Regional Bank deploys E911 across multiple states to support CUCM in datacenters

When a leading regional bank with more than 700 branches decided to make the move to enterprise SIP trunking, they wanted to make sure their Cisco Voice network network was still capable of accurately routing 9-1-1 calls across the entire enterprise. They also wanted to leverage the efficiencies of SIP to route emergency calls more cost effectively and eliminate the multiple PS-ALI accounts required under their old network configuration.

To meet this requirement, the bank and their communications solution provider turned to RedSky to implement a full, enterprise-class E911 solution that would meet current and future needs. The team implemented E911 Manager® on redundant servers in each of the bank's two datacenters to handle automated location tracking and management for 19,000 Cisco Skinny Call Control Protocol (SCCP) IP phones and more than 600 analog phones. Layer 3 subnet network discovery is used to capture phone movement and location information.

The bank is also using RedSky's cloud-based E911 Anywhere® to route all 9-1-1 calls from the network's four Cisco Unified Communications Manager clusters to emergency call takers located in the public safety
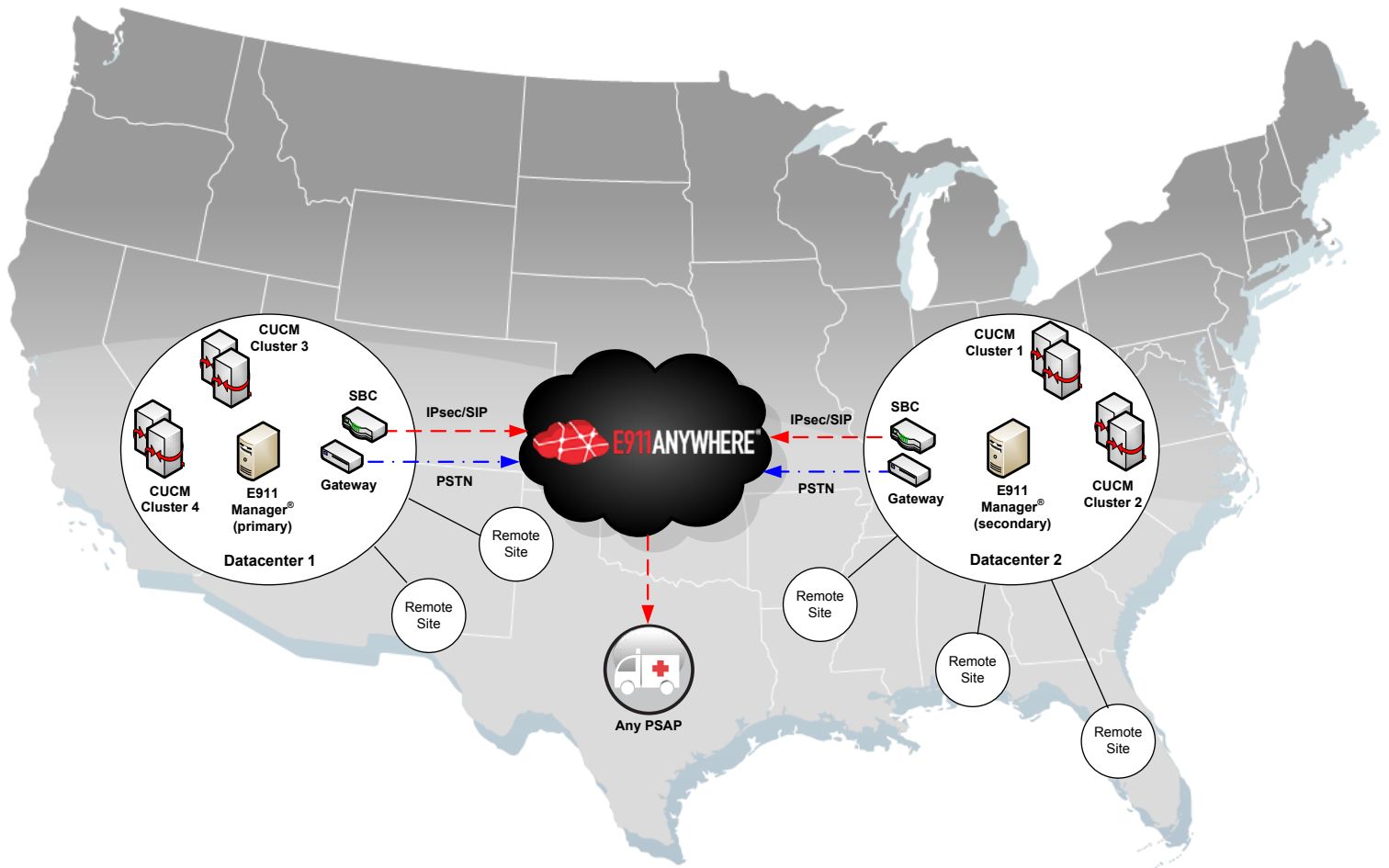
answering point (PSAP) with geographic jurisdiction for each location. This centralized call-routing approach takes advantage of the new SIP trunking to eliminate costly local trunks for each location. The E911 solution also takes advantage of Emergency On-Site Notification to send screen pop alerts to company security the instant a 9-1-1 call is placed so they can support emergency responders.

E911 Qualifying Questions for Your Customers

If your customer answers yes to two or more of the following questions, they need your help to manage E911.

- ▸ Have you had an instance in which 9-1-1 responders arrived at the wrong building?
- ▸ Do you know the new location of a phone when it moves on the enterprise network?
- ▸ Do you have remote workers connected to the enterprise network?
- ▸ If someone in the enterprise dials 9-1-1, do you know where they are located?
- ▸ Are your customers consolidating their voice network into datacenters using SIP trunking?

For more information or to discuss your E911 needs, contact RedSky at 312-432-4300 or sales@redskytech.com.

CUCM Cluster 3 · SBC · IPsec/SIP · CUCM Cluster 4 · E911 Manager® (primary) · Gateway · PSTN · Datacenter 1 · Remote Site · Remote Site · E911ANYWHERE® · Any PSAP · IPsec/SIP · CUCM Cluster 1 · SBC · E911 Manager® (secondary) · CUCM Cluster 2 · Gateway · PSTN · Datacenter 2 · Remote Site · Remote Site · Remote Site

How It Works

1. E911 Manager® tracks the location of all phones in the CUCM enterprise and creates location records for each phone. Location records are MSAG-validated and stored in a Dynamic ALI database in the E911 Anywhere® cloud.

2. When a 9-1-1 call is placed, the CUCM routes the call to E911 Anywhere® via an IP connection or the PSTN.

3. The E911 Anywhere® cloud receives the location record of the calling DID or ELIN (Emergency Location Identification Number), determines the correct PSAP and creates routing instructions for the call.

4. E911 Anywhere® forwards the call to the Emergency Services Gateway (ESGW) which routes the call over the selective router network to the PSAP.

5. At the same time that E911 Anywhere® is routing the 9-1-1 voice call, the service dynamically populates a shell record in the LEC PS-ALI database with the emergency caller's location and callback number (ELIN). The PSAP retrieves this information with a data query to the LEC PS-ALI database.

6. E911 Anywhere® send out SMS and email notifications to anyone in the enterprise. E911 Manager sends out screen pop notifications that appear on security computers inside the enterprise.

RedSky
The Leader in E911 Solutions

The School District of Palm Beach County

The School District of Palm Beach County is the 5th largest school district in Florida and the 11th largest in the continental US with 174,866 students. The district manages over 180 school sites with over 30,000 endpoints which are a mixture of analog, digital, and IP.

In 2006 through 2009, PBSD migrated to IP technology. All schools deployed either an Avaya S8300 or an Avaya S8500. Security was also a big concern for the district. On May 26, 2000, a student fatally shot a teacher on one of the middle school campuses. This incident prompted PBSD to evaluate their overall emergency response plan. PBSD knew they needed to be able to provide more detailed and timely location information of emergencies. Avaya introduced PBSD to RedSky, offering E911 as a way to increase security and emergency response within the district. PBSD implemented RedSky's flagship E911 Manager®, integrated with the Avaya call server to automate location tracking. Additionally PBSD deployed RedSky's Emergency On-Site Notification (EON). All 9-1-1 calls would go directly to the appropriate civic police department Public Safety Answering Point (PSAP) and EON would provide immediate notification of 9-1-1 calls via email to each school's individual principals, assistant principals, and school nurses. Palm Beach SD also has its own police department, over 170 officers, who would receive 9-1-1 call alert notifications for the school for which they were responsible.

As of 2014, PBSD has two main call servers: an Avaya 8700 and 8710 ACM 4.0 to manage all the endpoints. The district handles an average of ten 9-1-1 calls per day and RedSky has recently upgraded PBSD to the latest version of E911 Manager®, 6.3.5. Funding is much more difficult for the school district today, and RedSky's ability to integrate and scale with the Avaya technology as it changes was a crucial factor in the upgrade. Helen Hironimus, Specialist - Information Technology Infrastructure & Security, has worked with the E911 solution from the beginning. "RedSky Technologies has made a tremendous impact on the School District of Palm Beach County's student safety by giving us the capability to let Emergency Personnel know where the emergency is on a 9-1-1 call made from any of our schools/sites in the district as well as letting us notify school/district personnel of the Emergency when it is happening."

E911 Manager® is certified for interoperability with Avaya, Cisco and Unify voice platforms. A single instance of E911 Manager® is scalable up to tens of thousands of endpoints and can integrate with multiple call servers/PBXs from different vendors to provide centralized location tracking across the network. E911 Manager® can be installed redundantly in different datacenters for fail-over protection or deployed as a service through RedSky's managed private cloud. Emergency On-Site Notification, an optional module of E911 Manager®, improves response time by notifying security and administrative personnel the instant someone on the networks dials 9-1-1. EON sends a 'screen pop' alert with an audio alarm to security computers that includes the number and location of the caller. Email and SMS notifications can be sent to anyone in the organization.

Do You Need E911 Protection?

▶ Have you had an instance in which 9-1-1 responders arrived at the wrong building?

▶ Do you know the new location of a phone when it moves on the enterprise network?

▶ Do you have remote workers connected to the enterprise network?

▶ If someone in the enterprise dials 9-1-1, do you know where they are located?

▶ Are you consolidating your voice network into datacenters using SIP trunking?

For more information or to discuss your E911 needs, contact RedSky at 312-432-4300 or sales@redskytech.com.
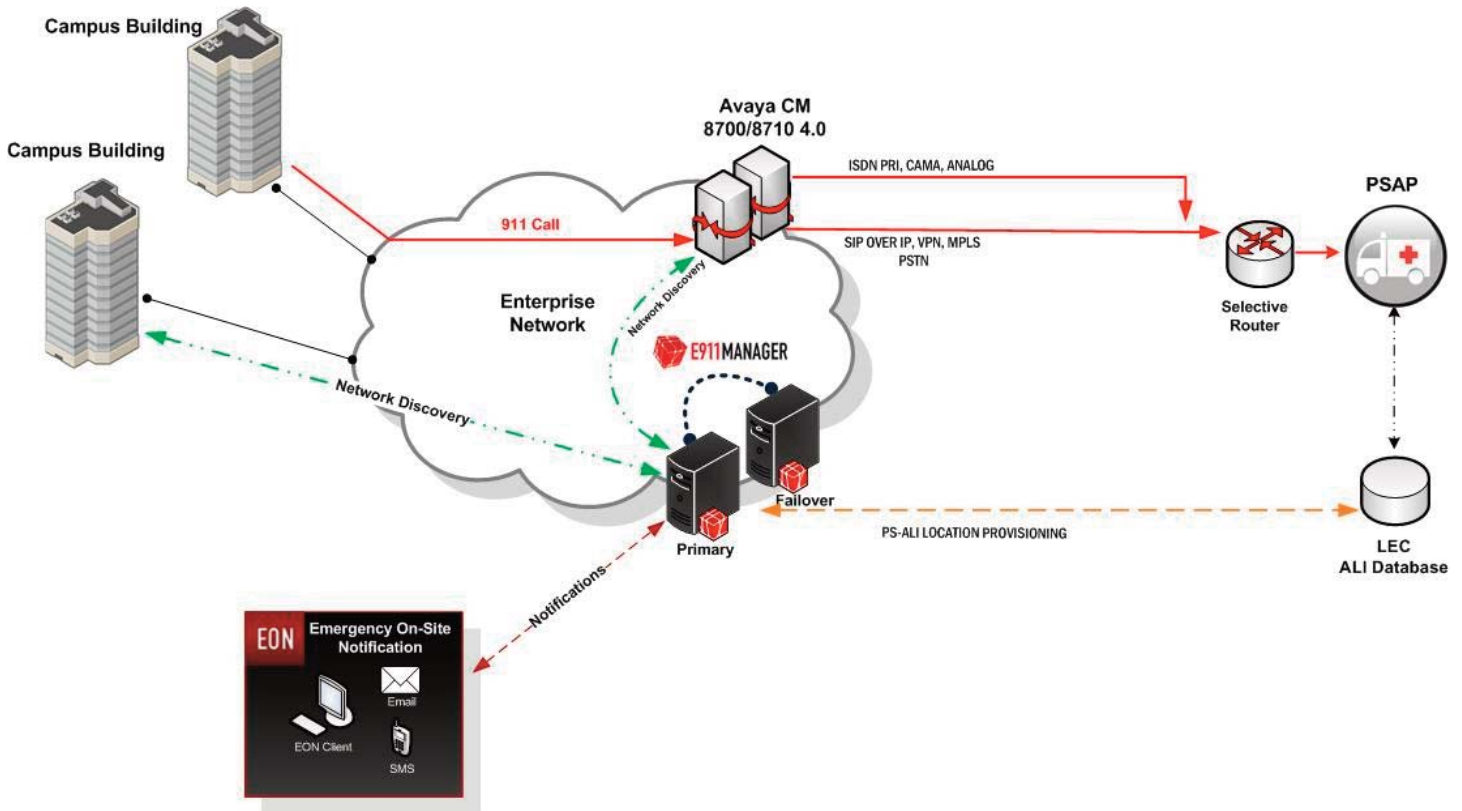
How It Works

1. E911 Manager® tracks the location of all phones in the enterprise and creates location records for each phone.

2. When a 9-1-1 call is made, Emergency On-Site Notification (EON) sends a loud alarm with a 'screen pop' alert screen to security computers that includes the number and location of the caller and E911 Manager® sends SMS text and email notifications to pre-determined Addresses.

3. Additionally, at the time of the 9-1-1 call, the PBX/call server sends the 9-1-1 call to the Public Safety Answering Point (PSAP), and the location record is sent dynamically to the ILEC ALI database. The ELIN (DID) of the incoming call is used to retrieve the location record of the caller.

4. Upon receiving the 9-1-1 call, the PSAP retrieves the location record of the caller by performing a data query of the ILEC ALI database.

About Us

RedSky is the leading provider of on-premise and cloud-based E911 solutions with more customers, more technology, and more experience than any other provider. More than a million workers, students, guests and visitors rely on RedSky for E911 protection.

RedSky Technologies, Inc.
925 West Chicago Avenue, Suite 300
Chicago, Illinois 60642
877-REDSKY1
www.redskyE911.com