

Email Deduplication

The Email Deduplication module helps administrators identify and remove duplicate emails, contacts, and calendar items directly from Microsoft 365 mailboxes. The software performs **server-side scanning**, eliminating the need to download or create PST/OST files before scanning. This saves time, reduces storage usage, and simplifies the deduplication process.

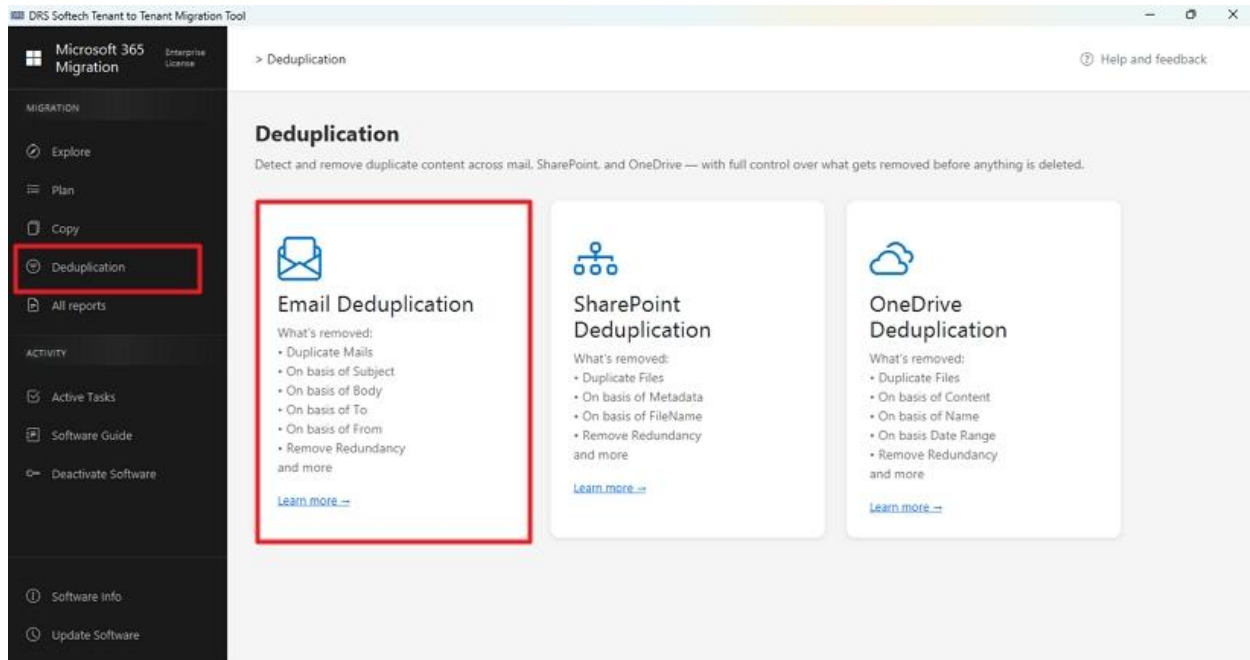
Notes:

- The Demo Version allows you to scan and preview duplicate emails, contacts, and calendar items only. Duplicate removal is available after activating the licensed version.
- You can choose to move duplicate emails, contacts, and calendar items to the Deleted Items folder or permanently delete them from the selected Microsoft 365 mailboxes.

Steps to Perform Email Deduplication

Step 01: Select Email Deduplication

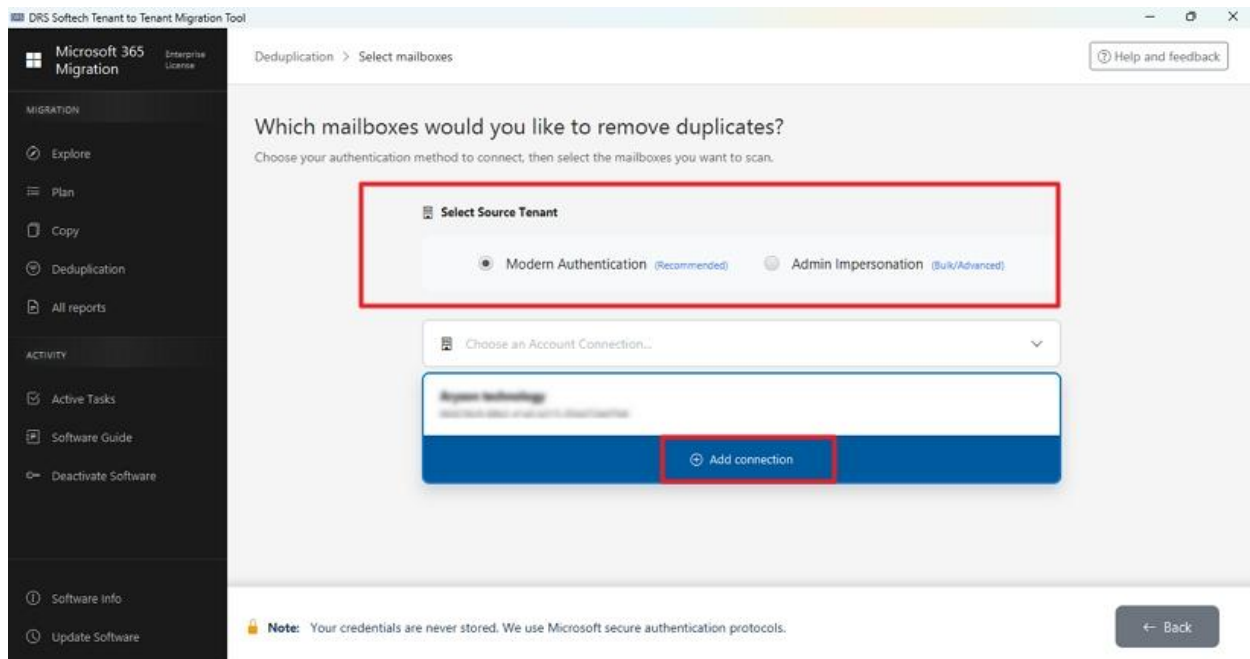
From the Deduplication module on the main dashboard, click **Email Deduplication** to begin the duplicate detection process.



Step 02: Choose Source Authentication Mode

Select the authentication method to connect to the source Microsoft 365 tenant:

- **Modern Authentication:** Sign in securely using your Microsoft 365 Administrator account.
- **Admin Impersonation:** Connect using Azure App Registration credentials, including Client ID, Client Secret Key, and Tenant ID.

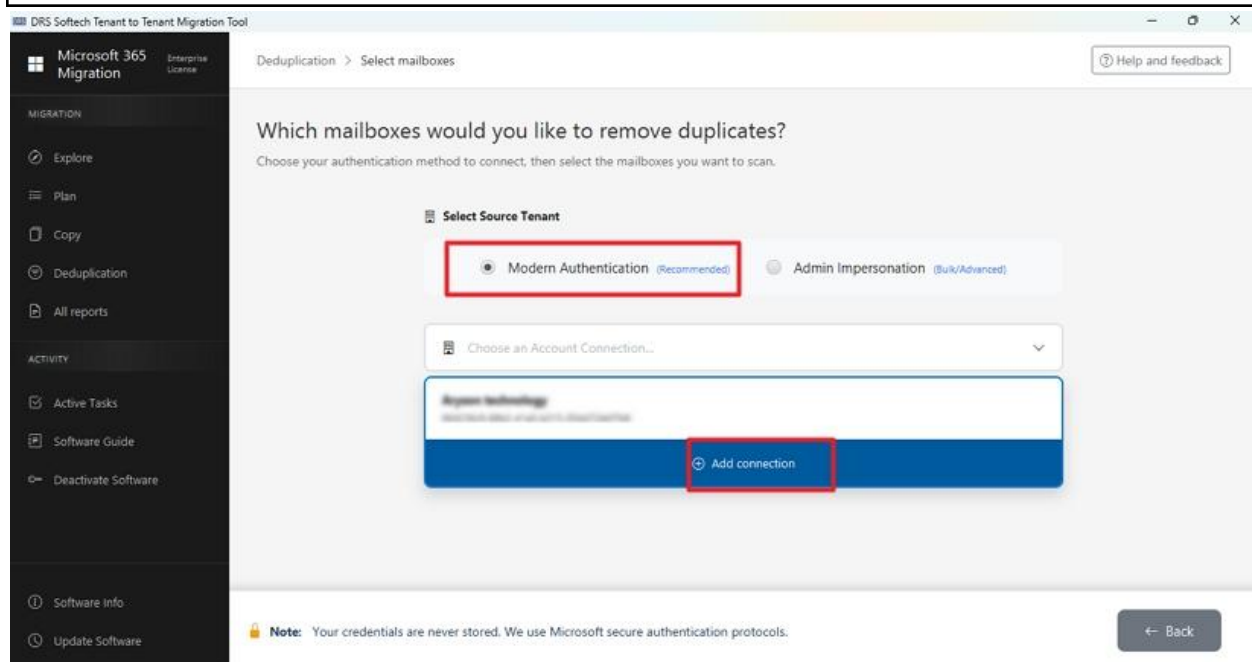


Step 03: Sign In Using Modern Authentication

If you choose Modern Authentication, click **Choose an Account Connection**. Select an existing connection (if available) or click **Add Connection** to create a new one. You will be redirected to the Microsoft sign-in page.

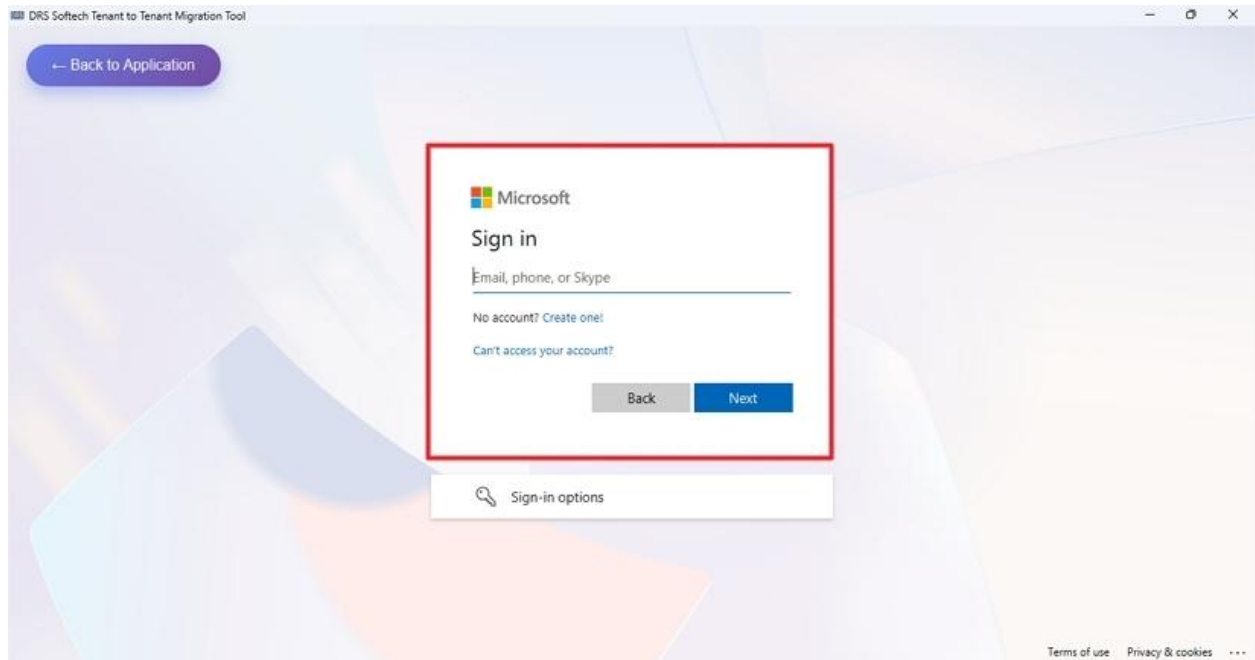
Note:

- The software securely saves your configured login connections. For future migrations, simply select a saved connection instead of entering the credentials again.
- If Modern Authentication fails, you can manually grant the required Microsoft permissions by following the Microsoft Entra configuration guide. [Modern Authentication Fails](#)



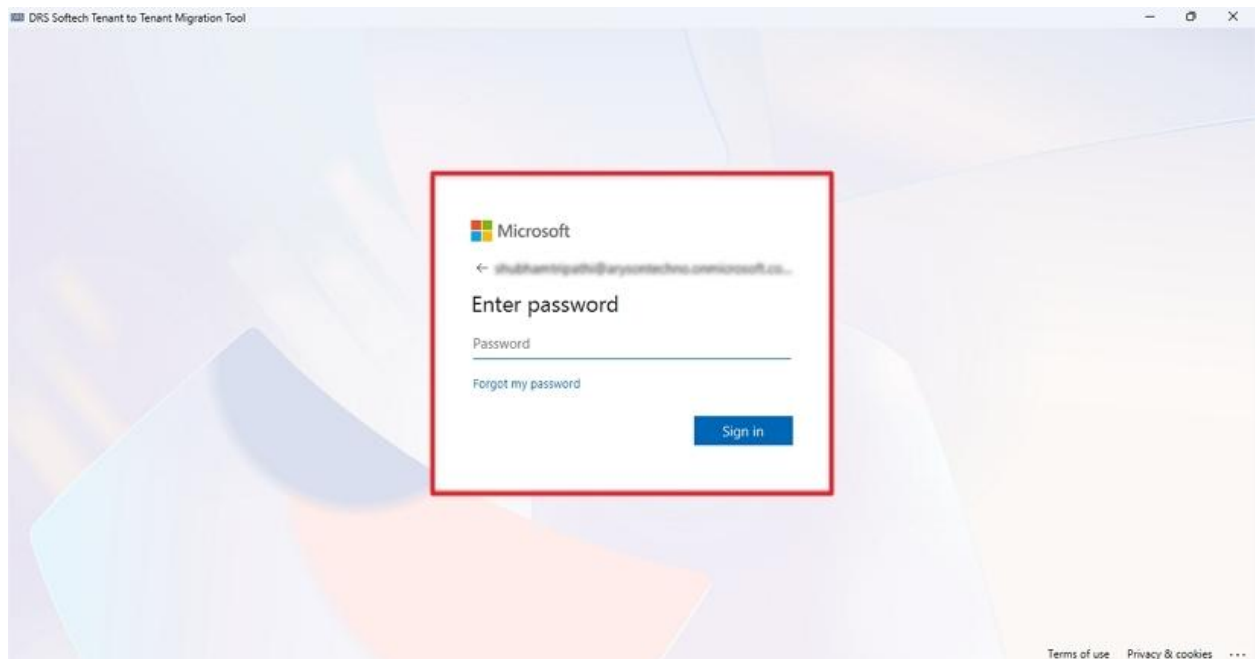
Step 04: Enter Your Microsoft 365 Administrator Account

On the Microsoft sign-in page, enter or select your Microsoft 365 Administrator **email address** and click **Next**.



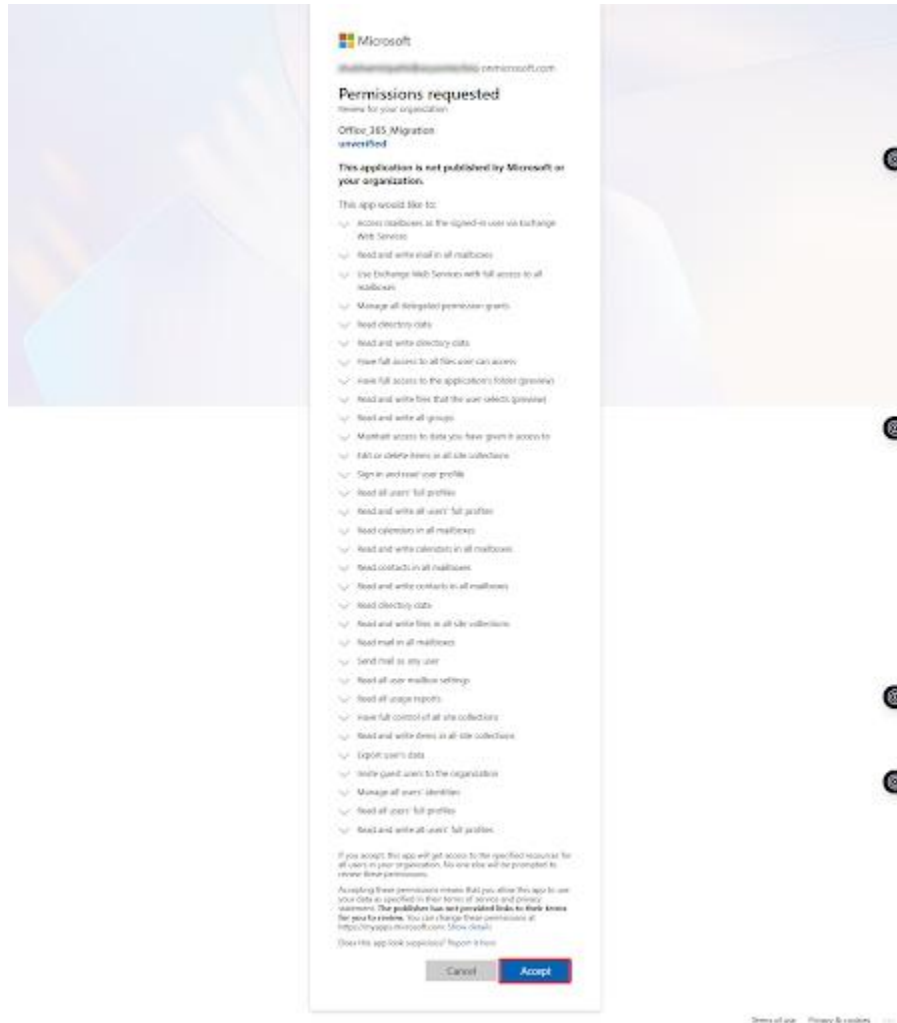
Step 05: Authenticate Your Account

Enter your administrator account password and click Sign In. If Multi-Factor Authentication (MFA) is enabled, complete the verification process to continue.



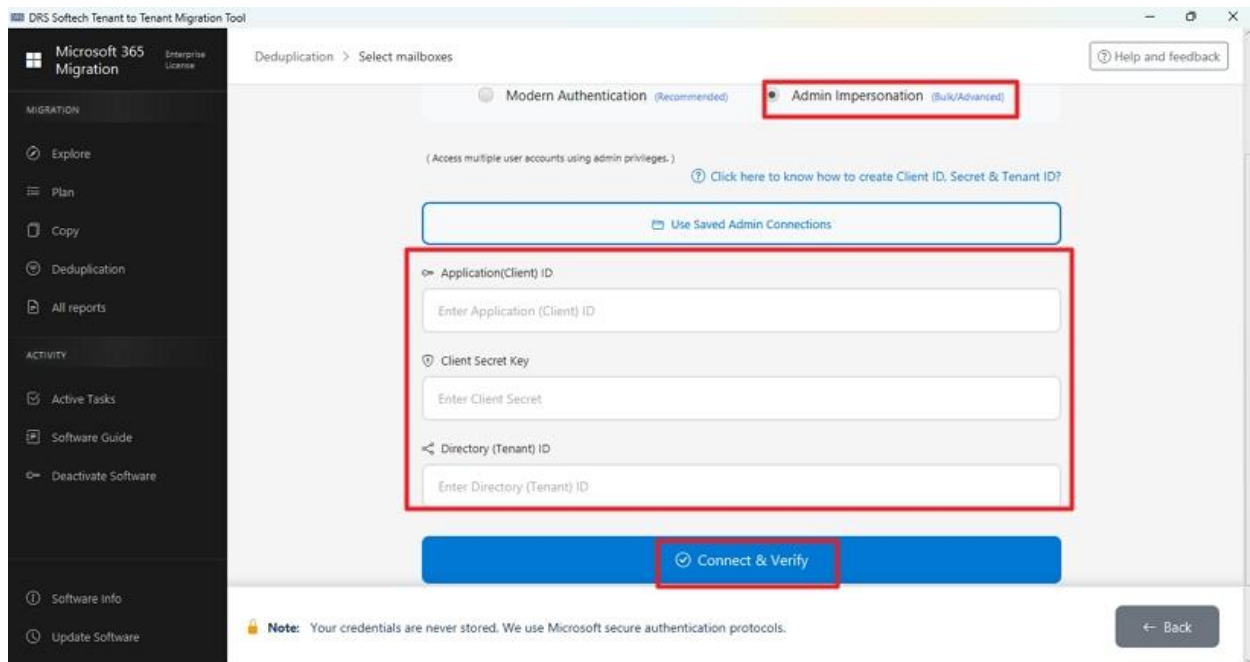
Step 06: Grant Microsoft Permissions

After successful authentication, Microsoft displays a permission consent window. Review the requested permissions and click **Accept** to authorize the application and continue.



Step 07: Sign In Using Admin Impersonation

If you choose Admin Impersonation, enter the following Azure App Registration credentials: **Client ID**, **Client Secret Key**, and **Tenant ID**. After entering the required information, click **Connect & Verify**.



Note: If you have not yet created an Azure App Registration or generated the required credentials, follow this guide:

<https://www.data-recovery-solutions.com/how-to/create-azure-active-directory-and-enable-api-permission/>

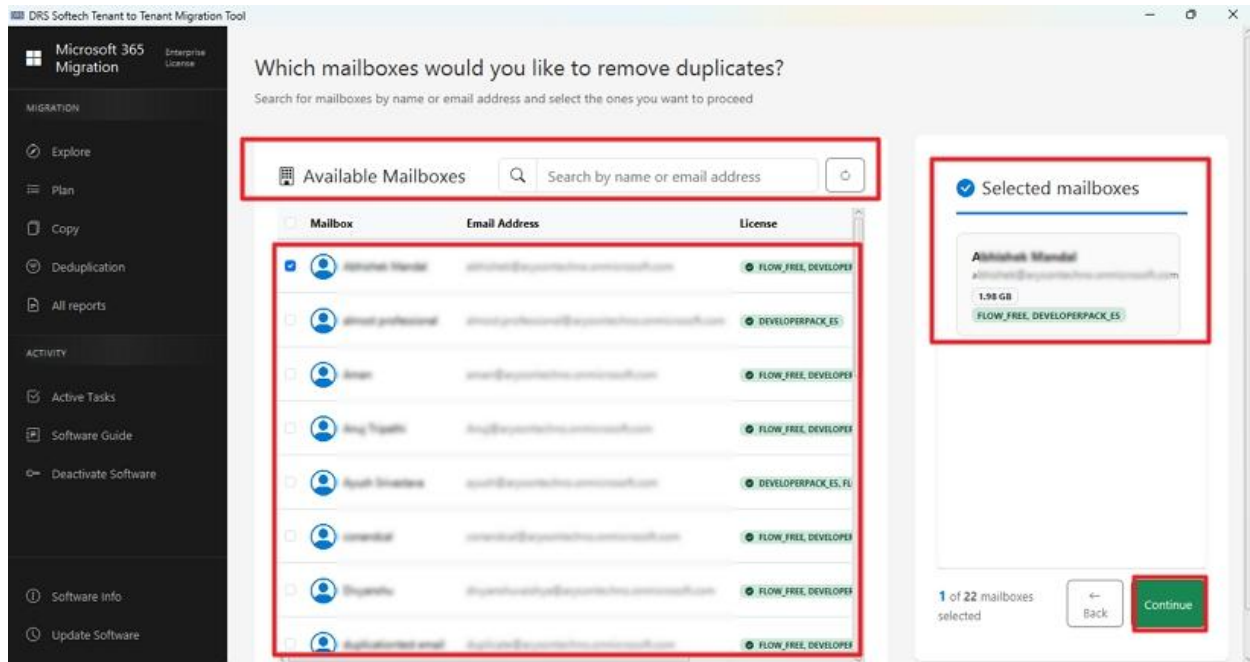
Once the Azure App Registration is configured correctly, the required Microsoft Graph API permissions are automatically assigned. Therefore, no additional consent is required during the connection process. The screenshot below shows the Microsoft 365 API permissions required during Azure App Registration.

API / Permissions name	Type	Description	Admin consent requ...	Status
▼ Microsoft Graph (30)				
Calendars.Read	Application	Read calendars in all mailboxes	Yes	✔ Granted for BUSINESS ...
Calendars.ReadWrite	Application	Read and write calendars in all mailboxes	Yes	✔ Granted for BUSINESS ...
Channel.ReadBasic.All	Application	Read the names and descriptions of all channels	Yes	✔ Granted for BUSINESS ...
ChannelMessage.Read.All	Application	Read all channel messages	Yes	✔ Granted for BUSINESS ...
Contacts.Read	Application	Read contacts in all mailboxes	Yes	✔ Granted for BUSINESS ...
Contacts.ReadWrite	Application	Read and write contacts in all mailboxes	Yes	✔ Granted for BUSINESS ...
Directory.Read.All	Application	Read directory data	Yes	✔ Granted for BUSINESS ...
Files.ReadWrite.All	Application	Read and write files in all site collections	Yes	✔ Granted for BUSINESS ...
Group.Read.All	Application	Read all groups	Yes	✔ Granted for BUSINESS ...
Group.ReadWrite.All	Application	Read and write all groups	Yes	✔ Granted for BUSINESS ...
GroupMember.ReadWrite.All	Application	Read and write all group memberships	Yes	✔ Granted for BUSINESS ...
Mail.Read	Application	Read mail in all mailboxes	Yes	✔ Granted for BUSINESS ...
Mail.ReadWrite	Application	Read and write mail in all mailboxes	Yes	✔ Granted for BUSINESS ...
Mail.Send	Application	Send mail as any user	Yes	✔ Granted for BUSINESS ...
MailboxSettings.Read	Application	Read all user mailbox settings	Yes	✔ Granted for BUSINESS ...
Reports.Read.All	Application	Read all usage reports	Yes	✔ Granted for BUSINESS ...
Sites.FullControl.All	Application	Have full control of all site collections	Yes	✔ Granted for BUSINESS ...
Sites.ReadWrite.All	Application	Read and write items in all site collections	Yes	✔ Granted for BUSINESS ...
Team.Create	Application	Create teams	Yes	✔ Granted for BUSINESS ...
Team.ReadBasic.All	Application	Get a list of all teams	Yes	✔ Granted for BUSINESS ...
TeamMember.Read.All	Application	Read the members of all teams	Yes	✔ Granted for BUSINESS ...
TeamMember.ReadWrite.All	Application	Add and remove members from all teams	Yes	✔ Granted for BUSINESS ...
TeamsActivity.Read.All	Application	Read all teams' settings	Yes	✔ Granted for BUSINESS ...
TeamworkTag.CreateAll	Application	Create chat and channel messages with anyone's identity	Yes	✔ Granted for BUSINESS ...
TeamworkTag.ReadWrite.All	Application	Read and write tags in Teams	Yes	✔ Granted for BUSINESS ...
User.Export.All	Application	Export user's data	Yes	✔ Granted for BUSINESS ...
User.Invite.All	Application	Invite guest users to the organization	Yes	✔ Granted for BUSINESS ...
User.ManageIdentities.All	Application	Manage all users' identities	Yes	✔ Granted for BUSINESS ...
User.Read.All	Application	Read all users' full profiles	Yes	✔ Granted for BUSINESS ...
User.ReadWrite.All	Application	Read and write all users' full profiles	Yes	✔ Granted for BUSINESS ...

Step 08: Select Mailboxes

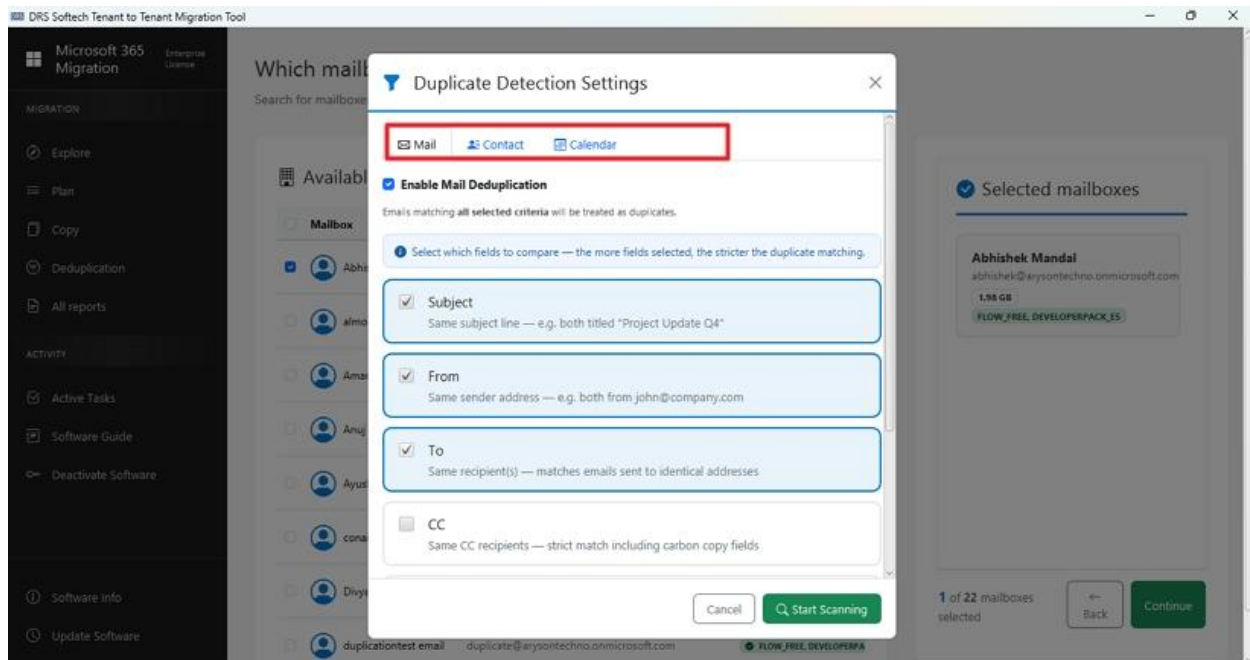
After successful authentication, the software loads all available mailboxes. You can:

- **Search mailboxes** by User Name or Email Address.
- Select **one** or **multiple mailboxes** for deduplication.
- **Verify** the selected mailboxes in the Selected Mailboxes panel.
- Review the **total number** of selected mailboxes before proceeding.
- Click **Continue** to configure the deduplication settings.



Step 09: Configure Deduplication Settings

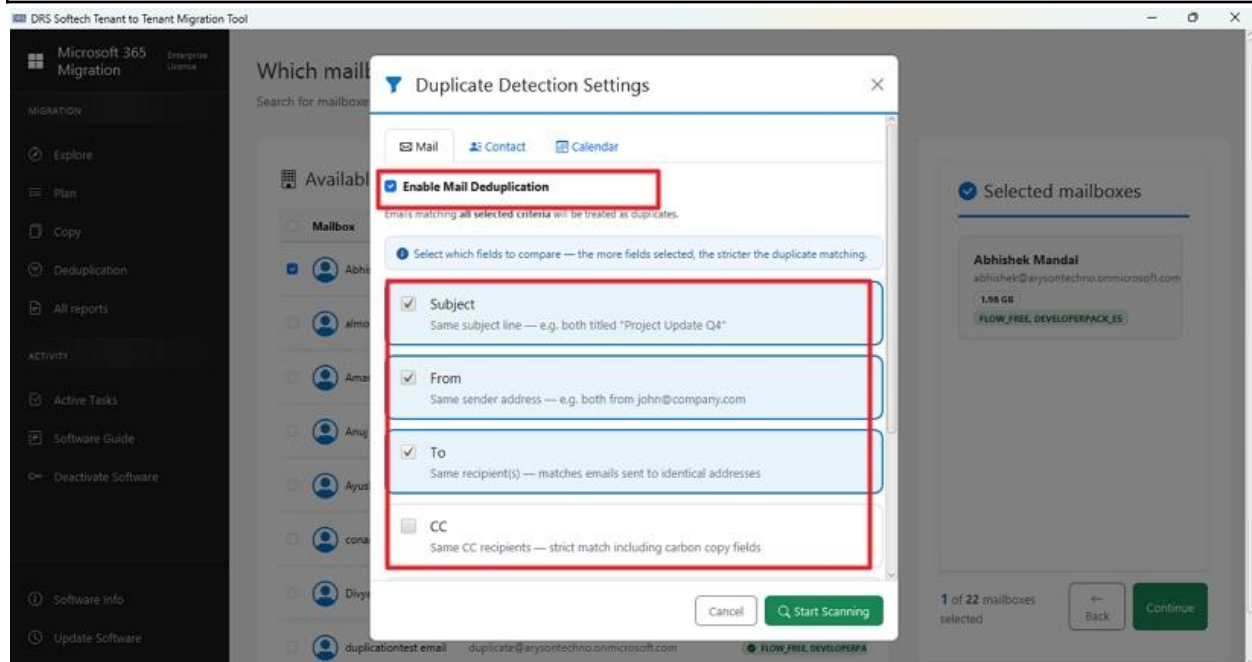
Choose the mailbox data you want to scan for duplicates: **Emails, Contacts, and Calendars**. Each mailbox item type can be scanned independently using its own duplicate matching criteria.



Step 10: Duplicate Detection Settings

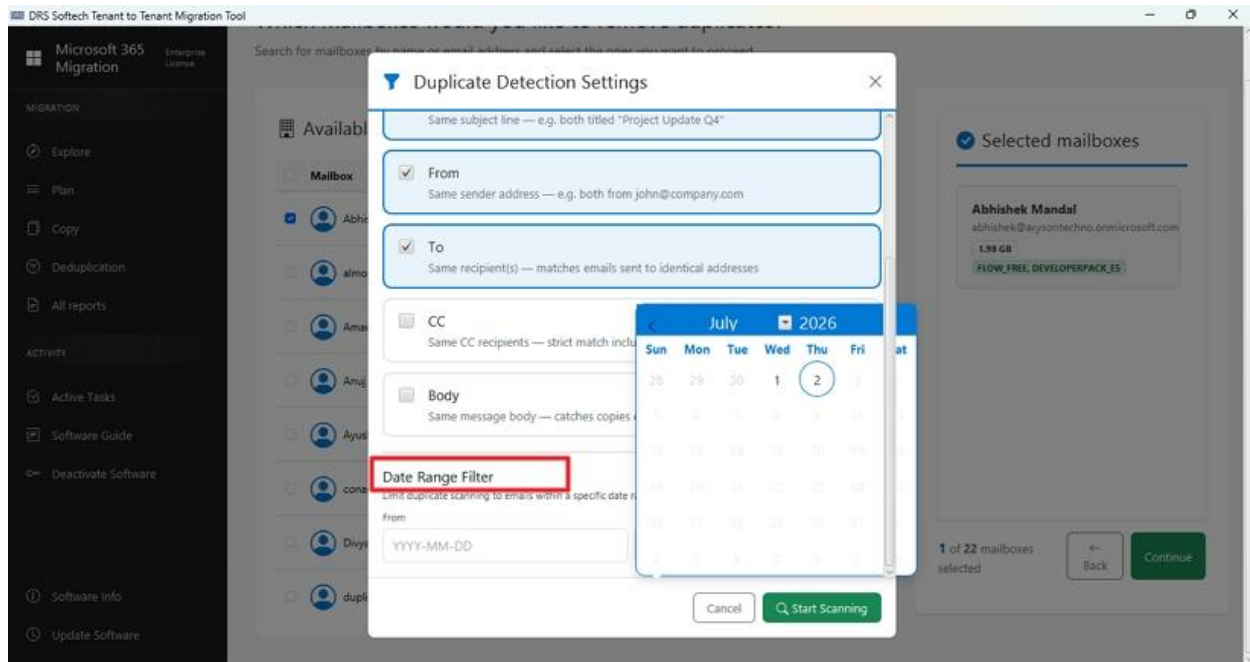
In this step, you define how the software identifies duplicate emails in the selected mailboxes. You can select one or more matching criteria such as Subject, From, To, CC, and Body.

Note: If you want to remove duplicate emails from the entire mailbox, simply select all matching criteria.



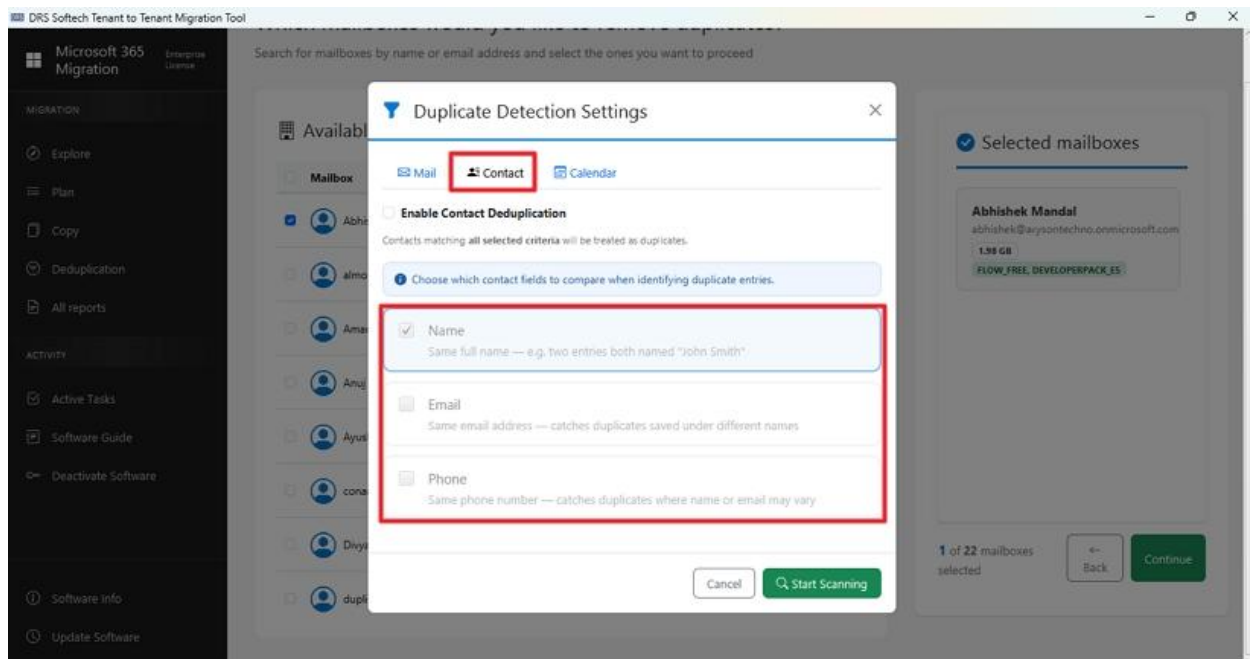
Step 11: Date Range Filter

You can also enable the Date Range Filter to scan emails within a specific time period. Set **Start Date** and **End Date** to limit the scanning scope. If the date filter is not applied, the tool scans the complete mailbox data by default.



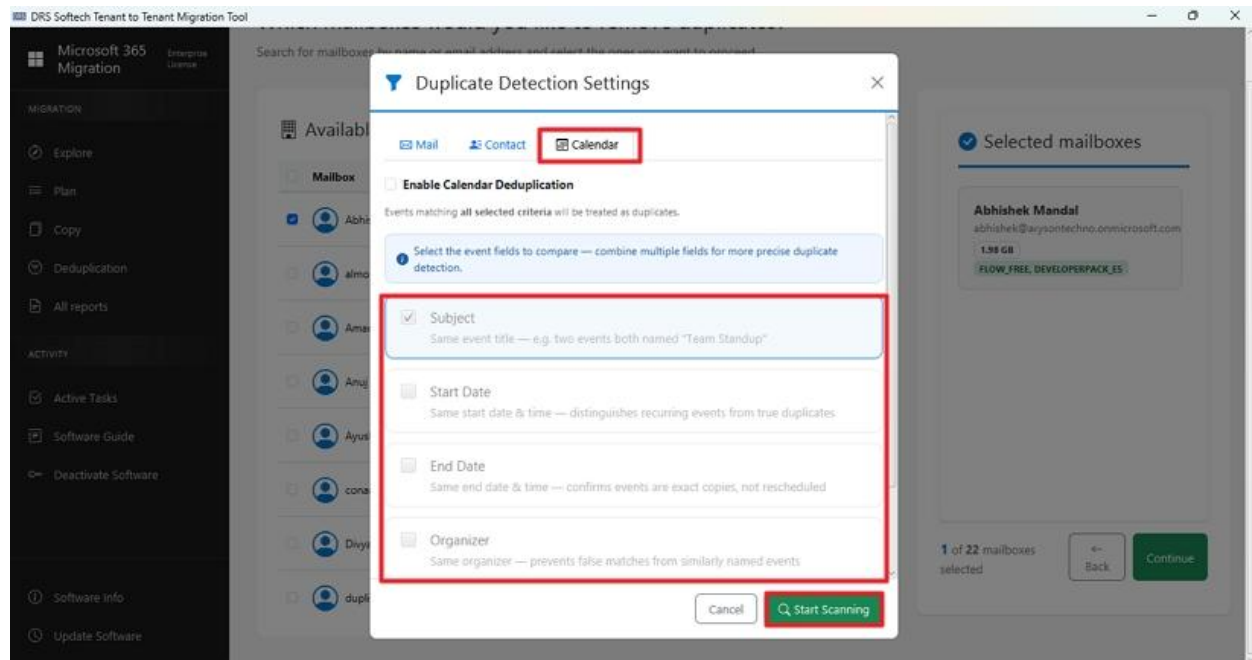
Step 12: Configure Contact Matching Criteria

If you select Contacts, choose the duplicate detection criteria: Name, Email Address, and Phone Number.



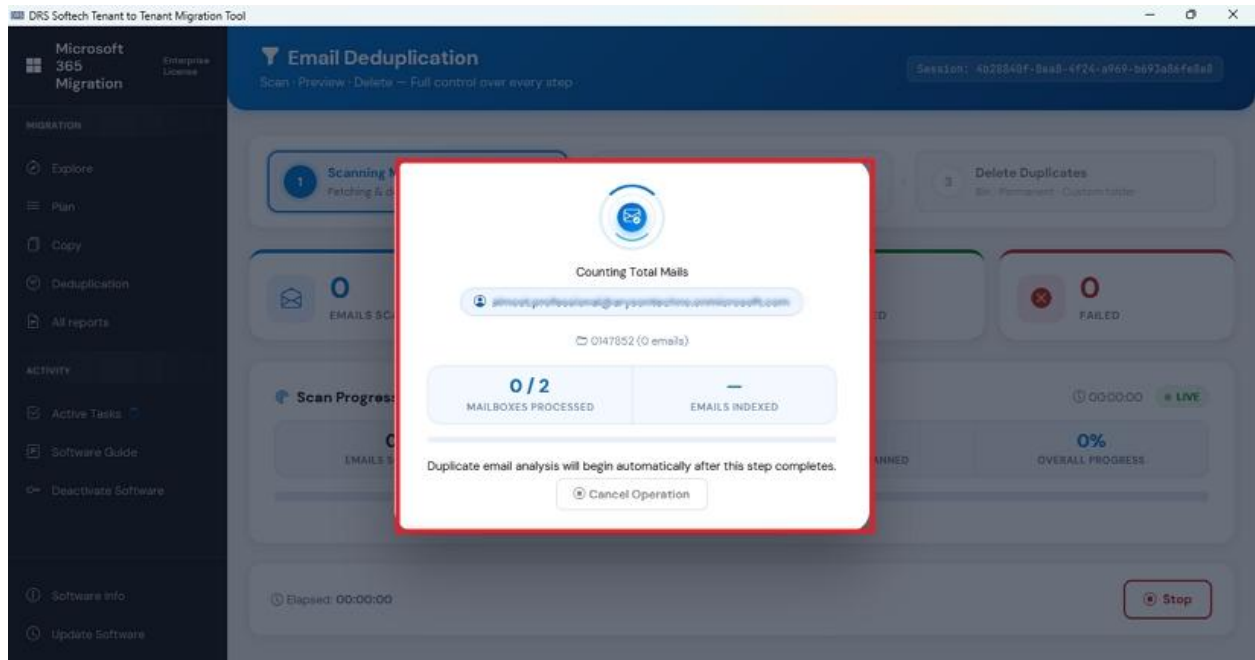
Step 13: Configure Calendar Matching Criteria

For Calendar items, select one or more matching fields: Subject, Start Date, End Date, Location, and Organizer. After configuring the required options, click **Start Scanning**.



Step 14: Scan for Duplicate Items

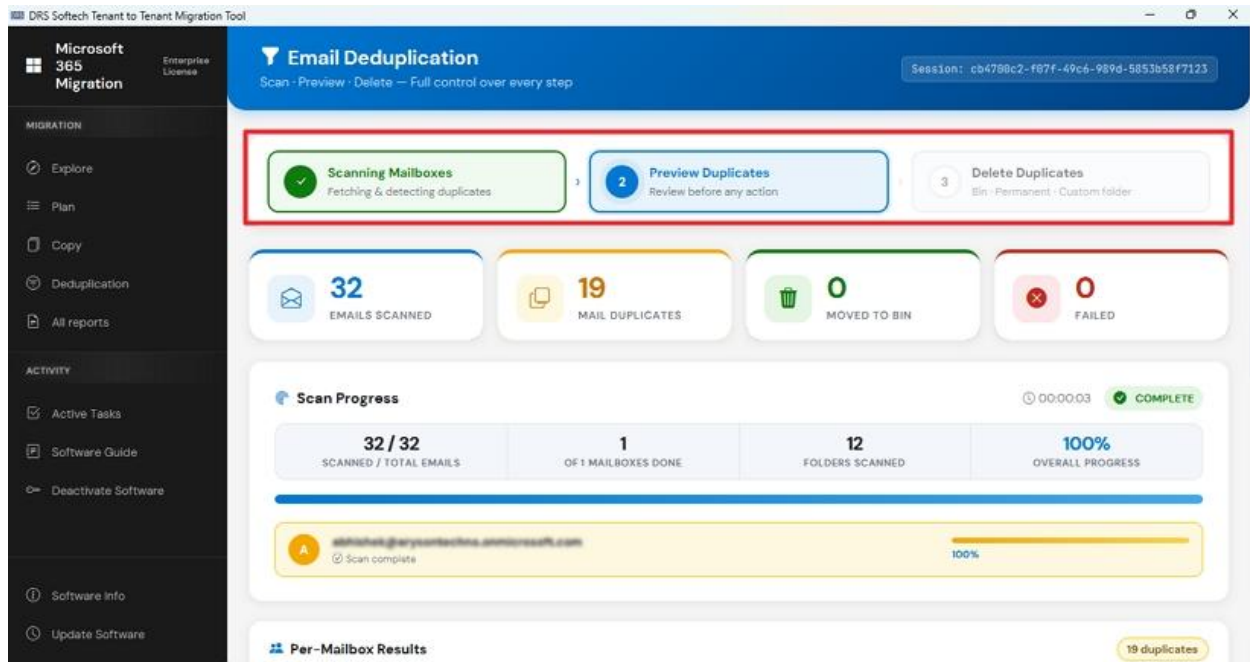
The software begins scanning the selected mailboxes and analyzes duplicate emails, contacts, and calendar items based on the selected criteria. You can stop the scanning process at any time by clicking **Cancel Operation**.



Step 15: Deduplication Process

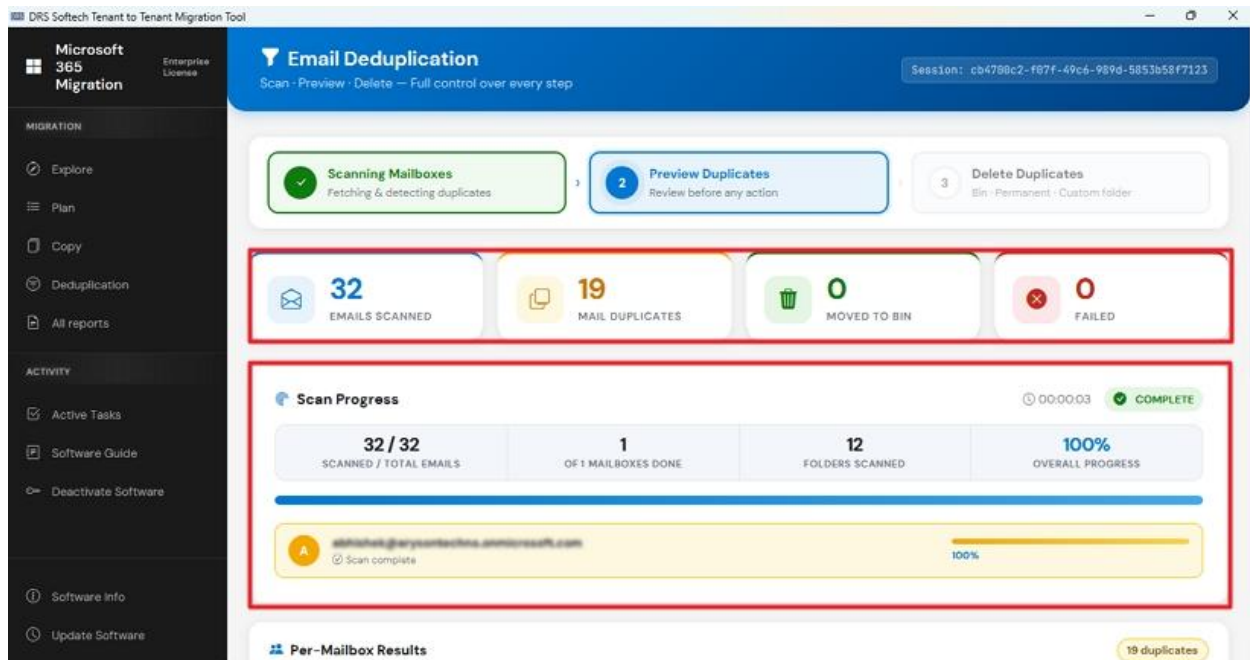
The Email Deduplication process is completed in three main stages:

- **Scanning:** The software scans all selected mailboxes (emails, contacts, and calendar items) based on the defined matching criteria to identify duplicates.
- **Preview:** Detected duplicate items are displayed for review, allowing you to verify and confirm which items should be removed.
- **Deletion:** After confirmation, the selected duplicate items are removed, leaving only unique and required data in the mailbox.



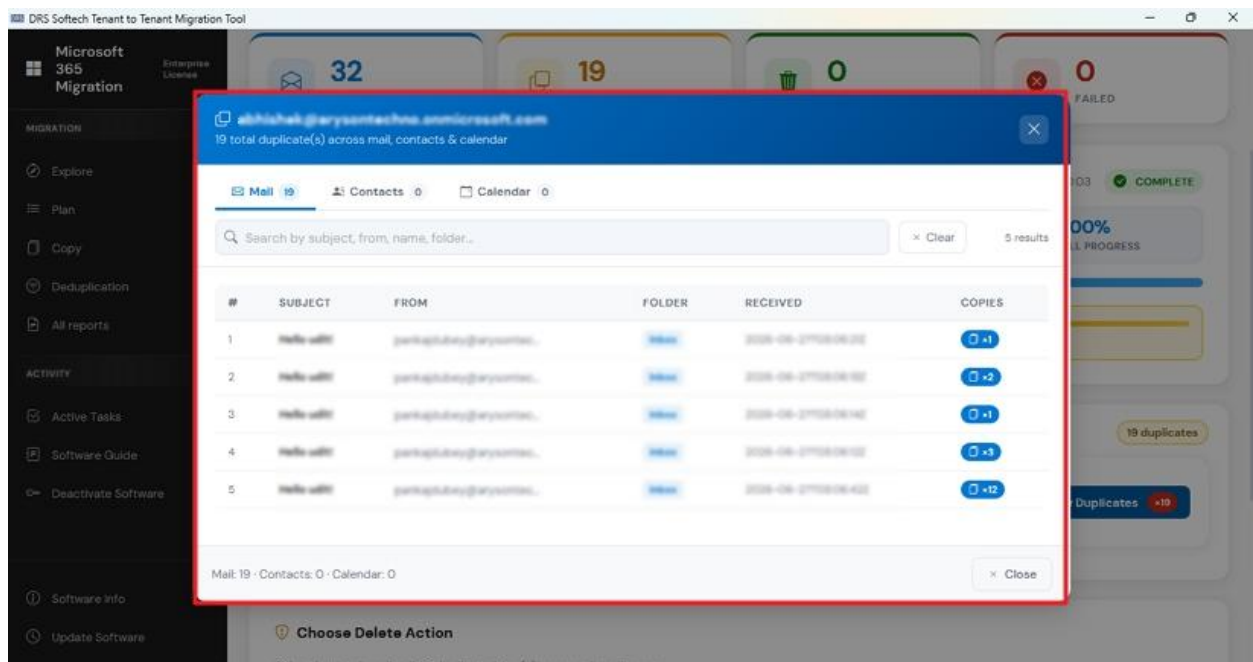
Step 16: Deduplication Progress

During the deduplication process, the software displays real-time progress, including: Total items scanned, Number of duplicate emails found, Items moved to Bin/Deleted Items, and failed items.



Step 17: View Mailbox Results

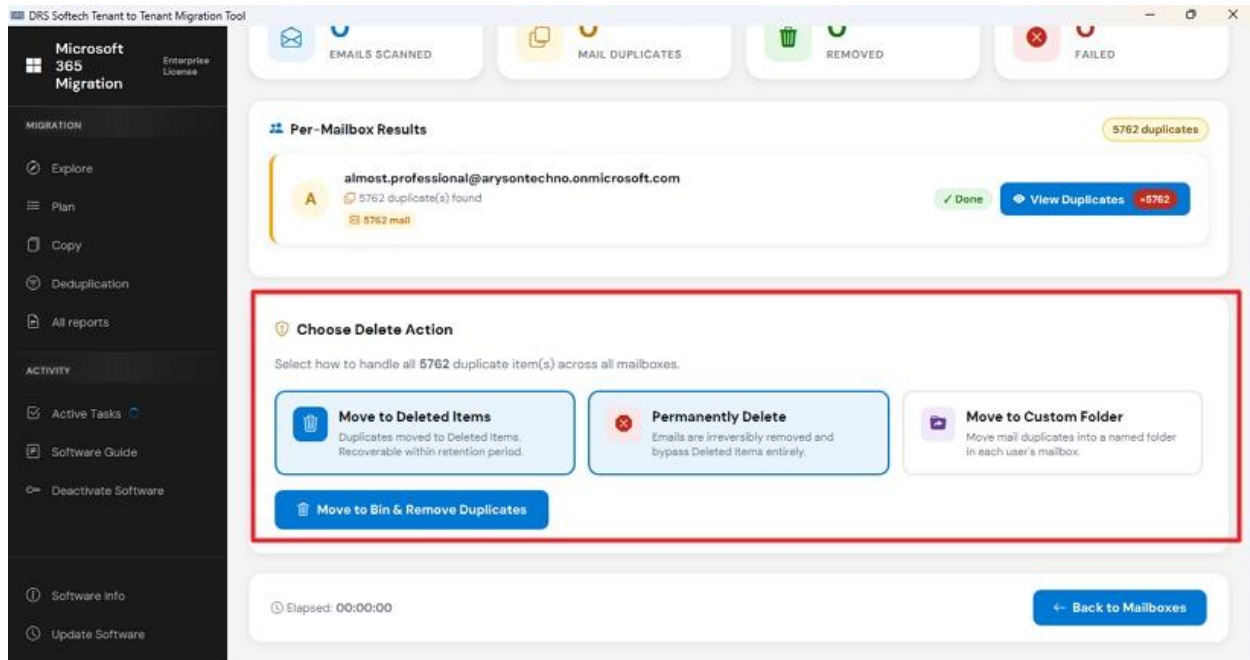
In the Per-Mailbox Results section, click **View Duplicates** to preview all detected duplicate emails, contacts, and calendar items in one place.



Step 18: Deduplication Actions

After scanning and previewing results, you can choose one of the following actions:

- **Move to Deleted Items:** Moves duplicate items to the Deleted Items folder, where they can be recovered within the retention period.
- **Permanently Delete:** Removes duplicate items permanently from the Microsoft 365 mailbox.
- **Move to Custom Folder:** Stores duplicate items in a user-defined folder for future reference.



Step 19: Deduplication Reports

To view the final results of the process, go to **All Reports** → **Email Deduplication Reports** and click **View Reports**. This section provides a complete summary of the deduplication process, including scanned items, duplicates found, and actions performed.

