



Exchange User Group Meetup Q3 2024 {Hybrid Edition}

5. September 2024

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Monitoring Lösungen für
Microsoft 365 – Exchange Online – Teams
Exchange Server – Active Directory

Entra Enterprise App-Bewertung
mit AppGov Score

<https://www.enowsoftware.com>

Meetup Q3 2024



Exchange Server Recovery – PowerShell Magie
- *Evgenij Smirnov*

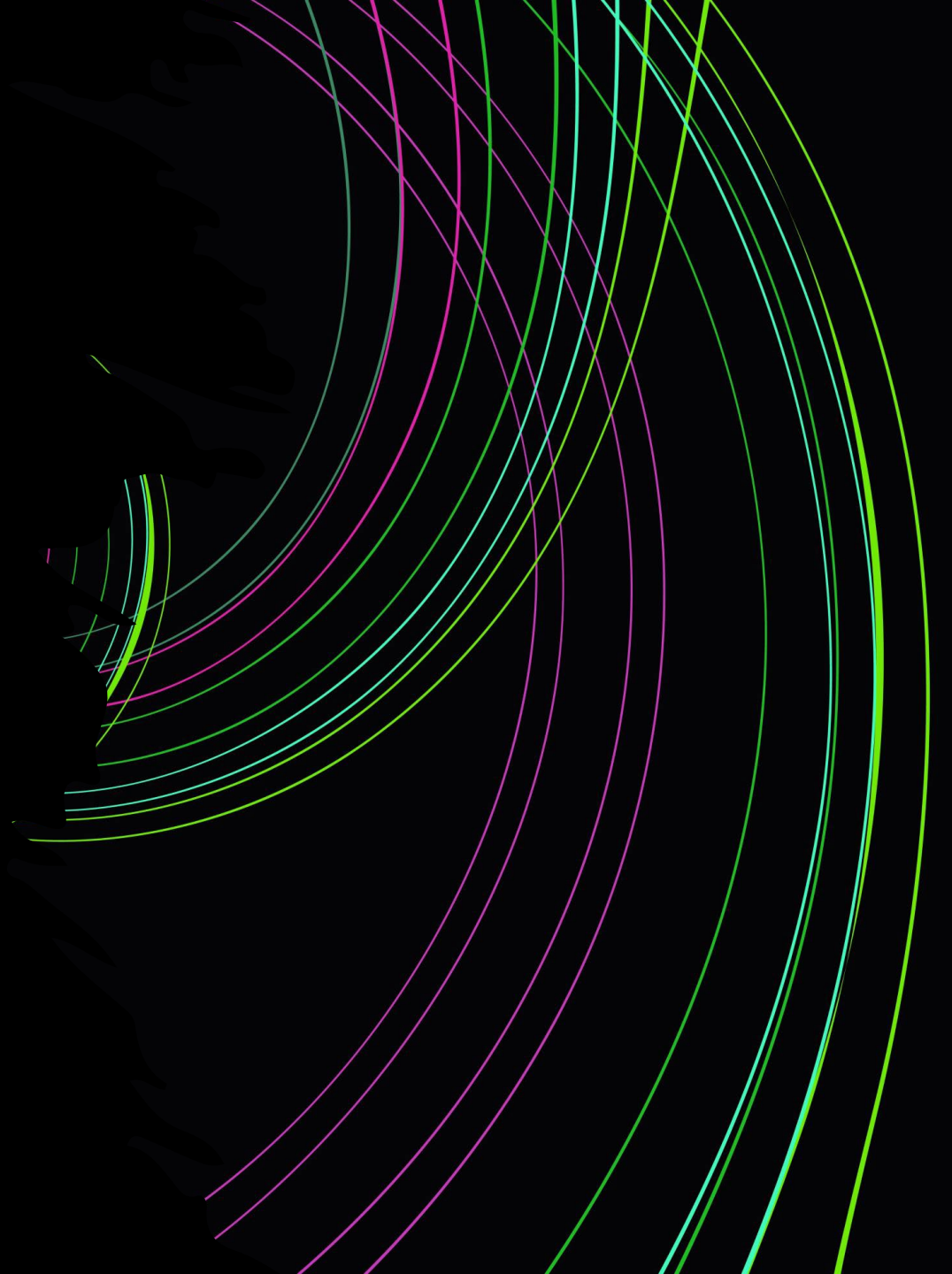
Exchange Online Provisionierung
→ Thomas Stensitzki

Exchange Q & A



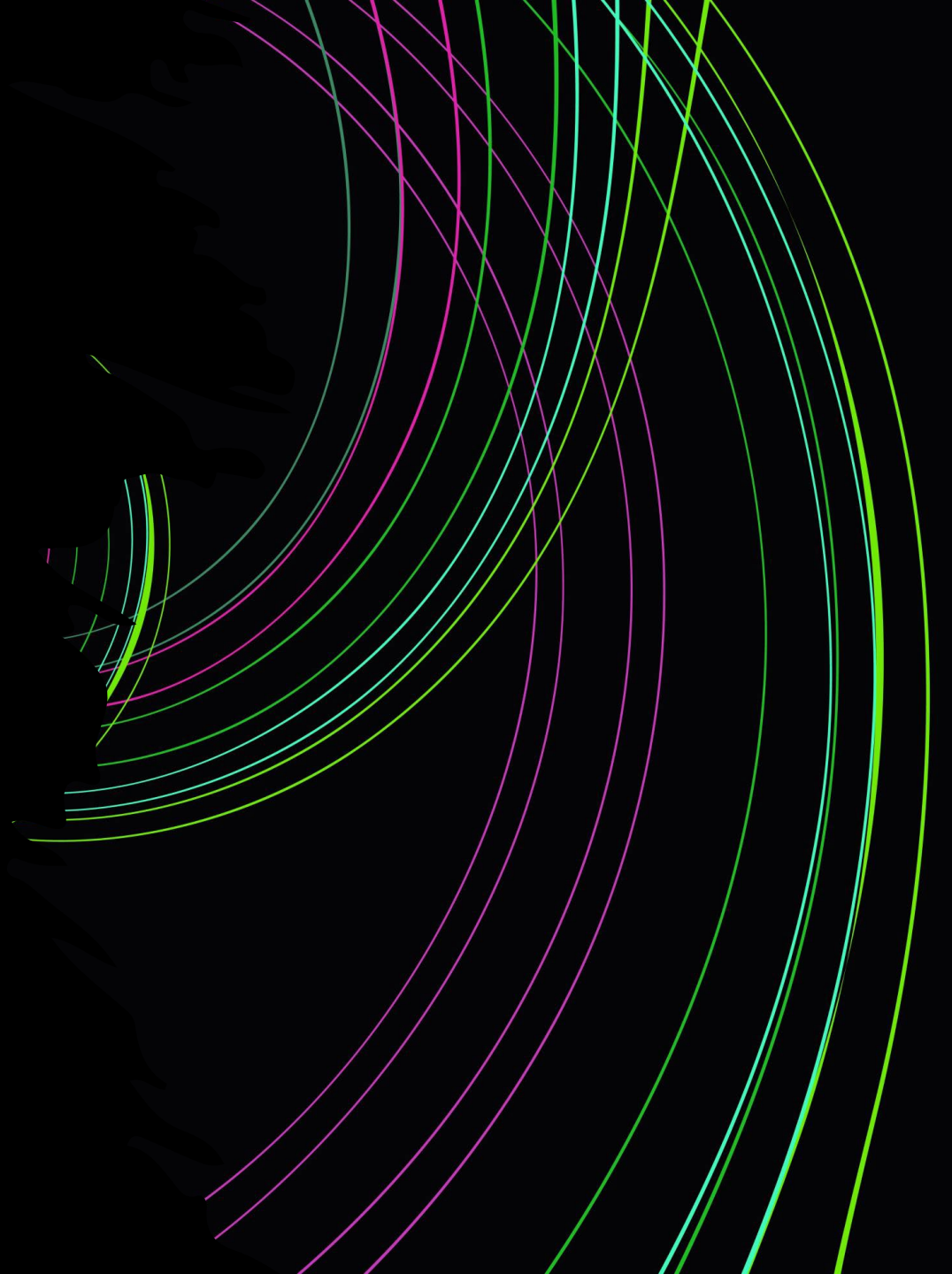
Exchange Server Recovery – PowerShell Magie

Evgenij Smirnov

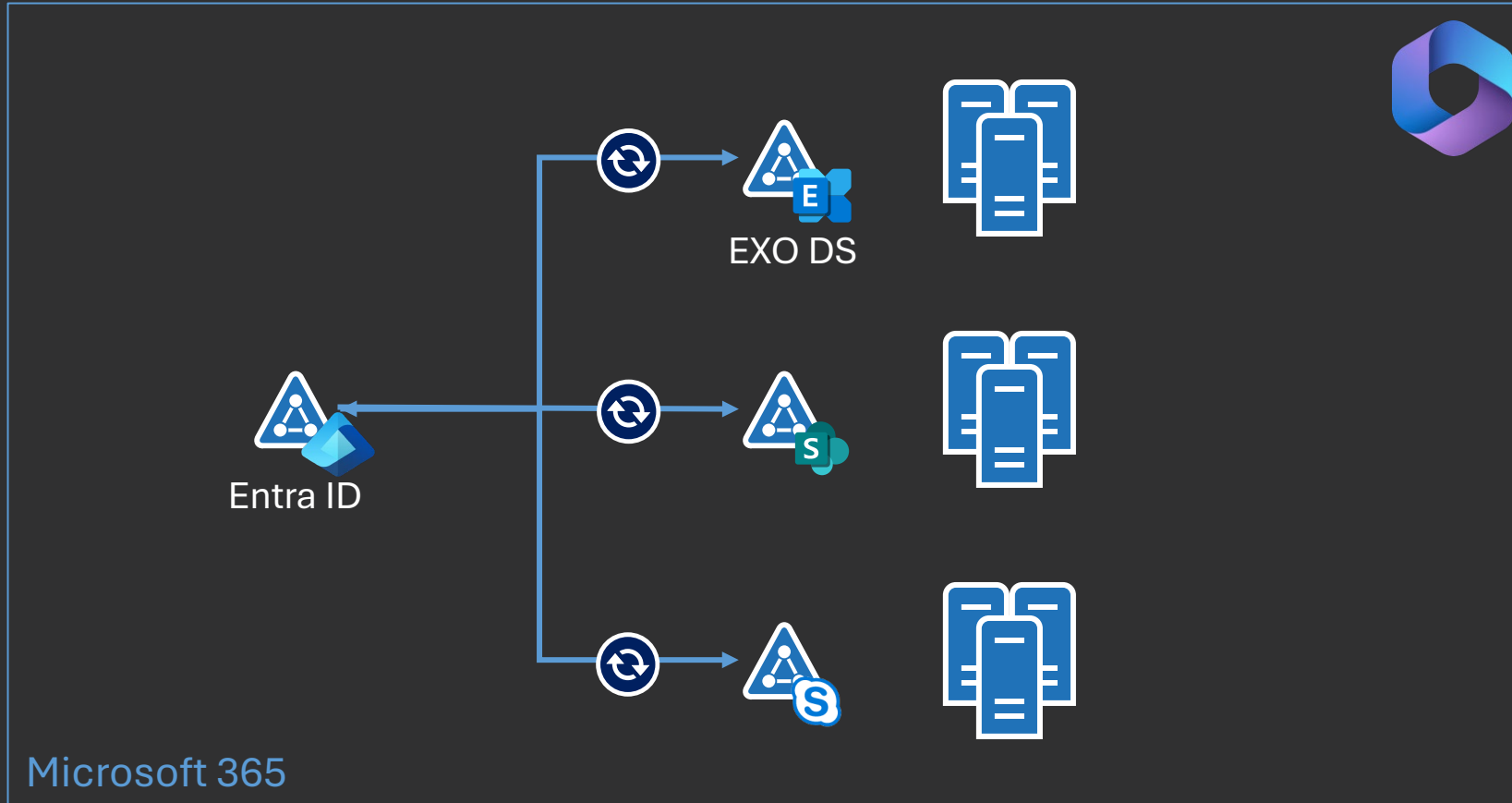


Exchange Online Provisionierung

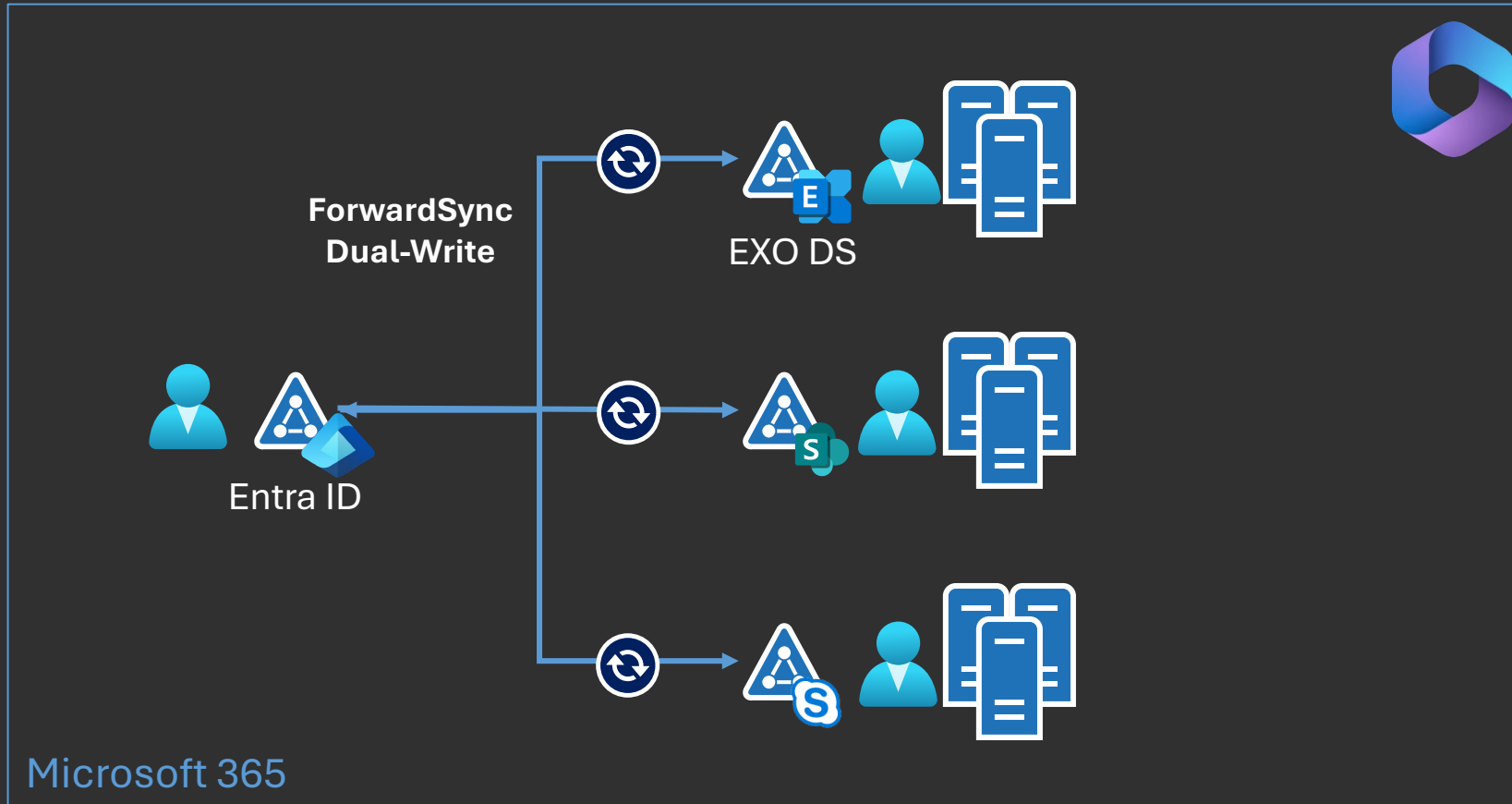
Thomas Stensitzki



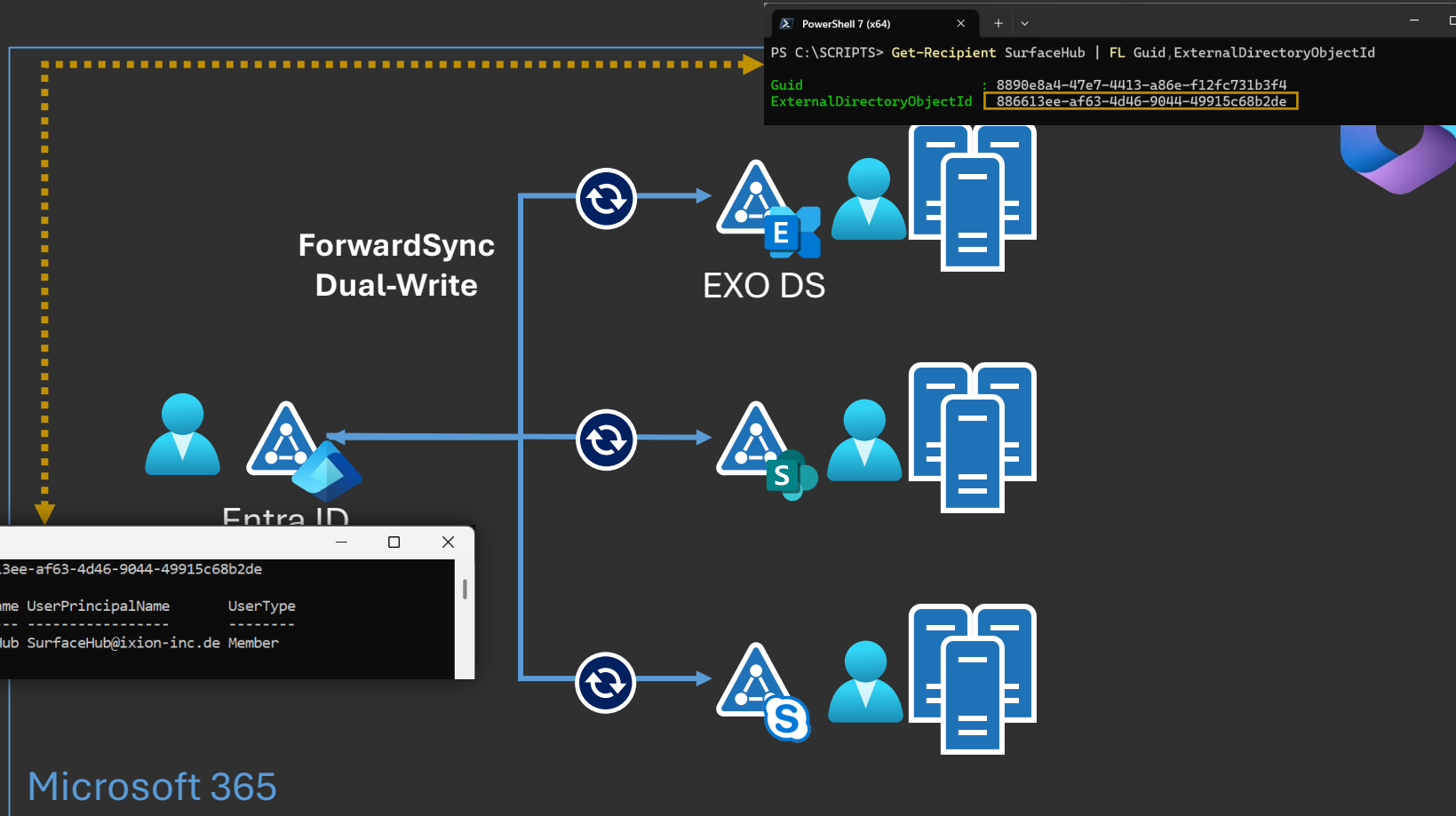
Verzeichnisdienste in Microsoft 365



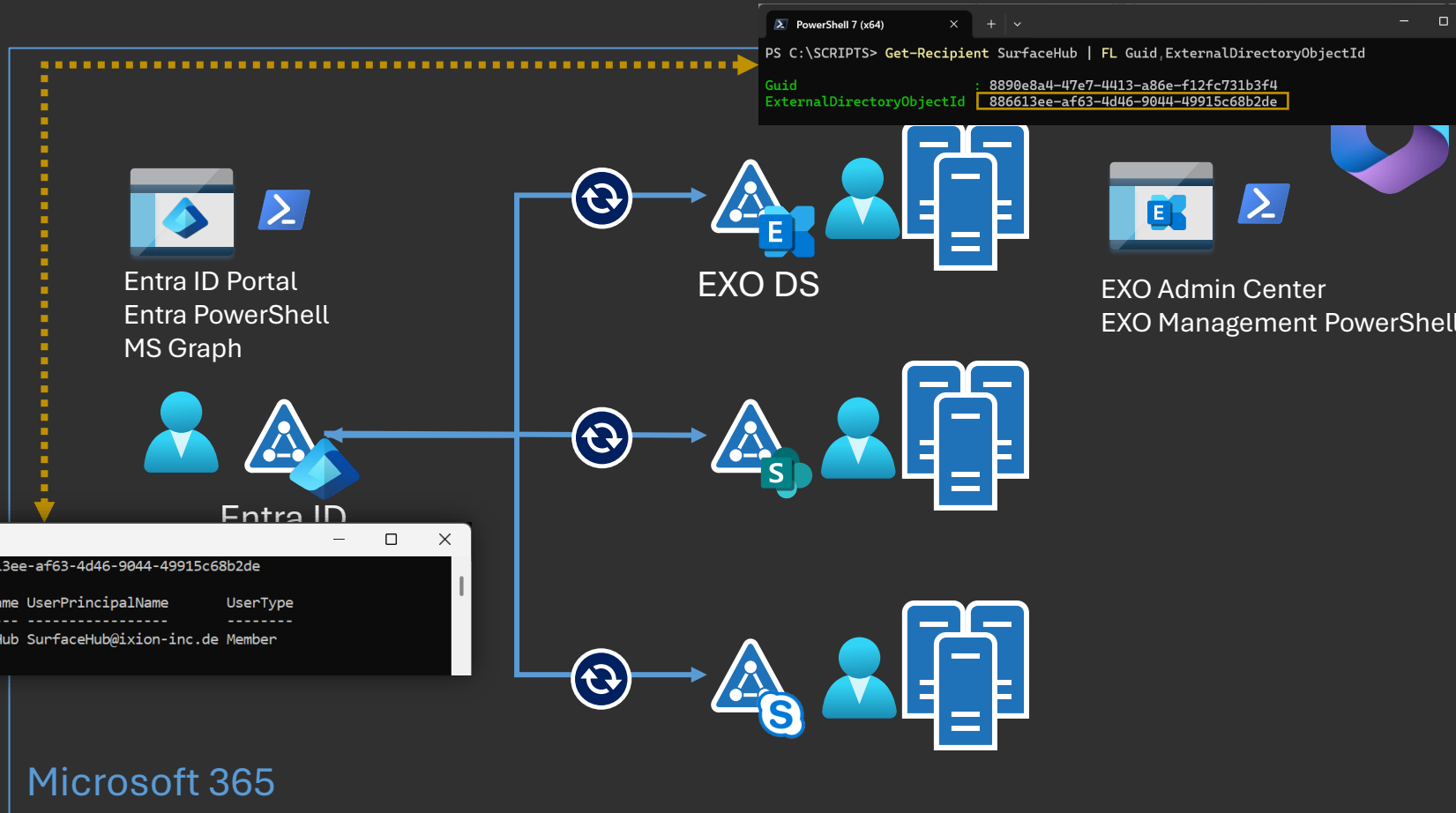
Verknüpfte Verzeichnisobjekte



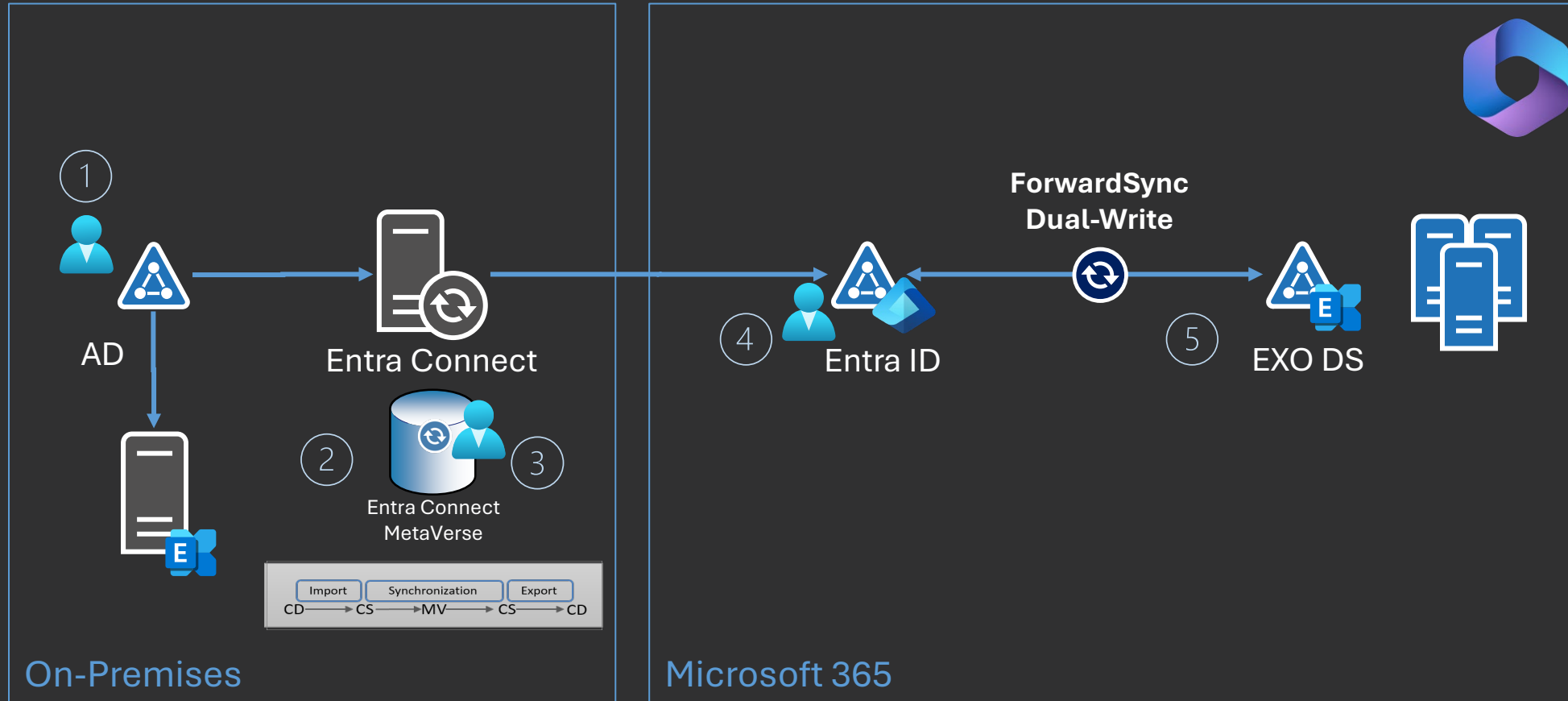
Verknüpfte Verzeichnisobjekte



Verwaltungsschnittstellen



Exchange Hybrid



Exchange-Objekttypen

Unterschiede Exchange Server & Exchange Online



Exchange Server

- User (*keine Exchange Attribute*)
- MailUser
 - MailUser
 - RemoteMailbox
- MailContact
- LinkedMailbox
- UserMailbox
 - RoomMailbox
 - EquipmentMailbox
 - SharedMailbox
 - DiscoveryMailbox
 - ArbitrationMailbox
- Group
 - Mail-Enabled Security Group
 - Universal Distribution Group
 - Dynamic Distribution Group
- Public Folders
 - Public Folder Mailbox
 - Public Folder

Exchange Online

- User (*keine Exchange Attribute*)
- MailUser
- MailContact
- UserMailbox
 - RoomMailbox
 - EquipmentMailbox
 - SharedMailbox
 - DiscoveryMailbox
 - ArbitrationMailbox
- Group
 - Mail-Enabled Security Group
 - Universal Distribution Group
 - GroupMailbox (Unified Group / Microsoft 365 Gruppe)
 - Dynamic Distribution Group
- Public Folders
 - Public Folder Mailbox
 - Public Folder

Exchange-Objekttypen

Parameter zur Definition eines Exchange-Objektes



Active Directory-Attribut	Exchange-Eigenschaft
msExchRecipientDisplayType	RecipientType
msExchRecipientTypeDetails	RecipientTypeDetails
msExchRemoteRecipientType	RemoteRecipientType

Exchange-Objekttypen

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises

RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType
User	User	-
MailUser	MailUser	-
MailUser	RemoteMailbox	ProvisionMailbox Migrated
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), SharedMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), RoomMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox
UserMailbox	UserMailbox	-
UserMailbox	UserMailbox	ProvisionArchive
UserMailbox	SharedMailbox	-
MailContact	MailContact	-
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-
DynamicDistributionGroup	DynamicDistributionGroup	-
-	-	-
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-

Exchange Online Objekte

RecipientDisplayType	RecipientTypeDetails
User	User
MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
UserMailbox	UserMailbox
UserMailbox	SharedMailbox
UserMailbox	RoomMailbox
UserMailbox	EquipmentMailbox
MailUser	MailUser
MailUser	MailUser
MailUser	MailUser
MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup
-	-
DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	GroupMailbox

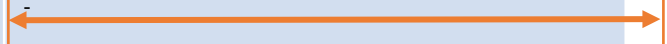
Exchange-Objekttyp – MailUser

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises			Exchange Online Objekte	
RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType	RecipientDisplayType	RecipientTypeDetails
User	User	-	User	User
MailUser	MailUser	-	MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
MailUser	RemoteMailbox	ProvisionMailbox Migrated	UserMailbox	UserMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), SharedMailbox	UserMailbox	SharedMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), RoomMailbox	UserMailbox	RoomMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox	UserMailbox	EquipmentMailbox
UserMailbox	UserMailbox	-	MailUser	MailUser
UserMailbox	UserMailbox	ProvisionArchive	MailUser	MailUser
UserMailbox	SharedMailbox	-	MailUser	MailUser
MailContact	MailContact	-	MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-	MailUniversalSecurityGroup	MailUniversalSecurityGroup
DynamicDistributionGroup	DynamicDistributionGroup	-	-	-
-	-	-	DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	GroupMailbox

Nicht lizenziert Lizenziert



Exchange-Objekttyp – RemoteMailbox

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises			Exchange Online Objekte	
RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType	RecipientDisplayType	RecipientTypeDetails
User	User	-	User	User
MailUser	MailUser	-	MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
MailUser	RemoteMailbox	ProvisionMailbox Migrated	UserMailbox	UserMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), SharedMailbox	UserMailbox	SharedMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), RoomMailbox	UserMailbox	RoomMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox	UserMailbox	EquipmentMailbox
UserMailbox	UserMailbox	-	MailUser	MailUser
UserMailbox	UserMailbox	ProvisionArchive	MailUser	MailUser
UserMailbox	SharedMailbox	-	MailUser	MailUser
MailContact	MailContact	-	MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-	MailUniversalSecurityGroup	MailUniversalSecurityGroup
DynamicDistributionGroup	DynamicDistributionGroup	-	-	-
-	-	-	DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	GroupMailbox

Exchange-Objekttyp – UserMailbox

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises			Exchange Online Objekte	
RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType	RecipientDisplayType	RecipientTypeDetails
User	User	-	User	User
MailUser	MailUser	-	MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
MailUser	RemoteMailbox	ProvisionMailbox Migrated	UserMailbox	UserMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), SharedMailbox	UserMailbox	SharedMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), RoomMailbox	UserMailbox	RoomMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox	UserMailbox	EquipmentMailbox
UserMailbox	UserMailbox	-	MailUser	MailUser
UserMailbox	UserMailbox	ProvisionArchive	MailUser	MailUser
UserMailbox	SharedMailbox	-	MailUser	MailUser
MailContact	MailContact	-	MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-	MailUniversalSecurityGroup	MailUniversalSecurityGroup
DynamicDistributionGroup	DynamicDistributionGroup	-	-	-
-	-	-	DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	GroupMailbox

Exchange-Objekttyp – MailContact

Vergleich Exchange Server – Exchange Online



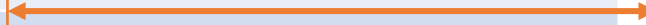
Exchange Objekte On-Premises			Exchange Online Objekte	
RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType	RecipientDisplayType	RecipientTypeDetails
User	User	-	User	User
MailUser	MailUser	-	MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
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MailUser	RemoteMailbox	(ProvisionMailbox Migrated), SharedMailbox	UserMailbox	SharedMailbox
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MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox	UserMailbox	EquipmentMailbox
UserMailbox	UserMailbox	-	MailUser	MailUser
UserMailbox	UserMailbox	ProvisionArchive	MailUser	MailUser
UserMailbox	SharedMailbox	-	MailUser	MailUser
MailContact	MailContact		MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-	MailUniversalSecurityGroup	MailUniversalSecurityGroup
DynamicDistributionGroup	DynamicDistributionGroup	-	-	-
-	-	-	DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	GroupMailbox

Exchange-Objekttyp – Groups

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises			Exchange Online Objekte	
RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType	RecipientDisplayType	RecipientTypeDetails
User	User	-	User	User
MailUser	MailUser	-	MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
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MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox	UserMailbox	EquipmentMailbox
UserMailbox	UserMailbox	-	MailUser	MailUser
UserMailbox	UserMailbox	ProvisionArchive	MailUser	MailUser
UserMailbox	SharedMailbox	-	MailUser	MailUser
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MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-	MailUniversalSecurityGroup	MailUniversalSecurityGroup
DynamicDistributionGroup	DynamicDistributionGroup	-	-	-
-	-	-	DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	GroupMailbox



Exchange-Objekttyp – DynamicGroups

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises			Exchange Online Objekte	
RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType	RecipientDisplayType	RecipientTypeDetails
User	User	-	User	User
MailUser	MailUser	-	MailUser UserMailbox	MailUser UserMailbox SharedMailbox RoomMailbox ResourceMailbox
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MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox	UserMailbox	EquipmentMailbox
UserMailbox	UserMailbox	-	MailUser	MailUser
UserMailbox	UserMailbox	ProvisionArchive	MailUser	MailUser
UserMailbox	SharedMailbox	-	MailUser	MailUser
MailContact	MailContact	-	MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-	MailUniversalSecurityGroup	MailUniversalSecurityGroup
DynamicDistributionGroup	DynamicDistributionGroup	-	-	-
-	-	-	DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-	MailUniversalDistributionGroup	GroupMailbox

Exchange-Objekttyp – Groups

Vergleich Exchange Server – Exchange Online



Exchange Objekte On-Premises

RecipientDisplayType	RecipientTypeDetails	RemoteRecipientType
User	User	-
MailUser	MailUser	-
MailUser	RemoteMailbox	ProvisionMailbox Migrated
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), SharedMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), RoomMailbox
MailUser	RemoteMailbox	(ProvisionMailbox Migrated), EquipmentMailbox
UserMailbox	UserMailbox	-
UserMailbox	UserMailbox	ProvisionArchive
UserMailbox	SharedMailbox	-
MailContact	MailContact	-
MailUniversalDistributionGroup	MailUniversalDistributionGroup	-
MailUniversalSecurityGroup	MailUniversalSecurityGroup	-
DynamicDistributionGroup	DynamicDistributionGroup	-
-	-	-
MailUniversalDistributionGroup	MailUniversalDistributionGroup	

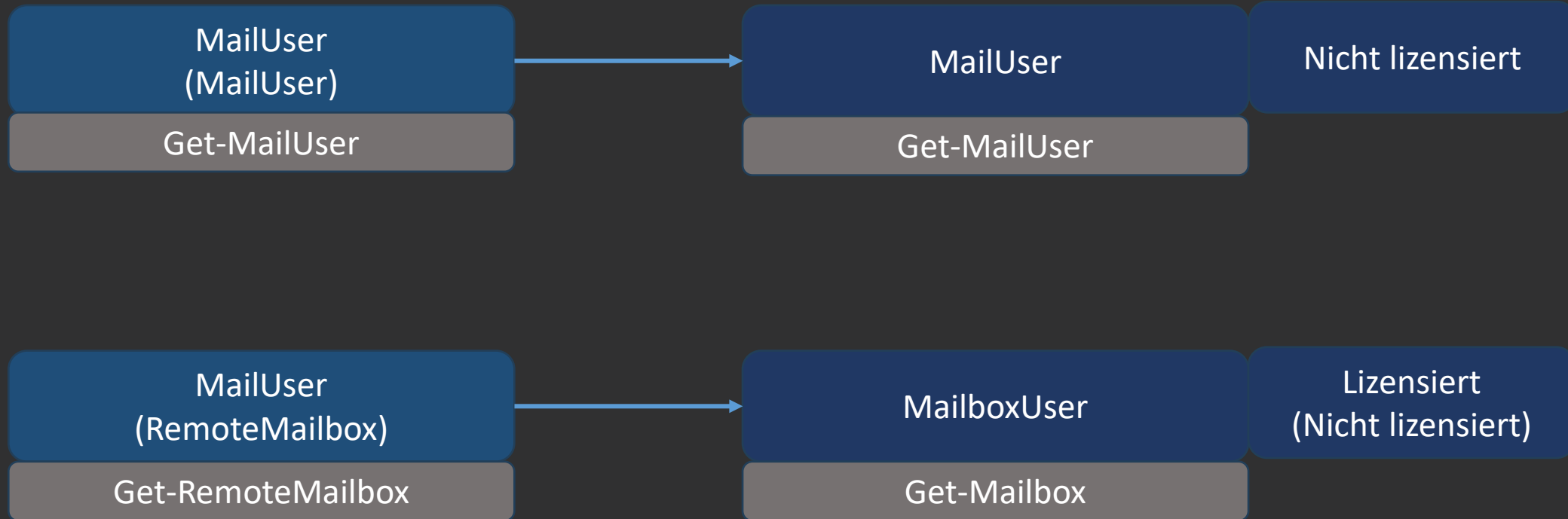
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RecipientDisplayType	RecipientTypeDetails
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UserMailbox	UserMailbox
UserMailbox	SharedMailbox
UserMailbox	RoomMailbox
UserMailbox	EquipmentMailbox
MailUser	MailUser
MailUser	MailUser
MailUser	MailUser
MailContact	MailContact
MailUniversalDistributionGroup	MailUniversalDistributionGroup
MailUniversalSecurityGroup	MailUniversalSecurityGroup
-	-
DynamicDistributionGroup	DynamicDistributionGroup
MailUniversalDistributionGroup	GroupMailbox

Microsoft 365 Gruppe

Exchange-Objekttyp MailUser

PowerShell-Cmdlets



Objektbesonderheiten



- Dynamische Verteilerlisten
 - Existieren nur in der jeweiligen Umgebung
 - Werden nicht durch Entra Connect synchronisiert
 - Unterschiedliche Filtereigenschaften, z.B. RecipientContainer
- Microsoft 365 Gruppen (Unified Groups)
 - Ohne Entra Connect Gruppenzurückschreiben (Group Write-Back) sind M365 Gruppen für die lokale Exchange Organisation unbekannt
 - Entra Connect erstellt E-Mail-aktivierte universelle Verteilerlisten
 - Attribute der M365 Gruppen werden nicht vollumfänglich ins AD geschrieben, z.B. HiddenFromAddressListsEnabled
 - Als Verteilerlisten nicht sichtbar und können nicht konfiguriert werden



Exchange-Attributverwaltung

- Offiziell unterstützt
 - Exchange Management Shell
 - Exchange Admin Center
 - Prüfung des Attributwertes selbst
 - Prüfung auf Duplikate
 - Anpassung zusätzlicher Attributwerte, falls notwendig

- Nicht unterstützt
 - Set-ADUser
 - ADSIEdit
 - Drittanbieterlösungen

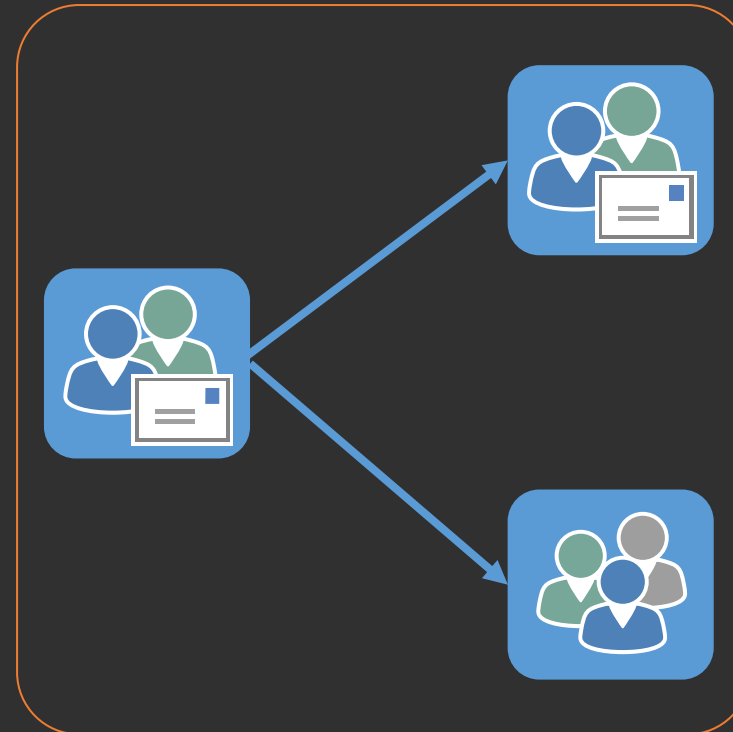
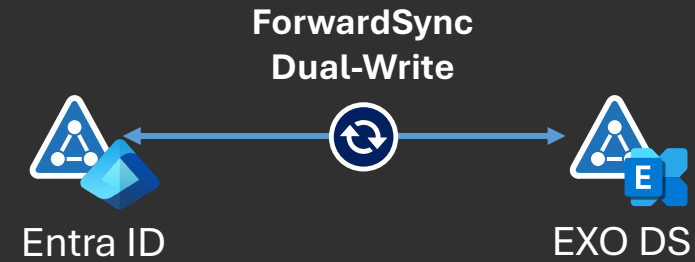


Provisionierung

Wichtige Dinge

Synchronisierte Verteilerliste

- 1 Verteilerliste
 - Erstellung der Gruppenobjekte
→ 2 Aktionen

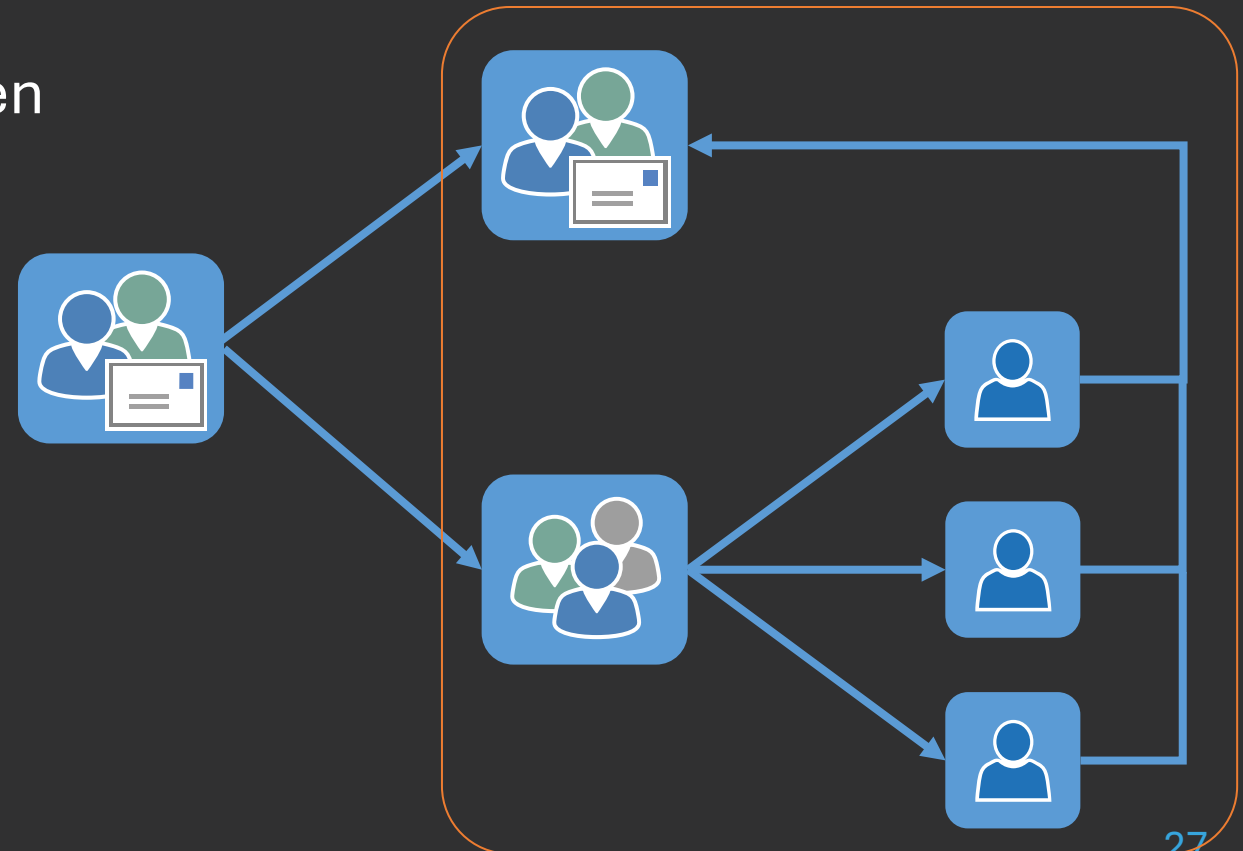
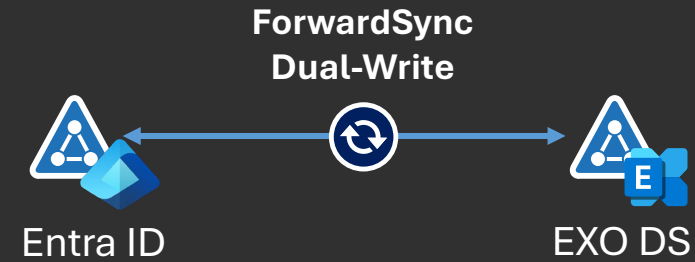


Wichtige Dinge

Synchronisierte Verteilerliste

- 1 Verteilerliste
 - Erstellung der Gruppenobjekte
→ 2 Aktionen
 - Hinzufügen der Mitgliederkonten
→ 1 Aktion je Mitgliedskonto

→ Normalisierung in Einzelaufgaben durch Entra ID





Wichtige Dinge

Postfächer mit Exchange Hybrid

- Source of Authority (SOA) → On-Premises Active Directory
- 30-Tage *Grace Period* zur Lizenzierung eines Postfaches
 - Unterstützung für lokale Prozesse zur Provisionierung von neuen Remote Postfächer und während der Migration

Empfehlung

- Zeitnahe Zuweisung einer EXO-Lizenz
- Zuweisung vor einer Postfach-Migration



Wichtige Dinge – Hybride Postfächer

Postfächer mit Exchange Hybrid

- Remote Routing-Adresse (@*.mail.onmicrosoft.com)
 - Hybrid Configuration Wizard passt die Default-E-Mail-Adressrichtlinie On-Premises an
 - Remote Routing-Adresse wird als Proxyadresse hinzugefügt
 - Änderung gilt für Objekte mit aktiviertem *EmailAddressPolicyEnabled-Attribut*



Wichtige Dinge – Hybride Postfächer

Postfächer mit Exchange Hybrid

- LegacyExchangeDN wird als X500-Proxyadresse dem On-Premises Postfach hinzugefügt
- ExchangeGuid wird von der Exchange Organisation definiert, die das Postfach als erstes erstellt
 - Exchange Online → Provisionierung in der Cloud
 - New-RemoteMailbox, Enable-RemoteMailbox
 - Exchange Server → Provisionierung On-Premises
 - New-Mailbox, Enable-Mailbox
 - Spätere Verschiebung des Postfaches zu Exchange Online



Wichtige Dinge – Hybride Postfächer

Postfächer mit Exchange Hybrid

- ArchiveGuid für ein Archive-Postfach wird immer in der lokalen Exchange Organisation erstellt
 - Unabhängig von Speicherort des primären Postfaches
- SLA für Provisionierungsänderung in Exchange Online ist 24h



Wichtige Dinge – Postfächer

Postfächer mit Exchange Hybrid

- Postfach-Migration

- Hybrid Configuration Wizard passt die Default-E-Mail-Adressrichtlinie On-Premises an

```
Set-EmailAddressPolicy -Identity 'Default Policy'  
-ForceUpgrade: $true  
-EnabledEmailAddressesTemplates  
'SMTP:@varunagroup.de', 'smtp:%m@varunagroup.mail.onmicrosoft.com'
```

```
Update-EmailAddressPolicy -Identity 'Default Policy'  
-UpdateSecondaryAddressesOnly: $true
```

- Prüfung individueller Richtlinien notwendig
- Fehlende Remote Routing Adresse führt zu Fehlern bei der Migration

Ressourcen



- [Demystifying Exchange Online Provisioning: Architecture, Exchange Object Types, and Attributes](#)
- [Delays in provisioning of user/mailbox or synchronizing changes in Exchange Online](#)
- [Enable Group writeback in Microsoft Entra Connect](#)
- [Microsoft Entra Connect Sync: Understanding the architecture](#)

Exchange Q & A



Organisatorisches



Meetup Termine 2024

- 12. Dezember

Exchange Summit 2025

Die Exchange Konferenz für die DACH-Region



Exchange Summit 2025

- Zwei Tage rund um Exchange

→ Würzburg

→ 18. und 19. Februar 2025

- <https://Exchange-Summit.de>



- Call for Paper offen



- Event-Partner gesucht

Exchange Coffee Talk



- Lockere Kaffeerrunde zu Exchange-Themen
- Bringt eure Themen mit
- Einmal im Monat
 - Letzter Mittwoch im Monat
 - 25. September
 - 17 Uhr
 - 1 Stunde
 - ExchangeCoffeeTalk.de

*Exchange
Coffee Talk*

Am letzten Mittwoch im Monat
Erster Talk am 25. Oktober um 17 Uhr

THOMAS STENSITZKI

Microsoft
Most Valuable
Professional

A white ceramic coffee cup filled with a latte, topped with a heart-shaped latte art. The cup is surrounded by a pile of dark brown coffee beans. A small blue 'E' logo is visible on the side of the cup.

Exchange User Group

Organisatorisches

- **Exchange User Group Team**
 - Registrierung → Link auf Homepage (exusg.de)
- **Themenvorschläge**
 - <https://sessionize.com/exchange-user-group>
- **Community Sticker**
 - <https://go.granikos.eu/CommunitySticker>
- **EXUSG Mugs**
 - <https://go.granikos.eu/EXUSGMug>



Danke für die Teilnahme



Exchange User Group

Nächster Termin in **Q4 2024**

- Talk 1: Viele Wege führen zum M365 Audit Log, Andres Bohren
- Talk 2: Exchange Server Hybrid & SMTP-Konnektorsicherheit, Thomas Stensitzki
- Meetup-Themenwünsche und eure Talks sind immer willkommen 😊

<https://exusg.de>

<https://go.granikos.eu/EXUSG-Recs>

Exchange User Group | @exusg



Ende