

Architecture

Microsoft Dynamics CRM 4.0

Outlook Synchronization in Microsoft Dynamics CRM

White Paper: "Nuts and Bolts" Series

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Table of Contents

Overview of Dynamics CRM Client Synchronization	5
Outlook Synchronization	5
Online/Offline Synchronization	5
Outlook Synchronization in the Microsoft Dynamics CRM 4.0 Client	6
Changes to Items in Outlook	6
Changes to Items in Dynamics CRM	8
Merging Overlapping Changes	8
Synchronization Rules	10
Contacts, Tasks, and Appointments.....	10
Primary Client.....	10
Secondary/Delegated Client.....	11
E-mail.....	11
Received/Sent E-mails	11
Draft E-mails	11
Data Mapping	12
Tasks.....	12
Appointments	12
Contacts	13
Deletion Rules.....	14
Deletions That Occur in Outlook.....	14
Deletions That Occur in CRM	14
Appendix A: Term List.....	15
Appendix B: Summary of Immediate Synchronization Rules.....	16
Appendix C: Summary of Settings That Affect Synchronization.....	17
Frequently Asked Questions	18

Introduction

CRM E² Nuts and Bolts Series Overview

The MS CRM Engineering for Enterprise (E²) *Nuts and Bolts* (NB) series is designed as an expanding set of topical articles, each of which provides detailed information about the internal mechanisms behind a specific area of MS CRM 4.0 functionality, such as the “GoOffline” process, Workflow architecture, or the security/authentication model. Topic selection is driven by many factors, not the least of which is the frequency of related queries to technical aliases.

Articles in the NB Series are designed to provide detailed technical resources that:

- Address often repeated queries to Technical aliases
- Consolidate answers, links, etc., that are generated in response to those queries
- Offer multiple levels of complementary information to support a broader, multi-perspective understanding of the topic
- Convey the baseline “principles” users require to begin to address related but tangential technical queries
- Present content using a consistent structure and “look and feel”

Audience

The target audience of the NB Series includes (but is not limited to):

- Solution Architects
- Application Architects
- Infrastructure Architects
- Consultants
- Developers

NB Article Content and Structure

Articles in the NB Series are designed to accommodate information at three independent but complementary levels (or “tiers”), which are shown in the following table:

Tier	Description
<i>Core Architecture</i>	High-level, architectural information; “schematic-level ” view of functionality; provides contextual overview/baseline knowledge
<i>Conceptual Application</i>	Best practices and guidelines associated with CRM features or functionality that can be applied based on the specifics of particular implementation
<i>Practical Application</i>	Detailed explanations about how to address unique scenarios; practical details about resolving issues or accomplishing specific “real-world” tasks

Each article’s initial release will ideally provide information that addresses each tier. However, because each tier targets an independent information need, NB articles offer the flexibility of releasing information as it become available, rather than delaying release in anticipation of any remaining components.

Important: This release of the NB article Outlook Synchronization in Microsoft Dynamics CRM provides high-level, architectural information, including related frequently asked questions and their answers.

Overview of Dynamics CRM Client Synchronization

Microsoft Dynamics CRM 4.0 uses two processes to manage replication of information between the central Microsoft Dynamics CRM database and the local data store on a computer running Microsoft Dynamics CRM for Microsoft Office Outlook with Offline Access (the “offline client”).

Important: This document describes the client synchronization process that is associated with Update Rollup 7 for Microsoft Dynamics CRM 4.0 or later (for on-premise deployments) and with Microsoft Dynamics CRM Online November 2009 Service Update or later (for online deployments), hereinafter referred to as the CRM Outlook Client. For more information about or to download Update Rollup 7 for Microsoft Dynamics CRM 4.0, on Microsoft Downloads, see *Update Rollup 7 for Microsoft Dynamics CRM 4.0 (KB 971782)* at:

<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=a4893988-7804-4e23-ab58-740441cc696e>

Outlook Synchronization

Both the online and offline versions of the CRM Outlook Client support synchronizing CRM contacts and CRM activities to Outlook folders, or *Outlook synchronization*. Outlook synchronization enables Outlook users to view Dynamics CRM information, including contacts, tasks, phone calls, letters, faxes, appointments, and e-mails, within the Outlook interface.

Online/Offline Synchronization

The online and offline synchronization process manages replication of data back and forth between the Microsoft Dynamics CRM database and the local database on a computer running the offline client.

The *offline synchronization* (GoOffline) process manages replication of information from the Microsoft Dynamics CRM database to the offline client. On the other hand, the *online synchronization* (GoOnline) process, manages replication of changes in the local data store from the offline client to the Microsoft Dynamics CRM database when the offline client reconnects to the network.

Note: For additional information about the online and offline synchronization processes, on the Microsoft Download Center, see the Nuts and Bolts article *Offline and Online Synchronization in Microsoft Dynamics CRM* at:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=c14ca8de-a452-4c9e-b4c9-1c0a51974528&displaylang=en>

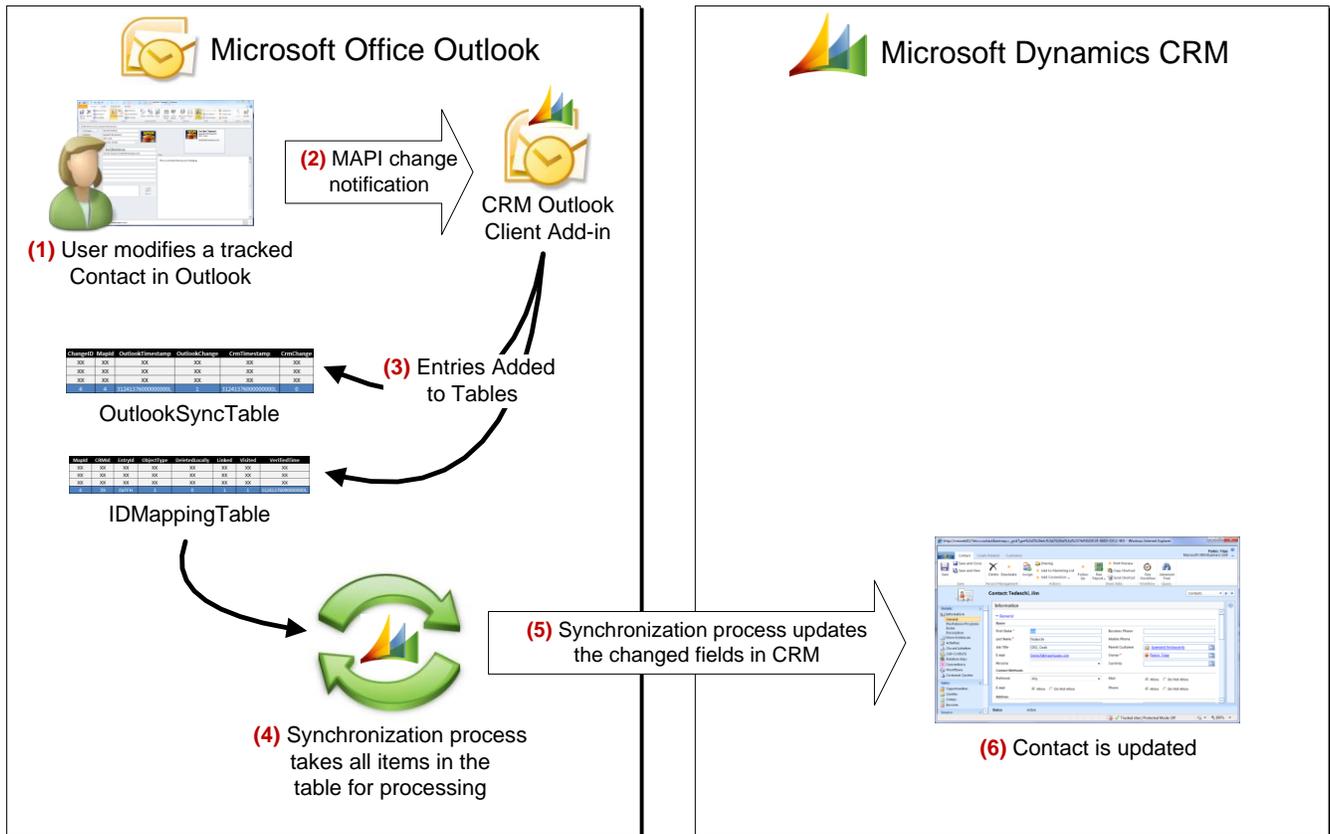
Outlook Synchronization in the Microsoft Dynamics CRM 4.0 Client

There are several ways that individual items (Contacts, Tasks, Appointments, and E-Mails), are marked for synchronization. However, after marking an item for synchronization, two copies of that item exist; one copy resides in Outlook and the other copy resides in Dynamics CRM. In addition, modifications that are made to either copy of the item are replicated in the other system via the Outlook synchronization process.

Note: Users can control which Outlook items are synchronized to Microsoft Dynamics CRM by using the Track in CRM button. However, the data filters that control which items that are synchronized between CRM and Outlook are not editable, and as a result, the only way to limit CRM to Outlook synchronization is by turning off synchronization.

Changes to Items in Outlook

For items that are modified in Outlook, the process for synchronizing those changes with items in Microsoft Dynamics CRM is shown in the following graphic:



The Outlook synchronization process detects changes by monitoring MAPI change notifications, which Outlook generates whenever an item is altered. When a MAPI notification is detected for an item that is marked for synchronization, an entry recording this is added to the *OutlookSyncTable* in the Outlook Sync Client Cache. This ensures that changes to CRM tracked items inside Outlook are picked up by CRM even when these changes occurred in absence of the CRM add-in (e.g. – the add-in was disabled during the change or changes were made via Outlook Web Access).

Created by the CRM add-in, the *Outlook Sync Client Cache* is a SQL Compact database that is located on the client and is used to store information about synchronized items for use by the Outlook Synchronization Process. The cache contains the information that is necessary to identify and locate items in Outlook and Dynamics CRM, as well as changes to those items that are made by either system, to re-attempt synchronization for changes that fail to synchronize. This ensures that the CRM add-in has a ready reference to establish whether a change indicates that a new record needs to be added or that it requires an existing record to be modified without doing costly scans on Outlook. The net result is faster synchronization without any impact on Outlook performance.

Important: Certain circumstances, for example if a change were to occur before the Outlook add-in had been fully loaded, can cause the CRM Outlook Client to miss MAPI notifications. To account for this issue, installation of the CRM Outlook add-in creates the MAPI Contents Table, which stores all items that are marked for synchronization, sorted in reverse order based on modification date. As a result, any missed change notifications (except for deletes) are picked up the next time the system scans the MAPI Contents Table for the synchronized folders for all items that have been changed since the last synchronization occurred. Items in MAPI Contents Tables are processed one by one until the last synchronization time is reached.

The Outlook Sync Client Cache contains two tables: the *IDMappingTable* and the *OutlookSyncTable*. For items that have been deleted, a periodic reconciliation runs to look at items in Outlook Sync Client Cache and verify the existence of the items in the Outlook store. If an item cannot be found, a deletion entry is added to the *OutlookSyncTable*.

The Reconciliation job runs after each synchronization, checking a few items in the list at a time. Items that are verified have their *VerifiedTime* values updated so that those items are at the end of verification queue.

In the Outlook Sync Client Cache, the *IDMappingTable* contains the following columns:

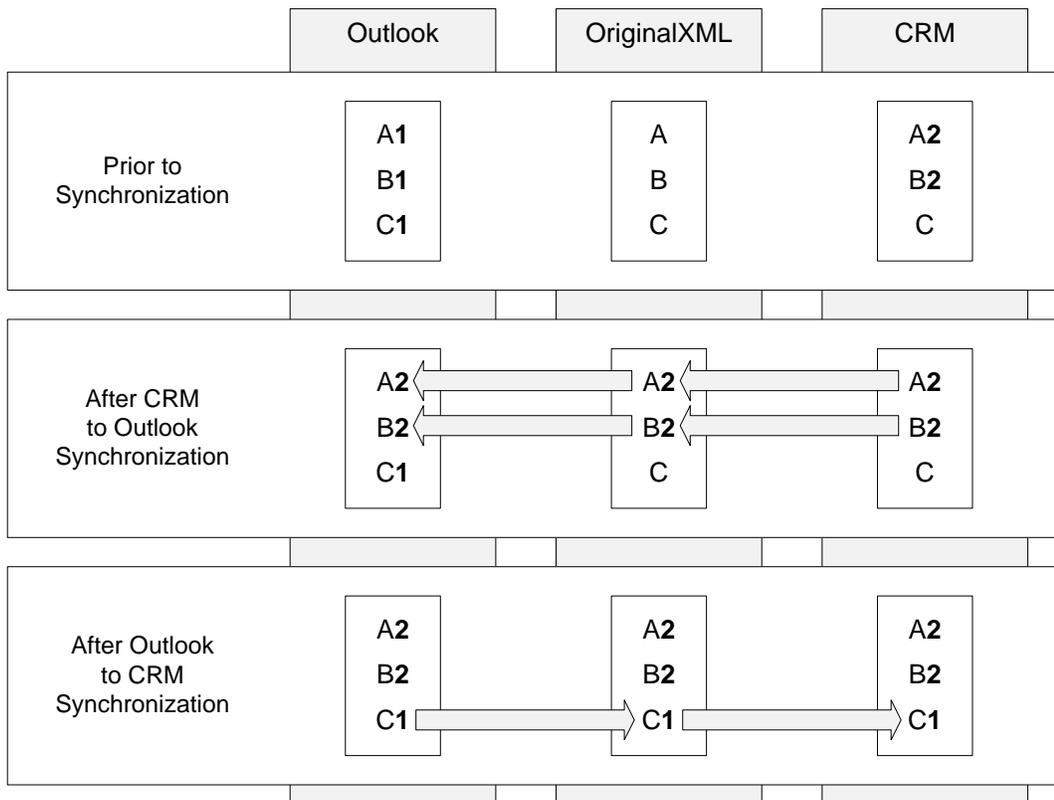
Column	Value Type
MapId	Primary Key
CrmId	uniqueidentifier
EntryId	nvarchar (400)
ObjectType	int
DeletedLocally	bit
Linked	bit
Visited	bit
VerifiedTime	datetime

The *OutlookSyncTable*, on the other hand, references the ID Mapping Table but also includes the necessary timestamp information. The *OutlookSyncTable* contains the following columns:

Column	Value Type
ChangeId	Primary Key
MapId	Foreign Key
OutlookTimestamp	datetime
OutlookChange	int
CrmTimestamp	datetime
CrmChange	int

For example, when a synchronized item is altered in CRM after a change on the corresponding item in Outlook, CRM to Outlook synchronization will be performed to synchronize all the latest changes that have been made to the item in CRM over to the corresponding item in Outlook, and the OriginalXML associated with the Outlook item is updated. Then, the system will run Outlook to CRM synchronization to ensure that all the latest changes to the Outlook item are synchronized with the corresponding item in CRM.

An example of the process associated with merging overlapping changes between CRM and Outlook is shown in the following graphic.



In this scenario, prior to synchronization, an Outlook user makes changes to three fields (A1, B1, and C1) in an item. At a later time, a user makes changes to corresponding item in CRM, modifying two of the same fields (A2 and B2) modified earlier by the Outlook user. As a result, the CRM timestamp is more recent than the corresponding Outlook timestamp.

During synchronization, the more current field values in the CRM system (A2 and B2) are copied to the OriginalXML file and then to the item in Outlook, overwriting the earlier changes (A1 and B1) made to the item in Outlook. When CRM to Outlook synchronization is complete, Outlook to CRM synchronization occurs, and the more current field value in Outlook (C1) is copied to the OriginalXML file and then to the item in CRM, overwriting the original value (C).

Note: The process for merging overlapping changes between Outlook and Dynamics CRM is different from that for playing back changes from the Offline database to the CRM database. For additional information about the offline synchronization process, on Microsoft Downloads, see the white paper *Offline and Online Synchronization in Microsoft Dynamics CRM* at <http://www.microsoft.com/downloads/details.aspx?FamilyID=c14ca8de-a452-4c9e-b4c9-1c0a51974528&displaylang=en>

Synchronization Rules

Synchronization of Outlook with CRM is triggered when:

- A user marks an item for synchronization (via "Track in CRM") or alters an Outlook object (such as a Contact).
- A user manually runs Outlook synchronization with CRM.
- A background sync operation kicks in a periodic basis.

Manual as well as background sync results in immediate replication of changes between Outlook and CRM. When a user marks an item for synchronization (via "Track in CRM") or alters an Outlook object (such as a Contact), the Synchronization process replicates those changes to CRM. However, replication does not always happen immediately.

This section describes the conditions that cause the synchronization process to immediately replicate the changes to CRM. For cases in which the changes are not immediately processed, the next scheduled or manual synchronization will process and replicate the changes as described above.

Note: For a summary, see *Appendix B: Summary of Immediate Synchronization Rules*.

The CRM Outlook Client allows only one computer to be set as the *primary*, or *synchronizing client*, while any other clients a user might have are considered secondary. Because the synchronizing client runs automatic synchronization, it is recommended that users designate a computer that is online most often (such as a desktop computer) or their primary computers.

Note: The Synchronization Process for primary clients differs from that for secondary clients: in certain instances, secondary clients rely on the primary client for synchronization of changes to Outlook items that are made on the secondary client. This behavior ensures that even if changes are made to the same object on each of the primary and secondary clients, no duplicate objects will be created on the server. Additional detail on the differences between primary and secondary clients is provided in the following sections of this paper.

Important: If a user has been enabled with a roaming profile then the distinction of primary vs. secondary client across multiple machines does not apply. In that case, all machine acts as if these were primary clients.

The CRM Outlook Client also provides the "Track in CRM" functionality for mailboxes that are delegated, or shared, among multiple users. Shared or delegated mailboxes provide limited synchronization abilities for those users who have not designated the shared mailbox as "primary."

Contacts, Tasks, and Appointments

The synchronization process differs as to whether the item being Tracked/altered is an e-mail or another Outlook object (like Contacts, Tasks, and Appointments). This section describes the sync behavior for non-e-mail Outlook objects.

Primary Client

The following table presents the sync behavior for a primary client's Contacts, Tasks, and Appointments. For your reference, an "Inspector" is any form inside of Outlook. Double clicking on an e-mail will bring up its "Inspector". The "Explorer" is the normal Outlook view of all items of a particular type in a grid layout. When Outlook starts, the first thing that the user will see is the e-mail "Explorer".

The synchronization behavior for a primary client's Contacts, Tasks, and Appointments is provided in the following table:

Item	Description
Track in Inspector	Item tracked immediately after user saves the item.
Update in Inspector	Item synced immediately after user closes the Inspector.
Un-track in Inspector	Item synced immediately after user closes the Inspector.
Delete in Inspector	Deletion propagated to CRM during next Outlook synchronization according to the Deletion Rules.
Track in Explorer	Item tracked immediately in CRM.
Set Regarding in Explorer	Item synced immediately with CRM.
Delete in Explorer	Deletion propagated to CRM according to the Deletion Rules.

Note: Additional detail about deletion rules is provided in the following sections of this paper.

Secondary/Delegated Client

Non-e-mail entities that have been Tracked in a secondary or delegated client will never be immediately synced with CRM. These changes will be processed by the Primary synchronizing client at its next manual/scheduled synchronization.

Note: If the primary client is offline, any changes made to these entities will not be replicated in CRM until the primary client is online and performs its first synchronization.

E-mail

This section describes when e-mails will be tracked or synchronized to the CRM system.

Received/Sent E-mails

The synchronization behavior for E-mail differs based on whether the e-mail being tracked/alterd is a draft e-mail (e-mails that have not yet been sent) versus an e-mail that is in the user's inbox/sent mailbox. The tracking and syncing behavior is uniform and does not depend on the client type (i.e. primary versus secondary). The synchronization behavior for a primary client's Received and Sent e-mails is provided in the following table:

Item	Description
Track in Inspector	Item tracked immediately after user clicks the "Track" button.
Update in Inspector	Because the Regarding field is the only property that can be edited for synchronization of received/sent e-mails, item synced immediately upon the Regarding property change.
Un-track in Inspector	Item untracked immediately after user clicks the "Untrack" button.
Delete in Inspector	Deletion propagated to CRM according to the Deletion Rules.
Track in Explorer	Item tracked immediately after user clicks the "Track" button.
Set Regarding in Explorer	Item synced immediately after user clicks the "Set Regarding" button.
Delete in Explorer	Deletion propagated to CRM according to the Deletion Rules.

Draft E-mails

Draft e-mails are never placed in CRM. After the user has sent a draft e-mail, it will be Tracked if the user has chosen to do so.

Data Mapping

Data Mappings between various entities in Outlook and CRM, which are used by the Outlook synchronization process to determine and propagate changes to and from CRM/Outlook, are shown in the following tables.

Important: The Data Mappings between Outlook entities and Dynamics CRM entities are not customizable.

Tasks

Data Mappings between Task fields in Outlook and CRM are shown in the following table.

Outlook Field	Dynamics CRM Field
Body	Description
Due Date	Scheduledend
Priority	Priority
Start Date	Scheduledstart
Status	Computed from Activity State Code and Appointment Status Code
Subject	Subject

Note: The following Outlook fields are not synchronized: Reminder, Contacts, Categories, Privacy Flag, Date Completed, Total Work, Companies, Mileage, and Billing Information.

Important: When a task is created in Outlook, the system assigns the task a reminder time. Reminder information is not synced from Outlook to CRM. However, when a task has due time set in CRM, it will be synchronized to reminder time in Outlook.

Appointments

Data Mappings between Appointment fields in Outlook and CRM are shown in the following table.

Outlook Field	Dynamics CRM Field
All Day Event	Isalldayevent
Body	Description
Duration	Scheduleddurationminutes
End	Scheduledend
Location	Location
Optional Attendees	Optionalattendees
Organizer	Organizer
Priority	Priority
Required Attendees	Requiredattendees
Show Time As	Computed from Activity State Code and Appointment Status Code
Start	Scheduledstart
Subject	Subject

Note: The following Outlook fields are not synchronized: Label, Reminder, Contacts, Categories, Privacy Flag, and Importance Flag.

Contacts

Data Mappings between Contact fields in Outlook and CRM are shown in the following table.

Outlook Field	Dynamics CRM Field
Anniversary	Anniversary
Assistant Name	Assistantname
Assistant Telephone Number	Assistantphone
Birthday	Birthdate
Body	Description
Business Fax Number	Fax
Business Telephone Number	telephone1
Children	childrensnames
Department	department
E-mail1Address	e-mailaddress1
E-mail2Address	e-mailaddress2
E-mail3Address	e-mailaddresss3
First Name	firstname
FTP Site	ftpsiteurl
Government ID Number	governmentid
Home Telephone Number	telephone2
Job Title	jobtitle
Last Name	lastname
Mailing Address City	address1_city
Mailing Address Country	addresss1_country
Mailing Address Post Office Box	addresss1_postofficebox
Mailing Address Postal Code	address1_postalcode
Mailing Address State	addresss1_stateorprovince
Mailing Address Street	address1_line1; address1_line2; address1_line3
Manager Name	managename
Middle Name	middlename
Mobile Telephone Number	mobilephone
Nickname	nickname
Other Telephone Number	telephone3
Pager Number	pager
Spouse	spousesname
Title	salutation
Web Page	websiteurl
Yomi First Name	yomifirstname
Yomi Last Name	yomilastname

Note: The following Outlook fields are not synchronized: Photo, IM Address, Other phone numbers, Office, Profession, NetMeeting Settings, and Free/Busy Server Settings.

Deletion Rules

This section describes the deletion propagation rules for the Outlook synchronization process.

Important: If User A assigns a contact to another user, depending on the Local Data Rules, that contact may no longer be included in User A's filter. This is the expected behavior for the default, out-of-the-box Contacts filter. PrepareSync will treat this as a delete action in Outlook. However, PrepareSync will keep track of the items that User A manually tracked from Outlook and will not remove them even if the contact is re-assigned to another CRM user.

Deletions That Occur in Outlook

The following table describes whether a deletion that occurred in Outlook will propagate to CRM during the next Outlook synchronization process.

Deleted Entity	Description
Contacts	<ul style="list-style-type: none"> ▪ A Contact that is deleted in Outlook <u>will not be</u> deleted in CRM at the next Outlook Sync ▪ A Contact that is untracked in Outlook <u>will be</u> deleted in CRM at the next Outlook Sync if the user designates for the item to be deleted in CRM
Appointments	<ul style="list-style-type: none"> ▪ An Appointment that is deleted or untracked in Outlook <u>will be</u> deleted in CRM at the next Outlook Sync only if the following are true: <ul style="list-style-type: none"> ○ Appointment is open/scheduled in CRM ○ Appointment Start Time is in the future. ○ The user performing the delete action is the Owner or Organizer of the Appointment
Tasks	<ul style="list-style-type: none"> ▪ A Task that is deleted in Outlook <u>will be</u> deleted in CRM at the next Outlook Sync <i>if</i> the Task is not completed
E-mails	<ul style="list-style-type: none"> ▪ An E-mail that is deleted in Outlook <u>will not be</u> deleted in CRM at the next Outlook Sync ▪ An E-mail that is untracked in Outlook <u>will be</u> deleted in CRM at the next Outlook Sync if the user designates

Deletions That Occur in CRM

The following table describes whether a deletion that occurred in CRM will propagate to Outlook during the next Outlook synchronization process.

Deleted Entity	Description
Contacts	<ul style="list-style-type: none"> ▪ A Contact that is deleted in CRM <u>will be</u> deleted in Outlook at the next Outlook synchronization if the Outlook user is not the CRM Owner of the Contact. If the user is the owner in CRM, then the Outlook contact will be unlinked after synchronization.
Appointments	<ul style="list-style-type: none"> ▪ An Appointment that is deleted in CRM <u>will be</u> deleted in Outlook at the next Outlook Sync if the Appointment Start Time is in the future.
Tasks	<ul style="list-style-type: none"> ▪ A Task that is deleted in CRM <u>will be</u> deleted in Outlook at the next Outlook Sync if the Task has not been completed.
E-mails	<ul style="list-style-type: none"> ▪ An E-mail that is deleted in CRM <u>will not be</u> deleted in Outlook.

Appendix A: Term List

Descriptions of key terms associated with Outlook synchronization in Microsoft Dynamics CRM 4.0 are listed in the following table.

Term	Description
<i>GetSyncData</i>	An API call to the server that returns the data for the items to be synced by the client
<i>IdMappingTable</i>	A SQL CE table that keeps track of the ID's for synced items and is used to determined deletions.
<i>Offline synchronization</i>	Also known as the GoOffline process; manages replication of information from the Microsoft Dynamics CRM database to the offline client
<i>Online mode</i>	State in which the offline client is connected to the CRM server
<i>Online synchronization</i>	Also known as the GoOnline process; manages replication of changes in the local data store from the offline client to the Microsoft Dynamics CRM database when the offline client reconnects to the network
<i>OriginalXML</i>	The XML that records the last synced state of the item in Outlook.
<i>Outlook synchronization</i>	Synchronization process responsible for synchronizing Outlook Entities (Contacts, E-mails, etc)
<i>OutlookSyncTable</i>	A table in the SQL CE database that keeps track of all changes that occurred in Outlook
<i>PostSync</i>	An API call to the server which indicates that the item has been successfully synchronized to the client.
<i>PrepareSync API</i>	During the PrepareSync process, populates the SyncEntry table and returns information about the number of records to be synchronized, on a per entity basis, in xml format
<i>Primary Client</i>	The computer specified as the "synchronizing client;" the CRM Outlook Client allows for only one primary client. Because the synchronizing client runs automatic synchronization, it is recommended that users designate a computer that is online most often (such as a desktop computer) or their primary computers.
<i>Secondary Client</i>	A computer in addition to a user's primary, or synchronizing, client on which that user receives e-mail.
<i>SyncEntry Table</i>	During the PrepareSync process, maintains all the information about replication data for a subscription. A SyncEntry table is created in the server database for each type of client subscription

Appendix B: Summary of Immediate Synchronization Rules

A summary of the immediate synchronization rules provided with the Microsoft Dynamics CRM Client for Office Outlook is provided in the following table.

Action	Received \ Sent E-mail		Draft E-mail	Non-E-mail	
	Primary	Secondary	Primary & Secondary	Primary	Secondary/ Delegate
Track in Inspector	Yes	Yes	Yes*	Yes**	No
Update in Inspector	Yes	Yes	Yes*	Yes**	No
Un-track in Inspector	Yes	Yes	N/A	Yes**	No
Delete in Inspector	No	No	N/A	No	No
Track in Explorer	Yes	Yes	N/A	Yes	No
Set Regarding in Explorer	Yes	Yes	N/A	Yes	No
Delete in Explorer	No	No	N/A	No	No

* On Item Send

** On Item Close

Appendix C: Summary of Settings That Affect Synchronization

A summary of the synchronization settings applicable specifically to the Microsoft Dynamics CRM Client for Office Outlook is provided in the following table.

Setting	Description
"Synchronize Microsoft Dynamics CRM items with my default Outlook Folder"	This determines the kinds of items that the PrepareSync process will attempt to synchronize from CRM. The PrepareSync process will ignore any unchecked items as they are created/updated on the CRM Server. This setting has no effect on Outlook to CRM synchronization – if the item is unchecked here, it will be ignored for CRM to Outlook updates. However, the user can still promote the item from Outlook to CRM.
"Update the Company Field for Outlook Contacts"	During synchronization, the parent account of Microsoft Dynamics CRM contacts can be inserted or used to overwrite the names in the Company Name field for Outlook contacts. Changes are not synchronized in Microsoft Dynamics CRM
Set Synchronizing Client	One client computer per user can run automatic synchronization. This setting designates if the current client will be the primary, or synchronizing, client.
Schedule automatic Synchronization with Outlook	This determines if automatic synchronization occurs, and the interval at which it occurs.

Note: These settings are specified on the **Synchronization** tab of the **Options** dialog box in the Microsoft Dynamics CRM Client for Office Outlook.

Frequently Asked Questions

- Q: Is the Outlook synchronization process that is associated with the CRM Outlook Client more efficient or stable than in previous versions of the Microsoft Dynamics CRM 4.0 Client for Office Outlook?
- A: Yes. Processing the synchronization on the background thread (by not using the Outlook Object Model) ensures that the UI thread of Outlook does not lock, which makes Outlook more responsive. In addition, performing a column level diff on the objects that are being synchronized ensures that changes only occur to data that has actually been modified, which improves the efficiency of the overall process. Finally, by avoiding the need to track MAPI notifications for triggering a change, synchronization is far more reliable than in previous versions. As a result, the Outlook synchronization process is greatly improved over previous versions.
- Q: Is the PrepareSync process that is associated with CRM Outlook Client more efficient than in previous versions of the Microsoft Dynamics CRM 4.0 Client for Office Outlook?
- A: Yes. In the majority of typical scenarios, incremental PrepareSync is proportional to the data changes that occur between synchronizations. As a result, incremental PrepareSync in Microsoft Dynamics CRM 4.0 is between two and ten times faster, and it provides for greater scalability because many times less work is performed in database.
- Q: Can synchronization occur without using Outlook? If not, what binds the two?
- A: This is not currently supported. Synchronization requires the Outlook process to manage a wide variety of user interactions, such as resolving detection of duplicates or resolving synchronization errors / conflicts.
- Q: How often does the synch to Outlook process occur?
- A: By default, the synch to Outlook process is configured to occur at 15-minute intervals.
- Q: Is the process for synchronizing Outlook data the same for both the online and offline versions of the CRM Client for Outlook?
- A: Yes. The process for syncing Outlook data stores with Dynamics CRM (and the data that will be synchronized) is the same regardless of whether one is using the online or offline version of the client.
- Q: What are the effects of the "Sync to Outlook" and the "Go Offline" privileges?
- A: The privileges are not complex and have few repercussions. Removing the Sync to Outlook privilege prevents synchronization of tasks / appointments / contacts to Outlook (no effect on the CRM address book provider, e-mail tagging, etc.). Removing the Go Offline privilege prevents users from going offline / synchronizing their offline store.