# Professional Portfolio

5 Everbridge products created by James Priest

# Location Risk Assessment

#### **Overview**

This SaaS application allows customers to construct risk assessment dashboards and reports for any location based on a selected set of factors.

It features geo-location, auto-complete location search, boundary drawing controls, and a host of other configurable options.

### **Project Requirements**

Build a mapping tool capable of plotting a variety of risk events. Risk Events must be filterable by categories such as Crime, Weather, Disaster, Transportation, etc.

Create an intuitive UI that indicates available functions and provides a high level of affordance.

The application must be modular and use custom built REST API endpoints to query Everbridge's various data sources.

# **Technologies Used**

Frontend React, TypeScript, Ant Design, Redux, Looker Embed SDK, React Router,

Google Map, Bing Maps, Open Street Maps, IndexDB

**REST API** Java, Spring Boot, Looker API, Places API

Backend Amazon OpenSearch (Elasticsearch), Snowflake, MongoDB, Looker, LookML.

# **Mapping Application**



Figure 1 – Map with overlay controls.

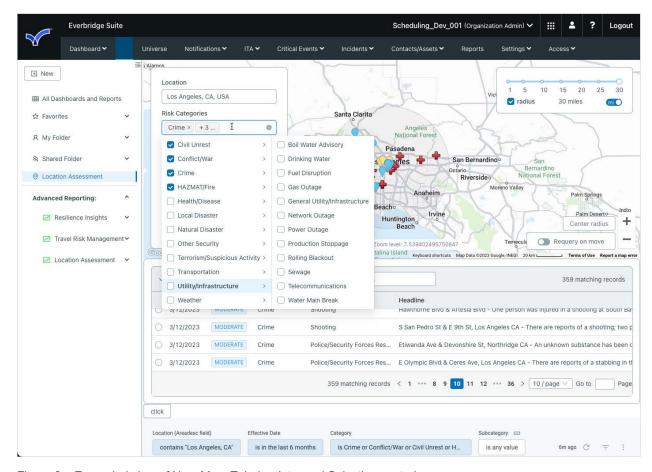


Figure 2 – Expanded view of Nav, Map, Tabular data, and Selection controls.

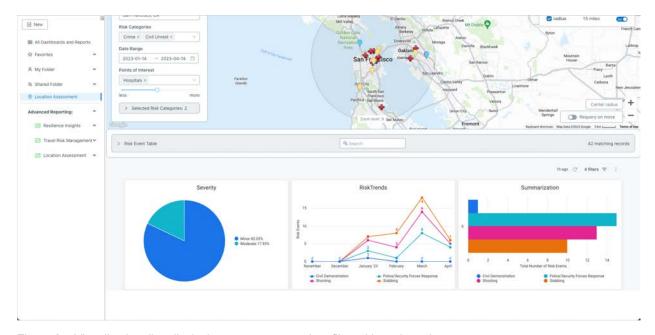


Figure 3 – Visualization tiles displaying context-aware data filtered by selected area on map.

# 2. EB Suite Usage Reporting

#### **Overview**

Usage Reporting was designed to provide near real-time reporting to customers on their usage consumption of Everbridge credits.

### **Project Requirements**

Build a clean and simple interface for users to quickly understand and gage their usage consumption. Provide interactive and historical view of usage over various subscription periods.

#### Solution

Worked with customers, finance department, and account owners to determine most useful set of information to display.

Created a series of custom-built React components that could be used across a variety of dashboards and reports.

Provided series of charts and visualizations to allow customers to easily gauge their usage. Included forecasting, historical usage, and low balance notification for account billing.

Designed API endpoints for efficiency and reuse amongst various dashboards and components.

# **Technologies Used**

**Frontend** React, TypeScript, Ant Design, Recharts, Module Federation, React Query,

Looker Embed SDK, React Router, Styled Components, Lodash, and Webpack.

**REST API** Java, Spring Boot, Custom Microservice architecture

Backend MongoDB

#### **Usage Dashboards**

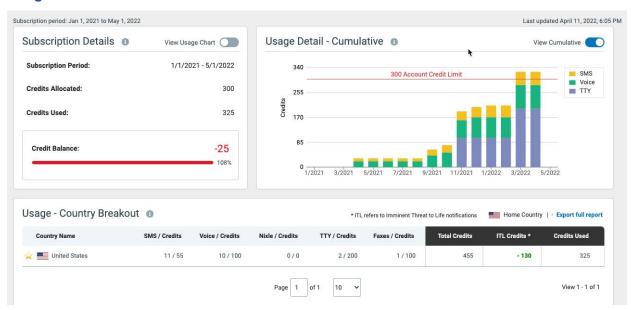


Figure 4 – Tiles designed to display relevant data in a clear and accessible way.

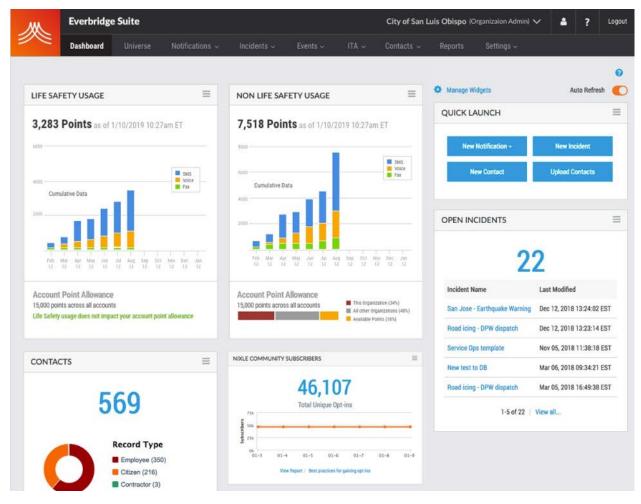


Figure 5 – Landing page of Usage Dashboards.

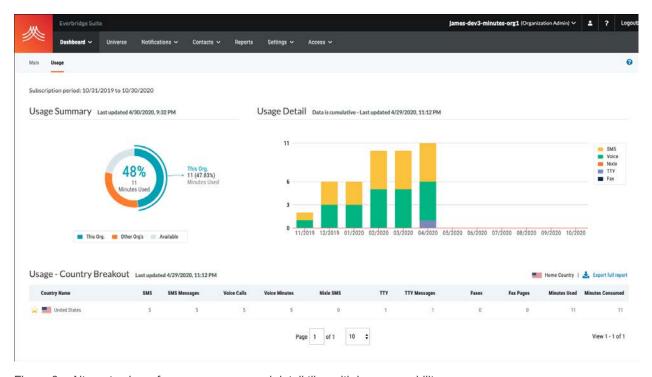


Figure 6 – Alternate view of usage summary and detail tiles with hover capability.

# 3. Resilience Insights

#### **Overview**

Resilience Insights is a customer-facing SaaS application that helps customers understand the impact of operational disruptions through Risk Analysis, Site Analysis, and Response Analytics.

### **Project Requirements**

Design the application for UX and Usability as a well as continued feature development and maintenance.

Create Fullscreen mode to provide maximum screen real estate and provide an immersive experience.

#### **Solution**

Created a redesigned layout that helped improve Usability for better customer adoption and information retention.

Provided Fullscreen modes of all sections of Resilience Insights in accordance with customer feedback.

# **Technologies Used**

**Frontend** React, TypeScript, Ant Design, Zustand, React Query, Looker Embed SDK,

React Router, Google Maps SDK, Styled Components, Lodash, and Webpack.

**REST API** Java, Spring Boot, Looker API.

**Backend** Snowflake, MongoDB, Looker, LookML.

### **Application Layout**

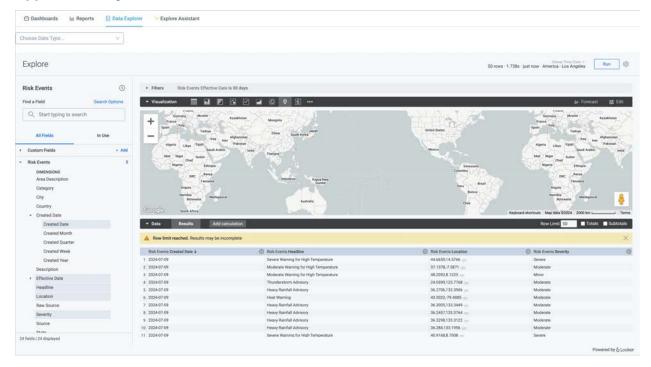


Figure 7 – Fullscreen map and tabular view allowing custom field selection.

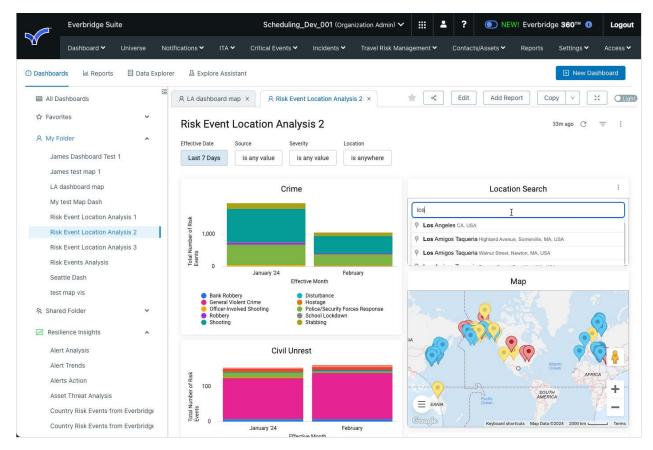


Figure 8 – Modular layout and embedding of BI visualization screens.

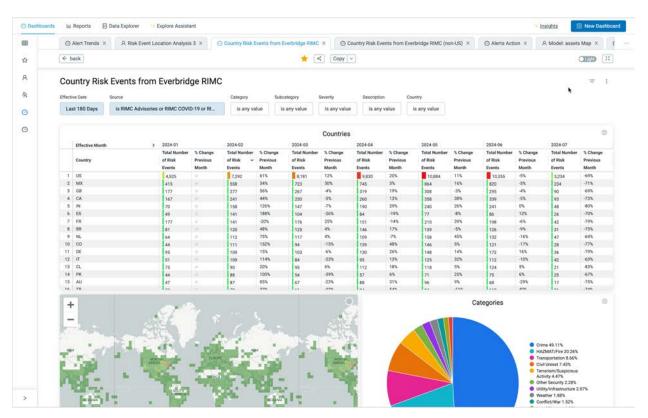


Figure 9 – Collapsable navigation, tabular view of dashboards, and embedded filter controls.

# 4. Internal Usage Dashboards

#### **Overview**

Internal Usage Dashboards allows Everbridge departments to view aggregated costs associated with customer activities.

Everbridge contracts often undercharged customers due to inability to correctly assess fixed costs.

# **Project Requirement**

Create an internal analysis tool that provides authorized employees ability to query and calculate all costs associated with customer and account activities.

Design the system to be dynamic and configurable to allow ad-hoc queries and visualizations to be created, displayed, and shared.

# **Technologies Used**

Frontend React, TypeScript, Ant Design, React Router, Looker API, OneLogin SDK,

Styled Components, Resizable library, Lodash, and Vite.

**REST API** Python, FastAPI, Looker API, Java, Spring Boot.

**Backend** Snowflake, MongoDB, Looker, LookML.

# **Application Screenshot**

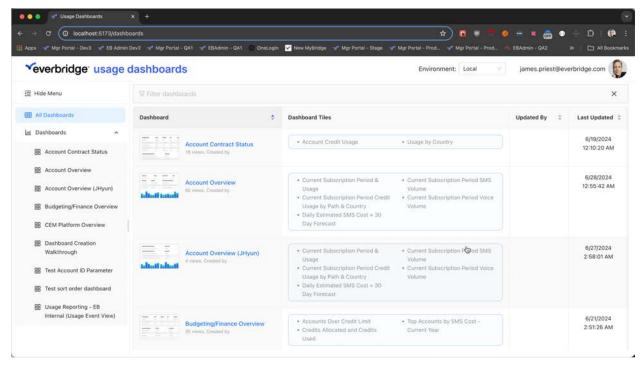


Figure 10 – Usage Dashboards Landing Page with series of pre-built dashboards.

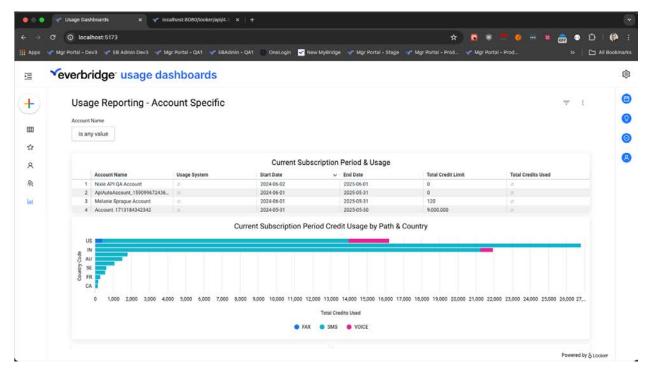


Figure 11 – Account Specific Dashboard measuring resource utilization.

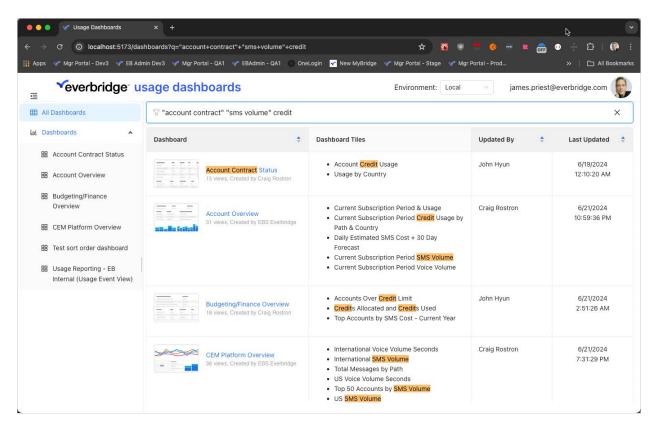


Figure 12 – Frontend state management with query string search params for link sharing.

# 5. POC Apps

#### **Overview**

These are a series of Proof-of-Concept apps designed to test various integration capabilities before building into our Everbridge Suite of applications.

## **Project Requirements**

Create various API, OneLogin, and Looker integrations to demonstrate viability, feature capability, and data integration.

# **Technologies Used**

Frontend React, TypeScript, OneLogin SDK, Looker Embed SDK, React Router, Google

Maps SDK, Styled Components, Lodash, and Vite.

**REST API** Python, Fast API, Java, Spring Boot, Looker API.

Backend Looker, LookML, Snowflake, MongoDB

## **Application POCs**

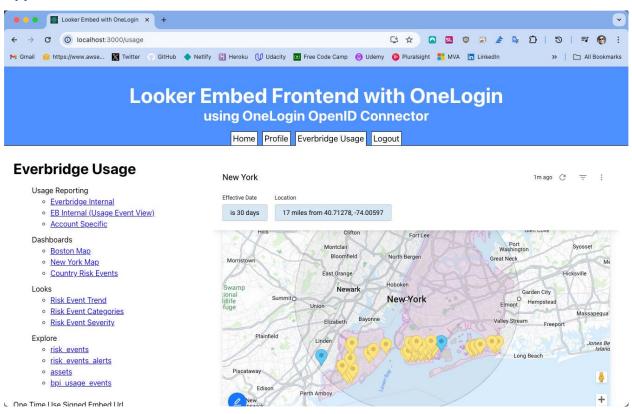


Figure 13 – Integration of Everbridge accounts, Looker Embedded content, and OneLogin authorization.

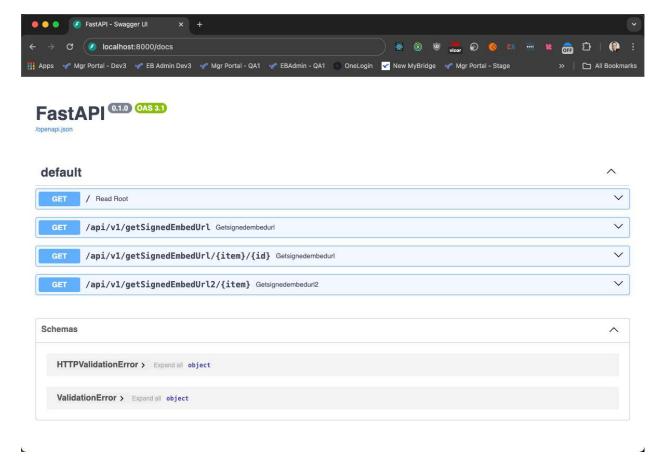


Figure 14 – Python FastAPI proof-of-concept for use with embedded frontend React integration.

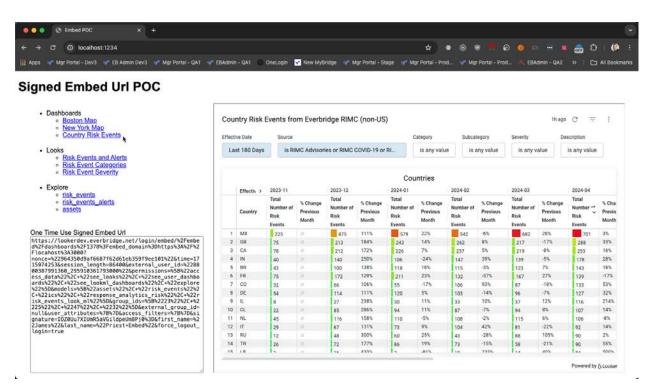


Figure 15 - Python backend API and signing app to provide single use embed URLs.