

ATTACHMENT MANAGEMENT Using AZURE BLOB STORAGE

A Solution to help optimize Dynamics 365 CRM storage by automatically saving file attachments to Azure Blob Storage

MICROSOFT LABS

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1 Overview

The Attachment Management Solution is an add-on feature to Dynamics 365 CRM to manage note and email attachments using Azure Blob storage. It enables users to create and maintain files stored on Azure Blob through the D365 CRM application. This solution benefits organizations with large amounts of file attachments by storing the files in Azure Storage rather than the CRM database. This reduces the cost of storage since Azure Storage is significantly less expensive than additional Dynamics 365 Storage.

Attachment Management benefits:

All attachments stored in Azure Blob

- Optimizes the use of Dynamics 365 storage.
- Attachment retrieval on demand.

Multi attachment upload/Download Control (Optional)

- Drag/Drop.
- One-click download of multiple selected attachments.
- Preview of attachments.

This solution is built on Dynamics 365 and seamlessly works on Dynamics CRM 2016 and above.

2 Attachment Management Configuration

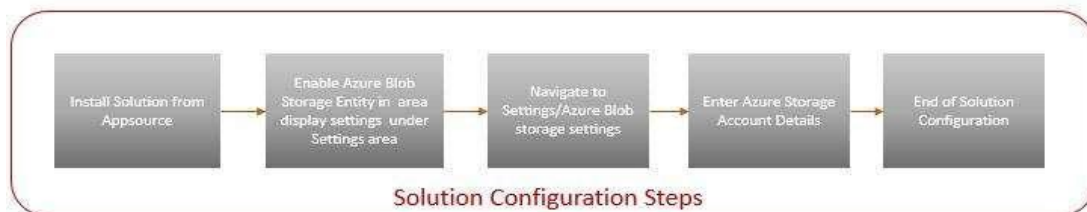
The Attachment Management solution can be used for any Dynamics 365 system or custom entity, which is enabled for Notes and attachments.

The below diagram summarizes the configuration and usage of Attachment Management solution and the processes that runs in the backend.

This section outlines the steps to be performed by a System Administrator to make Solution available to the end users.

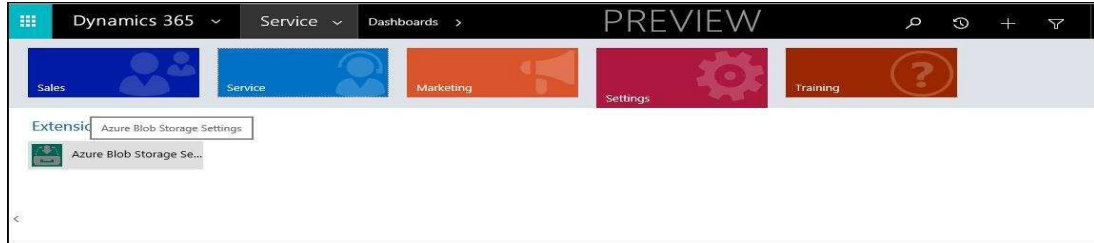
Pre-requisites:

1. Valid Windows Azure Subscription and Storage Account (Blob) created
2. Attachment Management solution installed in the Dynamics 365 organization



2.1 UI Configuration

1. Open Microsoft Dynamics 365
2. Navigate to Settings -> Extensions -> Azure Blob Storage Settings



3. If, "Azure Blob Storage Settings" entity is not available in the Service Module extensions, we can create record for the Azure Storage account subscription details and Blob details for the Notes and attachments from "Advance Find" as well.

Steps to create an "Azure Blob Storage Settings" Record, using Advance Find.



- i. Go to Advance Find
- ii. Choose Azure Blob Storage Settings in "Look for"
- iii. Click on Results
- iv. To create a record and click on New Azure Blob Storage Settings



AZURE BLOB STORAGE SETTINGS : INFORMATION

New Azure Blob Stor... ☰

General

Name *	storageaccountname
Owner *	 
SAS token	--
Notes Attachment Co	--
Email Attachment Cor	--

Name: Azure Storage Account Name

SAS token: SAS token available in the Storage Account.

Note: Please make sure the Start Time and End Times are chosen correctly while generating the SAS token. Please refer “Best practices when using SAS” section [here](#) for more information on Start Time.

Notes attachment Container Name: Container name created for Notes

Email Attachment Container Name: Name of the container created for the email attachment.

Essentials ^

Resource group (change)
reusablecomponents_preprod

Status
Primary: Available, Secondary: Available

Location
East US, West US

Subscription (change)
[Redacted]

Subscription ID
[Redacted]

NAME	LAST MODIFIED	ACCESS TYPE	LEASE STATE
emailattachmentcontainer ←		Blob	Available ...
notesattachmentcontainer ←		Blob	Available ...

2.2 Optional Configuration

This section provides information on optional functionality of uploading multiple Notes and attachments at one go offered by Attachment Management solution by using web resources into the Entity form. Here we have provided example of tab created on business entity case main form.

Below are the required web resources for attachment functionality.

msdyn_filesandattachments.html –

This web resource will list all the Notes and email attachments in grid format on the form. User, would able to delete and download single /multiple files from the grid.

msdyn_multiple_uploads.html –

This web resource contains the code to upload multiple files. Also, contains the code to show only the email attachments when it is used in Email form.

Steps to configure web resources for multiple file upload functionality

1. Edit Entity form to create new tab and insert “msdyn_multiple_uploads.html” web-resource for the multiple upload functionality for Notes and attachment.

Web Resource Properties
Modify this Web resource's properties.

General Formatting Dependencies

Web resource

Web resource * msdyn_multiple_uploads

Field Name and Properties

Name * WebResource_UploadFiles

Label * Upload Files

Display label on the Form

Visibility

Visible by default

Web Resource Properties

Custom Parameter(data)

Restrict cross-frame scripting, where supported.

Pass record object-type code and unique identifier as parameters.

Enable for tablet

2. Publish all changes made and navigate to case entity and open case form. User should be able to see the tab created for the Notes and attachment uploading.

Notes and Attachments

Upload File

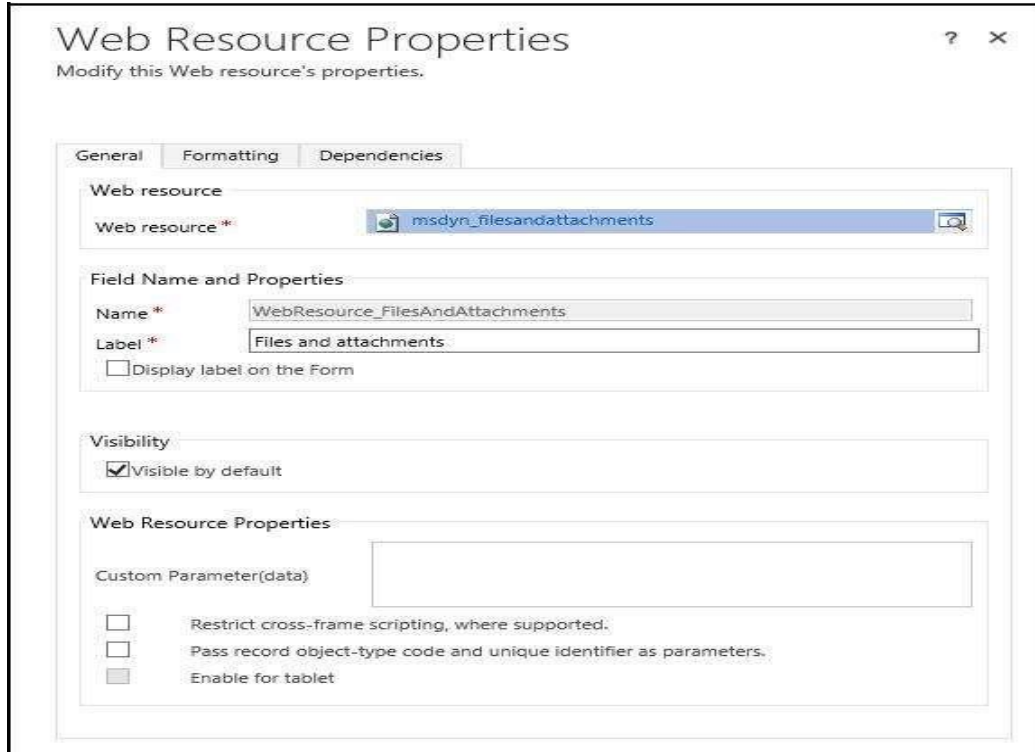
TITLE

NOTES

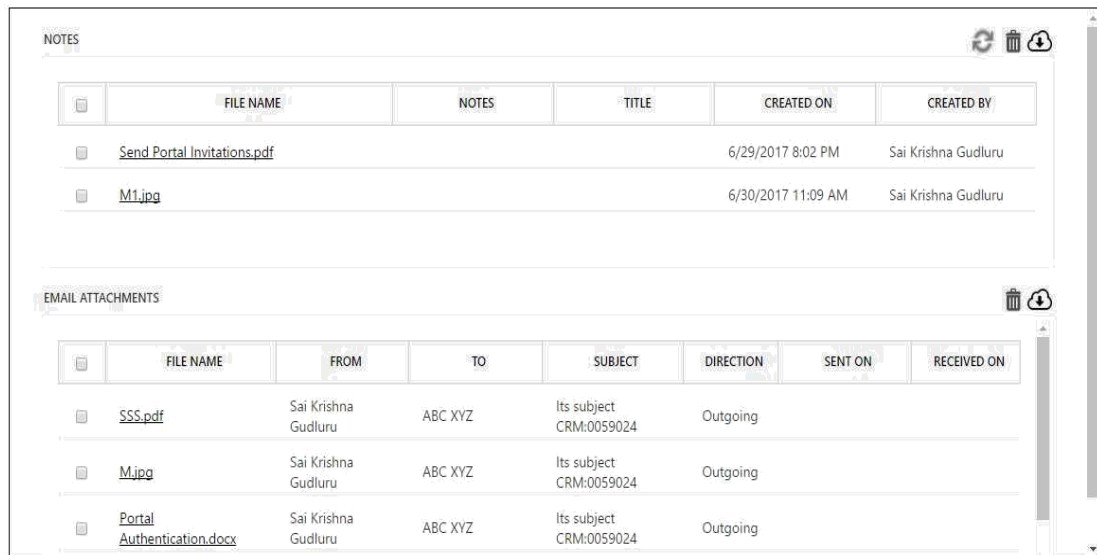
Drag and Drop your files

BROWSE CANCEL SAVE

3. Create another Tab named "Attachments" to download and delete uploaded files in one go. Insert html web resource msdyn_filesandattachments.html in newly created tab.



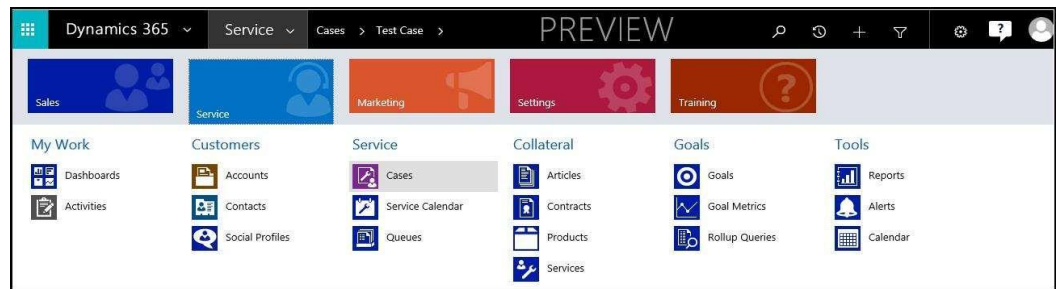
4. Publish all changes made and navigate to Case main form. The User should then be able to see below tab on the form.



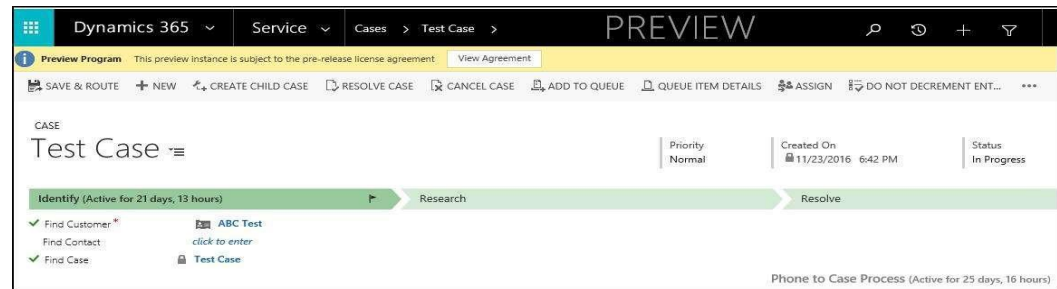
3 End User Experience

Once the solution is imported and configured in the Dynamics 365 organization, a user can upload and create Notes and store the attachments in Azure Blob Storage. The steps outlined below illustrate creating a note with attachment and verifying the attachment is stored in Bob Storage.

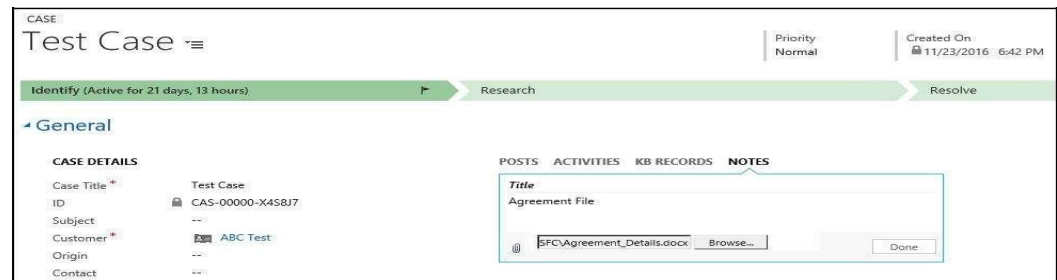
1. Navigate to a Business Entity (e.g. Case)



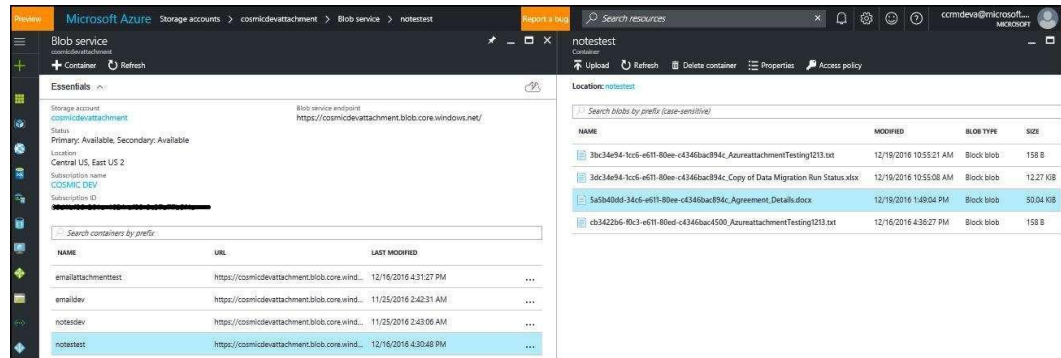
2. Open a Case record



3. Create a note against the case with an attachment.



- Verify the Notes attachment is stored in Azure Blob storage. The file name is formed by concatenating the parent entity record ID (here Case GUID) and attachment file name (Agreement_Details.docx): 5b40dd-34c6-e611-80ee-346bac894c_Agreement_Details.docx

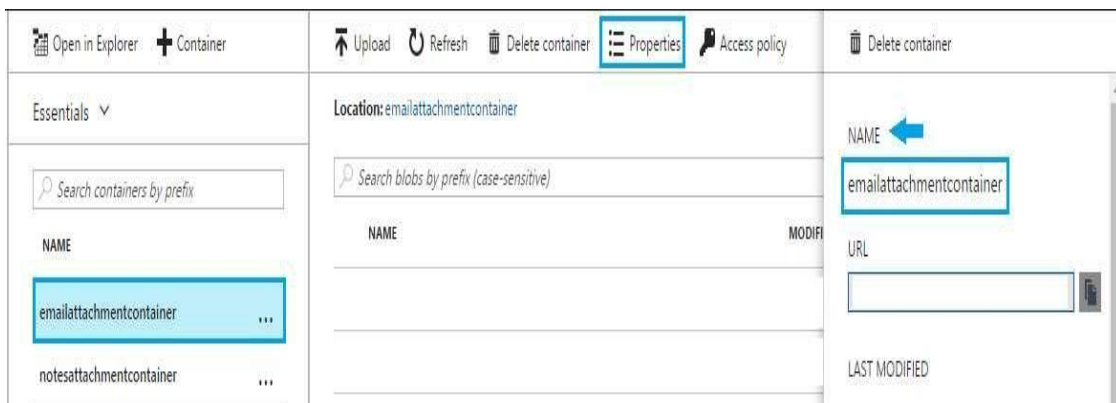


- If a user deletes a Notes record, any related attachment will be deleted from the Azure Blob Storage.

4 Troubleshooting Steps

System Administrators can use the quick tips below for troubleshooting in case of any issues:

- Ensure Azure Storage account details have been entered correctly.
- Ensure the plugin steps have been registered for the event e.g. Post Create of Entity.
- Navigate to 'Customize the System' and ensure you click 'Publish all Customizations'.
- Make sure the Azure Blob Settings configuration information is correct e.g. The "Name" in the Container properties pane should match the name of the Container.



- Please make sure the Start Time and End Times are chosen correctly while generating the SAS token.