

# Clearspan

RAY BAUM COMPLIANCE

## Part 7: OpEasy™ and HELD enabled SIP Wired Endpoints

January 2022

# Clearspan – Ray Baum Act Compliance Training Webinars

Training Videos, Webinars, & Presentation Downloads Available at  
[www.clearspancloud.com](http://www.clearspancloud.com)

OpEasy™ v21.x Documentation Available at  
[www.clearspancloud.com/admin\\_opeasy\\_training](http://www.clearspancloud.com/admin_opeasy_training)

# Clearspan – Ray Baum Act Compliance Training

- Part 1: Overview of Ray Baum Act and Kari's Law Requirements
- Part 2: Clearspan Compliance Recommendation
- Part 3: Dispatchable Locations and Emergency Response Locations
- Part 4: Importing ERLs from Existing Intrado ERS Account to OpEasy
- Part 5: OpEasy™ creating Intrado ERLs
- Part 6: OpEasy™ assigning ERLs to Non-HELD capable SIP wired endpoints
- **Part 7: OpEasy™ and HELD enabled SIP Wired Endpoints**
- Part 8: Soft Clients on Computers (Nomadic Devices) – Intrado Location Manager
- Part 9: Soft Clients on Mobile Devices
- Part 10: Emergency Services for MS Teams

Part 7:

# OpEasy™ and HELD enabled SIP wired endpoints

# Supported HELD Capable SIP Wired End Points

ERS AND LIS PROTOCOLS

This part of the Ray Baum compliance training is focused on the ability of a wired SIP phone to detect information about its network connection and then request the dispatchable location for that network connection

# Supported HELD Capable SIP Wired End Points

ERS AND LIS PROTOCOLS

## HELD – HTTP Enabled Location Delivery

A protocol for a phone to request it's dispatchable location information to be used for 911 calls

## LIS – Location Information Service

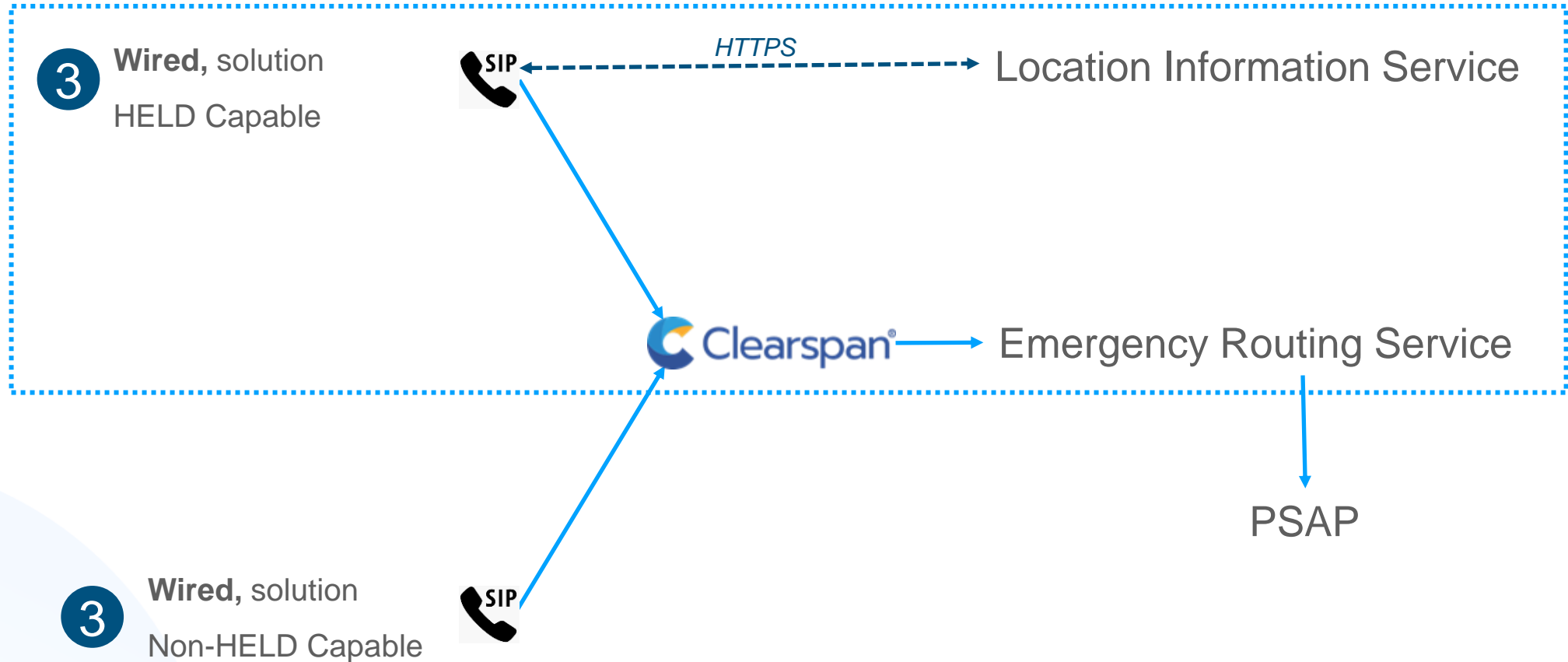
The Intrado Emergency Routing Service (ERS) supports a LIS capability to respond to a HELD request from an end device

# Supported HELD Capable SIP Wired End Points

- Mitel 68xx, 69xx
- Poly VVX Models
- Specific firmware requirements
- Requires network mapping in the Intrado ERS

# 911 Call Treatment for HELD Capable Endpoints

911 CALL FLOW





# HELD Enabled Wired Devices

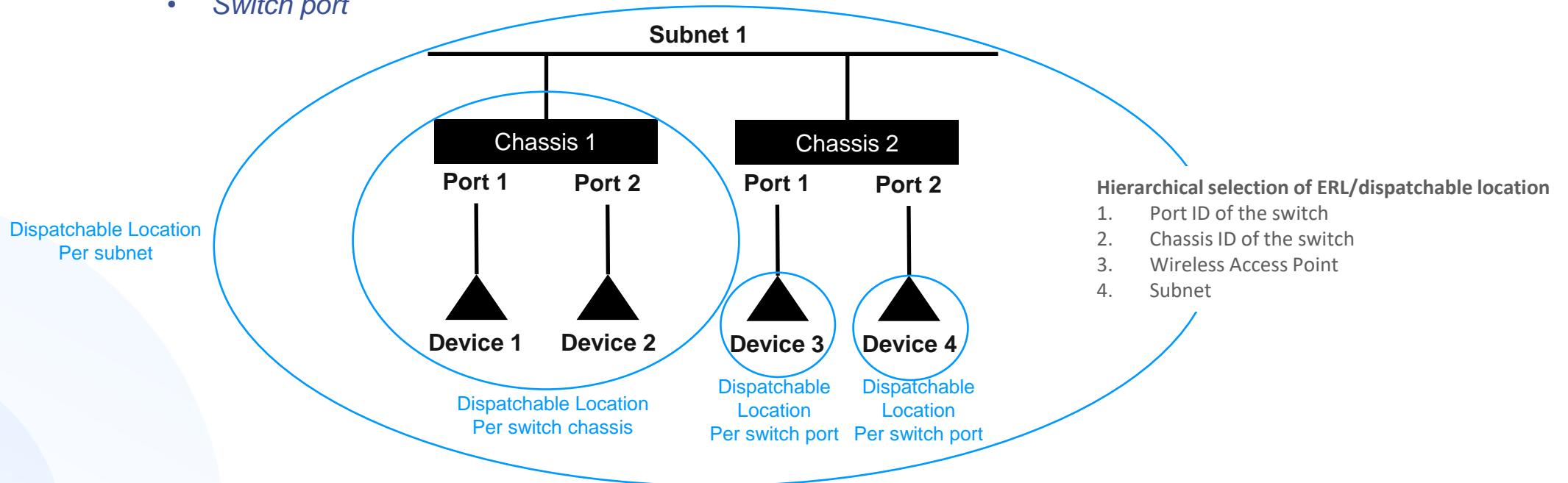
Define dispatchable locations in the network

## HELD – HTTP Enabled Location Delivery

A protocol for a phone to request it's dispatchable location information to be used for 911 calls

*Dispatchable locations within a network can be define at the following levels:*

- *Subnet – must be unique and limited to a single dispatchable location*
- *Switch chassis – must be limited to a single dispatchable location*
- *Switch port*



# HELD Enabled Wired Devices

ERS LIS Sub-account provisioning

## Assign a dispatchable location to the network topology

- Network subnet xxx.xxx.xxx.xxx = dispatchable location A: postal address + additional detail (i.e., 2<sup>nd</sup> floor)
- Switch chassis abc = dispatchable location abc: postal address + additional detail (i.e., campus location)
- Switch chassis port abc1 = dispatchable location abc1: postal address + additional detail (i.e., office 102)

## Provision a unique 'ERL + dispatchable location information' for each dispatchable location

- An ERL is comprised of a ERL ID and a ERL name
- The ERL ID must be system wide unique and is recommended to let this field be automatically populated by the system
- The ERL name is a free form string that should be intuitive to the administrator

## Provision the HELD enabled wired devices telephone numbers

- This should only be the 10 digit DID for the phone

# Supported HELD Capable SIP Wired End Points

## Provisioning

EXPORT BATCH PROVISIONING

FILTER

ERLS SUBSCRIBERS SUBNETS WIRELESS ACCESS POINTS SWITCHES

+ ADD SWITCH

Search

Search by Switch Name, Chassis ID, Port Name or Port ID

Showing 1 to 2 of 2 entries

EDIT	SWITCH NAME	CHASSIS ID	# PORT	ERL INFORMATION	ACCOUNT NAME	LAST UPDATED	DELETE
	Teir3_Switch2	6451069d8f00	0	5360 Legacy Drive Suite 300, Plano, TX 75024 Suite 300 Floor 2 ERL ID: 4A59FCBF-06D2-465A-84CF-1A82207878AF	<a href="#">Tier 3 HELD testing on Alpha</a>	2021-10-18 @ 11:47:58	
	dc home office switch	28CDC43D761A	1	1310 Old Mill Run, Garland, TX 75042 home office ERL ID: 5580ECB6-2A76-4BB1-92A2-07E644A08AE7	<a href="#">Tier 3 HELD testing on Alpha</a>	2021-10-13 @ 12:08:17	

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### Switches Summary

0 PORTS

Showing 0 to 0 of 0 entries

No data available in table

Prev Next

# Supported HELD Capable SIP Wired End Points

ERLS SUBSCRIBERS SUBNETS WIRELESS ACCESS POINTS SWITCHES

+ ADD ERL

Search

Search by Address, ERL ID, Location, ERL Name or Label

Showing 1 to 2 of 2 entries

EDIT	ERL INFORMATION	ERL NAME	RESPONDER TYPE	ROUTING STATUS	ADDRESS STATUS	PROVISIONING SOURCE	ACCOUNT NAME	LAST UPDATED	DELETE
	5360 Legacy Drive Suite 300, Plano, TX 75024 Suite 300 Floor 2 ERL ID: <a href="#">4A59FCBF-06D2-465A-84CF-1AB2207878AF</a>	Tier 3 Switch 2	PSAP	Enhanced	Valid	ERS Interfaces	<a href="#">Tier 3 HELD testing on Alpha</a>	2021-10-18 @ 08:40:49	
	1310 Old Mill Run, Garland, TX 75042 home office ERL ID: <a href="#">5580ECB6-2A76-4BB1-92A2-07E644A08AE7</a>	dc home office	PSAP	Enhanced	Valid	ERS Interfaces	<a href="#">Tier 3 HELD testing on Alpha</a>	2021-10-13 @ 11:58:56	

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# Supported HELD Capable SIP Wired End Points

## Provisioning

EXPORT

BATCH PROVISIONING

FILTER

ERLS

SUBSCRIBERS

SUBNETS

WIRELESS ACCESS POINTS

SWITCHES

+ ADD SWITCH

Search

Search by Switch Name, Chassis ID, Port Name or Port ID



Showing 1 to 2 of 2 entries

EDIT	SWITCH NAME	CHASSIS ID	# PORT	ERL INFORMATION	ACCOUNT NAME	LAST UPDATED	DELETE
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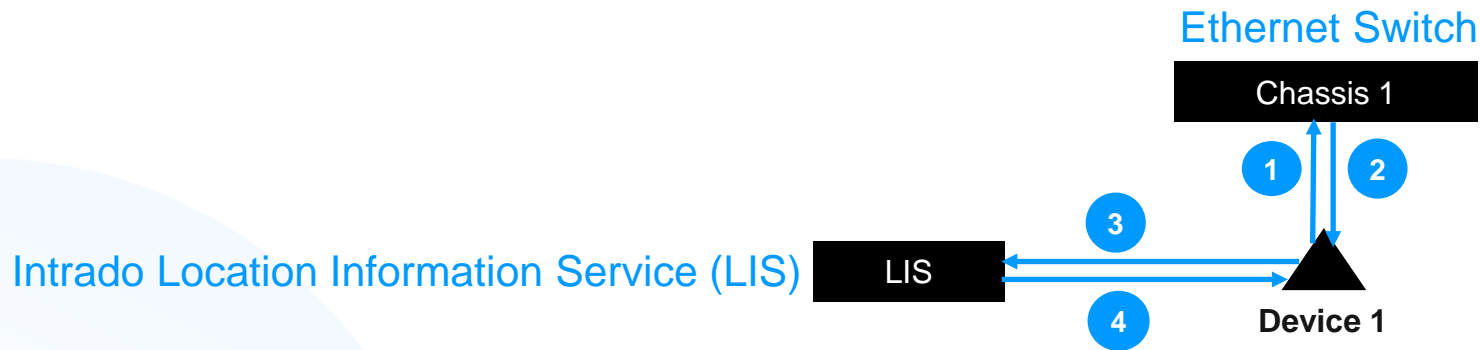
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# HELD Enabled Wired Devices

LLDP query to acquire information for a HELD request

- 1 At phone/client power up or restart, phone does an LLDP query
- 2 Chassis response includes Chassis ID and Port ID
- 3 Phone sends LLDP information to Location Information Server (LIS) via a HELD request
- 4 LIS indexes the ERL database and returns PIDF-LO information via HELD response



TLV type values<sup>[5]</sup>

TLV type	TLV name	Usage in LLDPDU
0	End of LLDPDU	Mandatory
1	Chassis ID	Mandatory
2	Port ID	Mandatory
3	Time To Live	Mandatory
4	Port description	Optional
5	System name	Optional
6	System description	Optional
7	System capabilities	Optional
8	Management address	Optional
9-126	Reserved	-
127	Custom TLVs	Optional

# HELD Enabled Wired Devices

HELD request from the device to the Intrado LIS

## Request

The following is an example of a HELD Request sent from a Polycom phone.

```
<?xml version="1.0" encoding="UTF-8"?>
<locationRequest xmlns="urn:ietf:params:xml:ns:geopriv:held">
  <locationType exact="true">locationURI</locationType>
  <device xmlns="urn:ietf:params:xml:ns:geopriv:held:id">
    <mac>64-16-7f-1b-85-e6</mac>
    <ip v="4">192.168.6.101</ip>
    <ChassisID>AgcEiFqSaoqA</ChassisID>
    <PortID>BAkFR2kyLzAvMTc=</PortID>
    <nai>5147451111@192.168.10.190</nai>
  </device>
  <CompanyID>DAFAF95E-B3E7-42E8-B98D-F464E084411F</CompanyID>
</locationRequest>
```

Client request to the Intrado LIS

# HELD Enabled Wired Devices

HELD response from the Intrado LIS to the device

## Response

The following is an example of a HELD Response sent from the ERS to the Polycom phone. The **locationURI** of value **63417AF5-1BA5-415E-A8F3-6EFA95E73DA2** is returned in the response. This is the ERL ID of the phone's location.

Client receives a 'locationURI' to use with 911 calls

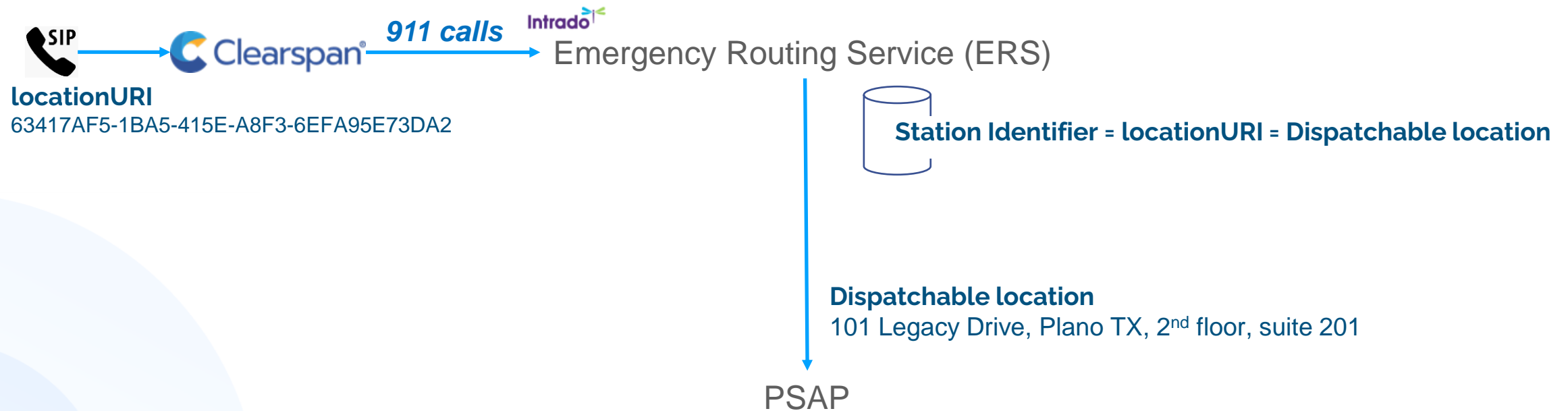
```
<?xml version="1.0" encoding="UTF-8"?>
<locationResponse xmlns="urn:ietf:params:xml:ns:geopriv:held">
  <locationUriSet expires="2020-07-03T09:36:35.126-04:00">
    <locationURI>63417AF5-1BA5-415E-A8F3-6EFA95E73DA2</locationURI>
  </locationUriSet>
</locationResponse>
```



# Overview of Ray Baum Requirements

## DISPATCHABLE LOCATION AND EMERGENCY RESPONSE LOCATION

Each dispatchable location will have a 1:1 relationship to an Emergency Response Location (ERL) in the Intrado Emergency Response Service (ERS).



# Supported HELD Capable SIP Wired End Points

ERS AND LIS PROTOCOLS

It is important to note that HELD capable phones will not be able to use HELD and LIS services in a network environment that does not support LLDP (i.e. home office)

Proceed to Part 8:

# **Soft Clients on Computers (Nomadic Devices)**

## **Intrado Location Manager**

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THANK YOU

