

RedSky Emergency 911 Service for Webex Calling Carrier

You can choose RedSky as an E911 emergency call provider for your Webex Calling Carrier deployment. RedSky provides you with per-device location support (for HELD-capable MPP devices) and a network that routes emergency calls to Public Safety Answering Points (PSAPs) around the US, its territories, and Canada. RedSky provides an emergency call management portal and an integration point in the Calling Administration Portal (CAP).

The service is enabled on a per-location/site basis. When a location/site is fully enabled in CAP, emergency calls (933 for test calls and 911 for emergency calls) placed from all phones and soft clients assigned to that location in CAP use RedSky's services.

RedSky's role in the solution is as follows:

- Maintains the partner/customer provisioned database that is used to map an emergency call to a dispatchable location.
- Based on a calling device's dispatchable location, directs emergency calls to the correct PSAP with information that allows the PSAP to determine the location where emergency personnel should be dispatched as well as the call-back number.
- Generates optional notifications to enterprise personnel.
- For subscriptions with enhanced licenses, bridges enterprise personnel into emergency calls placed by enterprise users and provide pop notifications.

Location Detection

RedSky supports two types of location detection:

- For HELD-capable multi-platform firmware (MPP) devices and soft clients, location detection is based on network discovery. These end points use a protocol called HTTP Enabled Location Delivery (HELD) to report their network environment information (upstream switch, wireless access points (WAP) BSSID, IP address, or their MAC addresses) to the RedSky HELD service. Soft Client uses an advanced version of HELD known as HELD+ .
- For non-HELD capable devices non-Cisco customer premises equipment (CPE), location determination is based on the Caller ID asserted in the test or emergency call.

When we use RedSky in a Webex Calling Carrier deployment, the following methods are used to determine the location for different client types:

• Cisco Fixed Device (HELD Compatible):

Cisco MPP

68XX, 78XX and 88XX

Poly

All new generation Poly VVX and Trio devices supports RedSky. That includes models that are VVX xx1, VVX x50 and the Trios. For Redsky Poly devices need to run on UCS 6.4.1 for VVX and Trio 7.0.1 or higher.

Yealink

T33G fw 124.86.0.180

T4xS (T41S, T42S, T46S, T48S) fw 66.84.0.139

T4xU (T43U, T46U, T48U) fw 108.86.0.108

T5xW (T53W, T54W, T57W) fw 96.86.0.109

T58V fw 58.84.0.218

W60P fw 77.85.0.65

W70P fw 146.85.0.41

Each device has emergency address information determined based on the customer's provisioned wiremap information in the Horizon Mobility® portal and the information passed by the device in the HELD transaction.

HELD network discovery based on device MAC, device IP address or Wi-Fi access point BSSID is not dependent upon customer network support for LLDP-MED/CDP. Network discovery based on the chassis ID of the device providing network connectivity is dependent on, and will not work unless, the premise equipment supports LLDP/CDP and the functionality is enabled. If the HELD transaction determines a location for that device, subsequent emergency calls will be routed based on the HELD token that is inserted into the emergency call by the device.

If the HELD transaction cannot determine the location of the phone, subsequent emergency calls will be routed: If the TN used as the CLID does match a provisioned TN/location or user in the Horizon Mobility® Portal, then use the same.

If the TN used as the CLID does not match a provisioned TN/ location, the call will be routed to a clearing center for operator intervention to determine how to route the call (per-call RedSky charge levied).

Note:

Customer populates the RedSky System with the wiremap information.

This will get an accurate address in a wire-mapped location even when multiple devices share the same TN.

When in non-wire mapped location, the nearest location is determined based on info retrieved from location service by the phone using HELD Protocol.

• Soft Clients (Communicator Desktop and Connect Mobile (Windows and Mac))

Currently the soft clients are downloaded through CUP (MyPhoneNext) portal. All the soft clients should be **HELD+** compliant, which enables the soft client to set/share the location to RedSky. HELD+ transaction devices reach out to the HELD server to receive the token. Using the token, the location is shared to RedSky and these events/changes are triggered by the device itself to share the location to RedSky. In this case, the device has the intelligence to detect the change in location through the network discovery and the device prompts the user to set the location in RedSky.

Note:

Customer populates the RedSky System with the wiremap information.

This will get an accurate address in a wire-mapped location.

In non-wire-mapped locations, **Soft client devices should get/ask the updated address when they are moved to a new location or if the address is missing.**

The (soft) Client sets Location and User mapping using RedSky API.

• All non-HELD Fixed Devices ATAs, DECT phones, Other 3rd party devices

Non-HELD endpoints can have a phone number-based address provisioned in the Horizon Mobility® Portal. Caller ID of

the user is used as a call back in the case of emergency callback scenario. Callback scenario is applicable only for 2-way number users and it's not in the case of 1-way numbers (as callback cannot be made in this case).

Note:

Customer populates the RedSky System with the wiremap information.

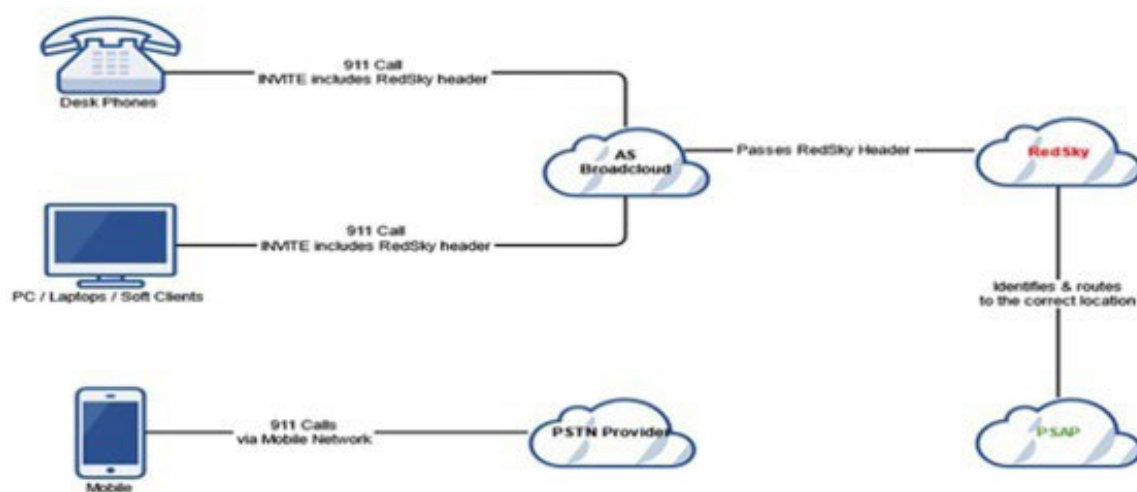
Device will need a unique TN and the TN address is always sent to PSAP.

Will NOT work when the user **takes the device** to a different location.

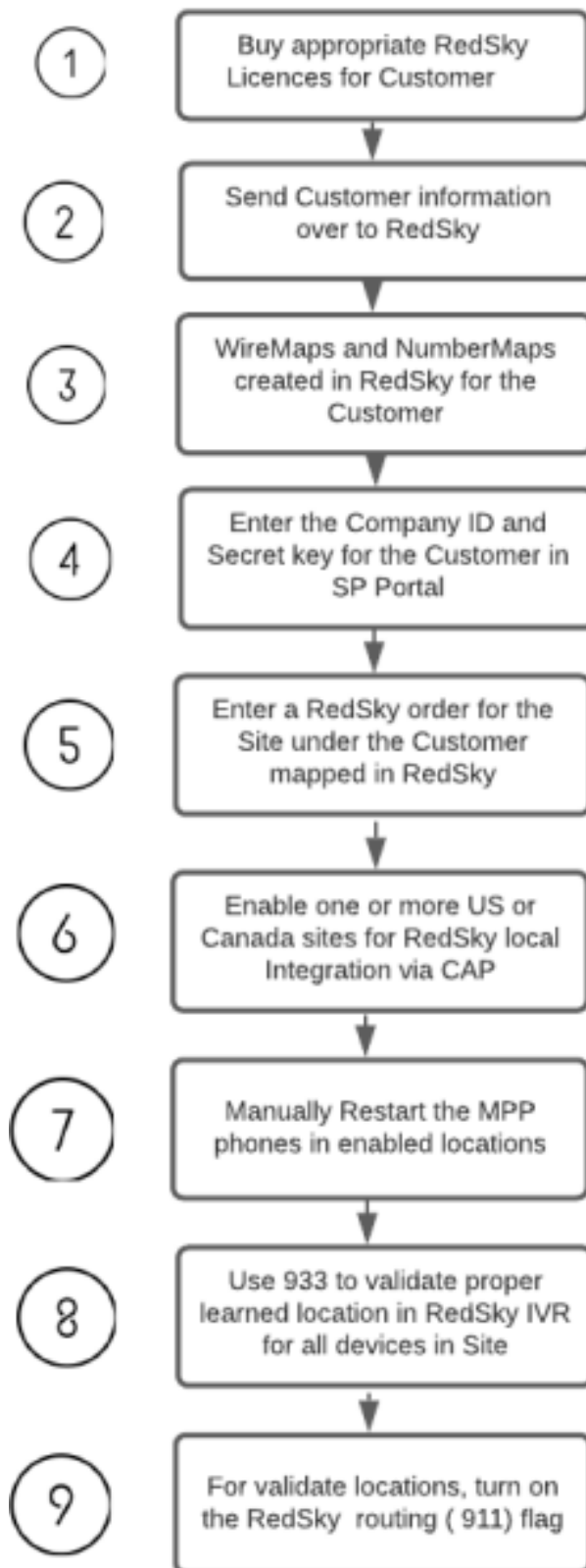
See RedSky administration documentation for more information about configuring wiremaps in the RedSky admin portal. In the event that RedSky cannot find a dispatchable location for a given device that places an emergency call, RedSky routes the call to an emergency calling relay center. They work with the caller to determine how best to route the emergency call.

Deployment Scenarios for RedSky with Webex Calling Carrier

In this scenario, emergency calls are identified and sent to the RedSky service instead of configured PSTN. This route is performed for all endpoints at the RedSky-enabled location, including hard phones and portable endpoints (such as mobile phones and laptops) for all users at the location (Exception: cellular-based phone clients send emergency calls directly to the Public Land Mobile Network (PLMN, the mobile equivalent of the PSTN) using the phone's built-in dialer).



Process Workflow for RedSky Integration with Webex Calling Carrier



Setting the RedSky Customer Id and Secret key by the SP

RedSky Customer Id and Secret key for a customer can be configured in SP Portal in the following page.

Customer or Service Provider can order a RedSky license and provision the Customer using Company ID & Secret for its access to RedSky.

The screenshot shows the Service Provider Portal interface. The top right corner displays 'Service Provider Portal', 'Welcome call1628', 'Privacy Statement', and 'Logout'. Below this, it says 'English' and 'Coordinated Universal Time'. The left sidebar contains a navigation menu with options like 'Home', 'Create Sales Organization', 'View Sales Organizations', 'Create Sales Executive', 'View Sales Executives', 'Create Role', 'View Roles', 'Create Ops User', 'View Ops Users', 'Create Customer', 'View Customers', 'Customer Service Tool', and 'Find By Mobile Number'. The main content area is titled 'The Profile of "a-testing-service"'. It shows account details: Account ID: call1628156043, Assign service charges per site?: No, Name: a-testing-service, Country: United States, Skip Routing Profile: yes, and Default PSTN Provider: VERIZON. A red box highlights the 'RedSky' section, which contains a login prompt and fields for 'Company ID: 83645474123-45678910' and 'Secret Key: [redacted]'. Below this, there's a 'Contact Information' section with fields for 'Site(s)', 'Currency', 'Country', 'Announcement Language', 'Email Language', 'Site Name', 'Type', 'Use Customer Contact Info', 'Site Contact Name', and 'Phone Number'. At the bottom right, there's a 'View Sites' link and a note 'Create multiple sites via CSV upload'.

Next Step is to enter an Order for RedSky for the site that you want to enable the service for.

Note: This RedSky Activation product will not appear on the Create Quote page unless Company ID and Secret key information are entered for the **customer**.

The screenshot shows the 'Create Quote' page with a list of services and their prices. The services are organized into two sections: 'Public Sector' and 'Site Services 1'. The 'Public Sector' section includes items like 'Public Sector Premium Station', 'Public Sector Standard Station', 'Public Sector Basic Station', 'Public Sector Messaging Station', 'Public Sector Dialtone Station', 'Public Sector Basic With Voice Messaging', 'Public Sector Premium Station (without My Room)', and 'Public Sector Basic Plus'. The 'Site Services 1' section includes items like 'Receptionist Soft Console', 'Music on Hold', 'Office Anywhere Portal', 'Meet Me Conference', 'Auto Attendant', 'Meet Me Bridge', 'Instant Group Paging', 'Call Queue 1', 'Call Agent 1', 'Hunt Group Package', 'My Room Upgrade', and 'RedSky Activation'. The 'RedSky Activation' item is highlighted with a red box. The prices for each item are listed in two columns: a base price and a total price. The 'RedSky Activation' item has a base price of \$0.00 and a total price of \$0.00.

Service	Base Price	Total Price
Public Sector Premium Station	\$55.99	\$75.00
Public Sector Standard Station	\$59.99	\$75.00
Public Sector Basic Station	\$59.99	\$75.00
Public Sector Messaging Station	\$59.99	\$75.00
Public Sector Dialtone Station	\$59.99	\$75.00
Public Sector Basic With Voice Messaging	\$0.00	N/A
Public Sector Premium Station (without My Room)	\$0.00	N/A
Public Sector Basic Plus	\$0.00	N/A
Site Services 1		
Receptionist Soft Console	\$0.95	\$14.95
Music on Hold	\$10.00	\$50.00
Office Anywhere Portal	\$1.00	\$1.95
Meet Me Conference	\$24.95	\$75.00
Auto Attendant	\$24.95	\$75.00
Meet Me Bridge	\$24.95	\$75.00
Instant Group Paging	\$0.95	\$14.95
Call Queue 1	\$5.00	\$9.95
Call Agent 1	\$24.95	\$49.95
Hunt Group Package	N/A	\$9.95
My Room Upgrade	\$0.00	N/A
RedSky Activation	N/A	N/A

Once the order is processed, RedSky test call and 911 Call toggles will show up in CAP under Profile.

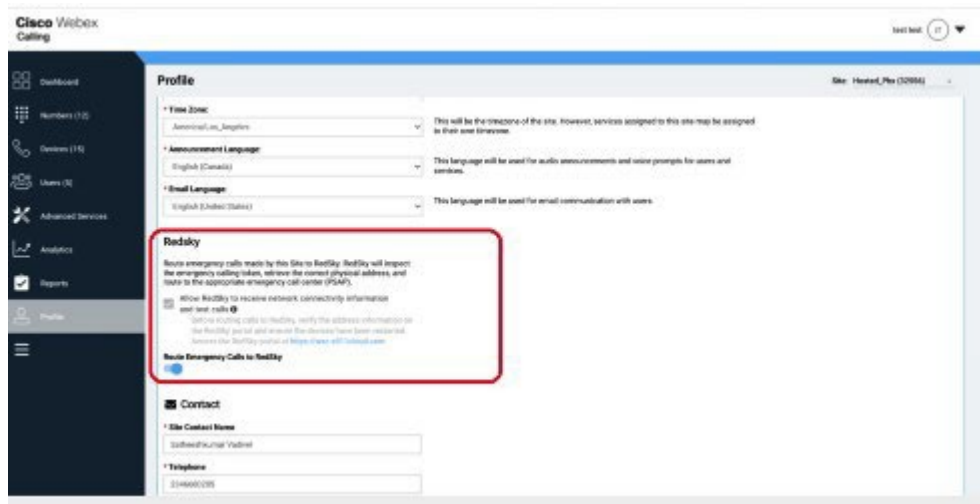
Toggling (Enable/ Disable) option at Site level for RedSky

The first option, "Allow RedSky to receive network connectivity information and test calls", allows the 933 test call to RedSky.

The 2nd option, "Route Emergency Calls to RedSky", can be enabled only if the Test Call (above) is enabled. This allows 911 and any other emergency calls to route through RedSky.

(Held and Held+) Device configurations are automatically built for the whole site as the above configurations are altered.

For successful RedSky call from the Held and Held+ devices, the customer admin should (manually) reboot the Held devices or re-login to Held+ devices. This is not applicable for non-Held or wired devices as the location is (expected to be) already configured in the RedSky portal by the customer against the phone and/or Mac ID, User info or any other static info as allowed in the RedSky portal.



Limitations

- RedSky is allowed for Site location only in the US and Canada.
- Unlike the Device configuration, the **Device reboot has to be done manually** after enabling the RedSky for the site. For Soft clients, one has to do a fresh sign-in. This is important for the devices to reload the fresh copy of the config file with RedSky information. Device reboot should be done with a gap from the time RedSky is enabled/disabled for the site. This is to give enough time to rebuild the device configuration of all the devices of the site.
- Orders can be processed by a Service Provider via SP portal.
- 988 will not be routed to RedSky as this is not an emergency number.