Events Using Polylines

Tucker Brown

- Current Events using a single point for the events location
  - Can enter a head and tail but are reported separately

- This enhancement would allows users to specify a polyline as the location of event
  - Mostly used for road closures such as flooding or constructions

- How should this be implemented?
  - What points of the polyline, should be EM Locations?
    - Start Point?
    - Start Point and End Point?
    - All Points (including midpoints)?
  - How should the user select Midpoints?
    - Manually
    - Possible integration with GIS to try to follow the roadway closely?
  - Should Lane blockage be allowed?
    - Or only Closures?
  - What should the description of this say?
    - X Lanes Blocked (or Closed) from A to B
- Other Ideas? Other areas you might like to discuss this changing?

QUESTIONS?

Bridge Preemption

Mark Laird

Bridge Preemption

- Purpose
  - Provide FL-ATIS notifications when drawbridges open and close
  - Log events in SunGuide for tracking
  - Minimize operator involvement

- Overview
  - Data from traffic controller is published via a web service by the managing agency
  - EM consumes data, creates event, publishes and closes event without operator involvement

Data Source

- Miami-Dade County Web Service
  - <IntersectionStatusList>
    - <IntersectionStatus>
      - <assetnumber>3421</assetnumber>
      - <end_date_time>2018-03-07T09:14:08</end_date_time>
      - <id>TS342120180307090408</id>
      - <intersection_name>SE 2 Av&SE 3 St</intersection_name>
      - <latitude>25.7717045447</latitude>
      - <longitude>-80.1901146177</longitude>
      - <start_date_time>2018-03-07T09:04:08</start_date_time>
      - <status_name>BRIDGE PREEMPTION</status_name>
    - </IntersectionStatus>
  - </IntersectionStatusList>

ID contains intersection ID and timestamp. SG stores in Waze ID field.

Longitude and Latitude must match an EM Location

Only elements with <status_name> set to BRIDGE PREEMPTION are processed by SG.
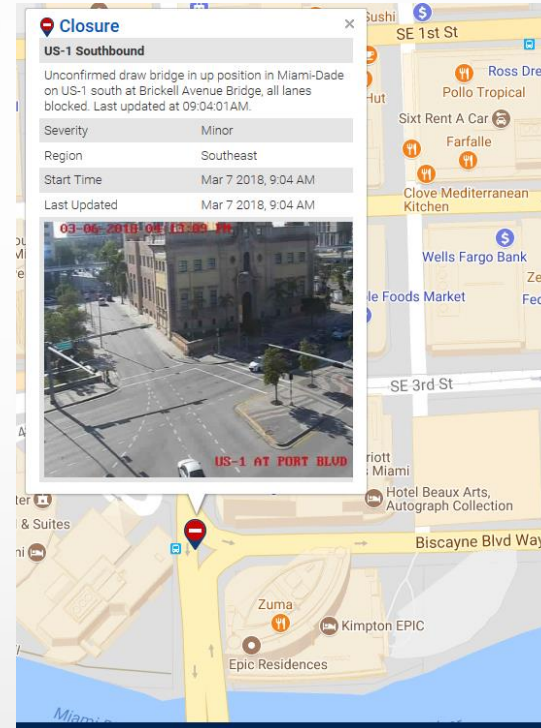
SunGuide

- EM polls a RESTful web service at configurable interval (https)

- When a BRIDGE PREEMPTION record is found, searches for EM location with matching long/lat.

- If location found, checks for existing event.
    - If found, updates the ending date/time. (not yet implemented?)
    - If not found:
        - Creates new unconfirmed event of type Bridge Up with all lanes blocked
        - Creates and activates response plan with FL-ATIS Publish item

- Checks active Bridge Up events.
    - If associated ID is no longer in feed, terminates response plan and closes the event
    - Will not create a duplicate event (with same Intersection Status ID)

- SG closes events automatically at the specified ending time if the data feed is unavailable

- Operators can close events

FL-ATIS

- Must create two EM locations to cover both directions of travel

- May associate with one intersection or may choose upstream intersection in each direction

- Appear on maps at intersection

FL-ATIS – New Event Alert

Closure - New
US-1 Southbound
Unconfirmed draw bridge in up position in Miami-Dade on US-1 south at Brickell Avenue Bridge, all lanes blocked. Last updated at 09:04:01AM.
Start Time   Mar 7 2018, 9:04 AM

http://fl511.com/EventDetails/District%206/674501

Route **Brickell Avenue Bridge SB**
Current Travel Time **2 min**
Normal Travel Time **1 min**
Distance **0.4 miles**

FL-ATIS – Cleared Event Alert

Closure - Cleared

US-1 Northbound
Unconfirmed draw bridge in up position in Miami-Dade on US-1 north at Brickell Avenue Bridge, all lanes blocked. Last updated at 09:04:01AM.
Start Time   Mar 7 2018, 9:04 AM

http://fl511.com/EventDetails/District%206/674500

Route **Brickell Ave Br NB**
Current Travel Time **2 min**
Normal Travel Time **1 min**
Distance **0.5 miles**

Configuration

- List of sources

- Source
  - URL of web service
  - Description, e.g. Miami Dade County
  - Polling interval (secs)
  - Retry limit
  - SunGuide Agency, e.g. MDC
  - SunGuide Contact, e.g. MDC Website
  - SunGuide mailing list

Web.Config

```xml
<em
    <bridgePreemption>
    <webServices>
      <webService>
                        <url>https://mdcware.miamidade.gov/api/IntersectionStatus?type=xml</url>
                        <sourceDescription>Miami-Dade County</sourceDescription>
                        <pollInterval>30</pollInterval>
                        <retryLimit>2</retryLimit>
                        <notifyingAgencyShortName>MDC</notifyingAgencyShortName>
                        <notifyingContactShortName>MDC Website</notifyingContactShortName>
                        <mailingListShortName>Bridge Events</mailingListShortName>
      </webService>
    </webServices>
    </bridgePreemption>
</em>
```

Issues

- Data issues in web service data
  - Bouncing
  - Duplication
  - Delays
- Issue with unpublishing from FL-ATIS
  - Blockage is not updated before closing event
  - "Clearance" message says all lanes blocked
- Issue with event type
  - Clearance message says "... draw bridge in up position..."