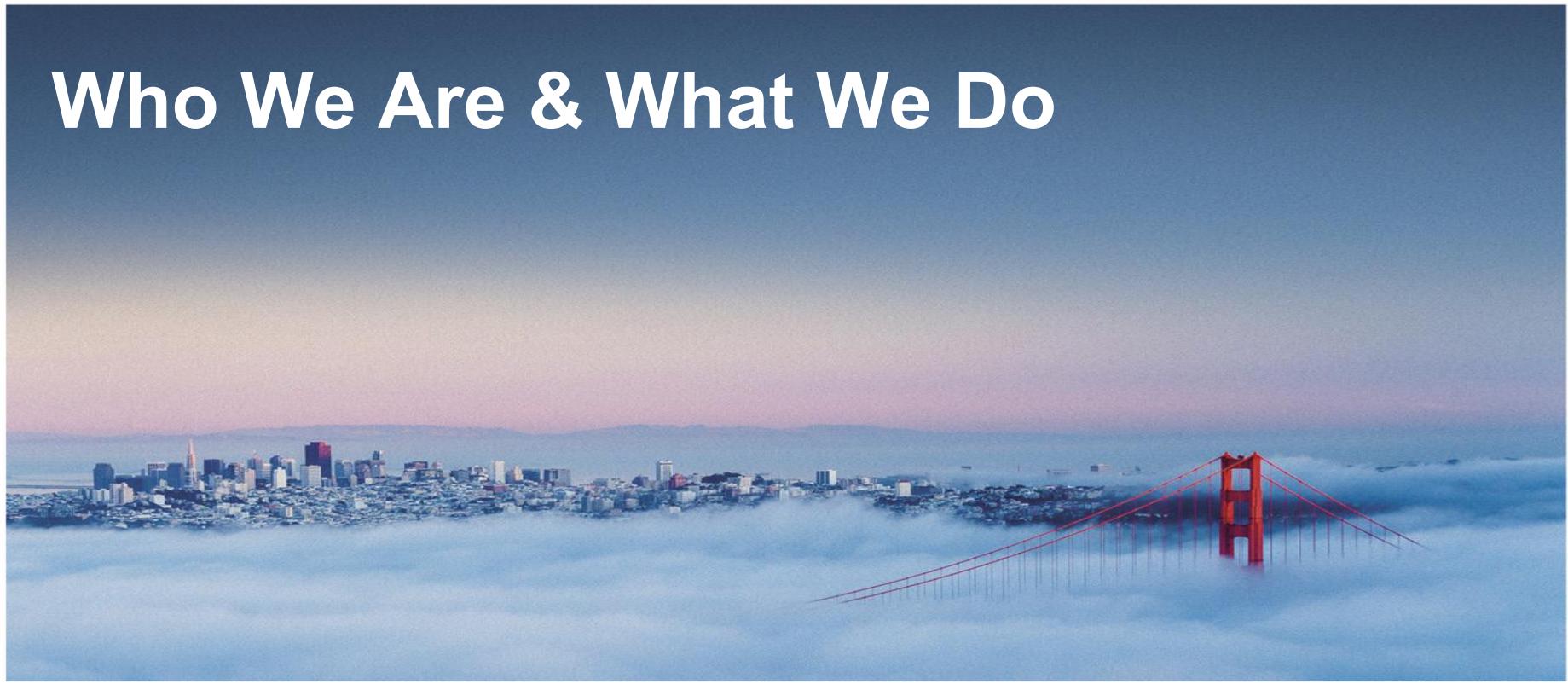




# Who We Are & What We Do



# About Me

- Software Engineer
- 3 years working at Errigal
- Graduated 2015



[colm.carew@errigal.com](mailto:colm.carew@errigal.com)

# Who Are Errigal?

- **Founded in 1996**
- **Head Office in San Francisco**
- **Development Office in Waterford since 2007**
- **Small but fast-growing company - 500% growth since 2007**

# What Does Errigal Do?

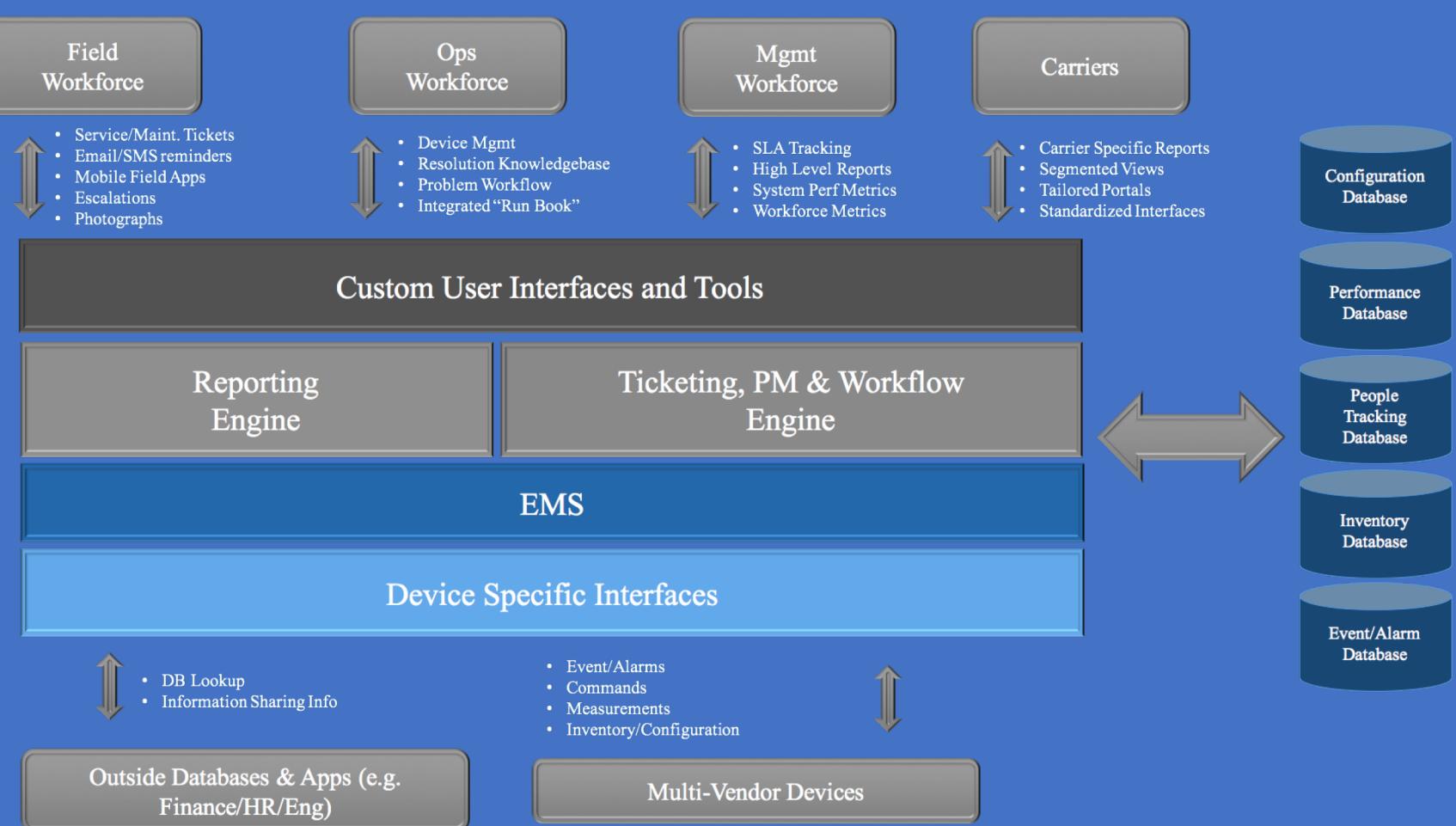
- Specialise in Distributed Antenna System (DAS) Monitoring
- DAS is used to fill in the gaps in the 4G network - Replaces the need for Masts in Urban areas
- Receive SNMP Traps from DAS
- Translate Traps to create Alarms and Tickets
- Combination of Alarms, Tickets and Reports allows our Customers to manage their DAS Network

# Technologies

- Java
- Spring Boot
- Groovy
- Grails
- SOAP
- SQL
- React.js
- REST
- AWS
- Ansible
- Jenkins
- SonarQube
- Scrum Methodology
- Micro Services
- UI/UX

# Our Applications - Errigal IDMS

- **SNMP Manager - Core Application**
- **Element Management System (EMS) - NOC, Business, Carrier Users**
- **Reporting - Business Users**
- **Ticketer - Network Operations Centre (NOC) Users**



# Errigal and our Customers

- Our Software allows our Customers manage their DAS
- DAS used by US Phone Carriers - AT&T, Verizon, TMobile
- Also working directly with the Carriers for the Carriers needs



Wireless Infrastructure Providers



# Branching Out

- Errigal started out in DAS
- Branched into Device Monitoring
  - Smart Meter Monitoring - Electrical & Gas
  - Internet Of Things
- Monitoring Fiber - 120K miles of fiber

# Daily Challenges We Face

- **SNMP Challenges**

- Reliability - being sent vs. arriving at their destination
- Security

- **OEM (Vendor) Challenges**

- Multiple DAS Vendors
- Different OEM's have different naming conventions
- Errigal has developed Standards for each OEM
- As experts we have developed a certification program for Vendors

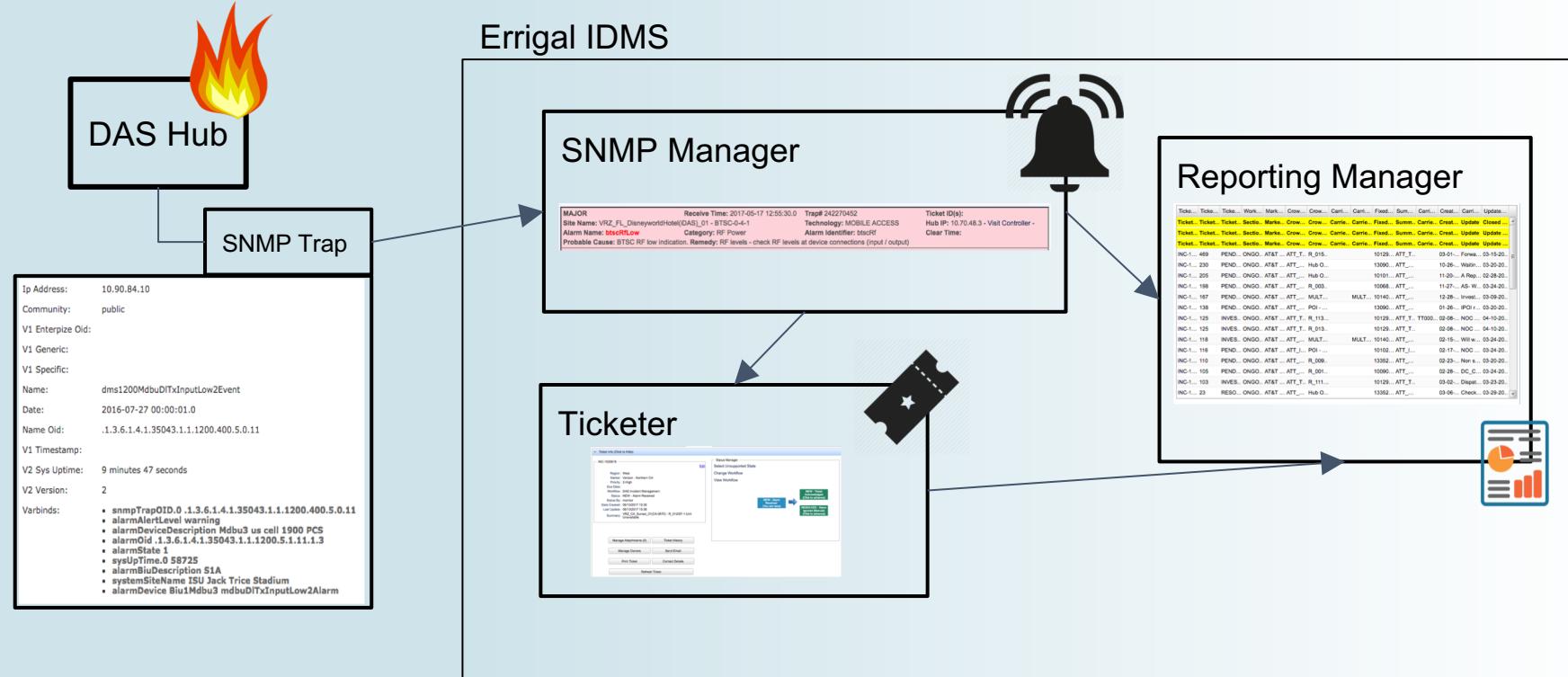
# Testing

- As our application grow, so does our testing effort
- Moving away from Manual testing
- Developing an automated test suite using a number of technologies:

- GEB
- Spock
- SikuliX
- Selenium Web Driver

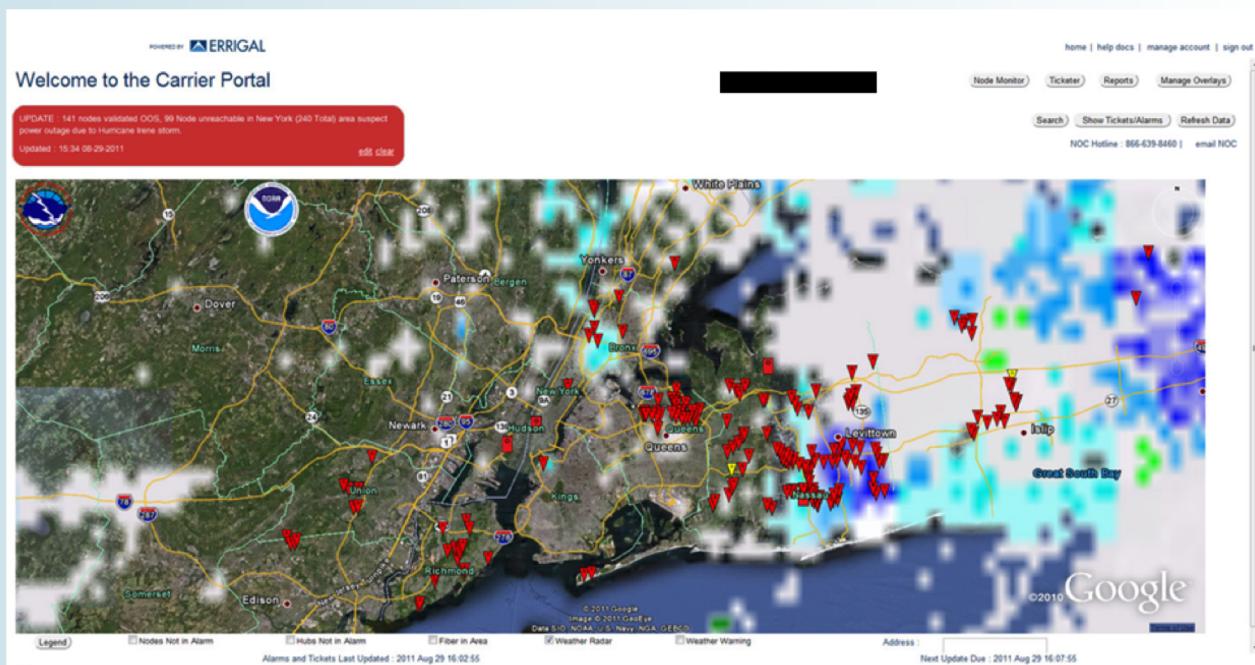


# Lifecycle of a Trap



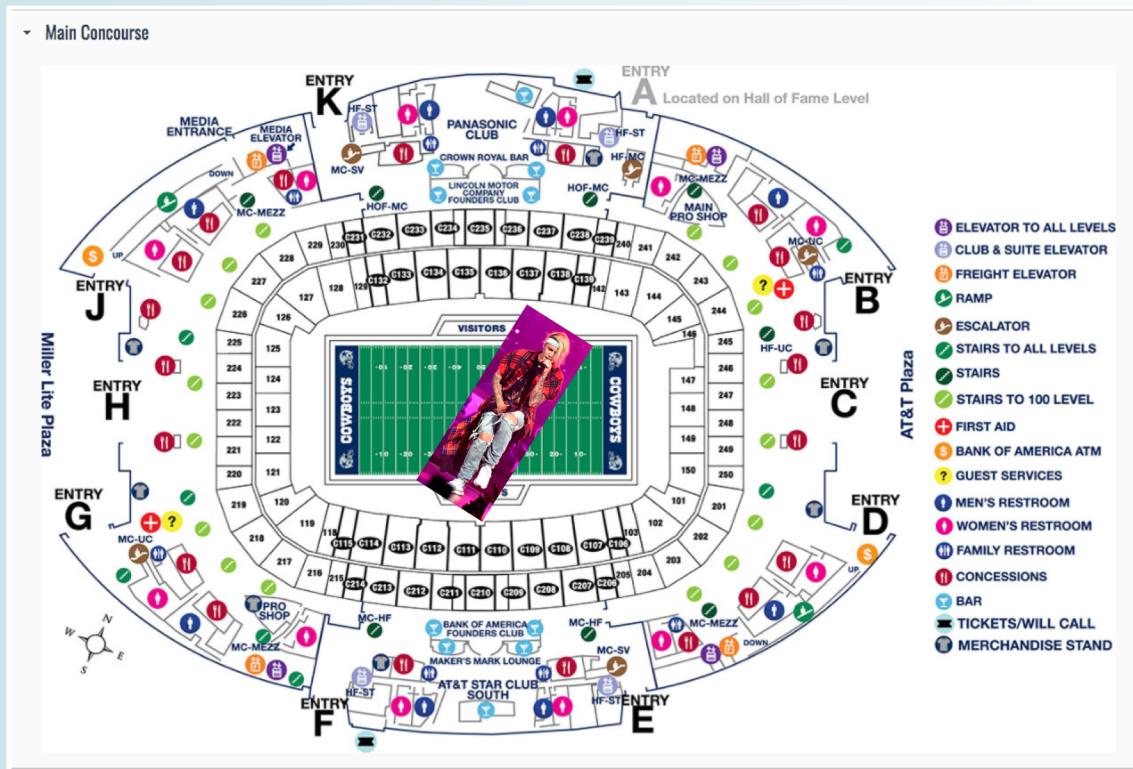
# Errigal to the Rescue

## Hurricane Irene



# Errigal Real World Projects

## Justin Bieber Concert - AT&T Stadium Dallas



# 'Real World' Errigal Stories

- **Squirrel Incident**
- **Texas Shotgun Incident**

# Sponsorships

- We Sponsor a best project award for the System Software Development Course
- We also Sponsor the Secondary School Ardscoil na Mara from 3<sup>rd</sup> to 6<sup>th</sup> year for their Technology courses

# See the World with Errigal

- **Head Office**
  - San Francisco
- **Customer Locations**
  - Chicago
  - Pittsburg
  - Raleigh
- **Conferences**
  - North America & Europe

# Work-Life Balance

- **Active Sports and Social Club:**

- Soccer
- Basketball
- Go-karting
- Greyhound Racing
- Water Sports
- Rock Climbing
- Laser Tag

# Questions?