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## The E911 Experts. Flexible. Reliable. Experienced.

### Feature Brief: Automatic IP Phone Discovery

Automate phone management, reduce human error and support phone mobility with 911 Enable.

#### Overview

911 Enable's Emergency Gateway (EGW) helps organizations automate IP phone management and ensure that E911 location information is always accurate and up-to-date. Depending on the IP phone system deployed, the EGW can automatically discover IP phones via layer 2 (switch-based), layer 3 (subnet-based), and/or wireless LAN tracking.

To enable the precise automatic discovery of IP phones, the EGW allows organizations to divide their locations into smaller geographic zones called Emergency Response Locations (ERLs), which may be defined to the building, floor, or room level, or to any other user-identifiable

area. ERLs are then associated to network elements such as switches and ports, subnets, and access points. This allows the EGW to discover an IP phone's location by retrieving the correct ERL based on its network location.

ERL records and network maps may be uploaded to the EGW using the administrative Dashboard web interface, FTP server, or SOAP interface (ERLs only). Once the network maps and ERLs have been uploaded, the EGW obtains the organization's IP phone inventory from the IP-PBX, and can proceed to automatically track the organization's IP phones.

#### Availability

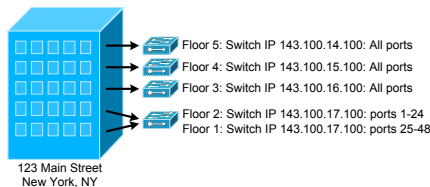
The table below provides a summary of automatic IP phone discovery capabilities that the EGW provides for each IP-PBX vendor.

IP-PBX Vendor	Layer 2	Layer 3	Wireless LAN
Cisco	✓	✓	✓
Avaya	✓	✓	✓
Microsoft	✓	✓	✓
Alcatel-Lucent	✓	✓	✓
ShoreTel	✓		
Aastra	✓		
3Com	✓		
Genesys		✓	

## Layer 2 Discovery

Layer 2 discovery works based on the association of ERLs to specific layer 2 switches and ports.

The EGW regularly scans the network using SNMP v1, v2c, or v3 to match IP phone MAC addresses with specific switches and ports. When 911 is dialed, the EGW uses the phone's MAC address to reference its corresponding switch and port, and associated ERL, based on the network maps pre-provisioned in the EGW.



Layer 2 discovery is the ideal method for enterprises that have accurate wiring closets (e.g. a reliable mapping of switches and ports to ERLs) and require highly granular location provisioning.

### Supported Switches

The EGW supports the broadest range of switches in the industry, including:

- Cisco Catalyst
- HP Procurve
- Dell PowerEdge, PowerConnect
- Juniper EX
- Extreme Networks Summit, BlackDiamond, and Alpine
- All switches that support Bridge MIB (RFC 1493)

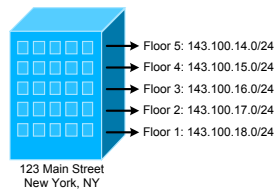
### Third-Party Scanning

The EGW supports third-party network inventory applications using a batch file interface.

## Layer 3 Discovery

Layer 3 discovery works based on the association of ERLs to specific IP subnets.

When 911 is dialed, the EGW uses the phone's IP address to look up the corresponding ERL using the network maps pre-provisioned in the EGW.

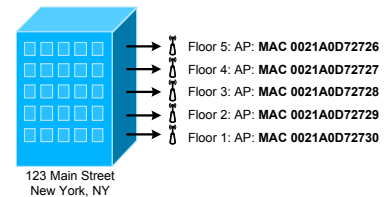


Layer 3 discovery is the ideal method for enterprises with geographically-assigned subnets.

## Wireless LAN Discovery

Wireless LAN discovery works based on the association of ERLs to access points. This method of wireless LAN discovery allows you to support centralized wireless networks, providing the most granular location tracking capabilities possible for wireless endpoints.

The EGW regularly queries the network wireless LAN controllers to match wireless IP phone MAC addresses with access points (APs). When 911 is dialed, the EGW uses the phone's MAC address to reference its corresponding BSSID and associated ERL, based on the network maps pre-provisioned in the EGW.



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## For More Information

To learn more about the 911 Enable automatic IP phone discovery feature, contact a 911 Enable sales representative:

Call 1-877-862-2835  
Visit [www.911enable.com/egw](http://www.911enable.com/egw)  
Email [sales@911enable.com](mailto:sales@911enable.com)

## Additional Resources

[Emergency Gateway Data Sheet](#)

[Virtual Emergency Gateway Data Sheet](#)

[Top 10 Reasons Businesses Choose 911 Enable Brochure](#)



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