

Wonderware Software: E911 Solution Enhances Safety for Nationwide Enterprise

Success Story

At-A-Glance

The Organization

Wonderware

- Provides real-time operations management software
- Centralized Avaya Communication Manager (ACM) version 5.2
- Central headquarters, plus four branch offices and 60 work-at-home/mobile employees across the US
- 650+ employees
- 1,129 IP phones

The Challenge

- Simplify IP phone management for E911 purposes
- Route E911 calls to the appropriate Public Safety Answering Point (PSAP) for all locations
- Provide granular location provisioning to quickly locate distressed callers in a multi-building campus environment
- Provide E911 support for work-at-home employees
- Ensure on-campus security staff is aware of 911 calls as they are placed

The Solution

Implemented the 911 Enable Emergency Gateway, Emergency Routing Service, and Desk Alert to:

- Automatically track IP phones on the network
- Route E911 calls to the appropriate PSAP for every company location
- Increase the level of location granularity at office locations
- Provide work-at-home employees with access to accurate E911 services
- Instantaneously notify on-campus security staff of emergency calls as they are placed

The Organization

Wonderware is the world's leading supplier of industrial automation and information software.



With employees and offices across the US, Wonderware has deployed Avaya Communication Manager to unify its communications network that supports 650+ employees.

The Challenge

With offices across the US, 60 work-at-home/mobile employees, and over 1,100 IP phones on the network, Wonderware needed an E911 solution that would provide reliable and accurate E911 services for all of its employees. As well, the management of phone moves, adds, and changes for E911 purposes needed to be simplified in order to function as efficiently and effectively as possible.

Without an E911 solution, a 911 call placed from a branch office or work-at-home employee remotely accessing the centralized Avaya Communication Manager (ACM) would not necessarily be routed to the appropriate Public Safety Answering Point (PSAP) in the caller's area. Instead, the call would be routed to the PSAP serving the location of the ACM.

To counteract this problem at office locations, Wonderware installed local gateways and analog phone lines to connect to the appropriate PSAPs.

However, this solution required complicated and time-consuming integration with the local exchange carrier (LEC), and did not allow emergency response locations (ERLs) to be specified to the level of granularity required to quickly locate distressed callers. This was especially problematic at Wonderware's corporate headquarters, with more than 500 employees working in three different buildings.

Wonderware was also not able to provide E911 support for its employees who would work remotely or from home and access the central ACM via VPN. These employees had to be instructed not to call 911 from their phones in times of crisis.

Further complicating matters, on-site security were often only notified of an emergency situation when first responders arrived on-scene.

The Solution

Wonderware selected 911 Enable's enterprise E911 solution, comprised of the Emergency Gateway (EGW), the Emergency Routing Service (ERS), and Desk Alert, to address their E911 challenges.

- The Emergency Routing Service (ERS)**
 The ERS is a monthly subscription service that provides nationwide connectivity to PSAPs across the US.
- The Emergency Gateway (EGW)**
 The EGW is an on-site appliance that delivers 911 calls and location information to the Emergency Routing Service. It includes automatic IP phone discovery, on-site security notification, and call recording features.



- Desk Alert**
 Desk Alert is a software application installed on the security desk workstation. When 911 is dialed, a pop-up screen instantly appears on the security desk workstation monitor, notifying security personnel of all emergency calls in progress, and providing accurate location information for the distressed caller.

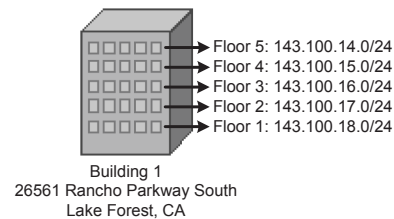
Automatic IP Phone Tracking

Whenever an IP phone registers with Wonderware's ACM, its location is automatically discovered by the EGW, using either layer 3 or layer 2 tracking. Automatic IP phone tracking allows Wonderware's users to take their IP phones anywhere on the network and maintain accurate E911 service without needing to engage telephony administrators.

- Layer 3 Tracking**

Layer 3 tracking associates ERLs to specific IP subnets. Wonderware has implemented layer 3 tracking in its locations where IP subnets correspond to a single floor.

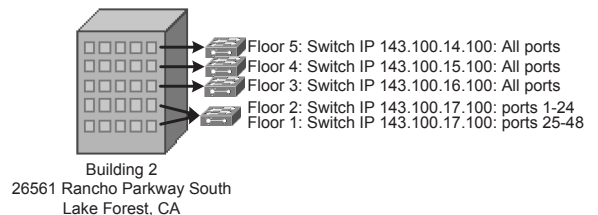
Example: Wonderware office using layer 3 discovery



- Layer 2 Tracking**

Layer 2 tracking associates ERLs to specific switches and switch ports. Wonderware has implemented layer 2 tracking in its locations where IP subnets are larger than a single floor.

Example: Wonderware office using layer 2 discovery



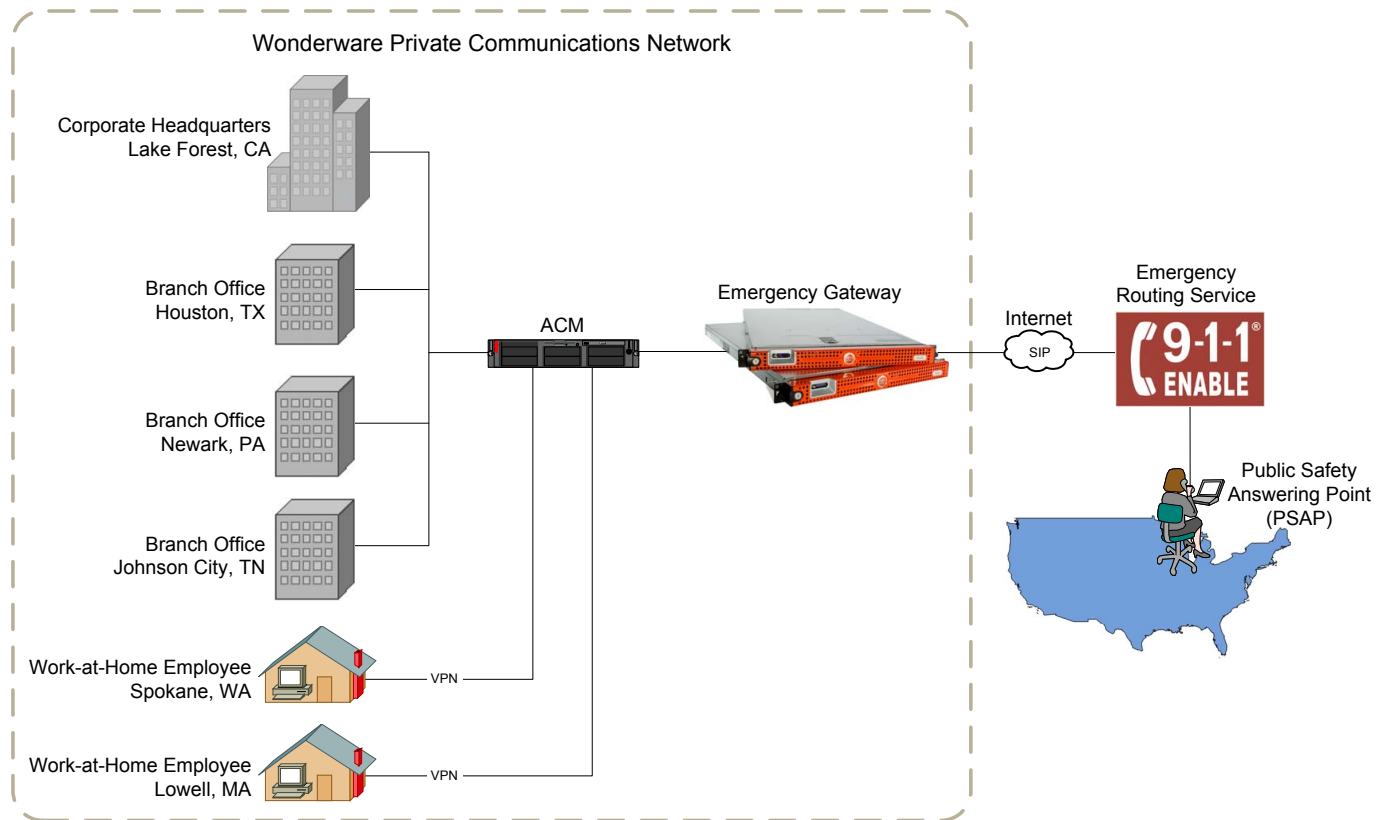
Nationwide E911 Call Routing

With E911 connectivity to over 5,500 PSAPs across the US, the ERS provides accurate E911 call routing for the entire deployment using only a single SIP connection. When 911 is dialed from any Wonderware location, the ACM forwards the call to the EGW. The EGW determines the accurate location of the caller based on the phone's IP or MAC address, and sends the call and location information to the ERS. The ERS then uses the call data sent by the EGW to determine the correct PSAP, and routes the call accordingly. The caller's correct location and callback number are automatically displayed on the PSAP dispatcher's screen.

“911 Enable’s solution was simple and easy to set-up. Their knowledgeable and accessible professional services team went the extra mile to get our E911 solution operational in the shortest time frame possible. We couldn’t have asked for a smoother implementation process.”

Dave Ochoa
Telecommunications Administrator
Wonderware

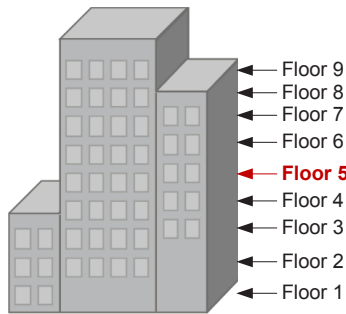
Partial Wonderware Deployment



Granular Location Provisioning

With headquarters and branch offices that include several multi-storey buildings, Wonderware required to ability to provision ERLs to the floor level. This ensures that when 911 is dialed, the PSAP is provided with sufficiently detailed location information so emergency responders can quickly locate the distressed caller when they arrive on-scene.

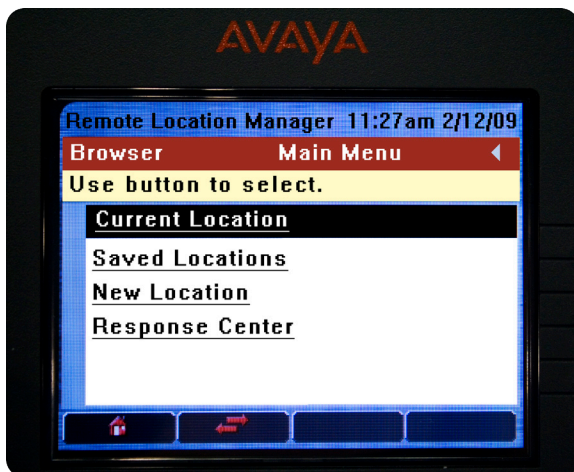
Example: Wonderware Location Provisioning



Floor 5, Building 2
26561 Rancho Parkway South
Lake Forest, CA 92630

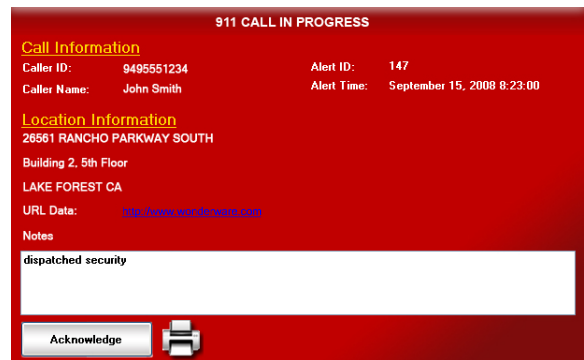
Support for Work-at-Home Employees

The EGW includes a Remote Location Manager (RLM) application that allows work-at-home employees to update their locations in real-time directly from their Avaya IP phones. This ensures that emergency calls from these employees will be routed to the appropriate PSAP with the correct location information.



Desk Alert Security Notification

Whenever an employee dials 911 on the network, the Desk Alert Application causes a pop-up screen to appear on the security desk workstation monitor. The pop-up notification contains the caller's name, phone number, location information, and an optional URL link which can provide additional location-specific information. This information alerts Wonderware security personnel to the emergency situation and allows them to respond immediately and/or assist first responders when they arrive on scene.



Desk Alert Screenshot

Looking Forward

With 911 Enable's enterprise solution in place, Wonderware has the flexibility to grow its business without worrying whether or not its employees can access E911 services in times of crisis.

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Additional Resources

Emergency Gateway Data Sheet

http://www.911enable.com/pdf/emergency_gateway_datasheet.pdf

Emergency Routing Service Data Sheet for the US

http://www.911enable.com/pdf/emergency_routing_service_datasheet.pdf

Enterprise Solution Brochure

http://www.911enable.com/pdf/enterprise_solution_brochure.pdf

Desk Alert Brochure

http://www.911enable.com/pdf/desk_alert_brochure.pdf

E911 Solution for Avaya CM

http://www.911enable.com/resource_center/document_registration.php?id=1

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Hamilton/Clermont Cooperative Association Success Story

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