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|---|---|---|---|---|
| Ref: | https://docs.google.com/document/d/1PopXtNog8nJzdpYQcl1JMyIH2gNYJ4_r/edit | | | |
| | | | | |
| | exception cases get resolved on this page? | | | csv input - one list, no tabs, no decoration |

| S. No | Item | Test Taken | Overall score |
|---|---|---|---|
| 1 | MUA+Webmail | Yes | |
| 2 | IMAP | NO | |
| 3 | POP | NO | |
| 4 | MSA | NO | |
| 5 | MTA | NO | |
| 6 | MDA | | |
| 7 | MDA Which Supports IMAP | | |
| 8 | MDA Which Supports POP | | |
| 9 | MSP | | |
| 10 | Tools & Utilities | | |
| 11 | EAI Communication & Messaging | | |

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|---|---|
| PLATINUM TESTS | LEVEL ACHIEVED |
| 0 | FALSE |
| GOLD TESTS | LEVEL ACHIEVED |
| 0 | FALSE |
| SILVER TESTS | LEVEL ACHIEVED |
| 0 | FAIL |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|------------------|--------------------|---|---|
| MUA.1 | EAI addresses can be saved to address book | MUST have for GOLD or higher | If the software supports or includes an "address book" (a mechanism through which contact details can be saved and later recalled), the feature should allow EAI addresses to be saved. The details of how the address is stored are unimportant for this test case, only that it can be done. | P | 2 | **Overall score** | **SILVER** |
| MUA.2 | EAI addresses in address book display address local part as Unicode with proper handling of RTL and LTR strings | MUST have for GOLD or higher | If the software allows viewing items in the address book, it should display the local parts of EAI addresses in Unicode form. | P | 2 | | |
| MUA.3 | EAI addresses in address book display address domain part as Unicode | MUST have for GOLD or higher | If the software allows viewing items in the address book, it should display the domain parts of EAI addresses in U-label form. | p | 2 | PLATINUM TESTS | LEVEL ACHIEVED |
| MUA.4 | EAI addresses recalled from address book (e.g., via autocomplete) display address local part as Unicode | MUST have for GOLD or higher | If the software allows destination address fields to be populated from the address book (typically through an autocompletion or search feature in the composition interface), the local part of EAI addresses inserted into destination address fields should be displayed as Unicode. This applies to the "To", "Cc", and "Bcc" fields. | P | 2 | 3 | PLATINUM |
| MUA.5 | EAI addresses recalled from address book (e.g., via autocomplete) display address domain part as Unicode | MUST have for GOLD or higher | If the software allows destination address fields to be populated from the address book (typically through an autocompletion or search feature in the composition interface), the domain part of EAI addresses inserted into destination address fields should be displayed in U-label form. This applies to the "To", "Cc", and "Bcc" fields. | P | 2 | GOLD TESTS | LEVEL ACHIEVED |
| MUA.6 | Address book text processing (search etc) supports Unicode | MUST have for GOLD or higher | If the software supports textual processing on values in the address book, then it should be possible to do that processing for an address regardless of its script. "Processing" includes search, import, copy/paste, etc. | P | 2 | 1 | SILVER |
| MUA.7 | Address book search finds U-Labels when search text is in A-Label form, and vice versa | MUST have for PLATINUM | Same as MUA.6, but it's easy to see when A-Labels are equivalent to U-Labels. The conversion from U-label to A-label is compliant with [IDNA 2008] rather than [IDNA 2003]. The four [Deviation Characters] are preserved when they occur in U-labels. If they are dropped or converted per [IDNA 2003], this test is not passed. | P | 3 | SILVER TESTS | LEVEL ACHIEVED |
| MUA.8 | Address book entry creation supports Unicode even if the email address was generated from a message using A-Labels | MUST have for PLATINUM | When addresses are added to the address book as A-Labels, they are converted to U-Labels. | P | 3 | 1 | SILVER |
| MUA.9 | Originator fields accept EAI addresses | MUST have for GOLD or higher | In cases where the software allows the user to override the source address for a given message, it should allow them to enter EAI addresses in U-label form. This applies to the "From" and "Reply-to" message fields. | P | 2 | | |
| MUA.10 | Originator fields display EAI address local part as Unicode | MUST have for GOLD or higher | The software should display the local parts of EAI addresses as Unicode. This applies to the "From" and "Reply-to" message fields. | P | 2 | | |
| MUA.11 | Originator fields display EAI address domain part as Unicode | MUST have for GOLD or higher | The software should display the domain parts of EAI addresses in U-label form. This applies to the "From" and "Reply-to" message fields. | P | 2 | | |
| MUA.12 | Destination address fields accept EAI addresses | MUST have for GOLD or higher | The user should be able to enter EAI destination addresses in U-label form when composing a message. This applies to the "To", "Cc", and "Bcc" fields. | P | 2 | | |
| MUA.13 | Destination address fields display EAI address local part as Unicode | MUST have for GOLD or higher | The software should display the local parts of EAI addresses as Unicode. This applies to the "To", "Cc", and "Bcc" fields. | P | 2 | | |
| MUA.14 | Destination address fields display EAI address domain part as Unicode | MUST have for GOLD or higher | The software should display the domain parts of EAI addresses in U-label form. This applies to the "To", "Cc", and "Bcc" fields. | P | 2 | | |
| MUA.15 | Unstructured header fields accept Unicode | MUST have for GOLD or higher | The user should be able to enter Unicode strings as the values for unstructured text headers such as the "Subject" header. (The Subject header is an unstructured header that most software allows the user to change easily.) | P | 2 | | |

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| MUA.16 | EAI mail to link targets are supported | MUST have for GOLD or higher | If the software supports opening "mailto:" links, it should be possible to open "mailto:" links that target EAI addresses. The result of opening such a link will vary between applications, so this test case only verifies that a links to EAI addresses can be opened and that the standard behavior of the application is triggered successfully. | P | 2 | | |
| MUA.17 | Message text linkifies EAI values | MUST have for GOLD or higher | If the software linkifies addresses, EAI addresses should be linked in the same way as conventional (non-EAI) addresses. The exact action of the link may vary. For example, some software may create a "mailto" link from the address, or it may become possible to Right-click the address and choose an action from a menu. This applies to the editable body text of the message composition interface. | P | 2 | | |
| MUA.18 | MUA can access SMTP server using an A-label | MUST have for SILVER or higher | If the software supports SMTP, it should allow a target server at an IDN domain. Accepting an A-Label is sufficient for this requirement. For a U-Label name, see next requirement. | P | 1 | | |
| MUA.19 | MUA can access SMTP server using an U-label | MUST have for GOLD or higher | If the software supports SMTP, it should allow a target server with an IDN address to be specified in U-label form. The conversion from U-label to A-label is compliant with [IDNA 2008] rather than [IDNA 2003]. The four [Deviation Characters] are preserved when they occur in U-labels. If they are dropped or converted per [IDNA 2003], this test is not passed. | P | 2 | | |
| MUA.20 | SMTP server address displayed as Unicode | MUST have for GOLD or higher | If the software supports SMTP, then when a target server with an IDN address is specified by the user by U-label, that label should then be displayed to the user in U-label form. | P | 2 | | |
| MUA.21 | Connection to SMTP server at IDN address is supported | MUST have for Silver or higher | If the software supports SMTP, then when a target server with an IDN address is used, the application should correctly resolve the IDN label and connect to the server. A successful login is a good way to test this. | P | 1 | | |
| MUA.22 | Username can be provided as Unicode/non-ASCII | MUST have for GOLD or higher | If the software supports SMTP, it must be possible to login using a non-ASCII / unicode username for authenticating the access to the SMTP server. | P | 2 | | |
| MUA.23 | Username displayed as Unicode/ non-ASCII | MUST have for GOLD or higher | If the software supports SMTP, then when a username is specified by the user in Unicode/ non-ASCII, it should also be displayed to the user in Unicode/ non-ASCII. | P | 2 | | |
| MUA.24 | EAI originator header values are transmitted to SMTPUTF8 server | MUST have for Silver or higher | If a message includes an originator header value containing Unicode/non-ASCII., and if the software submits the message to an SMTP server offering the SMTPUTF8 extension, then the software must deliver the content of the originator header. It may do so as Unicode or re-encoded using an ASCII representation.<br><br>This applies to the "From" and "Reply-to" fields. Because the software may use either representation, this test simply verifies that it will correctly submit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the message header values. | P | 1 | | |
| MUA.25 | EAI destination address header values are transmitted to SMTPUTF8 server | MUST have for Silver or higher | If a message includes a destination address header value containing Unicode, and if the software submits the message to an SMTP server offering the SMTPUTF8 extension, then the software must deliver the content of the destination header.<br><br>This applies to the "To", "Cc", and "Bcc" fields. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the message header values. | P | 1 | | |

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| MUA.26 | non-ASCII/Unicode unstructured header values are transmitted to SMTPUTF8 server | MUST have for Silver or higher | If a message includes an unstructured header field containing a non-ASCII/Unicode value and if the software submits to an SMTP server offering the SMTPUTF8 extension then it must send headers encoded in UTF-8 instead of using an alternative encoding for non-ASCII content. (The Subject header is an unstructured header that most software allows the user to change easily.)<br><br>Because the software may still choose to use an alternative ASCII representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the unstructured header values. Regardless of representation, the encoding must be UTF8. | P | 1 | | |
| MUA.27 | EAI originator header values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for Silver or higher | Messages submitted to an SMTP server that does not offer the SMTPUTF8 extension should encode EAI addresses in originator headers in A-label form. This applies to the "From" and "Reply-to" fields. When testing this, use only email addresses with ASCII-only local parts. | P | 1 | | |
| MUA.28 | EAI destination address header values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for Silver or higher | Messages submitted to an SMTP server that does not offer the SMTPUTF8 extension should encode EAI addresses in destination address headers in A-label form. This applies to the "To", "Cc" and "Bcc" headers. When testing this, use only email addresses with ASCII-only local parts. | P | 1 | | |
| MUA.29 | Unicode unstructured header values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for Silver or higher | Messages submitted to an SMTP server that does not offer the SMTPUTF8 extension should encode unstructured header values containing UTF-8 values using an ASCII representation (for example, using quoted-words). The "Subject" header is used as an indicative test case for this behavior. | P | 1 | | |
| MUA.30 | Message-ID of EAI message submitted to non-SMTPUTF8 server is ASCII-only | MUST have for Silver or higher | If the software assigns Message-ID header values to the messages it generates, messages submitted to an SMTP server that does not offer the SMTPUTF8 extension must be assigned ASCII-only Message-ID values (or the application must encode Message-ID values containing UTF-8 using an ASCII representation). Because it is common for Message-ID generation algorithms to include the domain part of the originator's address of Message-Ids, this test case should send a message "From" an EAI address. | P | 1 | | |
| MUA.31 | SMTPUTF8 parameter is provided with MAIL command for EAI messages | MUST have for Silver or higher | When submitting an EAI message with the MAIL command the SMTPUTF8 parameter must be included. For this test case, the EAI message should be one with non-ASCII text in the local part of the originator or destination address header value, since that is not subject to reencoding. In other words, when testing this, use only email addresses with non-ASCII local parts. . | P | 1 | | |
| MUA.32 | SMTPUTF8 parameter is not provided with MAIL command for non-EAI messages | MUST have for Silver or higher | When submitting a non-EAI message with the MAIL command the SMTPUTF8 parameter must not be included. For this test case, a non-EAI message is one composed entirely of ASCII-only header values and body content. | P | 1 | | |
| MUA.33 | Multipart MIME message parts of type message/global are recognized | MUST have for Gold or higher | If the software is MIME-aware, multipart message parts of type message/global should be recognized and displayed in a manner similar or equivalent to message/rfc822.(message/global is defined by RFC6532.) | P | 2 | | |
| MUA.34 | Local part of EAI values in atoms are displayed as Unicode | MUST have for Gold or higher | If the software allows message headers to be viewed, header atoms containing Unicode are displayed as Unicode. The local parts of addresses appearing in "Received" header values should be used as a test for this behavior, since that header's "for" clauses will contain destination addresses (unlike "Message-ID", which may have an ASCII-encoded value). Refer to [RFC 5321] for details about atoms, and the structure of the "Received" header. | P | 2 | | |

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| MUA.35 | Domain part of EAI values in atoms are displayed as Unicode | MUST have for Silver or higher | If the software allows message headers to be viewed, header atoms containing Unicode are displayed as Unicode. The domain parts of addresses appearing in "Reply To" header values should be used as a test for this behavior, since that header's "for" clauses will contain destination addresses (unlike "Message-ID", which may have an ASCII-encoded value). Refer to [RFC 5321] for details about atoms, and the structure of the "Received" header. | P | 1 | | |
| MUA.36 | Message lines longer than 998 characters are limited to 998 octets | MUST have for Silver or higher | Messages generated by the software must not contain lines longer than 998 octets or 8-bit bytes (as opposed to "characters", which in Unicode may consist of multiple 8-bit bytes). What the software does with the line is unimportant for this test (for example, it may truncate the line, or encode the message in a way that avoids exceeding the 998 octet line length restriction). Note that this test is not conclusive since software may generate messages whose content does not correspond one-to-one with the message entered by the user (for example, by introducing HTML markup for text/html messages). However, the software's handling of messages of type text/plain is considered indicative of its overall behavior with regards to message line length limitations. | P | 1 | | |
| MUA.37 | Can retrieve messages from EAI mailbox | MUST have for Gold or higher | When connected to a MDA which hosts EAI mailboxes, the MUA can retrieve messages from that EAI mailbox. This must be supported whether the domain name of the MDA is ASCII or Unicode. | P | 2 | | |
| MUA.38 | User can send and receive messages from EAI mailboxes | MUST have for Gold or higher | When connected to an MDA which hosts EAI mailboxes, the MUA can author email messages listed as from an EAI mailbox name, and the MUA can receive email messages addressed to an EAI mailbox name. This must be supported whether the domain name of the MDA is ASCII or Unicode. | P | 2 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|--------------------------------------------------|---------------------|---|---|
| IMAP.1 | Server address can be specified by A-label | MUST have for SILVER or higher - here | It must allow servers with IDN addresses to be specified in A-label form. | P | 1 | **Overall score** | **SILVER** |
| IMAP.2 | Server address can be specified by U-label | MUST have for GOLD or higher | It should allow servers with IDN addresses to be specified in U-label form. The conversion from U-label to A-label is compliant with [IDNA 2008] rather than [IDNA 2003]. The four [Deviation Characters] are preserved when they occur in U-labels. If they are dropped or converted per [IDNA 2003], this test is not passed. | P | 2 | | |
| IMAP.3 | Server address displayed as Unicode | MUST have for GOLD or higher | When an IMAP server with an IDN address is specified by the user by U-label, that label should then be displayed to the user in U-label form. | p | 2 | PLATINUM TESTS | LEVEL ACHIEVED |
| IMAP.4 | Connection to IMAP server at IDN address is supported | MUST have for SILVER or higher | When an IMAP server with an IDN address is used, the application should correctly resolve the IDN label and connect to the server. Testing may use successful login as a proxy determinant for correct domain resolution and connectivity. | P | 1 | 1 | SILVER |
| IMAP.5 | Username can be provided as Unicode | MUST have for SILVER or higher | It must be possible for the user to specify the IMAP folder or a username to be used for authenticating the IMAP connection in Unicode. | P | 1 | GOLD TESTS | LEVEL ACHIEVED |
| IMAP.6 | Username displayed as Unicode | MUST have for SILVER or higher | When a username is specified by the user in Unicode, it should also be displayed to the user in Unicode. | P | 1 | 1 | SILVER |
| IMAP.7 | AUTHENTICATE command is used for authentication | MUST have for SILVER or higher | Support use of the AUTHENTICATE command for authentication to the server, rather than LOGIN. This allows the user to authenticate with usernames containing Unicode via a secure channel. | P | 1 | SILVER TESTS | LEVEL ACHIEVED |
| IMAP.8 | UTF8=ACCEPT is enabled | MUST have for SILVER or higher | Send the ENABLE command with UTF8=ACCEPT to advertise EAI support. | P | 1 | 1 | SILVER |
| IMAP.9 | SEARCH command does not specify charset | MUST have for GOLD or higher | Do not include a charset specification when sending SEARCH commands to IMAP servers that support UTF8=ACCEPT (or equivalent). | P | 2 | | |
| IMAP.11 | IMAP folder with UTF-8 name can be created | MUST have for GOLD or higher | It should allow the user to create IMAP folders with names containing UTF-8. | P | 2 | | |
| IMAP.12 | UTF-8 IMAP folder names can be accessed | MUST have for SILVER or higher | It should be possible to list and subscribe to IMAP folders with UTF-8 names. For this test, a IMAP folder with UTF-8 characters in its name should exist on the IMAP server. | P | 1 | | |
| IMAP.13 | Unicode IMAP folder names display as Unicode | MUST have for SILVER or higher | *IMAP folder names that are represented in the application should be displayed as Unicode. For this test, a IMAP folder with Unicode characters in its name should exist on the IMAP server.* | P | 1 | | |
| IMAP.14 | Messages in IMAP folder with Unicode name can be retrieved | MUST have for SILVER or higher | Should be able to retrieve messages from IMAP folders with Unicode names. For this test, a IMAP folder with Unicode characters in its name should exist on the IMAP server. | P | 1 | | |
| IMAP.15 | Message with EAI address in originator header is accessible | MUST have for SILVER or higher | Should be able to access messages with EAI values in the originator header. This applies to the "From" and "Reply-To" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
| IMAP.16 | Message with EAI address in destination address header is accessible | MUST have for SILVER or higher | ,Should be able to access messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
| IMAP.17 | Message with Unicode value in unstructured text header is accessible | MUST have for SILVER or higher | Software can access messages with Unicode values in unstructured text headers. For this test case, the "Subject" header is used as an indicative example, and header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
| IMAP.18 | Messages can be stored in folders (IMAP "mailboxes") with Unicode name | MUST have for SILVER or higher | Software can store messages in folders with Unicode names. For this test, a folder (what IMAP calls "mailbox") with Unicode characters in its name should exist on the IMAP server. NOTE: for this test, it does not matter how the IMAP server implements folders ("mailboxes"), for instance in a database or as files on a server filesystem. | P | 1 | | |

| IMAP.19 | Message with EAI address in originator header can be stored | MUST have for SILVER or higher | Software can access messages with EAI values in the originator header. This applies to the "From" and "Reply-To" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
|---------|-------------|-------------|-------------|---|---|---|---|
| IMAP.20 | Message with EAI address in destination address header can be stored | MUST have for SILVER or higher | Software is able to access messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
| IMAP.21 | Message with Unicode value in unstructured text header can be stored | MUST have for SILVER or higher | It is possible to access messages with Unicode values in unstructured text headers. For this test case, the "Subject" header is used as an indicative example, and header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|-------------------------------------------------|---------------------|---|---|
| POP.1 | Server address can be specified by A-label | MUST have for SILVER or higher | It should allow servers with IDN addresses to be specified in A-label form. | P | 1 | **Overall score** | **SILVER** |
| POP.2 | Server address can be specified by U-label | MUST have for GOLD or higher | It should allow servers with IDN addresses to be specified in U-label form. The conversion from U-label to A-label is compliant with [IDNA 2008] rather than [IDNA 2003]. The four [Deviation Characters] are preserved when they occur in U-labels. If they are dropped or converted per [IDNA 2003], this test is not passed. | P | 2 | | |
| POP.3 | Server address displayed as Unicode | MUST have for GOLD or higher | When a server with an IDN address is specified by the user by U-label, that label should then be displayed to the user in U-label form. | p | 2 | PLATINUM TESTS | LEVEL ACHIEVED |
| POP.4 | Connection to POP server at IDN address is supported | MUST have for SILVER or higher | When a server with an IDN address is used, the application should correctly resolve the IDN label and connect to the server. This test case uses successful login as a proxy for correct domain resolution and connectivity. | P | 1 | 2 | GOLD |
| POP.5 | Username can be provided as Unicode | MUST have for SILVER or higher | It must be possible for the user to specify the username to be used for authenticating the POP connection in Unicode. | P | 1 | GOLD TESTS | LEVEL ACHIEVED |
| POP.6 | Username displayed as Unicode | MUST have for SILVER or higher | When a username is specified by the user in Unicode, it should also be displayed to the user in Unicode. | P | 1 | 1 | SILVER |
| POP.7 | Connection to server with Unicode username is supported | MUST have for GOLD or higher | It should correctly transmit Unicode usernames to the server when authenticating with the USER command. | P | 2 | SILVER TESTS | LEVEL ACHIEVED |
| POP.8 | UTF8 mode is enabled | MUST have for SILVER or higher | It should enable UTF8 mode when the capability is offered by the server. | P | 1 | 1 | SILVER |
| POP.9 | STLS command is not used in UTF8 mode | MUST have for SILVER or higher | Once the software has enabled UTF8 mode in a connection it must not issue an STLS command. It is expected that servers will reject the command in this situation, but it is an error for clients to request it. | P | 1 | | |
| POP.10 | Message with EAI address in originator header is accessible | MUST have for SILVER or higher | It should be able to access messages with EAI values in originator headers. This applies to the "From" and "Reply-To" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
| POP.11 | Message with EAI address in destination address header is accessible | MUST have for SILVER or higher | It should be able to access messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |
| POP.12 | Message with Unicode value in unstructured text header is accessible | MUST have for SILVER or higher | It should be able to access messages with Unicode values in unstructured text headers. For this test case, the "Subject" header is used as an indicative example, and header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|------------------------------------------------|---------------------|--|--|
| MSA.1 | SMTPUTF8 capability is advertised | MUST have for SILVER or higher | When a client connects to the server (with the EHLO command), the listing of capabilities returned by the server must include SMTPUTF8 to indicate EAI support. | P | 1 | **Overall score** | **SILVER** |
| MSA.2 | 8BITMIME capability is advertised | MUST have for SILVER or higher | When a client connects to the server (with the EHLO command), the listing of capabilities returned by the server must include 8BITMIME to indicate the ability to handle 8-bit data. | P | 1 | | |
| MSA.3 | EHLO command argument is transmitted as ASCII | MUST have for SILVER or higher | When the software connects to another SMTP server as a client, it must provide the domain argument to the EHLO command in A-label form. For this test, the software must be configured to identify itself with all non-ASCII <Domain>. | p | 1 | PLATINUM TESTS | LEVEL ACHIEVED |
| MSA.4 | SMTPUTF8 parameter is provided with MAIL command for EAI messages | MUST have for SILVER or higher | When transmitting an EAI message with the MAIL command to an SMTPUTF8-capable server, the SMTPUTF8 parameter must be included. For this test case, the EAI message should be one with Unicode text in the local part of a originator or destination address header value, since that part is not subject to re-encoding (for example, by conversion to A-label form). In other words, when testing this, use only email addresses with ASCII-only local parts. NOTE: This feature is related to mail body and is therefore crucial to an EAI user experience but is orthogonal to EAI RFIs. | P | 1 | 1 | SILVER |
| MSA.5 | EAI reverse path values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Connections to an SMTP server offering the SMTPUTF8 extension may submit envelopes with addresses in either A-label or U-label form. This applies to the reverse-path of the MAIL command. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the command arguments - either representation is acceptable. | P | 1 | GOLD TESTS | LEVEL ACHIEVED |
| MSA.6 | EAI forward path values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Connections to an SMTP server offering the SMTPUTF8 extension may submit envelopes with addresses in either A-label or U-label form. This applies to the forward-path of the RCPT command. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the command arguments - either representation is acceptable. | P | 1 | 1 | SILVER |
| MSA.7 | EAI originator header values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Messages transmitted to an SMTP server offering the SMTPUTF8 extension may send addresses as either A-label or U-label form. This applies to the "From" and "Reply-to" fields. | P | 1 | SILVER TESTS | LEVEL ACHIEVED |
| MSA.8 | EAI destination address header values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Messages transmitted to an SMTP server offering the SMTPUTF8 extension may send addresses as either A-label or U-label form. This applies to the "To", "Cc", and "Bcc" fields. | P | 1 | 1 | SILVER |
| MSA.9 | Unicode unstructured header values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Messages transmitted to an SMTP server offering the SMTPUTF8 extension shall be able to send headers containing UTF-8 values. It may send those headers either as literal UTF-8 text, or using an alternative encoding for non-ASCII content. The "Subject" header is used as an indicative test case for this behavior. | P | 1 | | |
| MSA.10 | SMTPUTF8 parameter is not provided for non-EAI messages | MUST have for GOLD or higher | When transmitting a non-EAI message with the MAIL command to an SMTPUTF8-capable server, the SMTPUTF8 parameter should not be included. For this test case, a non-EAI message is one composed entirely of ASCII headers and body content. | P | 2 | | |

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| MSA.11 | EAI messages sent to non-SMTPUTF8 server are returned to sender as undeliverable, or transformed | MUST have for SILVER or higher | When transmitting an EAI message to a non-SMTPUTF8-capable server, the message must either be returned to sender as undeliverable or transformed into a non-EAI form. Because the software can choose either of these two options and there are many possibilities for transformation, this test case just ensures that the software does not submit EAI mail to a non-SMTPUTF8-capable channel in a way that requires SMTPUTF8 features. | P | 1 | | |
| MSA.12 | EAI reverse path values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for SILVER or higher | If the software transforms EAI messages for transmission to non-EAI servers (rather than rejecting them), envelopes submitted to an SMTP server that does not offer the SMTPUTF8 extension should encode EAI addresses in message envelopes in A-label form. This applies to the reverse-path of the MAIL command. When testing this, use only email addresses with ASCII-only local parts. | P | 1 | | |
| MSA.13 | EAI forward path values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for SILVER or higher | If the software transforms EAI messages for transmission to non-EAI servers (rather than rejecting them), envelopes submitted to an SMTP server that does not offer the SMTPUTF8 extension should encode EAI addresses in message envelopes in A-label form. This applies to forward-path of the RCPT command. When testing this, use only email addresses with ASCII-only local parts. | P | 1 | | |
| MSA.14 | EAI originator header values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for SILVER or higher | If the software transforms EAI messages for transmission to non-EAI servers (rather than rejecting them), messages transmitted to an SMTP server that does not offer the SMTPUTF8 extension should encode EAI addresses in originator headers in A-label form. This applies to the "From" and "Reply-to" fields. When testing this, use only email addresses with ASCII-only local parts. | P | 1 | | |
| MSA.15 | EAI destination address header values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for SILVER or higher | If the software transforms EAI messages for transmission to non-EAI servers (rather than rejecting them), messages transmitted to an SMTP server that does not offer the SMTPUTF8 extension should encode EAI addresses in destination address headers in A-label form. This applies to the "To", "Cc" and "Bcc" headers. When testing this, use only email addresses with ASCII-only local parts. | P | 1 | | |
| MSA.16 | Unicode unstructured header values are transmitted to non-SMTPUTF8 server as ASCII | MUST have for SILVER or higher | If the software transforms EAI messages for transmission to non-EAI servers (rather than rejecting them), messages transmitted to an SMTP server that does not offer the SMTPUTF8 extension should encode unstructured header values containing UTF-8 values using an ASCII representation (for example, using quoted-words). The "Subject" header is used as an indicative test case for this behavior. | P | 1 | | |
| MSA.17 | Message-ID of EAI message transmitted to non-SMTPUTF8 server is ASCII-only | MUST have for SILVER or higher | If the software transforms EAI messages for transmission to non-EAI servers (rather than rejecting them) and assigns Message-ID header values to the messages it transmits, messages transmitted to an SMTP server that does not offer the SMTPUTF8 extension should be assigned ASCII-only Message-ID values (or the application should encode Message-ID values containing UTF-8 using an ASCII representation). Because it is common for Message-ID generation algorithms to include the domain part of the originator's address of Message-Ids, this test case should send a message "From" an EAI address. | P | 1 | | |

| MSA.18 | EAI Originator Header domain name U-labels are converted acceptably to A-labels | MUST have for SILVER or higher | When transmitting messages with EAI originator header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008], or transform the U-Labels to A-Labels compliant with [IDNA 2003]. This applies to the "From" and "Reply-to" fields. [IDNA 2003] compliance is acceptable but not preferred; see MSA.19. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 1 | | |
|---|---|---|---|---|---|---|---|
| MSA.19 | EAI Originator Header domain name U-labels are converted to A-labels compliant with [IDNA 2008] | MUST have for PLATINUM or higher | When transmitting messages with EAI originator header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008]. This applies to the "From" and "Reply-to" fields. [IDNA 2003] compliance is not acceptable for PLATINUM certification, but see MSA.18 for SILVER-level certification. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 3 | | |
| MSA.20 | EAI Destination Address Header domain name U-labels are converted acceptably to A-labels | MUST have for SILVER or higher | When transmitting messages with EAI destination address header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008], or transform the U-Labels to A-Labels compliant with [IDNA 2003]. This applies to the "To", "Cc", and "Bcc" fields. [IDNA 2003] compliance is acceptable but not preferred; see MSA.21. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 1 | | |
| MSA.21 | EAI Destination Address Header domain name U-labels are converted to A-labels compliant with [IDNA 2008] | MUST have for PLATINUM or higher | When transmitting messages with EAI destination address header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008]. This applies to the "To", "Cc", and "Bcc" fields. [IDNA 2003] compliance is not acceptable for PLATINUM certification, but see MSA.20 for SILVER-level certification. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 3 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|------------------------------------------------|---------------------|--|--|
| MTA.1 | SMTPUTF8 capability is advertised | MUST have for SILVER or higher | When a client connects to the server (with the EHLO command), the listing of capabilities returned by the server must include SMTPUTF8 to indicate ability to correspond with remote internationalized email addresses. | P | 1 | **Overall score** | **SILVER** |
| MTA.2 | 8BITMIME capability is advertised | MUST have for SILVER or higher | When a client connects to the server (with the EHLO command), the listing of capabilities returned by the server must include 8BITMIME to indicate the ability to handle 8-bit data. | P | 1 | | |
| MTA.3 | EHLO command argument is transmitted as ASCII | MUST have for SILVER or higher | When the software connects to another SMTP server as a client, it must provide the domain argument to the EHLO command in A-label form. | p | 1 | PLATINUM TESTS | LEVEL ACHIEVED |
| MTA.4 | SMTPUTF8 parameter is provided for EAI messages | MUST have for SILVER or higher | When transmitting an EAI message with the MAIL command to an SMTPUTF8-capable server, the SMTPUTF8 parameter must be included. For this test case, the EAI message should be one that is transmitted with Unicode text in the local part of the originator or destination address header value, since that is not subject to reencoding (for example, by conversion to A-label form). | P | 1 | 1 | SILVER |
| MTA.5 | Trace information includes domain in U-label form | MUST have for GOLD or higher | When the software adds a "Received" header to a message transmitted to an SMTPUTF8-capable server indicating the return path of the message, it should encode the domain of the host on which the server is running in U-label form. | P | 2 | GOLD TESTS | LEVEL ACHIEVED |
| MTA.6 | Trace information indicates SMTPUTF8 protocol | MUST have for SILVER or higher | When the software adds a "Received" header to a message indicating the protocol used for transfer, which should be one of UTF8SMTP, UTF8SMTPS, UTF8SMTPA, or UTF8SMTPSA. This protocol is placed in the "with" position of the "Received" header value. | P | 1 | 1 | SILVER |
| MTA.7 | EAI reverse path values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Connections to an SMTP server offering the SMTPUTF8 extension may submit envelopes with addresses in either A-label or U-label form. This applies to the reverse-path of the MAIL command. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the command arguments. | P | 1 | SILVER TESTS | LEVEL ACHIEVED |
| MTA.8 | EAI forward path values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Connections to an SMTP server offering the SMTPUTF8 extension may submit envelopes with addresses in either A-label or U-label form. This applies to the forward-path of the RCPT command. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the command arguments. (NOTE: This only applies to MTAs which are separate from an MSA , which is not typical.) | P | 1 | 1 | SILVER |
| MTA.9 | EAI originator header values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Messages transmitted to an SMTP server offering the SMTPUTF8 extension may send mailbox parts in either A-label or U-label form. This applies to the "From" and "Reply-to" fields. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the message header values. (NOTE: This only applies to MTAs which are separate from an MSA , which is not typical.) | P | 1 | | |
| MTA.10 | EAI destination address header values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Messages transmitted to an SMTP server offering the SMTPUTF8 extension may send mailbox parts in either A-label or U-label form. This applies to the "To", "Cc", and "Bcc" fields. Because the software may use either representation, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the message header values. (NOTE: This only applies to MTAs which are separate from an MSA , which is not typical.) | P | 1 | | |

| | | | | | |
|---|---|---|---|---|---|
| MTA.11 | Unicode unstructured header values are transmitted to SMTPUTF8 server | MUST have for SILVER or higher | Messages transmitted to an SMTP server offering the SMTPUTF8 extension may send headers containing UTF-8 values, instead of using an alternative encoding for non-ASCII content. The "Subject" header is used as an indicative test case for this behavior. Because the software may still choose to use an alternative encoding, this test simply verifies that it will correctly transmit messages to an SMTPUTF8-capable server, but does not test the specific representation used for the message header values. (NOTE: This only applies to MTAs which are separate from an MSA , which is not typical.) | P | 1 |
| MTA.12 | SMTPUTF8 parameter is not provided for non-EAI messages | MUST have for SILVER or higher | When transmitting a non-EAI message with the MAIL command to an SMTPUTF8-capable server, the SMTPUTF8 parameter should not be included. For this test case, a non-EAI message is one composed entirely of ASCII headers and body content. (NOTE: This only applies to MTAs which are separate from an MSA , which is not typical.) | P | 1 |
| MTA.13 | EAI messages sent to non-SMTPUTF8 server are rejected | MUST have for SILVER or higher | When transmitting an EAI message to a non-SMTPUTF8-capable server, the receiving MTA is expected to reject the message, and the sending MTA must detect that rejection. When testing this, use only email addresses with non-ASCII local parts, , since the domain part of the address may legally be converted to A-label form. (NOTE: This only applies to MTAs which are separate from an MSA , which is not typical.) | P | 1 |
| MTA.14 | EAI Originator Header domain name U-labels are converted acceptably to A-labels | MUST have for SILVER or higher | When transmitting messages with EAI originator header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008], or transform the U-Labels to A-Labels compliant with [IDNA 2003]. This applies to the "From" and "Reply-to" fields. [IDNA 2003] compliance is acceptable but not preferred; see MTA.15. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 1 |
| MTA.15 | EAI Originator Header domain name U-labels are converted to A-labels compliant with [IDNA 2008] | MUST have for PLATINUM or higher | When transmitting messages with EAI originator header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008]. This applies to the "From" and "Reply-to" fields. [IDNA 2003] compliance is not acceptable for PLATINUM certification, but see MTA.14 for SILVER-level certification. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 3 |
| MTA.16 | EAI Destination Address Header domain name U-labels are converted acceptably to A-labels | MUST have for SILVER or higher | When transmitting messages with EAI destination address header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008], or transform the U-Labels to A-Labels compliant with [IDNA 2003]. This applies to the "To", "Cc", and "Bcc" fields. [IDNA 2003] compliance is acceptable but not preferred; see MTA.17. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 1 |

| MTA.17 | EAI Destination Address Header domain name U-labels are converted to A-labels compliant with [IDNA 2008] | MUST have for PLATINUM or higher | When transmitting messages with EAI destination address header domain names entered as U-Labels by the user to an SMTP server offering the SMTPUTF8 extension, the software must either transmit the U-Labels in U-Label form, or transform the U-Labels to A-Labels compliant with [IDNA 2008]. This applies to the "To", "Cc", and "Bcc" fields. [IDNA 2003] compliance is not acceptable for PLATINUM certification, but see MTA.16 for SILVER-level certification. Future revision of this guide is anticipated to accept only IDNA 2008 to achieve SILVER. | P | 3 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail)<br>(To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|---------------------------------------------------|---------------------|--|--|
| MDA.1 | Mail server is capable of creating and hosting mailboxes with EAI mailbox names | MUST have for GOLD or higher | The software has the functionality available to create and host email boxes with EAI names, even if it is not enabled by default. | P | 2 | **Overall score** | **SILVER** |
| MDA.2 | Mail server is configured by default to create and host mailboxes with EAI mailbox names | PLATINUM | The software has functionality, enabled by default, to create and host email boxes with EAI names. | P | 3 | | |
| MDA.3 | Trace information includes domain in U-label form | MUST have for GOLD or higher | If the software adds a "Received" header to a message transmitted to an SMTPUTF8-capable server indicating the return path of the message, it encodes the domain of the host on which the server is running in U-label form. | p | 2 | PLATINUM TESTS | LEVEL ACHIEVED |
| MDA.4 | Trace information indicates SMTPUTF8 protocol | MUST have for SILVER or higher | If the software adds a "Received" header indicating the protocol used for transfer, it must be one of UTF8SMTP, UTF8SMTPS, UTF8SMTPA, or UTF8SMTPSA. This protocol is placed in the "with" position of the "Received" header value. | P | 1 | 1 | SILVER |
| MDA.5 | Message with EAI address in originator header is delivered | MUST have for SILVER or higher | The software must be able to deliver messages with EAI values in the originator header. This applies to the "From" and "Reply-To" headers. For this test case, the header values must be UTF-8 strings rather than in an ASCII encoding such as quoted-words. | P | 1 | GOLD TESTS | LEVEL ACHIEVED |
| MDA.6 | Message with EAI address in destination address header is delivered | MUST have for SILVER or higher | The software must be able to deliver messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values must be UTF-8 strings rather than in an ASCII encoding such as quoted-words. | P | 1 | 1 | SILVER |
| MDA.7 | Message with UTF-8 value in unstructured header is delivered | MUST have for SILVER or higher | The software must be able to deliver messages with UTF-8 values in unstructured text headers. For this test case, the "Subject" header is used as an indicative example, and header values must be UTF-8 strings rather than in an ASCII encoding such as quoted-words. | P | 1 | SILVER TESTS | LEVEL ACHIEVED |
| MDA.8 | MDA is capable of delivering messages to local EAI mailbox | MUST have for GOLD or higher | The software is able to deliver messages to the local mailbox with an EAI address. For this test case, use EAI email addresses as the local address to which the message is delivered. The message itself doesn't need to be an EAI message, only the recipient address in the delivery protocol must be an EAI address. | P | 2 | 1 | SILVER |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|---|---|---|---|---|---|---|---|
| MDA-I.1 | UTF-8 username is accepted via IMAP | MUST have for GOLD or higher | Clients must be able to use a username containing UTF-8 text when authenticating to the server. | P | 2 | **Overall score** | **SILVER** |
| MDA-I.2 | IMAP UTF8=ACCEPT or UTF8=ONLY capability is advertised | MUST have for GOLD or higher | When a client requests a listing of server capabilities with the CAPABILITY command, the listing returned by the server must include either UTF8=ACCEPT or UTF8=ONLY. | P | 2 | | |
| MDA-I.3 | IMAP AUTHENTICATE command is supported or LOGIN accepts UTF-8 | MUST have for PLATINUM | The software must support UTF-8 usernames and passwords, either with the AUTHENTICATE command or an extended version of LOGIN | p | 3 | PLATINUM TESTS | LEVEL ACHIEVED |
| MDA-I.4 | IMAP ENABLE UTF8=ACCEPT command is accepted | MUST have for SILVER or higher | The software must accept requests for the UTF8=ACCEPT extension, enable the extension as a result, and communicate that result to the client with an ENABLED message and OK response. | P | 1 | 2 | GOLD |
| MDA-I.5 | IMAP SEARCH command with CHARSET specification is rejected | MUST have for GOLD or higher | Once EAI extensions have been enabled, any SEARCH command that specifies a character set with the CHARSET argument should be rejected and a BAD response should be sent to the client. | P | 2 | GOLD TESTS | LEVEL ACHIEVED |
| MDA-I.6 | IMAP APPEND UTF8 command is accepted | MUST have for GOLD or higher | Once EAI extensions have been enabled, any APPEND UTF8 command that includes Unicode in any headers of the accompanying message literal should be accepted. This applies equally when the client uses the CATENATE extension. | P | 2 | 1 | SILVER |
| MDA-I.7 | IMAP APPEND preserves Unicode header values | MUST have for GOLD or higher | EAI messages added to a mailbox with the APPEND command should be preserved, including Unicode message headers. This test ensures that the message can be "round-tripped" from the client to the server and back again without corruption of Unicode header values. The precise command or commands used to retrieve the message are unimportant (for example, FETCH, RFC822, FULL, and others can be used to retrieve a message). | P | 2 | SILVER TESTS | LEVEL ACHIEVED |
| MDA-I.8 | IMAP CREATE command with non-ASCII folder name is accepted | [MUST have for GOLD or higher] | CREATE commands with non-ASCII folder name (IMAP "mailbox" name) arguments should be accepted either as UTF-8 or legacy UTF-7. | P | 2 | 1 | SILVER |
| MDA-I.9 | IMAP SELECT command with non-ASCII folder name is accepted | [MUST have for GOLD or higher ] | Once EAI extensions have been enabled, SELECT commands with non-ASCII folder name (IMAP "mailbox" name) arguments should be accepted, either as UTF-8 or legacy UTF-7. For this test, a mailbox with a Unicode name should exist on the server. | P | 2 | | |
| MDA-I.10 | IMAP EXAMINE command with non-ASCII folder name is accepted | [MUST have for GOLD or higher] | Once EAI extensions have been enabled, EXAMINE commands with non-ASCII folder name (IMAP "mailbox" name) arguments should be accepted, either as UTF-8 or legacy UTF-7. For this test, a mailbox with a Unicode name should exist on the server. | P | 2 | | |
| MDA-I.11 | IMAP SUBSCRIBE command with non-ASCII folder name is accepted | [MUST have for GOLD or higher] | Once EAI extensions have been enabled, SUBSCRIBE commands with non-ASCII folder name (IMAP "mailbox" name) arguments should be accepted, either as UTF-8 or legacy UTF-7. For this test, a mailbox with a Unicode name should exist on the server. | P | 2 | | |
| MDA-I.12 | IMAP LIST response includes non-ASCII folder name | [MUST have for GOLD or higher] | Once EAI extensions have been enabled, responses to LIST commands should include non-ASCII folder names (IMAP "mailbox" names). For this test, a mailbox with a Unicode name should exist on the server. | P | 2 | | |

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|---|---|---|---|---|---|---|
| MDA-I.13 | IMAP LSUB response includes non-ASCII folder names | [MUST have for GOLD or higher] | Once EAI extensions have been enabled, responses to LSUB commands should include non-ASCII folder names (IMAP "mailbox" names). For this test, a folder with a non-ASCII name should exist on the server and the client's subscription list (as specified by SUBSCRIBE) must include the mailbox. | P | 2 | |
| MDA-I.14 | Folder with non-ASCII name can be created via IMAP | [MUST have for GOLD or higher] | If the software allows clients to create new folders (IMAP "mailboxes"), then it must allow mailbox names to specified as Unicode, either as UTF-8 or legacy UTF-7. | P | 2 | |
| MDA-I.15 | Folder with non-ASCII name can be subscribed via IMAP | [MUST have for GOLD or higher] | Clients must be able to subscribe to folders (IMAP "mailboxes") with non-ASCII folder names. For this test, a folder with a non-ASCII folder name must be present on the server. | P | 2 | |
| MDA-I.16 | Messages in folder with non-ASCII name are accessible via IMAP | [MUST have for GOLD or higher] | Clients must be able to read the contents of folders (IMAP "mailboxes") with non-ASCII folder names. For this test, a mailbox with a non-ASCII folder name must be present on the server. | P | 2 | |
| MDA-I.17 | Message with EAI address in originator header can be stored via IMAP | MUST have for SILVER or higher | Clients must be able to store messages with EAI values in originator headers. This applies to the "From" and "Reply-To" headers. For this test case, the header values must be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | |
| MDA-I.18 | Message with EAI address in destination address header can be stored via IMAP | MUST have for SILVER or higher | Clients must be able to store messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values must be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | |
| MDA-I.19 | Message with Unicode value in unstructured header can be stored via IMAP | MUST have for SILVER or higher | Clients must be able to store messages with Unicode values in unstructured text headers. For this test case, the "Subject" header is used as an indicative example, and the header value must be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | |
| MDA-I.20 | Message with EAI address in originator header is accessible via IMAP | MUST have for SILVER or higher | Clients must be able to access messages with EAI values in originator headers. This applies to the "From" and "Reply-To" headers. For this test case, the header values must be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | |
| MDA-I.21 | Message with EAI address in destination address header is accessible via IMAP | MUST have for SILVER or higher | Clients must be able to access messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values must be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | |
| MDA-I.22 | Message with Unicode value in unstructured header is accessible via IMAP | MUST have for SILVER or higher | Clients must be able to access messages with Unicode values in unstructured text headers. For this test case, the header values must be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|---|---|---|---|---|---|---|---|
| MDA-P.1 | POP UTF8 USER capability is advertised | MUST have for SILVER or higher | When a client requests a listing of server capabilities with the CAPA command, the listing returned by the server response must include UTF8 USER. | P | 1 | **Overall score** | **SILVER** |
| MDA-P.2 | POP UTF8 command is accepted | MUST have for SILVER or higher | The software should accept the UTF8 command and switch the active session to UTF-8 mode. | P | 1 | | |
| MDA-P.3 | POP UTF8 USER command is accepted | MUST have for SILVER or higher | The software should accept the UTF8 USER command and switch the active session to UTF-8 mode. | p | 1 | PLATINUM TESTS | LEVEL ACHIEVED |
| MDA-P.4 | POP STLS command is rejected in UTF8 mode | MUST have for SILVER or higher | The software should reject any STLS command after UTF8 mode is enabled (with the UTF8 command). | P | 1 | 1 | SILVER |
| MDA-P.5 | POP LIST command reports size of Unicode message as octet count | MUST have for SILVER or higher | When reporting the size of a message containing Unicode values, the size (as indicated by the LIST command) must be given as a count of octets or 8-bit bytes, as opposed to a count of characters in the message. For ASCII-only messages these values will be the same, but for Unicode messages containing multibyte characters these will be different. For this test, a message with a Unicode value in the "Subject" header is used as an example of a message containing Unicode. | P | 1 | GOLD TESTS | LEVEL ACHIEVED |
| MDA-P.6 | Unicode username is accepted via POP | MUST have for Gold or higher | Clients must be able to use a username containing Unicode text when authenticating to the server. (While it is possible for username to be globally inclusive while the local part of the corresponding email address is limited Latin, we expect this combination to be unusual.) | P | 2 | 1 | SILVER |
| MDA-P.7 | Message with Unicode value in originator header is accessible via POP | MUST have for SILVER or higher | Clients must be able to access messages with EAI values in originator header. This applies to the "From" and "Reply-To" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | SILVER TESTS | LEVEL ACHIEVED |
| MDA-P.8 | Message with Unicode value in destination address header is accessible via POP | MUST have for SILVER or higher | Clients must be able to access messages with EAI values in destination address headers. This applies to the "To", "Cc", and "Bcc" headers. For this test case, the header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | 1 | SILVER |
| MDA-P.9 | Message with Unicode value in unstructured header is accessible via POP | MUST have for SILVER or higher | Clients must be able to access messages with Unicode values in unstructured text headers. For this test case, the "Subject" header is used as an indicative example, and header values should be Unicode strings rather than in an ASCII encoding such as quoted-words. | P | 1 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|---|---|---|---|---|---|---|---|
| MSP.1 | Local part of address containing Unicode can be configured | MUST have for GOLD or higher | The provider must allow the user who is setting up their own new mailbox on the service to specify a Unicode value as the local part of the assigned address. | P | 2 | **Overall score** | **GOLD** |
| MSP.2 | Local part of address containing Unicode is available by default | MUST have for PLATINUM | MSP offers functionality, enabled by default and clearly promoted and documented, to specify a Unicode value as the local part of the assigned address. | P | 3 | | |
| MSP.3 | Domain part of address containing Unicode can be configured | MUST have for GOLD or higher | If the provider allows the user to specify a domain or subdomain part for their account's assigned address, it must allow a Unicode (U-label) value to be configured as the domain or subdomain of the assigned address. | p | 2 | PLATINUM TESTS | LEVEL ACHIEVED |
| MSP.4 | Domain part of address containing Unicode is available by default | MUST have for PLATINUM | If the provider allows the user to specify a domain or subdomain part for their account's assigned address, it must offer functionality, enabled by default and clearly promoted and documented, for a Unicode (U-label) value to be provided as the domain or subdomain of the assigned address. | P | 3 | 2 | GOLD |
| MSP.5 | Email addresses containing Unicode are displayed as Unicode | MUST have for GOLD or higher | The provider's software interface shall display both the local part and domain name of EAI addresses as Unicode. This applies to the user's own email address as well as the email addresses of correspondents. | P | 2 | GOLD TESTS | LEVEL ACHIEVED |
| MSP.6 | Supports provision of an ASCII-equivalent alias, for use with an EAI mailbox, on user request | MUST have for PLATINUM | The provider must be able to, upon user request, provision an ASCII-only equivalent (i.e. an alias) of any address containing Unicode text, for use with legacy email systems. Exactly how the address is formed (for example by converting the non-ASCII local part to an ASCII-only version automatically, or converting a U-Label to an A-Label, or allowing the user to specify the alternative manually, and so on) and whether or not it is done automatically is not important for this test, just that a second, non-EAI alias can be provided to the user. | P | 3 | 2 | GOLD |
| MSP.7 | Mailbox name containing Unicode is accepted | MUST have for GOLD or higher | If the provider allows the user to create or rename mailboxes, it must accept mailbox names as Unicode text. | P | 2 | SILVER TESTS | LEVEL ACHIEVED |
| MSP.8 | Mailbox name containing Unicode is displayed as entered | MUST have for GOLD or higher | If the provider allows the user to create or rename mailboxes, its software interface must display mailbox names as Unicode. | P | 2 | 2 | SILVER |
| MSP.9 | Address with local part containing Unicode receives messages | MUST have for GOLD or higher | The provider must correctly receive EAI messages at assigned addresses with Unicode in the local part of the address. This verifies that the provider can not only generate an account with an EAI address, but that it correctly handles mail destined for that address as well. | P | 2 | | |
| MSP.10 | Address with domain part containing Unicode receives messages | MUST have for GOLD or higher | If the provider allows a user to specify a domain or subdomain part for the assigned address, then it must correctly receive EAI messages at that address. This verifies that the provider can not only generate an account with an EAI address, but that it correctly handles mail destined for that address as well. | P | 2 | | |
| MSP.11 | Address with local part containing Unicode sends messages | MUST have for GOLD or higher | The provider must correctly receive EAI messages at assigned addresses with Unicode in the local part of the address. This verifies that the provider can not only generate an account with an EAI address, but that it correctly handles mail sent by the user from that address as well. The test process should not only check that the provider's mail server accepts the message and reports that it has been transmitted, but also ensure that it has been received at its destination address. | P | 2 | | |

| MSP.12 | Address with domain part containing Unicode sends messages | MUST have for GOLD or higher | If the provider allows a user to specify a domain or subdomain part for the assigned address, then it must correctly transmit EAI messages sent on behalf of the user from that address. This verifies that the provider can not only generate an account with an EAI address, but that it correctly handles mail sent by the user from that address as well. The test process should not only check that the provider's mail server accepts the message and reports that it has been transmitted, but also ensure that it has been received at its destination address. | P | 2 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score | | |
|------|----------|------------------|-------------|-----|-----|---|---|
| TOOL.1 | Tool operates correctly on any writing system used for email addresses and domain names. | MUST have for SILVER or higher | Tool or utility operates correctly on Unicode-encoded text in any language or writing system, including domain names and email addresses containing characters from that language or writing system.<br><br>The tool may validate the IDNA syntax of domain names in email addresses. The tool shall generally not attempt to validate or reject syntax of the mailbox part of email addresses, because mailbox names can have unusual site-specific syntax, and the tool is unlikely to handle all the variations. Generally, the tool shall operate correctly on any RFC-compliant email address.<br><br>However, it is permissible for a tool to reject email addresses based on policy configured by a user or administrator.<br><br>Further guidance regarding local mailbox names is provided in the best practices document [UASG 028]. | P | 1 | **Overall score** | **SILVER** |
| TOOL.2 | Product must display email local parts and domain names as Unicode. | MUST have for SILVER or higher | The product must be capable of displaying domain name parts as U-Labels. For clarity, domain names should be displayed as U-Labels, unless the user requests display as A-Labels. | P | 1 | | |
| TOOL.3 | Product fully supports (stores, accepts, displays, etc.) all appropriate email structures such as headers, addresses, and subject lines, in Unicode form, in Unicode form. | MUST have for GOLD or higher | For clarity, "fully supporting structures in Unicode form" still allows the tool to impose any character restriction defined by applicable RFCs, UASG Best practices documents, etc (e.g. the SSAC Advisory on the Use of Emoji in Domain Names). See References for a list of such documents. | p | 2 | PLATINUM TESTS | LEVEL ACHIEVED |
| TOOL.4 | Product may send messages from international email addresses, and may receive messages at international email addresses, as appropriate for the product's functionality | MUST have for SILVER or higher | Some systems may use email addresses both as a unique identifier and also for communication to/from the email address user. For example, status messages and error alerts might be sent to the user by some products, but others (e.g. address books) will not. Likewise, anti-spam services must be able to send messages to such addresses. | P | 1 | 3 | PLATINUM |
| TOOL.5 | If product functionality depends on assignment of a domain name, that domain name can be an international domain name | MUST have for SILVER or higher | Any domain name must be usable (including new gTLDs, brand domain names and long domain names). | P | 1 | GOLD TESTS | LEVEL ACHIEVED |
| TOOL.6 | If the product can be contacted by email, it can be contacted from internationalized email addresses. | MUST have for SILVER or higher | For example, email to fax, email to SMS, or products which can receive commands via email. | P | 1 | 1 | SILVER |
| TOOL.7 | If the product hosts email mailboxes, it can host internationalized email addresses. | MUST have for PLATINUM or higher | For example, some issue trackers host an email address for each tracked issue. | P | 3 | SILVER TESTS | LEVEL ACHIEVED |
| TOOL.8 | Product localized to support languages with RTL scripts correctly displays email addresses in RTL scripts | MUST have for SILVER or higher | Any product, which has been adapted to cater to languages that are written from right to left (RTL), correctly presents email addresses written in RTL scripts.<br><br>It is acceptable for products which are not localized to support languages requiring RTL scripts to be unable to correctly display email addresses in RTL scripts.<br><br>Note: email addresses containing a mixture of LTR and RTL text are not in the scope of this requirement. | P | 1 | 1 | SILVER |
| TOOL.9 | Product can receive messages from any valid international email addresses, and receive, store, and process that address without corruption | MUST have for SILVER or higher | For example, listservers must distribute messages from any international email address. | P | 1 | | |

| Item | Function | Level of Support | Description | Evaluation (Pass Fail) (To be entered by tester) | Item Assigned Score |
|---|---|---|---|---|---|
| DOC.1 | Administrator and procurement marketing | Applicable for GOLD or higher | If marketed to system administrators or procurement officers, marketing materials promote globally inclusive email systems and features to system administrators and procurement officers | P | 2 |
| DOC.2 | End user marketing | Applicable for GOLD or higher | If marketed to end users, marketing materials promote globally inclusive email systems and features to end users | P | 2 |
| DOC.3 | Admin setup and use | Applicable for GOLD or higher | Administrator documentation explains how to set up and administer globally inclusive email features, mailboxes and tools where applicable; may include YouTube or other videos. | p | 2 |
| DOC.4 | End user configuration and use | Applicable for GOLD or higher | End user experience (documentation and feature discoverability and demo materials) explains how to set up and use globally inclusive email features, mailboxes and tools where applicable; may include YouTube or other videos. | P | 2 |
| DOC.5 | Promotion of Universal Acceptance | Applicable for SILVER or Higher | Public messaging promotes globally inclusive email systems and features to prospective end users, administrators and/or procurement officers | P | 1 |
| DOC.6 | Promotion of Certification Scores online | Applicable for SILVER or Higher | Presence on web and/or social media promoting certification levels as determined by this guide and pointing to other resources | P | 1 |
| DOC.7 | Marketing of Certification Scores | Applicable for SILVER or Higher | Marketing materials and public messaging indicate the level of support as determined by this guide | P | 1 |
| DOC.8 | Promotion of this self-certification guide | Applicable for SILVER or Higher | Marketing materials and public messaging reference this self certification guide to prospective administrators and procurement officers | P | 1 |
| DOC.9 | Promotion of this self-certification guide to end users | Applicable for SILVER or Higher | Marketing materials and public messaging reference this self certification guide to prospective end users | P | 1 |
| DOC.10 | Logo and UASG tie-in | Applicable for SILVER or Higher | When certified, seek and get a logo + link to provider's website on UASG.tech | P | 1 |
| DOC.11 | Support for UASG | Applicable for SILVER or Higher | Provider's materials point back to UASG. tech certification pages | P | 1 |
| DOC.12 | Online Help videos | Applicable for PLATINUM | Help materials such as videos on YouTube | P | 3 |
| DOC.13 | Use of language inclusive email addresses | Applicable for PLATINUM | Issue mailboxes to your own staff for use in sales, outreach and customer support | P | 3 |

| Overall score | SILVER |
|---|---|
| PLATINUM TESTS | LEVEL ACHIEVED |
| 1 | SILVER |
| GOLD TESTS | LEVEL ACHIEVED |
| 1 | SILVER |
| SILVER TESTS | LEVEL ACHIEVED |
| 1 | SILVER |