G+/)	P 🛞 🤉 R 🕂 🕌 KINDERMANN GMBH 🥃
1 Home		··· > Enterprise applications   Overview	y > Kindermann GmbH > Enterprise applications   Overview paces ∞ …	> App registrations $>$ Register an application $>$ App registrations $>$
★ Favorites	$\sim$	₽ Search «	📋 Delete 🌐 Endpoints 🐱 Preview features	
Identity	^	Overview	Got a second? We would love your feedback on Microsoft ide	ntity platform (previously Azure AD for developer). $ ightarrow$
(i) Overview		📣 Quickstart		
A Users	$\sim$	🚀 Integration assistant	↑ Essentials	
ື A Groups	$\sim$	Manage	Display name <u>Kindermann_OpenSpaces</u>	Client credentials Add a certificate or secret
E Devices	$\sim$	<ul> <li>Branding &amp; properties</li> <li>Authentication</li> </ul>	Application (client) ID	Redirect URIs Add a Redirect URI
Applications	^	Certificates & secrets	Object ID mild size the line primate suited	Application ID URI Add an Application ID URI
Enterprise applications		Token configuration	Directory (tenant) ID	Managed application in local directory Kindermann_OpenSpaces
App registrations		API permissions	Supported account types	
Protection	$\sim$	<ul> <li>Expose an API</li> <li>App roles</li> </ul>	Get Started Documentation	
Identity governance	$\sim$	A Owners		
Evtornal Idantitian	$\sim$	Roles and administrators	Puild your application	n with the Missesoft identity platform
🤰 Learn & support	^	Manifest	Build your application	on with the microsoft identity platform
	«	Support + Troubleshooting	The Microsoft identity platform is an tools. You can create modern, standa	authentication service, open-source libraries, and application management ards-based authentication solutions, access and protect APIs, and add sign-

An der Seite erscheint ein Fenster, in der die benötigte "OAuth 2.0 authorization endpoint (v2)" und die "OAuth 2.0 token endpoint (v2)" zu finden ist. Kopieren / Vermerken Sie beide URLs. Auch diese können später noch abgerufen werden.

Microsoft Entra admin center		$\mathcal P$ Search resources, services, and $\mathcal Q$	docs (G+/)	P 🔅 O R M MARANN G	мвн 🕘
1 Home		··· > Enterprise applications   Overview	ィ> Kindermann Gml paces ☆ …	Endpoints	×
★ Favorites	$\sim$	₽ Search «	🗓 Delete 🌐 E	OAuth 2.0 authorization endpoint (v2) https://login.microsoftonline.com/ 1 ** ** 1 ***************************	D
Identity	^	R Overview	Got a second?	CAUTH 2.0 token endpoint (v2)	
(i) Overview		Quickstart		https://login.microsoftonline.com/ """""" 🖬 📽 👫 🖬 👘 👘 🖬 👘 🖓 👘 "/oauth2/v2.0/token	D
A Users	$\sim$	🚀 Integration assistant	^ Essentials	OAuth 2.0 authorization endpoint (v1)	P
<sup>ቀ</sup> ጽ <sup>4</sup> Groups	$\sim$	Manage	Display name <u>Kindermann_Op</u> e	OAuth 2.0 token endpoint (v1)	
🔁 Devices	$\sim$	<ul> <li>Branding &amp; properties</li> <li>Authentication</li> </ul>	Application (clier	https://login.microsoftonline.com// 😭 💶 📲 📲 📲 🗤 🖬 🖓 📲 🖓 🖓 https://login.microsoftonline.com//	D
Applications	^	↑ Certificates & secrets	Object ID	OpenID Connect metadata document	ľh
Enterprise applications		Token configuration	Directory (tenant	Microsoft Graph API endpoint	
App registrations		API permissions	Supported accou	https://graph.microsoft.com	D
Protection	$\sim$	Expose an API	My organization	Federation metadata document	
Identity governance	$\sim$	Approtes	Get Started	https://login.microsoftonline.com/	Ď
nin External Identities	$\sim$	& Roles and administrators		https://login.microsoftonline.com/	D
Learn & support	^	11 Manifest		SAML-P sign-on endpoint	
	~	Support + Troubleshooting		https://login.microsoftonline.com/************************************	D

# Ein "Client Secret" erstellen

Als nächstes muss das Kennwort erstellt werden, mit dem sich die Applikation authentifiziert. Wechseln Sie in den Reiter "Certificates & secrets", dann auf "Client secrets" und ergänzen mit "+ New client secret" eben dieses:

Microsoft Entra admin center		$\mathcal{P}$ Search resources, services, and	docs (G+/)			F © 🕸 🗘	
A Home		··· > Enterprise applications   Overvi   Kindermann_OpenS	> Kindermann Gm > Enterprise a	pplications   Overvi > Secrets ☆ …	App registratio > Register	an applicati > App registratio	> Kindermann_OpenSpac X
★ Favorites	$\sim$	♥ Search ≪	🖗 Got feedback?				
Identity	$^{\sim}$	Overview					
(i) Overview		🍊 Quickstart	Credentials enable confidential applicat scheme). For a higher level of assuranc	ions to identify themselves e, we recommend using a c	s to the authentication service v certificate (instead of a client se	when receiving tokens at a web address cret) as a credential.	able location (using an HTTPS
A Users	$\sim$	🚀 Integration assistant					
<sup>ጵ</sup> ጽ Groups	$\sim$	Manage	Application registration certificate	s, secrets and federated crede	entials can be found in the tabs be	low.	×
E Devices	$\sim$	<ul> <li>Branding &amp; properties</li> <li>Authentication</li> </ul>	Cartificates (0)		I- (0)		
Applications	^	📍 Certificates & secrets	Certificates (0)	Federated credentia	iis (U)		
Enterprise applications		Token configuration	A secret string that the application us	es to prove its identity whe	n requesting a token. Also can	be referred to as application password.	
App registrations		API permissions	+ New client secret				
Protection	$\sim$	Expose an API	Description	Expires	Value 🛈	Secret ID	
Identity governance	$\sim$	App roles	No client secrets have been created for	or this application.			
「一 同回 External Identities	$\sim$	Roles and administrators					
Learn & support	^	Manifest					
	«	Support + Troubleshooting					

Von rechts klappt ein Fenster ein. Geben Sie einen Namen für das Secret ein, wir verwenden in diesem Beispiel "Kindermann OpenSpaces". Stellen Sie das Ablaufdatum "Expires" auf den gewünschten Wert ein. Wir verwenden hier das Maximum von 24 Monaten. Klicken Sie auf "Add", um das Secret zu erstellen.

Wir setzen uns direkt eine Erinnerung in den eigenen Kalender, um in 2 Jahren ein neues Secret anzulegen. Dafür kann dieser Abschnitt der Anleitung einfach wiederholt werden.

Microsoft Entra admin center		$ \mathcal{P} $ Search resources, services, and d	locs (G+/)	<b>P</b>	🕸 🕐 🔊 📲 🔤 🚛 🕘
A Home		··· > Enterprise applications   Overvi     Kindermann OpenS	> Kindermann Gm > Enterprise applications   Overvi > A paces   Certificates & secrets * …	Add a client secret	×
★ Favorites	$\sim$	P Search «	₽ Got feedback?	Description	Kindermann_OpenSpaces
Identity	$\sim$	🗮 Overview			Recommended: 180 days (6 months)
(i) Overview		🗳 Quickstart	Credentials enable confidential applications to identify themselves t scheme). For a higher level of assurance, we recommend using a cei		90 days (3 months)
A Users	$\sim$	🚀 Integration assistant			365 days (12 months)
<sup>8</sup> ጆ <sup>8</sup> Groups	$\sim$	Manage	Application registration certificates, secrets and federated creden		545 days (18 months)
E Devices	$\sim$	<ul> <li>Branding &amp; properties</li> <li>Authentication</li> </ul>	Cartificator (0) Client correts (0) Endorated cradentials		730 days (24 months) Custom
B Applications	^	📍 Certificates & secrets			
Enterprise applications		Token configuration	A secret string that the application uses to prove its identity when		
App registrations		API permissions	+ New client secret		
A Protection	$\sim$	<ul> <li>Expose an API</li> <li>App roles</li> </ul>	Description Expires		
Identity governance	$\sim$	🎎 Owners	No cient secrets have been created for this application.		
B External Identities	$\sim$	🐍 Roles and administrators			
Learn & support	$\sim$	III Manifest			
	«	Support + Troubleshooting		Add Cancel	

Daraufhin fährt das Fenster wieder ein und im Hintergrund erscheint ein neuer Listeneintrag. In diesem ist der Name, das Ablaufdatum, "Value" und die "Secret-ID" zu sehen. Die "Value" ist das Client Secret und **muss hier direkt dokumentiert** werden, da es nicht mehr nachträglich eingesehen werden kann.

Microsoft Entra admin center		$\mathcal{P}$ Search resources, services, and $$	locs (G+/)		¢ ø	
1 Home		··· > Enterprise applications   Overvi • Kindermann_OpenS	> Kindermann Gm > Enterprise app paces   Certificates & se	lications∣Overvi > A	pp registratio > Register an applicati >	App registratio > Kindermann_OpenSpac ×
★ Favorites	$\sim$	• Search «	🖗 Got feedback?			
Identity	$\sim$	4 Overview				
① Overview		🍊 Quickstart	Got a second to give us some feedba	$_{\rm ck?}$ $\rightarrow$		×
A Users	$\sim$	🚀 Integration assistant	Credentials enable confidential applicatio	ns to identify themselves to	o the authentication service when receiving toke	ns at a web addressable location (using an HTTPS
<sup>የ</sup> ጽ <sup>e</sup> Groups	$\sim$	Manage	scheme). For a higher level of assurance, v	ve recommend using a cer	tificate (instead of a client secret) as a credential	l.
4 Devices	$\sim$	<ul><li>Branding &amp; properties</li><li>Authentication</li></ul>	<ol> <li>Application registration certificates, s</li> </ol>	ecrets and federated credent	ials can be found in the tabs below.	×
Applications	^	📍 Certificates & secrets				
Enterprise applications		Token configuration	Certificates (0) Client secrets (1)	Federated credentials	(0)	
App registrations		API permissions	A secret string that the application uses	to prove its identity when	requesting a token. Also can be referred to as a	pplication password.
Protection	$\sim$	<ul> <li>Expose an API</li> <li>App roles</li> </ul>	+ New client secret			
Identity governance	$\sim$	A Owners	Description	Expires	Value 🕕	Secret ID
External Identities	$\sim$	Roles and administrators	Kindermann_OpenSpaces	3/18/2026	$r \sim 10^{-1}$ m m m m m m m m m m m m m m m m m m m	nan an tha an
Learn & support	^	Manifest				-
	«	Support + Troubleshooting				

#### Berechtigungen festlegen

Für die Berechtigung muss nun noch festgelegt werden, was über den Dienst OpenSpaces durchgeführt werden darf. Die Einstellungen finden Sie unter "API permissions". Klicken Sie auf "+ Add a permission".

Microsoft Entra admin center		$\mathcal P$ Search resources, services, and $\mathcal Q$	docs (G+/)			L 🖉 🏟 🕐 R	
1 Home		···· > Enterprise applications   Overvi 	> Kindermann Gm > Enterpr paces   API permissi	se applicatio ONS ダ	ns   Overvi > App registratio > R	egister an applicati > App registratio	> Kindermann_OpenSpac ×
★ Favorites	$\sim$		🕐 Refresh 🔰 🖗 Got feedba	sk?			
Identity	$^{\sim}$	8 Overview					
(i) Overview		i Quickstart	The "Admin consent required"	column shows	the default value for an organization. Howev	er, user consent can be customized per permis	ssion, user, or app. This column $^{ imes}$
A Users	$\sim$	🚀 Integration assistant	may not reflect the value in yo	our organizatio	n, or in organizations where this app will be u	sed. <u>Learn more</u>	
<sup>ዋ</sup> ጆ <sup>®</sup> Groups	$\sim$	Manage	Configured permissions				
E Devices	$\sim$	<ul><li>Branding &amp; properties</li><li>Authentication</li></ul>	Applications are authorized to call include all the permissions the app	APIs when the lication need	ey are granted permissions by users/admir . Learn more about permissions and conse	ns as part of the consent process. The list of ent	f configured permissions should
Applications	$^{\sim}$	📍 Certificates & secrets	+ Add a permission 🗸 Gran	t admin cons	ent for Kindermann GmbH		
Enterprise applications		Token configuration	API / Permissions name	Туре	Description	Admin consent req St	tatus
App registrations		-> API permissions	→ Microsoft Graph (1)				
Protection	$\sim$	Expose an API	User.Read	Delegated	Sign in and read user profile	No	***
Identity governance	$\sim$	<ul> <li>App roles</li> <li>Owners</li> </ul>	To view and manage consented ne	rmissions for	individual anns, as well as your tenant's co	nsent settings to Enterprise applications	
📾 External Identities	$\sim$	👗 Roles and administrators	to view and manage conserted pe	11115510115 101	individual apps, as well as your tenant's co	insent settings, try Enterprise applications.	
🙎 Learn & support	^	11 Manifest					
	«	Support + Troubleshooting					

Von rechts öffnet sich erneut ein Fenster. Wählen Sie den Reiter "APIs my organization uses" und suchen Sie nach "Office 365 Exchange Online". Klicken Sie den Eintrag an.

Microsoft Entra admin center		$ \mathcal{P} $ Search resources, services, and	docs (G+/)		📄 🗘 🛞 🕐 🖓 🖬 🚛 🚛 🕒
1 Home		> Enterprise applications   Overvi 	. > Kindermann Gm. Spaces   API p	Request API permissions	×
★ Favorites	$\sim$	₽ Search «	ి Refresh 🏻 న్	Select an API	
Identity	^	Overview		Apps in your directory that expose APIs are shown below	
(i) Overview		Quickstart	1 The "Admin co	♥ Office 365 Exchange Online	
A Users	$\sim$	🚀 Integration assistant	may not reflec	Name	Application (client) ID
<sup>ቀ</sup> ጽ <sup>e</sup> Groups	$\sim$	Manage	Configured perm	Office 365 Exchange Online	00000002-0000-0ff1-ce00-00000000000
E Devices	$\sim$	<ul><li>Branding &amp; properties</li><li>Authentication</li></ul>	Applications are autl include all the permi		
Applications	$\sim$	📍 Certificates & secrets	+ Add a permissi		
Enterprise applications		Token configuration	API / Permissions		
App registrations		API permissions	→ Microsoft Graph		
		Expose an API	User.Read		
H Protection	$\sim$	App roles			
Identity governance	$\sim$	A Owners	To view and manage		
Evtornal Idantitian	~	👃 Roles and administrators	to new and manage		
Learn & support	^	10 Manifest			
	~	Support + Troubleshooting			

Als nächstes wählen Sie "Application permissions" aus, worauf die einstellbaren Berechtigungen darunter auftauchen. Aktivieren Sie unter dem Punkt "Other permissions" den Haken "full\_access\_as\_app" und speichern unten mit "Add permissions".

Zum ersten Einrichten von OpenSpaces muss diese Einstellung gesetzt werden.

Insofern der Dienst nicht auf alle Postfächer volle Berechtigungen bekommen soll, können diese im späteren Verlauf auf diejenigen (Raum-)Postfächer beschränkt werden.

Springen Sie hierzu nach dem erfolgreichen Setup auf Seite 9.

Microsoft Entra admin center	r		d docs (G+/)		📄 🖉 🕸 🕐 🖓 🕂 👘 kindermann gmbh 🚇
A Home		··· > Enterprise applications   Overvi	> Kindermann Gm. Spaces   API r	Request API permissions	×
★ Favorites	$\sim$	Search «	🖒 Refresh 🕴 🖉	CAll APIs Office 365 Exchange Online	
Identity	^	Overview		What type of permissions does your application require?	
() Overview		🍊 Quickstart	1 The "Admin co	Delegated permissions	Application permissions
A Users	$\sim$	🚀 Integration assistant	may not reflec	Your application needs to access the API as the signed-in user.	Your application runs as a background service or daemon without a signed-in user.
<sup>ዶ</sup> ጆ <sup>®</sup> Groups	$\sim$	Manage	Configured perm		
E Devices	$\sim$	Branding & properties	Applications are aut include all the permi	Select permissions	expand all
Applications	~	Authentication     Certificates & secrets	+ Add a parmirri	Start typing a permission to filter these results	
Enterprise applications		Token configuration	ADI / Permissions	Permission	Aamin consent requirea
		- API permissions	✓ Microsoft Graph	<ul> <li>Other permissions (1)</li> </ul>	
Appregistrations		🙆 Expose an API	User.Read	full_access_as_app ① Use Exchange Web Services with full access to all mailboxes	s Yes
Protection	~	App roles		) Calendars	
Identity governance	$\sim$	A Owners	To view and manage		
External Identities	$\sim$	Roles and administrators			
Learn & support	~ "	Support + Troubleshooting		Add permissions Discard	

Damit die Berechtigung angewendet wird, muss diese anschließend noch mit administrativen Berechtigungen freigegeben werden. Klicken Sie dafür in der Übersicht auf "Grant admin consent for [Unternehmensname]".

Microsoft Entra admin center		${\cal P}$ Search resources, services, and e	docs (G+/)			l 🖓 🏟 🔿 🌶	
A Home		···· > Enterprise applications   Overvi 	> Kindermann Gm > Enterp paces   API permiss	rise applicatio	ons   Overvi > App registratio > Register ar	n applicati > App regist	tratio > Kindermann_OpenSpac ×
★ Favorites	$\sim$	✓ Search «	🕐 Refresh 🕴 🔗 Got feedb	ack?			
Identity	^	Overview	A You are editing permission(	) to your applic	ation, users will have to consent even if they've already d	one so previously.	
① Overview		🍊 Quickstart					
A Users	$\sim$	🚀 Integration assistant					×
<sup>የ</sup> ጽ <sup>4</sup> Groups	$\sim$	Manage	The "Admin consent require may not reflect the value in	d" column show your organizatio	s the default value for an organization. However, user co on, or in organizations where this app will be used. <u>Learn</u>	nsent can be customized per p more	permission, user, or app. This column
E Devices	$\sim$	<ul><li>Branding &amp; properties</li><li>Authentication</li></ul>	Configured permissions				
Applications	^	📍 Certificates & secrets	Applications are authorized to ca include all the permissions the au	II APIs when th polication need	ey are granted permissions by users/admins as part s. Learn more about permissions and consent	of the consent process. The	list of configured permissions should
Enterprise applications		Token configuration					
App registrations		API permissions	+ Add a permission V Gr	int admin cons	ent for Kindermann GmbH		
A Protection	$\sim$	🔷 Expose an API	API / Permissions name	Туре	Description	Admin consent req	. Status
	Ŷ	App roles	Microsoft Graph (1)				•••
Identity governance	$\sim$	찬 Owners	User.Read	Delegated	Sign in and read user profile	No	••••
mill External Identities	$\sim$	🕹 Roles and administrators	✓ Office 365 Exchange Online (1)				
🙎 Learn & support	^	10 Manifest	full_access_as_app	Application	Use Exchange Web Services with full access to all	nai Yes	A Not granted for Kinder
	~~	Support + Troubleshooting					

Ein letzter Schritt ist noch notwendig. Wechseln Sie in der Übersicht in den Reiter "Authentication" und wählen "Add a platform", um eine Redirect URL anzulegen. Von rechts klappt erneut ein Fenster auf, in dem "Web" ausgewählt werden muss.

Microsoft Entra admin center		$\mathcal P$ Search resources, services, and	docs (G+/)	¢ <b>3</b> ⊗		мвн 🕘
A Home		··· > Enterprise applications   Overvi Sindermann_OpenS	. > Kindermann Gm > Enterprise applications   Overvi > A Spaces   Authentication 🖈 …	Configure platforms		×
★ Favorites	$\sim$	✓ Search «	R Got feedback?	Web applications		
Identity	$\sim$	Reverview	Platform configurations	Web	Single-page application	
(i) Overview		n Quickstart	Depending on the platform or device this application is targetin	Build, host, and deploy a web server applicationNET, Java, Python	Configure browser client applications and progressive web applications.	
A Users	$\sim$	🚀 Integration assistant	redirect URIs, specific authentication settings, or fields specific to th		Javascript.	
<sup>ጵ</sup> ጵ <sup>ጵ</sup> Groups	$\sim$	Manage	+ Add a platform			
E Devices	$\sim$	<ul> <li>Branding &amp; properties</li> <li>Authentication</li> </ul>	Supported account types	Mobile and desktop applications		
B Applications	$^{\sim}$	📍 Certificates & secrets	Who can use this application or access this API?	iOS / macOS	Android	
Enterprise applications		<ul> <li>Token configuration</li> <li>API permissions</li> </ul>	Accounts in this organizational directory only (Kindermann Gm     Accounts in any organizational directory (Any Microsoft Entra I	Objective-C, Swift, Xamarin	Java, Kotlin, Xamarin	
Appregistrations		Expose an API	Help me decide			
H Protection	$\sim$	App roles	Advanced settings			
Identity governance	$\sim$	🎒 Owners	Allow public client flows ①	applications		
💼 External Identities	$\sim$	🍰 Roles and administrators	Factor public chemical mobile and deplates flows	Windows, UWP, Console, IoT & Limited-entry Devices, Classic iOS +		
Learn & support	^	III Manifest	chable the following mobile and desktop nows:	Android		
	«	Support + Troubleshooting	Save Discard			

Geben Sie als Redirect URL die folgende Adresse an: http://localhost:8080/ews Bestätigen Sie mit "Configure".

Microsoft Entra admin center		$\mathcal P$ Search resources, services, and	d docs (G+/)	P 🔅 Ø 🖓 🎌 👫 👘 👘 🖉
A Home		··· > Enterprise applications   Overvi.	> Kindermann Gm > Enterprise applications   Overvi > A Spaces   Authentication $\Rightarrow$	Configure Web ×
★ Favorites	$\sim$	✓ Search «	🖗 Got feedback?	K All platforms     Quickstart     Docs ල7
Identity	^	Overview	Platform configurations	* Redirect URIs
Overview		🏜 Quickstart	Depending on the platform or device this application is torgetin	after successfully authenticating or signing out users. The redirect URI you send in the
A Users	$\sim$	🚀 Integration assistant	redirect URIs, specific authentication settings, or fields specific to th	request to the login server should match one listed here. Also referred to as reply URLs. Learn more about Redirect URIs and their restrictions
Apa Groups	$\sim$	Manage	+ Add a platform	http://localhost:8080/ews
Devices	~	<ul><li>Branding &amp; properties</li><li>Authentication</li></ul>	Supported account types	Front-channel logout URL
Applications	$\sim$	📍 Certificates & secrets	Who can use this application or access this API?	required for single sign-out to work correctly.
Enterprise applications		III Token configuration	<ul> <li>Accounts in this organizational directory only (Kindermann Gm</li> </ul>	e.g. https://example.com/logout
App registrations		API permissions	Accounts in any organizational directory (Any Microsoft Entra I	Implicit grant and hybrid flows
A Protection	$\sim$	Expose an API	Help me decide	Request a token directly from the authorization endpoint. If the application has a single-page
	Ť	App roles	Advanced settings	architecture (SPA) and doesn't use the authorization code flow, or if it invokes a web API via JavaScript, select both access tokens and ID tokens. For ASP.NET Core web apps and other
Identity governance	$\sim$	🏄 Owners	Allow public client flows ①	web apps that use hybrid authentication, select only ID tokens. Learn more about tokens.
Evtornal Idantitian	$\sim$	👃 Roles and administrators	Enable the following mobile and deskton flows:	Select the tokens you would like to be issued by the authorization endpoint:
🙎 Learn & support	^	🔟 Manifest	chable the following mobile and desktop nows.	A A
	«	Support + Troubleshooting	Save Discard	Configure Cancel

Damit ist die Konfiguration der Enterprise Application in Microsoft Entra ID abgeschlossen und Ihnen sollten folgende Daten vorliegen:

App-ID / Client Secret / Auth-Endpoint / Token-Endpoint / Redirect-URL

Sie können nun mit der Konfiguration in der Hauptanleitung fortfahren und die Daten in den Konfigurator eingeben. Ebenfalls können Sie dort die Verbindung zu Server prüfen.

# Optional: Einschränken der Berechtigungen auf bestimmte Postfächer

Falls gewünscht kann die Berechtigung des Dienstes eingeschränkt werden, sodass dieser nicht auf die Kalender aller Postfächer ausgelesen werden können.

Dies wird notwendig, falls "full\_access\_as\_app" nicht uneingeschränkt gestattet ist.

Quelle: <u>https://docs.microsoft.com/de-de/graph/auth-limit-mailbox-access#configure-applicationaccesspolicy</u>

Für die Einrichtung wird eine E-Mail aktivierte Sicherheitsgruppe benötigt. Diese lässt sich im Exchange Online Admin Center im Reiter "Recipients" unter "Groups" anlegen. Wählen Sie "Mail-enabled security" und legen Sie unter "Add a group" ein solche Gruppe an.

	Exchange admin center			O Search (Preview)			₽ Q	۰ ? 💽
≡			Home > Groups					
ώ	Home		Groups					
8	Recipients	^	Groups					
	Mailboxes				[			
L	Groups		Microsoft 365 Distribution list	Dynamic distribution list	Mail-enabled security			
	Resources							
	Contacts		🐥 Add a group 🞍 Export 🖒	Refresh			Search Mail-enabled search	curity =
	Mail flow	~						
? <u>≞</u>	Roles	$\sim$	Group name 1	Group	email	Sync status Created on	Choose columns	
G	Migration							
d <mark>i</mark>	Mobile	$\sim$						
k	Reports	$\sim$						
Ø	Insights							_
E₽	Public folders							Q
8	Organization	$\sim$						Ę
ŝ	Settings				This page is en	npty eait in this list		
	out ( )				Add your first item to se			

Im folgenden Bildschirm können Sie bei angewählter "Mail-enabled security" direkt auf "Next" klicken.

	Exchange admin center		P :	Search (Preview) 🛛 🗘 🕲 ? 🕢
≡			Home > Groups > Add a group	0
命	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 more about group types
	Resources			
	Contacts		O Whers	Microsoft 365 (recommended)
	Mail flow	$\sim$	O Members	Allows teams to collaborate by giving them a group email and a shared workspace for conversations, files, and calendars. In Outlook, these are called Groups.
<i>Р</i> <sub>в</sub>	Roles	$\sim$		
ľ	Migration		O Settings	◯ Distribution
J.	Mobile	$\sim$		Creates an email address for a group of people.
k	Reports	$\sim$	O Finish	Mail-enabled security
Ω	Insights			Sends messages to all members of the group and gives access to resources like OneDrive, SharePoint and
Pa	Dublin foldore			admin roles
L⊕	Public folders			
4	Organization	~		
÷	Settings			Next Cancel
	01 ( )			

Wählen Sie einen plausiblen Anzeigenamen (z.B.: Kindermann\_OpenSpaces). Da die Notizen optional sind, können Sie direkt mit "Next" fortfahren.

	Exchange admin center				Search (Preview)			Q		$\odot$
=			Но	me > Groups > A	Add a group					
命	Home									
8	Recipients	^	<b>e</b>	Group type		Set up the basics				
	Mailboxes									
	Groups		•	Basics		To get started, fill out some basic info about the group you'd like to create.				
	Resources			0						
	Contacts			Owners		Name *	1			
	Mail flow	$\sim$		Members		Kindermann_OpenSpaces				
<i>?</i> ≞	Roles	$\sim$				Description				
ß	Migration		Ó	Settings		Enter a description for your new group				
ď	Mobile	$\sim$		Finish						
k	Reports	$\sim$	0							
Q	Insights									
E₽	Public folders									0
2	Organization	$\sim$								μ
ŝ	Settings					Back		Ca	ncel	

Suchen Sie im nächsten Fenster über das Suchfeld den Besitzer der Gruppe und haken Sie diesen unten an. Schließen Sie den Dialog anschließend mit "Add [Anzahl]" und Klicken dann wieder auf "Next".

Wir empfehlen die Admin-Adresse als Besitzer.

	Exchange admin center				O Search (Preview)				Q			
=			Home	e > Groups > .	Add a group						×	
ඛ	Home						Assign owners					
8	Recipients	^	<b>Ø</b> (	Group type		Assign owners	Select up to 20 people to join this group as own	ers. You car	add mo	ore later	from	
	Mailboxes						Active teams & groups.				\ \	
	Groups		✓ E	Basics		Group owners have unique permissic	2 dumm				1	
	Resources			Jumerr		settings, rename the group, update in	Jisplay name					
	Contacts			JWIIEIS		(i) You have to have at least one owner						
	Mail flow	~	O M	Vembers			KG Kindermann GmbH					
2	Roles	$\sim$				+ Assign owners						
ß	Migration		Ó s	Settings								
dģ	Mobile	~	 O F	inish		Nour						
k	Reports	$\sim$				New C						
Q	Insights											
E₽	Public folders											
品	Organization	~										
(j)	Settings					Back Next	Add (1) Cancel					
-	~ .											

Als Mitglieder richten Sie unter "Add members" die Postfächer ein, die Sie gern für den Abruf von OpenSpaces freigeben möchten. Diese können Sie über das Suchfeld suchen, anhaken und mit "Add [Anzahl]" hinzufügen. Das Fenster schließt automatisch.

	Exchange admin center			♀ Search (Preview)				E.	Q	۵	?	
			Home > Groups > Add	a group							$\times$	
ណ៍	Home					Ado	d members					
8	Recipients	^	Group type		Add members	Selec	t up to 20 people to join this group as mem	bers. You ca	an add r	nore late	r from	
	Mailboxes					Activ	konferenzraum				×	
	Groups		Basics		Group members have access to every email address. By default, they can in		Komerenzi uum					
	Resources		<ul> <li>Owners</li> </ul>		entail address. by delaat, they can in		Display name					
	Contacts			+ Ad	+ Add members		Konferenzraum Berlin					
0	Mail now	Ť	Members				s de la secon					
	Koles	~	C Settings				Konferenzraum Eibelstadt					
1	Migration				New m							
ı,	Mobile	~	Finish				Konferenzraum Ochsenfurt					
2	Reports	~					Konferenzraum Würzburg					
Ø	Insights						······································					
E₽	Public folders											
品	Organization	~										
÷	Settings				Back Next	A	dd (2) Cancel					
	~ .											

Wenn Sie alle hinzugefügt haben, bestätigen Sie mit "Next".

Vergeben Sie im letzten Schritt eine Mail-Adresse für die Gruppe und notieren / kopieren Sie diese. Die Adresse wird anschließend benötigt. Setzen Sie die Haken wie abgebildet, sodass unbefugte Interaktionen mit der neu erstellten Gruppe ausgeschlossen sind. Bestätigen Sie mit "Next".

	Exchange admin center		₽ Search (Preview)			⊾ û		?
≡			Home > Groups > Add a group					
ሴ	Home							
8	Recipients	^	Group type	Edit settings				
	Mailboxes		Bacing	Mail-enabled security group				
	Groups Resources		Dusit's	Has all the functionality of a distribution list and additio	nally can be used to control access to Or	eDrive and		
	Contacts		Owners	SharePoint.				
	Mail flow	$\sim$	Members	Group email address *	Domains			
<i>Р</i> <u>е</u>	Roles	$\sim$		Kindermann_OpenSpaces	@ kindermann.de		<u>~</u>	
	Migration		Settings	Communication				
ď	Mobile	$\sim$	C Finish	Allow people outside of my organization to send en	mail to this Mail-enabled security group			
	Reports	$\sim$		Approval				
Q	Insights			Kequire owner approval to join the group				
E₽	Public folders							e
8	Organization	$\sim$						Ģ
ŝ	Settings			Back		Can	cel	
	01 ( )							

Prüfen Sie Ihre Eingaben und erstellen Sie die Gruppe mit "Create group".

	Exchange admin center				₽ Search (Preview)		8 ?	
=			Ho	ome > Groups > Add	a group			
ώ	Home							
8	Recipients	^	0	Group type		Review and finish adding group		
	Mailboxes							
	Groups			Basics		You're almost there - make sure everything looks right before adding your new group.		
	Resources							
	Contacts		<ul> <li></li> <li></li> </ul>	Owners		Mail-enabled security		
	Mail flow	$\sim$	 	Members		Edit		
Re	Roles	$\sim$				Basics		
G	Migration		<b>e</b>	Settings		Name: Kindermann_OpenSpaces Description: None provided		
ıl <mark>ı</mark> :	Mobile	~		Finish		Edit		
k	Reports	$\sim$				Owners		
Ω	Insights					Kindermann GmbH		
Ē	D L H C L L					Edit		e
L⊕	Public folders					Members		
ቆ	Organization	$\sim$				Konferenzraum Berlin, Konferenzraum Eibelstadt, Konferenzraum Ochsenfurt, Konferenzraum Würzburg		Ģ
ŝ	Settings					Back Create group Cancel		
	01 ( )							

Nachdem die Gruppe angelegt wurde, kann die App auf diese Gruppe beschränkt werden. Dies geht über ein PowerShell CMDlet.

Öffnen Sie PowerShell und verbinden Sie sich mit Ihrem Exchange Online Server:

Connect-ExchangeOnline -UserPrincipalName [Mail Adresse Ihres Admin Accounts]									
🛛 Windows PowerShell X + 🗸									
Windows PowerShell Copyright (C) Microsoft Corporation. Alle Rechte vorbehalten.									
Installieren Sie die neueste PowerShell für neue Funktionen und Verbesserungen! https://aka.ms/PSWindows									
PS C:\Users\* F!=********* W=!==> Connect-ExchangeOnline -UserPrincipalName a b !m; w=!b.mvu = mu.m*!mu									
Bei Ihrem Konto anmelden X									
Microsoft									
<ul> <li>extrand finalization respectives in</li> </ul>									
Kennwort eingeben									
Kennwort									
Kennwort vergessen									
Mit einem anderen Konto anmelden									
Anmelden									
Nutzungsbedingungen Datenschutz und Cookies ····									

Anschließend führen Sie folgenden Befehl aus, um die Applikation auf die Gruppe zu beschränken:

New-ApplicationAccessPolicy -AppId [Ihre Application (client) ID] -PolicyScopeGroupId [Ihre Gruppen E-Mail Adresse] -AccessRight RestrictAccess -Description "Restrict this app to members of distribution group EvenUsers."

🗴 Windows PowerShell X + 🗸 — 🔿	
Windows PowerShell Copyright (C) Microsoft Corporation. Alle Rechte vorbehalten.	
Installieren Sie die neueste PowerShell für neue Funktionen und Verbesserungen! https://aka.ms/PSWindows	
PS C:\Users\' "'""""""""""""""""""""""""""""""""""	
This V3 EXO PowerShell module contains new REST API backed Exchange Online cmdlets which doesn't require WinRM for Client-Server communication. You can no run these cmdlets after turning off WinRM Basic Auth in your client machine thus making it more secure.	ow
Unlike the EXO* prefixed cmdlets, the cmdlets in this module support full functional parity with the RPS (V1) cmdlets.	
V3 cmdlets in the downloaded module are resilient to transient failures, handling retries and throttling errors inherently.	
REST 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.	
For more information check https://aka.ms/exov3-module	
PS C:\Users\	-
ScopeName : Kindermann_OpenSpaces ScopeIdentity : Kindermann_OpenSpaces20209318144757 Identity : '-''''''''''''''''''''''''''''''''''	:
n a Channa Molareann	

Damit ist OpenSpaces auf die Mitglieder der Gruppe beschränkt. Die Gruppe und deren Mitglieder können auch nachträglich im Exchange Online Admin Center angepasst werden.