CEMS PILOT
CATASTROPHIC EVENTS MITIGATION SYSTEM
PILOT GOALS

- Protect Revenue
- Customer Satisfaction
- Secure Systems
- Leverage Existing Systems & Infrastructure
B&T PROFILE

• Full ORT 9/30/2017
• 7 Bridges & 2 Tunnels
• 19 Toll Zones
• 85 lanes Total
• 8 Reversable Lanes
• Avg Traffic + 850,000 VPD
• Revenue 2+ Billion Annually
APPROACH

- ORT Toll Zone
- CEMS Trailer Site
- CEMS over the road

CEMS Primary function is Travel Time, its Secondary function is 24/7 failover for ORT System with AVI lookback capability.
# Revenue Protection Usage

<table>
<thead>
<tr>
<th>Failure Event Type</th>
<th>ORT</th>
<th>CEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Outage</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>Power Outage</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>Classification System</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>Camera System</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>Plaza Computer</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>Roadside Computer</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>AVI System</td>
<td>✔️</td>
<td>N/A</td>
</tr>
<tr>
<td>Loss of ORT Gantry</td>
<td>✗</td>
<td>✔️</td>
</tr>
<tr>
<td>Loss of ORT Toll Equipment Building</td>
<td>✗</td>
<td>✔️</td>
</tr>
<tr>
<td>Loss of ORT System Partially or Entirely</td>
<td>✗</td>
<td>✔️</td>
</tr>
</tbody>
</table>
CONFIGURATION
OVER THE ROAD

AVI and VES Operations

Travel time and AVI Ready
CONFIGURATION
TRAILER SITES

Deployment Ready ~ 2 hours

Travel Time and AVI Operations Ready

AVI and VES Operations
EQUIPMENT

Over the road cluster

Side fire cluster
PRELIMINARY TESTING
CRITERIA FOR SUCCESS

Acceptable levels of:

• Vehicle detection
• Tag read and association
• Readable plate images
• Front and rear image association
• Class mapping
• Duplicate filtering
CONTACT DETAILS

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