Next Generation Integration Scorecard
Messaging Functional Area

The Messaging Functional Area defines sending and receiving messages.

**Message**

Messages are structures that include a sender, recipients, and a timestamp. The text of the Message is displayable as text and may include a specific structure defined through additional attributes, and may be edited as a draft until sent.

Once a Message is sent, the Message includes the sending Agent as well as the addressed recipients represented by a list of Resources. A Message is received by a receiving Agent which generally is related to one of the recipients.

Also known as:

<table>
<thead>
<tr>
<th>Read Operations for Messages:</th>
<th>Score</th>
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<tbody>
<tr>
<td>Get Messages given unique Ids</td>
<td></td>
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<tr>
<td>Get all the Messages in a system or Catalog</td>
<td></td>
</tr>
<tr>
<td>Query (Search) Messages based on attribute-based query terms or keywords</td>
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<tr>
<td>Register for notifications Messages have been created, updated or deleted</td>
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<table>
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<th>Write Operations for Messages:</th>
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<tbody>
<tr>
<td>Create, Update and Delete Messages</td>
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<tr>
<td>Add an alias Id to reference an existing Message</td>
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<tr>
<td>Organize Messages into Mailboxes</td>
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<th>Operations related to sending Messages:</th>
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<tbody>
<tr>
<td>Send a Message to a list of recipients</td>
<td></td>
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<tr>
<td>Gets all Messages not yet sent by the authenticated user</td>
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</tbody>
</table>

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Minimally Supported Attributes of Messages:

- A unique and permanent identifier
- The name of the Message
- A description of the Message
- The type of the Message: personal, distribution, daemon mailer
- The subject line of the Message
- The text representation of the Message
- Boolean test of whether this Message has been sent
- The time this message was sent, if it has been sent
- The sender of this Message, if it has been sent
- The authenticated Agent which sent this Message, if it has been sent
- The list of all addressed recipients of this message, if it has been sent
- The Receipt for this message. A Receipt is available for the receiver of this message
- Further type specific structures of the Message

Receipt

Once a Message has been received by a receiving agent, a Receipt is be generated to include the time received and the receiving agent. A Receipt can be used to store additional data related to the received Message.

Receipts may only be visible to the receiving Agent or a messaging system may authorize Receipts to be visible to the sender or other parties.

Also known as:

Read Operations for Receipts:

- Get Receipts given unique Ids
- Get all the Receipts in a system or Mailbox
- Query (Search) Receipts based on attribute-based query terms or keywords
- Register for notifications that Receipts have been created or updated
Write Operations for Receipts:

- Update Receipts

Minimally Supported Attributes of Receipts:

- A unique and permanent identifier
- The name of the Receipt
- A description of the Receipt
- The type of the Receipt
- The Message associated with the Receipt
- The time the Message was received
- The Agent that received this message at this endpoint
- The Resource that received this message at this endpoint

Mailbox

A directory or other kind of organizational construct for managing Messaging related entities.

Also known as: Catalog

Read Operations for Mailboxes:

- Get Mailboxes given unique Ids
- Get all the Mailboxes in a system or Mailbox
- Query (Search) Messages based on attribute-based query terms or keywords
- Traverse Hierarchical relationships between Mailboxes
- Register for notifications Mailboxes have been created, updated or deleted
- Register for notifications that hierarchical relationships between Mailboxes have been created, updated or deleted

Write Operations for Mailboxes:

- Create, Update and Delete Mailboxes
- Add an alias Id to reference an existing Mailbox
- Manage Hierarchical relationships between Mailboxes
Minimally Supported Attributes of *Mailboxes*:

- A unique and permanent identifier.
- The name of the Mailbox
- A description of the Mailbox
- The type of the Mailbox
- The provider of this Mailbox
- Any available branding for this Mailbox, for example, an organizational logo or thumbnail
- Any licensing (terms of usage) associated with this Mailbox