IETF 84 – MILE
GRC Exchange

Proposed GRC Exchange Message Changes

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Current Concerns

• Ambiguity in message types
  – Request vs Query
    • Request – Retrieves a specific report for the date/time requested.
    • Query – Retrieves information about one or more reports.
  – Report vs Result
    • Report – Provides request results.
    • Result – Provides query results.
• Requests are not easily traceable.
• Retrieving status for in-progress activities is not possible.
• Current draft lacks a method to establish data collection for future reporting.
Proposed Changes

• Rename Request message to ReportRequest.
  — Represents a request for a specific report instance.
• Rename Query message to QueryRequest.
  — Represents a request for information based on the embedded query data
• Remove Result type
  — Use more specific response messages
• Add StatusRequest message
  — Retrieves the current status of a previous request
• Add ActionRequest message
  — Requests that an action to be taken based on embedded action data
• Add ActionResult message
  — Provides information on the disposition of a previously requested action
• Keep Acknowledgement and Report types
• Add a requestId to all request messages
  — Enables status tracking of requests using StatusRequest
  — Targets Acknowledgement messages to specific requests
• Update RequestStatus class to include "Queued", "Running", and "Complete“ statuses.
## Message Types

<table>
<thead>
<tr>
<th>Message</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>QueryRequest</td>
<td><em>GRCPolicy</em>, Request ID, and an embedded (xs:any) query definition.</td>
</tr>
<tr>
<td>ActionRequest</td>
<td><em>GRCPolicy</em>, Request ID, and an embedded (xs:any) action command</td>
</tr>
<tr>
<td>StatusRequest</td>
<td><em>GRCPolicy</em>, Request ID, and the Request ID for the original request for which the status is being requested</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td><em>GRCPolicy</em>, originating Request ID, a RequestStatus, and <em>an embedded (xs:any) block of status information</em></td>
</tr>
<tr>
<td>ActionResult</td>
<td><em>GRCPolicy</em>, originating Request ID, and an embedded (xs:any) result detail</td>
</tr>
</tbody>
</table>
## Request/Response Messages

<table>
<thead>
<tr>
<th>Request</th>
<th>Response</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReportRequest</td>
<td>Report or Acknowledgement</td>
<td>Allows requesting a specific report by date/time and report ID</td>
</tr>
<tr>
<td>QueryRequest</td>
<td>Report or Acknowledgement</td>
<td>Enables dynamic querying of data</td>
</tr>
<tr>
<td>ActionRequest</td>
<td>ActionResult or Acknowledgement</td>
<td>Allows the exchange of instructions (e.g. data collection, analysis tasks)</td>
</tr>
<tr>
<td>StatusRequest</td>
<td>Acknowledgement</td>
<td>Retrieves the current status of a previous request</td>
</tr>
</tbody>
</table>
Next Steps

• Post updated draft based on email proposal and feedback from this discussion.
  – Document new message types
  – Document action and request status message flows
  – Adjust optional and required message properties
• Develop consensus within the WG on the overall approach.