

MS-ASEMAIL Test Suite Specification

**Abstract:** This document provides information about how to configure the test suite and how the MS-ASEMAIL test suite is designed to test the MS-ASEMAIL Open Specification usability and accuracy. It describes test assumptions, scope and constraints of the test suite. It also specifies test scenarios, detailed test cases, test suite architecture and adapter design.

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# Configuring the test suite

## Configuring the test suite client

### Configuring the test suite client manually

Before you run the test suite, update the values in the MS-ASEMAIL\_TestSuite.deployment.ptfconfig file. The MS-ASEMAIL\_TestSuite.deployment.ptfconfig file can also be configured by running the client setup script.

1. Open MS-ASEMAIL\TestSuite\MS-ASEMAIL\_TestSuite.deployment.ptfconfig.
2. Update the following value to specify the common configuration file.

Property name="CommonConfigurationFileName" value="ExchangeCommonConfiguration.deployment.ptfconfig"

**Note** This property can be removed or set to empty if the required properties are copied to the test suite specific configuration file. Any other changes to this property will cause all test cases in the test suite to fail during execution. The test suite searches through its specific configuration file and uses those properties, if they are defined, before looking for them in the common configuration file (if specified).

1. Update the following properties' values to match SUT settings and configuration.

* Property name="User1Name" value="MSASEMAIL\_User01"
* Property name="User1Password" value="Password01!"
* Property name="User2Name" value="MSASEMAIL\_User02"
* Property name="User2Password" value="Password01!"
* Property name="User3Name" value="MSASEMAIL\_User03"
* Property name="User3Password" value="Password01!"
* Property name="User4Name" value="MSASEMAIL\_User04"
* Property name="User4Password" value="Password01!"
* Property name="User5Name" value="MSASEMAIL\_User05"
* Property name="User5Password" value="Password01!"

### Configuring the test suite client by scripts

To configure the test suite client using scripts, see section 5.2.1 of the [ExchangeEASTestSuiteDeploymentGuide.docx](../ExchangeEASTestSuiteDeploymentGuide.docx).

## Configuring the system under test (SUT)

### Configuring the SUT manually

To manually configure the SUT, see section 5.1.2 of the [ExchangeEASTestSuiteDeploymentGuide.docx](../ExchangeEASTestSuiteDeploymentGuide.docx).

### Configuring the SUT by scripts

To configure the SUT using scripts, see section 5.1.1 of the [ExchangeEASTestSuiteDeploymentGuide.docx](../ExchangeEASTestSuiteDeploymentGuide.docx).

## Configuring the SHOULD/MAY requirements

Implementation of the SHOULD/MAY and endnote-related requirements are pre-configured in the format "<Property name="RXXXEnabled" value= "XXXX"/>" for the product versions in the following config files:

* MS-ASEMAIL\_ExchangeServer2007\_SHOULDMAY.deployment.ptfconfig
* MS-ASEMAIL\_ExchangeServer2010\_SHOULDMAY.deployment.ptfconfig
* MS-ASEMAIL\_ExchangeServer2013\_SHOULDMAY.deployment.ptfconfig

If RXXXEnabled is set to true, the requirement must be checked. If false, the requirement must not be checked. For Microsoft product versions, all values should not be changed. For third-party products, the closest Microsoft product version should be chosen, and the value of RXXXEnabled should be updated according to the real product behavior. For example, if SharePoint Foundation 2010 is chosen,user can open **MS-ASEMAIL\_ExchangeServer2010\_SHOULDMAY.deployment.ptfconfig** and update the RXXXEnabled accordingly.

# Test suite design

## Assumptions, scope and constraints

Assumptions

None.

Scope

In scope

* This test suite will verify the accuracy and integrity of the technical content in the Open Specification against the results returned from the protocol server in ActiveSync command response.
* This test suite will verify all the XML schema elements embedded inside of the command response.
* This test suite will verify the server-side and testable requirements by running all test cases on both HTTP and HTTPS.
* This test suite will verify requirements from Exchange ActiveSync: Data Types ([MS-ASDTYPE]) and Exchange ActiveSync: WAP Binary XML Algorithm ([MS-ASWBXML]).

Out of scope

* This test suite will not verify the requirements related to client behaviors.
* This test suite will not verify the requirements related to server internal behaviors.
* This test suite will not verify the internal implementations of its transport protocol stack.

Constraints

None.

## Test suite architecture

This test suite verifies the server-side and testable requirements obtained from the Open Specification. The following figure shows the architecture of this test suite.



The architecture of the test suite

The details of the MS-ASEMAIL test suite architecture

* SUT hosts the folder and document access service which this test suite runs against.
* From third-party user’s point of view, the SUT is the protocol server implementation.
* The following products have been tested with the MS-ASEMAIL test suite on the Windows platform.
* Microsoft Exchange Server 2007 Service Pack 3 (SP3)
* Microsoft Exchange Server 2010 Service Pack 3 (SP3)
* Microsoft Exchange Server 2013 Service Pack 1 (SP1)
* The test suite acts as the client to communicate with the SUT and validates the requirements gathered from the MS-ASEMAIL Open Specification.
* Test cases use the MS-ASEMAIL protocol adapter to call and get the results of the MS-ASEMAIL commands.
* MS-ASEMAIL protocol adapter is used in the test cases. The test cases call the methods in the interfaces to invoke the MS-ASEMAIL protocol adapter’s commands.
* MS-ASEMAIL protocol adapter uses ActiveSyncClient to send command request and retrieve command response.
* ActiveSyncClient encodes and decodes Sync command, Search command, MeetingResponse command, ItemOperations command, SendMail command, SmartReply command, SmartForward command, and FolderSync command defined in [MS-ASCMD] by using MS-ASWBXML and communicates with the SUT via MS-ASHTTP.

## Technical dependencies and considerations

Dependencies

* This test suite transmits messages by using HTTP/HTTPS.
* This test suite depends on Protocol Test Framework (PTF) to derive managed adapters.
* This test suite depends on MS-ASWBXML to encode XMLrequest bodies into WBXML for transmission to an ActiveSync server.
* This test suite depends on MS-ASHTTP to synchronize data with the data that is stored on the server.
* This test suite depends on the xsd.exe tool in the .NET Framework SDK to generate structures used in the MS-ASEMAIL request and response.

Encryption consideration

* Transportation of MS-ASEMAIL includes HTTP and HTTPS, and encryption will be handled by HTTPS.

## Adapter design

### Adapter overview

One protocol adapter is used in this test suite.

Protocol adapter

* MS-ASEMAIL protocol adapter
* The MS-ASEMAIL adapter is a managed adapter, which is derived from the ManagedAdapterBase class in PTF.
* The MS-ASEMAIL adapter has the following functionalities
* Choose HTTP or HTTPS for transport;
* Construct requests of eight MS-ASEMAIL commands;
* Communicate with the SUT by sending requests to the SUT and receiving the corresponding responses from the SUT;
* Parse the response messages and validate the messages according to the XML schema;

### Technical feasibility of adapter approach

Message generation

The MS-ASEMAIL adapter gets the parameter values and calls the corresponding commands in ActiveSyncClient. The ActiveSyncClient serializes the parameter values to XML elements, and then encodes request bodies into WBXML for transmission to an ActiveSync server.

Message consumption

The command messages received from the SUT will be parsed in the ActiveSyncClient and be passed to the MS-ASEMAIL adapter. The messages are then consumed in the MS-ASEMAIL adapter to validate the message format and to validate the logic-related requirements in the test cases.

### Adapter abstract layer

Protocol adapter

MS-ASEMAIL adapter interface

There are 11 methods declared in the MS-ASEMAIL adapter interface IMS\_ASEMAILAdapter.

The eight methods FolderSync, ItemOperations, MeetingResponse, Search, SendMail, SmartForward, SmartReply and Sync correspond to the eight commands used by MS-ASEMAIL. The other three methods InvalidSearch, InvalidSync and SwitchUser are used to add email class element to the Search request, to synchronize data from server with invalid Sync command and to change user to call ActiveSync commands.

The methods are described in the following table.

|  |  |  |
| --- | --- | --- |
| **No.** | **Method** | **Description** |
| 1 | FolderSync | Synchronize the collection hierarchy. |
| 2 | InvalidSearch | Add email class element to the Search request. |
| 3 | InvalidSync | Synchronize data from the server with an invalid Sync command request, which contains additional elements. |
| 4 | ItemOperations | Fetch all information about Exchange objects. |
| 5 | MeetingResponse | Accept, tentatively accept, or decline a meeting request. |
| 6 | Search | Retrieve E-mail class items from the server that match the criteria specified by the client. |
| 7 | SendMail | Send MIME-formatted email messages to the server. |
| 8 | SmartForward | Forward messages without retrieving the full, original message from the server. |
| 9 | SmartReply | Reply to messages without retrieving the full, original message from the server. |
| 10 | SwitchUser | Change user to call ActiveSync commands. |
| 11 | Sync | Synchronize E-mail items for a specified user with the existing e-mail items stored on the server. |

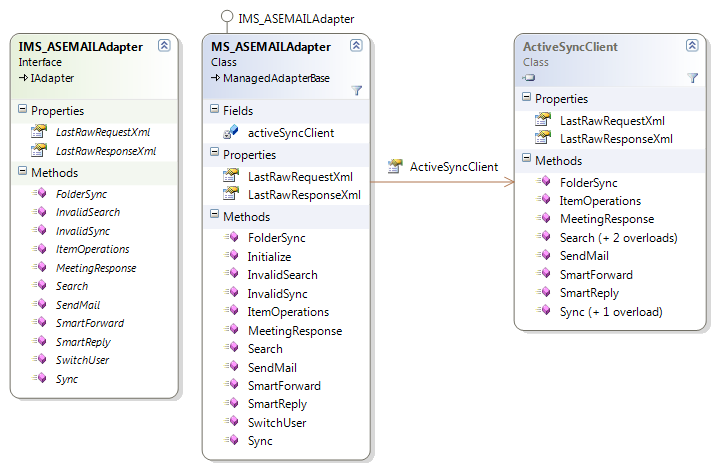
MS-ASEMAIL adapter interface methods

### Adapter details

#### Protocol adapter

##### MS-ASEMAIL protocol adapter

The following figure shows the class diagram of the MS-ASEMAIL protocol adapter and the relationship between MS\_ASEMAILAdapter and ActiveSyncClient.



MS-ASEMAIL adapter and ActiveSyncClient class diagrams

The following outlines details of the class diagrams:

Adapter interface

* IMS\_ASEMAILAdapter is the interface of the protocol adapter.
* IMS\_ASEMAILAdapter defines the methods invoked by the test cases, including the following 11 methods: FolderSync, InvalidSearch, InvalidSync, ItemOperations, MeetingResponse, Search, SendMail, SmartForward, SmartReply, SwitchUser and Sync.

Adapter implementation

* MS\_ASEMAILAdapter is the protocol adapter class of the test suite. It is used to implement IMS\_ASEMAILAdapter.
* MS\_ASEMAILAdapter invokes the methods defined in ActiveSyncClient to synchronize E-mail class data between client and server.
* The initialize method is used to initialize an instance of ActiveSyncClient.
* The two properties LastRawRequestXml and LastRawResponseXml are used to get the raw request and raw response.

## Test scenarios

Four scenarios are designed to cover server-side, testable requirements in the MS-ASEMAIL test suite. The details of the scenarios are as follows.

|  |  |
| --- | --- |
| Scenario | Description |
| S01\_Email | Test normal e-mail events, including sending an e-mail to server, synchronizing e-mails with server, retrieving e-mail items that match the criteria specified by the client from server, retrieving data from the server for one or more specific e-mail items. |
| S02\_EmailVoiceAttachment | Test voice attachment e-mail events, including sending an e-mail with voice attachment to server, synchronizing the e-mail with voice attachment with server. |
| S03\_EmailFlag | Test flag events, include setting a flag on email or task, updating a flag on email or task, marking a flag on email or task as complete, clearing a flag from email or task. |
| S04\_MeetingRequest | Test meeting request events, including sending a meeting request to server, synchronizing the meeting request with server. |

MS-ASEMAIL scenarios

### S01\_Email

Description

Test normal e-mail events, including sending an e-mail to server, synchronizing e-mails with server, retrieving e-mail items that match the criteria specified by the client from server, retrieving data from the server for one or more specific e-mail items.

Commands

* Sync
* ItemOperations
* SmartReply
* SmartForward
* Search

Prerequisites

The delegate access has been added to a user.

Cleanup

Call ItemOperations command with EmptyFolderContents element to delete the items created on the server.

### S02\_EmailVoiceAttachment

Description

Test voice attachment e-mail events, including sending an e-mail with voice attachment to server, synchronizing the e-mail with voice attachment with server.

Commands

* Sync
* SendMail

Cleanup

Call ItemOperations command with EmptyFolderContents element to delete the items created on the server.

### S03\_EmailFlag

Description

Test flag events, include setting a flag on email or task, updating a flag on email or task, marking a flag on email or task as complete, clearing a flag from email or task.

Commands

* Sync
* SendMail
* MeetingResponse

Cleanup

Call ItemOperations command with EmptyFolderContents element to delete the items created on the server.

### S04\_MeetingRequest

Description

Test meeting request events, including sending a meeting request to server, synchronizing the meeting request with server.

Commands

* Sync
* SendMail
* MeetingResponse
* SmartReply
* SmartForward

Prerequisites

The delegate access has been added to a user.

Cleanup

Call ItemOperations command with EmptyFolderContents element to delete the items created on the server.

## Test case design

### Traditional test case design

Traditional testing is adopted as the test approach for this test suite. The test cases are designed to cover the server-side and testable requirements.

There are 66 traditional test cases designed to cover the four scenarios mentioned in section [2.6 Test scenarios](#_Test_scenarios). Details of the traditional test cases are specified in section [2.7.2 Test case description](#_Test_case_description). The scenarios distributions of the test cases are listed in the following table.

|  |  |
| --- | --- |
| Scenario ID | Test case name |
| S01\_Email | MSASEMAIL\_S01\_TC01\_SyncMail\_OnlyMetadata |
| MSASEMAIL\_S01\_TC02\_SyncMail\_MetadataAndBody |
| MSASEMAIL\_S01\_TC03\_SyncChange\_NotChangeCategories |
| MSASEMAIL\_S01\_TC04\_SyncChange\_RemoveCategories |
| MSASEMAIL\_S01\_TC05\_OnlyReadPropertyChanged |
| MSASEMAIL\_S01\_TC06\_OnlyFlagPropertiesChanged |
| MSASEMAIL\_S01\_TC07\_BothReadAndFlagChanged |
| MSASEMAIL\_S01\_TC08\_FlagReadAndOtherEmailClassPropertiesChanged |
| MSASEMAIL\_S01\_TC09\_WithoutAnyEmailClassPropertiesChanged |
| MSASEMAIL\_S01\_TC10\_NonBooleanRead |
| MSASEMAIL\_S01\_TC11\_ChangeSenderValueInRequest |
| MSASEMAIL\_S01\_TC12\_SenderAndFromHaveSameValue |
| MSASEMAIL\_S01\_TC13\_SenderValueIsNull |
| MSASEMAIL\_S01\_TC14\_ChangeReceivedAsBccInRequest |
| MSASEMAIL\_S01\_TC15\_SendAndReplyToMultipleAddress |
| MSASEMAIL\_S01\_TC16\_ForwardEmail |
| MSASEMAIL\_S01\_TC17\_IncludedConversationIdInRequest |
| MSASEMAIL\_S01\_TC18\_SyncAdd\_AdministrativeMessage |
| MSASEMAIL\_S01\_TC19\_ItemOperations\_OnlyIncludedSubjectInResponse |
| MSASEMAIL\_S01\_TC20\_ItemOperations\_IncludedDataInResponse |
| MSASEMAIL\_S01\_TC21\_ItemOperations\_IncludedAllOrNone\_False |
| MSASEMAIL\_S01\_TC22\_ItemOperations\_IncludedAllOrNone\_True |
| MSASEMAIL\_S01\_TC23\_InvalidSearch |
| MSASEMAIL\_S01\_TC24\_SearchEmail |
| S02\_EmailVoiceAttachment | MSASEMAIL\_S02\_TC01\_VoiceAttachment\_VerifyAllRelativeElements |
| MSASEMAIL\_S02\_TC02\_VoiceAttachment\_IncludedUmCallerIDInRequest |
| MSASEMAIL\_S02\_TC03\_VoiceAttachment\_IncludedUmUserNotesInRequest |
| S03\_EmailFlag | MSASEMAIL\_S03\_TC01\_AddFlag\_AllElements |
| MSASEMAIL\_S03\_TC02\_AddFlag\_InvalidStatus |
| MSASEMAIL\_S03\_TC03\_AddFlag\_CompleteTimeAndDateCompleted |
| MSASEMAIL\_S03\_TC04\_AddFlag\_InvalidReminder |
| MSASEMAIL\_S03\_TC05\_AddFlag\_DueDateBeforeStartDate |
| MSASEMAIL\_S03\_TC06\_AddFlag\_UtcDueDateBeforeUtcStartDate |
| MSASEMAIL\_S03\_TC07\_AddFlag\_InvalidDate |
| MSASEMAIL\_S03\_TC08\_AddFlag\_ValidDate |
| MSASEMAIL\_S03\_TC09\_AddFlag\_OptionalFlagTypeInMeetingRequest |
| MSASEMAIL\_S03\_TC10\_AddFlag\_OptionalFlagTypeInMeetingResponse |
| MSASEMAIL\_S03\_TC11\_FlagEmail\_RequiredPropertiesOption1 |
| MSASEMAIL\_S03\_TC12\_MarkEmailComplete |
| MSASEMAIL\_S03\_TC13\_ClearEmailFlag\_Status0 |
| MSASEMAIL\_S03\_TC14\_ClearEmailFlag\_EmptyNode |
| MSASEMAIL\_S03\_TC15\_UpdateEmailFlagMetadata |
| MSASEMAIL\_S03\_TC16\_UpdateEmailFlag\_Error |
| MSASEMAIL\_S03\_TC17\_IncludedTwoDueDateElement |
| MSASEMAIL\_S03\_TC18\_IncludedTwoOrdinalDateElement |
| MSASEMAIL\_S03\_TC19\_IncludedTwoReminderSetElement |
| MSASEMAIL\_S03\_TC20\_IncludedTwoReminderTimeElement |
| MSASEMAIL\_S03\_TC21\_IncludedTwoStartDateElement |
| MSASEMAIL\_S03\_TC22\_IncludedTwoStatusElement |
| MSASEMAIL\_S03\_TC23\_IncludedTwoSubOrdinalDateElement |
| MSASEMAIL\_S03\_TC24\_IncludedTwoUtcDueDateElement |
| MSASEMAIL\_S03\_TC25\_IncludedTwoUtcStartDateElement |
| S04\_MeetingRequest | MSASEMAIL\_S04\_TC01\_SyncAdd\_CalendarItem |
| MSASEMAIL\_S04\_TC02\_MeetingRequest\_NoRecurrence |
| MSASEMAIL\_S04\_TC03\_MeetingRequest\_Weekly |
| MSASEMAIL\_S04\_TC04\_MeetingRequest\_Monthly\_ByDay |
| MSASEMAIL\_S04\_TC05\_MeetingRequest\_Monthly\_ByWeek |
| MSASEMAIL\_S04\_TC06\_MeetingRequest\_Yearly\_IncludedIsLeapMonth |
| MSASEMAIL\_S04\_TC07\_MeetingRequest\_Yearly\_NotIncludedIsLeapMonth |
| MSASEMAIL\_S04\_TC08\_MeetingRequest\_Delegate |
| MSASEMAIL\_S04\_TC09\_MeetingRequest\_Sender |
| MSASEMAIL\_S04\_TC10\_ExceptionToARecurringMeeting |
| MSASEMAIL\_S04\_TC11\_MeetingRequest\_FullUpdate |
| MSASEMAIL\_S04\_TC12\_OutdatedMeetingRequest |
| MSASEMAIL\_S04\_TC13\_GlobalObjIdFormat\_vCalUID |
| MSASEMAIL\_S04\_TC14\_GlobalObjIdFormat\_OutlookID |

Test case scenario distribution

### Test case description

The following table describes common prerequisites and common cleanup for all the test cases.

|  |  |
| --- | --- |
| Common prerequisites | Uses HTTP or HTTPS as the transport. |
| Common cleanup | Calls ItemOperations command with EmptyFolderContents element to delete the items created on the server. |

Test case common prerequisites and common cleanup

The steps in the following test cases use methods and parameters in the adapter interfaces directly.

The following tables describe the traditional test cases.

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC01\_SyncMail\_OnlyMetadata |
| Description | This case is designed to test synchronizing only metadata of e-mail item in inbox folder with server. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to recipient. 2. The recipient calls Sync method without including BodyPreference element to synchronize the e-mail items on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC01\_SyncMail\_OnlyMetadata

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC02\_SyncMail\_MetadataAndBody |
| Description | This case is designed to test synchronizing metadata and body of e-mail item in inbox folder with server. |
| Prerequisites | 1. The sender calls SendMailmethodto send the email to the recipient. 2. The recipient calls Syncmethodincluding BodyReference element to synchronize the email on the server. |
| Test execution steps | Common prerequisites |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC02\_SyncMail\_MetadataAndBody

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC03\_SyncChange\_NotChangeCategories |
| Description | This case is designed to test if Sync command with Change element does not contain a Categories element, it indicates the categories on the e-mail item have not been changed. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to the recipient. 2. The recipient calls Syncmethod to synchronize the email on the server. 3. The recipient calls Sync method with Change element to update the flag of the email item, and synchronize it on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC03\_SyncChange\_NotChangeCategories

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC04\_SyncChange\_RemoveCategories |
| Description | This case is designed to test Sync command with Change element containing an empty Categories element to indicate that all categories associated with the item have been removed. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to the recipient. 2. The recipient calls Syncmethod to synchronize the email on the server. 3. The recipient calls Sync method with Add element to add category for the email item and synchronize it on the server. 4. The recipient calls Sync method with Change element to remove categories of the email item and synchronize it on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC04\_SyncChange\_RemoveCategories

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC05\_OnlyReadPropertyChanged |
| Description | This case is designed to test if only the Read element has been changed for the e-mail item, the server will include the Read element as the only child element of the airsync:ApplicationData within the airsync:Change element for an e-mail item in the Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethodto send the email to the recipient. 2. The recipient calls Syncmethodto synchronize the e-mail items on the server. 3. The recipient calls Sync method with Change element to update the Read property of the e-mail item and synchronize it on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC05\_OnlyReadPropertyChanged

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC06\_OnlyFlagPropertiesChanged |
| Description | This case is designed to test if only the Flag properties has been changed for an e-mail item, the server will include the Flag element as the only child element of the airSync:ApplicationData within the airSync:Change element for that e-mail item in the Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethodto send the email to the recipient. 2. The recipient calls Syncmethodto synchronize the email items on the server. 3. The recipient calls Sync method with Change element to add flag for the email item and synchronize it on the server. 4. The recipient calls Sync method with Change element to update the Flag property of the e-mail item and synchronize it on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC06\_OnlyFlagPropertiesChanged

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC07\_BothReadAndFlagChanged |
| Description | This case is designed to test if both Read element and Flag element have changed for the e-mail item, the server will send only Read element and Flag element to the client for an e-mail item in Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethodto send the email to the recipient. 2. The recipient calls Syncmethodto synchronize the email on the server. 3. The recipient calls Sync method with Change element to add flag and catogories for the email item and synchronize it on the server. 4. The recipient calls Sync method with Change element to update the Read property and Falg property of the e-mail and synchronize it on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC07\_BothReadAndFlagChanged

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC08\_FlagReadAndOtherEmailClassPropertiesChanged |
| Description | This case is designed to test if Flag element, Read element, and other email class elements have been changed for the e-mail item, the server will send full item airsync:Change to the client for an e-mail item in Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethodto send the email to the recipient. 2. The recipient calls Syncmethodto synchronize the email on the server. 3. The recipient calls Sync method with Change element to add flag and categories for the email item and synchronize it on the server. 4. The recipient calls Sync method with Change element to update the Read property, Categories property and Flag property of the e-mail item and synchronize it on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC08\_FlagReadAndOtherEmailClassPropertiesChanged

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC09\_WithoutAnyEmailClassPropertiesChanged |
| Description | This case is designed to test if Flag element, Read element and other email class elements have not been changed for the e-mail item, the server will send nothing to the client for an e-mail item in Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethodto send the email to the recipient. 2. The recipient calls Sync method with Change element to add falg and categories for the e-mail item and synchronize it on the server. 3. The revipient calls Sync method with Change element but without changing any property to synchronize the email item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC09\_WithoutAnyEmailClassPropertiesChanged

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC10\_NonBooleanRead |
| Description | This case is designed to test if a non-Boolean value is used for Read element in a Sync command request, the server responds with Status element value of 6 in the Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the mail to recipient. 2. The recipient calls Sync method to synchronize the email item on the server. 3. The recipient calls Sync command with Change element to change the Read element with a boolean value. 4. The recipient calls Sync command with Change element to change the Read element with a non-boolean value. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC10\_NonBooleanRead

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC11\_ChangeSenderValueInRequest |
| Description | This case is designed to test that the server will return a Status element value of 6 in Sync command response, if the client attempts to change the value of Sender element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method without change the value of Sender element to synchronize the email item on the server. 3. The recipient calls Sync method to change the value of Sender element. 4. The recipient calls Sync method to synchronize the email items on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC11\_ChangeSenderValueInRequest

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC12\_SenderAndFromHaveSameValue |
| Description | This case is designed to test that the Send element is not present in the response when the email2:Sender element and the From element have the same value. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method with Sender element and From element having the same value to send the email to recipient. 2. The recipient calls Sync method to synchronize the email items on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC12\_SenderAndFromHaveSameValue

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC13\_SenderValueIsNull |
| Description | This case is designed to test that the Sender element is not present in the response when the email2:Sender element value is NULL. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method without including the Sender element to send the email to recipient. 2. The recipient calls Sync method to synchronize the email items on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC13\_SenderValueIsNull

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC14\_ChangeReceivedAsBccInRequest |
| Description | This case is designed to test that the server will respond with Status element value of 6 in the Sync command response, if the client changes the value of ReceivedAsBcc element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method without change the value of ReceivedAsBcc element to synchronize the email items on the server. 3. The recipient calls Sync method to change the value of ReceivedAsBcc element. 4. The recipient calls Sync method to synchronize the email items on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC14\_ChangeReceivedAsBccInRequest

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC15\_SendAndReplyToMultipleAddress |
| Description | This case is designed to test sending an email to multiple addresses, replying an email to multiple addresses and ConversationIndex element: Additional timestamps are added when the message is replied to. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to multiple recipients. 2. The sender calls Sync method to synchronize the email items on the server. 3. The recipient calls Sync method to synchronize the email items on the server. 4. The recipient calls SmartReply method to reply the received email and send the reply to multiple recipients. 5. The recipient calls Sync method to synchronize the email item on the server. 6. The reply email recipient calls Sync method to synchronize the email item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC15\_SendAndReplyToMultipleAddress

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC16\_ForwardEmail |
| Description | This case is designed to test the email2:LastVerbExecuted, email2:LastVerbExecutedTime and ConversationIndexelement: Additional timestamps are added when the message is forwarded. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email items on the server. 3. The recipient calls SmartForward method to forward the received email to the second recipient. 4. The second recipient calls Sync method to synchronize the email item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC16\_ForwardEmail

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC17\_IncludedConversationIdInRequest |
| Description | This case is designed to test that the server will return a Status element value of 6 in the Sync command response, if the email2:ConversationId element is included within a Change element in a Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method with Change element and includes “ConversationId” element to update the email item. 3. The recipient calls Sync method to synchronzie the email item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC17\_IncludedConversationIdInRequest

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC18\_SyncAdd\_AdministrativeMessage |
| Description | This case is designed to test that a non-delivery report message generated by the server has a message class deriving from message classes. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send an email to a none-existing address. 2. The recipient calls Sync method to get the message in the organizer’s Inbox. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC18\_SyncAdd\_AdministrativeMessage

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC19\_ItemOperations\_OnlyIncludedSubjectInResponse |
| Description | This case is designed to test if an airsync:Schema element is included in the ItemOperations command request, server response MUST be restricted to the elements that were included as child elements of the airsync:Schema element in the command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to the recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls ItemOperationsmethod without including BodyPreference element to fetch all the information about email using ServerId. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC19\_ItemOperations\_OnlyIncludedSubjectInResponse

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC20\_ItemOperations\_IncludedDataInResponse |
| Description | This case is designed to test ItemOperations command with including the BodyPreference element to get the Data information. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to the recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls ItemOperationsmethod including BodyPreference element to fetch all the information about email using ServerId. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC20\_ItemOperations\_IncludedDataInResponse

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC21\_ItemOperations\_IncludedAllOrNone\_False |
| Description | This case is designed to test server returns the truncated data if the size (in bytes) of the available data exceeds the value of the TruncationSize element in ItemOperations command request and setting the airsyncbase: AllOrNone element value to 0 (false). |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to the recipient. 2. The recipient calls Sync method including BodyReference element to synchronize the email item. 3. The recipient calls ItemOperationsmethod including BodyPreference element and setting the value of AllOrNone to false to fetch all the information about email using ServerId. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC21\_ItemOperations\_IncludedAllOrNone\_False

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC22\_ItemOperations\_IncludedAllOrNone\_True |
| Description | This case is designed to test server doesn't return a truncated response if the size (in bytes) of the available data not exceeds the value of the TruncationSize element in ItemOperations command request and setting the airsyncbase: AllOrNone element value to 1 (true). |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send the email to the recipient. 2. The recipient calls Sync method including BodyReference element to synchronize the email on the server. 3. The recipient calls ItemOperationsmethod including BodyPreference element and setting the value of AllOrNone to true to fetch all the information about email using ServerId. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC22\_ItemOperations\_IncludedAllOrNone\_True

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC23\_InvalidSearch |
| Description | This case is designed to test that if email class elements are included in the request, a search:Status element value of 2 is contained as a child element of the search:Store element in Search command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send email to the recipient. 2. The recipient calls Search method including “To” element to search email from server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC23\_InvalidSearch

|  |  |
| --- | --- |
| S01\_Email | |
| Test case ID | MSASEMAIL\_S01\_TC24\_SearchEmail |
| Description | This case is designed to test using Search command to retrieve E-mail class items from the server that match the criteria specified by the client. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMailmethod to send email to the recipient. 2. The recipient calls Search method to search email from server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S01\_TC24\_SearchEmail

|  |  |
| --- | --- |
| S02\_EmailVoiceAttachment | |
| Test case ID | MSASEMAIL\_S02\_TC01\_VoiceAttachment\_VerifyAllRelativeElements |
| Description | This case is designed to test the UmAttDuration element, UmUserNotes element, UmAttOrder element and UmCallerID element in an email voice attachment. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email with an electronic voice mail attachment to recipient. |
| Cleanup | Common cleanup |

MSASEMAIL\_S02\_TC01\_VoiceAttachment\_VerifyAllRelativeElements

|  |  |
| --- | --- |
| S02\_EmailVoiceAttachment | |
| Test case ID | MSASEMAIL\_S02\_TC02\_VoiceAttachment\_IncludedUmCallerIDInRequest |
| Description | This case is designed to test that if client attempts to send SyncRequest with UmCallerID element to the server, the server will return a Status element of 6 in Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method including the UmCallerID element in request to send email with an electronic voice mail attachment to recipient. 2. The recipient calls Sync command to update the email. |
| Cleanup | Common cleanup |

MSASEMAIL\_S02\_TC02\_VoiceAttachment\_IncludedUmCallerIDInRequest

|  |  |
| --- | --- |
| S02\_EmailVoiceAttachment | |
| Test case ID | MSASEMAIL\_S02\_TC03\_VoiceAttachment\_IncludedUmUserNotesInRequest |
| Description | This case is designed to test that if client attempts to change voice email with UmUserNotes element, the server the server will return a Status element value of 6 in the Sync command response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method including the email2:UmUserNotes element in request to send email with an electronic voice mail attachment to recipient. 2. The recipient calls Sync command to update the email. |
| Cleanup | Common cleanup |

MSASEMAIL\_S02\_TC03\_VoiceAttachment\_IncludedUmUserNotesInRequest

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC01\_AddFlag\_AllElements |
| Description | This case is designed to test flagging an email with all elements. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method to with Change element to add a flag with all flag child elements. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC01\_AddFlag\_AllElements

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC02\_AddFlag\_InvalidStatus |
| Description | This case is designed to test that the server will return a Status element value of 6 in the Sync command response when adding Flag with invalid Status. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method with Change element to add a flag with an invalid Status child element. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC02\_AddFlag\_InvalidStatus

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC03\_AddFlag\_CompleteTimeAndDateCompleted |
| Description | This case is designed to test that the message will also include a value for the tasks:DateComplete element, if the message includes a value for the CompleteTime element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method to add a flag with CompleteTime element and DateCompleted child elements. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC03\_AddFlag\_CompleteTimeAndDateCompleted

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC04\_AddFlag\_InvalidReminder |
| Description | This case is designed to test that the server will return a Status element value of 6 in the command response, if tasks: ReminderSet element and tasks: ReminderTime element are invalid. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method with Change element to add flag with ReminderSet element but missing the ReminderTime element. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC04\_AddFlag\_InvalidReminder

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC05\_AddFlag\_DueDateBeforeStartDate |
| Description | This case is designed to test that the server will return a Status element value of 6 in the Sync command response, when DueDate occurs before StartDate. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method to add a flag with DueDate occurring before StartDate. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC05\_AddFlag\_DueDateBeforeStartDate

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC06\_AddFlag\_UtcDueDateBeforeUtcStartDate |
| Description | This case is designed to test that the server will return a Status element value of 6 in the Sync command response, when UtcDueDate occurs before UtcStartDate. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method to synchronize the email item. 3. The recipient calls Sync method to add a flag with UtcDueDate occurring before UtcStartDate. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC06\_AddFlag\_UtcDueDateBeforeUtcStartDate

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC07\_AddFlag\_InvalidDate |
| Description | This case is designed to test that the server will return a Status element value of 6 in the Sync command response, when client just sets the value of StartDate and DueDate. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method to synchronize the email item. 3. The recipient calls Sync method with Change element to add flag and set the value of StartDate and DueDate. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC07\_AddFlag\_InvalidDate

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC08\_AddFlag\_ValidDate |
| Description | This case is designed to test that the tasks:UtcDueDate element value must not occur before the tasks:UtcStartDate element and the DueDate element value must not occur before the StartDate element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to the recipient. 2. The recipient calls Sync method to synchronize the email item. 3. The recipient calls Sync method with Change element to add flag with valid StartDate, DueDate, UtcStartDate and UtcDueStartDate. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC08\_AddFlag\_ValidDate

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC09\_AddFlag\_OptionalFlagTypeInMeetingRequest |
| Description | This case is designed to test that the FlagType element is not required if the e-mail message is a meeting request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the meeting request without the FlagType element to recipient. 2. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC09\_AddFlag\_OptionalFlagTypeInMeetingRequest

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC10\_AddFlag\_OptionalFlagTypeInMeetingResponse |
| Description | This case is designed to test that the FlagType element is not required if the e-mail message is a meeting response. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the meeting request to the recipient. 2. The recipient calls MeetingResponse method without FlagType element to respond the meeting request. 3. The sender calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC10\_AddFlag\_OptionalFlagTypeInMeetingResponse

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC11\_FlagEmail\_RequiredPropertiesOption1 |
| Description | This case is designed to test when action is flagging an email, required properties from device are: Status = 2, FlagType = "Flag for follow up", tasks:StartDate, tasks:UtcStartDate, tasks:DueDate and tasks:UtcDueDate. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Change element to add a flag with the required properties: Status = 2, FlagType = "Flag for follow up", tasks:StartDate, tasks:UtcStartDate, tasks:DueDate and tasks:UtcDueDate. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC11\_FlagEmail\_RequiredPropertiesOption1

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC12\_MarkEmailComplete |
| Description | This case is designed to test when action is marking an email complete, required properties from device are: Status = 1, CompleteTime and tasks: DateCompleted. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Change element to add a flag with the required properties: Status = 1, CompleteTime and tasks: DateCompleted. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC12\_MarkEmailComplete

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC13\_ClearEmailFlag\_Status0 |
| Description | This case is designed to test when action is clearing the flag on an email, required properties from device are: Status = 0. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method to delete the flag with the required properties: Status = 0. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC13\_ClearEmailFlag\_Status0

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC14\_ClearEmailFlag\_EmptyNode |
| Description | This case is designed to test when action is clearing the flag on an email, required properties from device are: Flag node empty. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method to delete the flag with the required properties: Flag node empty. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC14\_ClearEmailFlag\_EmptyNode

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC15\_UpdateEmailFlagMetadata |
| Description | This case is designed to test when action is updating the flag metadata on an email, required properties from device are: All updated properties. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Change element to add flag to the email. 4. The recipient calls Sync method to update the flag with the required properties: All updated properties. 5. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC15\_UpdateEmailFlagMetadata

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC16\_UpdateEmailFlag\_Error |
| Description | This case is designed to test the Sync command response includes an airsync: Status element value of 6, if any of the required elements are missing from the Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Change element to add a flag with StartDate, DueDate, UtcStartDate and UtcDueDate. 4. The recipient calls Sync method with Change element and without StartDate, DueDate, UtcStartDate and UtcDueDate elements to update the email flag. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC16\_UpdateEmailFlag\_Error

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC17\_IncludedTwoDueDateElement |
| Description | This case is designed to test that the server does not return a protocol status error in response if including two DueDate elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two DueDate elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC17\_IncludedTwoDueDateElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC18\_IncludedTwoOrdinalDateElement |
| Description | This case is designed to test the server does not return a protocol status error in response if including two OrdinalDate elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two OrdinalDate elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC18\_IncludedTwoOrdinalDateElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC19\_IncludedTwoReminderSetElement |
| Description | This case is designed to test that the server does not return a protocol status error in response if including two ReminderSet elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two ReminderSet elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC19\_IncludedTwoReminderSetElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC20\_IncludedTwoReminderTimeElement |
| Description | This case is designed to test that the server doesn't return a protocol status error in response if including two ReminderTime elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two ReminderTime elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC20\_IncludedTwoReminderTimeElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC21\_IncludedTwoStartDateElement |
| Description | This case is designed to test that the server does not return a protocol status error in response if including two StartDate elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two StartDate elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC21\_IncludedTwoStartDateElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC22\_IncludedTwoStatusElement |
| Description | This case is designed to test that the server does not return a protocol status error in response if including two Status elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two Status elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC22\_IncludedTwoStatusElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC23\_IncludedTwoSubOrdinalDateElement |
| Description | This case is designed to test that the server does not return a protocol status error in response if including two SubOrdinalDate elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two SubOrdinalDate elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC23\_IncludedTwoSubOrdinalDateElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC24\_IncludedTwoUtcDueDateElement |
| Description | This case is designed to test the server does not return a protocol status error in response if including two UtcDueDate elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two UtcDueDate elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC24\_IncludedTwoUtcDueDateElement

|  |  |
| --- | --- |
| S03\_EmailFlag | |
| Test case ID | MSASEMAIL\_S03\_TC25\_IncludedTwoUtcStartDateElement |
| Description | This case is designed to test that the server does not return a protocol status error in response if including two UtcStartDate elements per Flag in Sync command request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls SendMail method to send the email to recipient. 2. The recipient calls Sync method to synchronize the email on the server. 3. The recipient calls Sync method with Add element and two UtcStartDate elements to add a flag on the email item. 4. The recipient calls Sync method to synchronize the item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S03\_TC25\_IncludedTwoUtcStartDateElement

|  |  |
| --- | --- |
| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC01\_SyncAdd\_CalendarItem |
| Description | This case is designed to test when a user creates an appointment or meeting on the client, the calendar item will be added to the server by using the Sync command. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync command with Add element to add an appointment on server. 2. The sender calls Sync command to synchronize the item in calendar folder. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC01\_SyncAdd\_CalendarItem

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC02\_MeetingRequest\_NoRecurrence |
| Description | This case is designed to test the meeting request which has no recurrence. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with add element to add a non-recurrence calendar item in calendar folder. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send a meeting request to the recipient. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC02\_MeetingRequest\_NoRecurrence

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC03\_MeetingRequest\_Weekly |
| Description | This case is designed to test a weekly meeting request that contains DayOfWeek element and FirstDayOfWeek element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a weekly calendar item in calendar folder. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send a weekly meeting request to the recipient. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC03\_MeetingRequest\_Weekly

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC04\_MeetingRequest\_Monthly\_ByDay |
| Description | This case is designed to test a Monthly meeting request that recurs monthly on the Nth day of the month. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a monthly meeting that recurs monthly on the Nth day of the month to the server. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send the meeting request to the attendee. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC04\_MeetingRequest\_Monthly\_ByDay

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC05\_MeetingRequest\_Monthly\_ByWeek |
| Description | This case is designed to test a Monthly meeting request that contains WeekOfMonth element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a monthly meeting contains WeekOfMonth element to the server. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send the meeting request to the attendee. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC05\_MeetingRequest\_Monthly\_ByWeek

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC06\_MeetingRequest\_Yearly\_IncludedIsLeapMonth |
| Description | This case is designed to test a Yearly meeting request that contains DayOfMonth element, MonthOfYear element and IsLeapMonth element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a yearly calendar item with the IsLeapMonth element in calendar folder. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send a yearly meeting request to the recipient. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC06\_MeetingRequest\_Yearly\_IncludedIsLeapMonth

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC07\_MeetingRequest\_Yearly\_NotIncludedIsLeapMonth |
| Description | This case is designed to test a Yearly meeting request that doesn’t contain IsLeapMonth element. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a yearly calendar item without the IsLeapMonth element in calendar folder. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send a yearly meeting request to the recipient. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC07\_MeetingRequest\_Yearly\_NotIncludedIsLeapMonth

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC08\_MeetingRequest\_Delegate |
| Description | This case is designed to test the delegated meeting request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a no recurrence meeting to the server. 2. The sender calls Sync method to synchronize the added calendar item on the server. 3. The sender calls SendMail method to send the meeting request to the primary attendee. 4. The primary attendee calls Sync method to synchronize the Inbox folder. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC08\_MeetingRequest\_Delegate

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC09\_MeetingRequest\_Sender |
| Description | This case is designed to test the Sender element of a meeting request. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a no recurrence meeting to the server. 2. The sender calls Sync method to synchronize the added calendar item on the server. 3. The sender calls SendMail method to send the meeting request to the attendee. 4. The attendee calls Sync method to synchronize the meeting reuqest 5. The attendee calls SmartForward method to forward it to the third user. 6. The third user calls Sync method to synchronize the forwarded meeting request. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC09\_MeetingRequest\_Sender

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC10\_ExceptionToARecurringMeeting |
| Description | This case is designed to test a single instance exception to a recurring meeting. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a weekly recurrence calendar item with the Exceptions element in the calendar folder. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls the SendMail method to send the meeting request to the recipient. 4. The recipient calls Sync method to synchronize the meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC10\_ExceptionToARecurringMeeting

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC11\_MeetingRequest\_FullUpdate |
| Description | This case is designed to test the meeting request which is fully updated. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a no recurrence meeting to the server. 2. The sender calls Sync method to synchronize the calendar item on the server. 3. The sender calls SendMail method to send the meeting request to the recipient. 4. The recipient calls Sync method to synchronize the meeting request on the server. 5. The recipient calls MeetingResponse method to accept the meeting. 6. The sender changes the location and calls SendMail method to send the meeting request in step 3 to recipient. 7. The recipient calls Sync method to synchronize the updated meeting request on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC11\_MeetingRequest\_FullUpdate

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC12\_OutdatedMeetingRequest |
| Description | This case is designed to test that the value of MeetingMessageType element is 4, when a new meeting request or meeting updated was received. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a meeting to the server. 2. The sender calls SendMail method to send the meeting request to the attendee. 3. The recipient calls Sync method to synchronize the mailbox and got the meeting request. 4. The sender calls Sync method with Add element to add a new meeting. 5. The sender calls SendMail method to send a new meeting request with the same UID with the meeting sent previously. 6. The recipient calls Sync command to synchronize the mailbox and got the new meeting request. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC12\_OutdatedMeetingRequest

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC13\_GlobalObjIdFormat\_vCalUID |
| Description | This case is designed to test the format of GlobalObjId when the GlobalObjId corresponds to a vCal-Uid. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a calendar item with a vCal-Uid in the calendar foler. 2. The sender calls SendMail method to send the meeting request to the recipient. 3. The recipient calls the Sync method to synchronize the calendar item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC13\_GlobalObjIdFormat\_vCalUID

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| S04\_MeetingRequest | |
| Test case ID | MSASEMAIL\_S04\_TC14\_GlobalObjIdFormat\_OutlookID |
| Description | This case is designed to test the format of GlobalObjId when the GlobalObjId corresponds to an outlook id. |
| Prerequisites | Common prerequisites |
| Test execution steps | 1. The sender calls Sync method with Add element to add a calendar item with an outlook id in the calendar foler. 2. The sender calls SendMail method to send the meeting request to the recipient. 3. The recipient calls the Sync method to synchronize the calendar item on the server. |
| Cleanup | Common cleanup |

MSASEMAIL\_S04\_TC14\_GlobalObjIdFormat\_OutlookID