From Students…
…to Professionals

Beta Presentation
Electronic Data Interchange (EDI) Monitoring

The Capstone Experience

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Project Overview

• Unify Dashboard Display of Data Across Various Middleware Solutions
• Implement Analytical Features for Close Scrutiny of Transactional Metrics
• Enable Scheduled and Customizable Reporting
• To Assist Stryker’s Integration Services Team as Transactional Data Grows
System Architecture

- Azure
- Central Data Repository
- Azure App Service
- Web App
- DataTables
- Flask
- pyodbc
- HTML
- CSS
- JS
- SendGrid
- scheduler
- PowerBI
- Tables
- UI / UX
- Emails
- Graphs
- Hosted on
Search Page
Search Page - Filtered
Reports Page
# Alerts Page

![EDI Monitoring Dashboard](image)

## Alerts

<table>
<thead>
<tr>
<th>Name</th>
<th>Alert Type</th>
<th>Schedule</th>
<th>Email</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Demo</td>
<td>All Failed Transactions</td>
<td>Monthly</td>
<td><a href="mailto:ravi.grewal@stryker.com">ravi.grewal@stryker.com</a></td>
<td>ACTIVE</td>
</tr>
<tr>
<td>Hourly Demo</td>
<td>Failed Invoice Events</td>
<td>Hourly</td>
<td><a href="mailto:ravi.grewal@stryker.com">ravi.grewal@stryker.com</a></td>
<td>ACTIVE</td>
</tr>
<tr>
<td>Weekly Demo</td>
<td>Errors per Component</td>
<td>Weekly</td>
<td><a href="mailto:ravi.grewal@stryker.com">ravi.grewal@stryker.com</a></td>
<td>ACTIVE</td>
</tr>
<tr>
<td>Half Hour Demo</td>
<td>Failed Transactions in Last 24 Hours</td>
<td>30 minutes</td>
<td><a href="mailto:ravi.grewal@stryker.com">ravi.grewal@stryker.com</a></td>
<td>ACTIVE</td>
</tr>
</tbody>
</table>
Admin Panel – Search Config

The Stryker EDI Monitoring Dashboard allows users to configure search columns for various data types. The table on the left shows the columns available for search, including column names such as Event Type, Component Name, GUID, FlowId, TechStack, and more. The table on the right shows the columns that can be displayed and their filter options. Users can select or unselect columns to customize their search criteria. After configuring the display, users can confirm the changes to apply them to the dashboard.
Admin Panel – Alert Presets

### Alerts Presets Configuration

<table>
<thead>
<tr>
<th>Preset ID</th>
<th>Alert Type Name</th>
<th>Associated Query</th>
<th>Status</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>DVM Errors</td>
<td><code>SELECT * FROM [dbo].[B2B_EVENT_INFO_TST] WHERE DVMResponse IS NOT NULL</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>6</td>
<td>All Failed Transactions</td>
<td><code>SELECT * FROM [dbo].[B2B_EVENT_INFO_TST] WHERE EventType = 'PurchaseOrder' AND Status = 'E'</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>7</td>
<td>Failed Purchase Orders</td>
<td><code>SELECT * FROM [dbo].[B2B_EVENT_INFO_TST] WHERE EventType = 'InvoiceEvent' AND Status = 'E'</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>8</td>
<td>Failed Invoice Events</td>
<td><code>SELECT * FROM [dbo].[B2B_EVENT_INFO_TST] WHERE EventType = 'PurchaseOrderChgEvent' AND Status = 'E'</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>9</td>
<td>Failed Purchase Order Change Events</td>
<td><code>SELECT * FROM [dbo].[B2B_EVENT_INFO_TST] WHERE EventType = 'InvoiceEvent' AND Status = 'E'</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>10</td>
<td>Failed Transactions in Last 24 Hours</td>
<td><code>SELECT * FROM [dbo].[B2B_EVENT_INFO_TST] WHERE Status = 'E' AND DateToday &gt; DATEADD(DAY, -1, GETDATE)()</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>12</td>
<td>Errors per Sender</td>
<td><code>SELECT SenderIdentifier, COUNT(*) as ErrorCount FROM [dbo].[B2B_EVENT_INFO_TST] WHERE Status = 'E' GROUP BY SenderIdentifier ORDER BY ErrorCount DESC</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>13</td>
<td>Errors per Receiver</td>
<td><code>SELECT ReceiverIdentifier, COUNT(*) as ErrorCount FROM [dbo].[B2B_EVENT_INFO_TST] WHERE Status = 'E' GROUP BY ReceiverIdentifier ORDER BY ErrorCount DESC</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>14</td>
<td>Errors per Component</td>
<td><code>SELECT ComponentName, COUNT(*) as ErrorCount FROM [dbo].[B2B_EVENT_INFO_TST] WHERE Status = 'E' GROUP BY ComponentName ORDER BY ErrorCount DESC</code></td>
<td>Active</td>
<td>Edit</td>
</tr>
</tbody>
</table>
Admin Panel – Report Presets

![EDI Monitoring Dashboard](image)

### Reports Configuration

<table>
<thead>
<tr>
<th>Preset ID</th>
<th>Report Name</th>
<th>Type</th>
<th>Description</th>
<th>Display</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Event Type by Status</td>
<td>DEFAULT</td>
<td>None</td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>2</td>
<td>Error as Percent of Whole</td>
<td>DEFAULT</td>
<td>None</td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>3</td>
<td>Sender ID by Count of GUID</td>
<td>DEFAULT</td>
<td>None</td>
<td>Active</td>
<td>Edit</td>
</tr>
<tr>
<td>4</td>
<td>Receiver by Count of GUID</td>
<td>DEFAULT</td>
<td>None</td>
<td>Active</td>
<td>Edit</td>
</tr>
</tbody>
</table>
User Details
What’s left to do?

• Stretch Goals
  ▪ User/role management panel
  ▪ Single Sign-on (SSO) / OAuth 2.0
  ▪ (?) NoSQL database for Payloads

• Other Tasks
  ▪ UI Touch-ups
  ▪ Enhance query performance with connection pooling
  ▪ Email SMTP config with Stryker credentials