



ScoutLink *Capability Guide*

Introduction

ScoutLink enables a Scout system to connect more users in more locations to VPGate endpoints than ever before. Using open standard SIP protocol, ScoutLink serves as a gateway to allow seamless connections between ScoutLink-qualified devices and Scout system endpoints.

ScoutLink reflects the next phase of inter-connectivity between Scout and external devices. This solution leverages Scout's IP infrastructure and its range of endpoint technologies to bring Avtec's customers new options for front-end connections. ScoutLink promotes a Scout system's efficient operation by putting more people into the conversation with a cost-effective solution. Today, ScoutLink provides a new front-end access method to VPGate endpoints with the approved and tested Scout E1 Console, also known as the Mini SIP Console. It also allows simplex and half duplex communication between a SIP phone or cell phone and a radio endpoint. ScoutLink lays the foundation for adding a multitude of SIP devices to a Scout system in the future.

Capabilities-at-a-Glance

ScoutLink provides access from external Session Initiation Protocol (SIP) devices into a traditional Scout system. The SIP platform allows ScoutLink to connect seamlessly from front end SIP devices to Scout system endpoints. Consider the following capabilities.

Capability	Description
Extends Scout's Communication Options	Serves as a gateway to enable calls to VPGate endpoints from locations that require a simple console device instead of a full-featured Scout console that a dedicated dispatcher requires.
Leverages Scout System	Plugs into an existing Scout system and uses the existing architecture to take Scout to a wider audience of users in more locations than a traditional Scout system.
Operates with Open Standard Protocol	Uses Session Initiation Protocol (SIP) for communication.
Connects with SIP Devices	Uses ScoutLink-qualified devices such as the versatile Scout E1 Console to connect to VPGate endpoints.

Capability	Description
Supports Cross-Industry Needs	<p>ScoutLink with the Scout E1 Console meets a communication need found in many industries:</p> <ul style="list-style-type: none"> Public Safety – Supervisors and chiefs can monitor channels from their desktops for situational awareness Business and Industry – Campuses for hospitals, schools, or businesses can handle security communication and security desk officers can coordinate emergency responses. Utilities – Local area offices can maintain contact with adjacent districts during disaster coordination, supervisors can monitor talkgroups and contact personnel for coordination, and supervisors in power plants can monitor and coordinate plant operations. Airline Transportation – Load planners can monitor a few channels as needed, guard houses can coordinate the van drivers who shuttle pilots, and mechanic sheds can keep in touch with mechanics at the planes. Railway Transportation – Yardmasters can listen and talk to personnel at the yards.
Supports Redundancy	ScoutLink can be implemented in a redundant configuration to allow the Scout E1 Consoles to remain operational despite a single point of failure.
Provides Diagnostics	Uses proven Scout methods for tracking diagnostics including Scout Central Distributor (SCD) alarm acknowledgment; SCD alarm and event reporting; and ScoutLink Configuration webpage access to log files, service status, and license status information.
Telephone to Radio Connect	<p>Introduced in Version 4.14, Telephone to Radio Connect allows SIP phones or cell phones to dial a radio endpoint when that endpoint is registered in ScoutLink. When an endpoint is selected, callers are then connected to the endpoint's radio frequency or talkgroup.</p> <p>Note: Telephone to Radio Connect does not support attended transfers.</p>

ScoutLink Redundancy

Configuring ScoutLink with a redundant implementation allows the Scout E1 Consoles and Telephone to Radio Connect to remain operational despite a single point of failure when connecting a call between the SIP devices and a VPGate endpoint. Configure ScoutLink redundancy by creating one or more duplicate instances of the configured ScoutLink service on separate computers. To ease redundancy configuration, the ScoutLink Configuration webpage includes a Backup/Import option for exporting data from a configured ScoutLink instance and importing it into a new instance. And, because ScoutLink relies on the Avtec SIP Proxy for endpoint registration, the best practice for redundancy setup includes redundant instances of the Avtec SIP Proxy and redundant instances of ScoutLink.

ScoutLink-Qualified Devices

ScoutLink provides a method for Scout system endpoints to communicate with ScoutLink-qualified devices using licensed connections. The ScoutLink device communicates via SIP protocol to ScoutLink which then connects the SIP device to a Scout system endpoint using the Avtec System Protocol (ASP).

ScoutLink was tested and proven compatible with the Mini SIP Console, also known as the Scout E1 Console, a ScoutLink device that is available from Avtec.

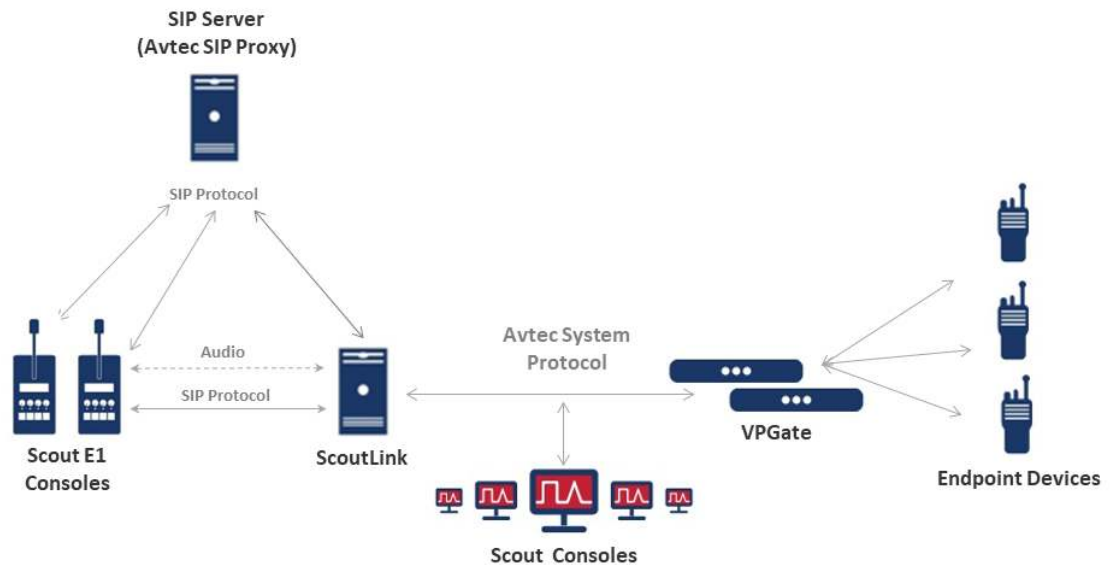
Required Components

ScoutLink can be added to a Scout system using many different system configurations. To implement ScoutLink, the Scout system must have the following components in addition to the SIP console devices and the endpoint devices:

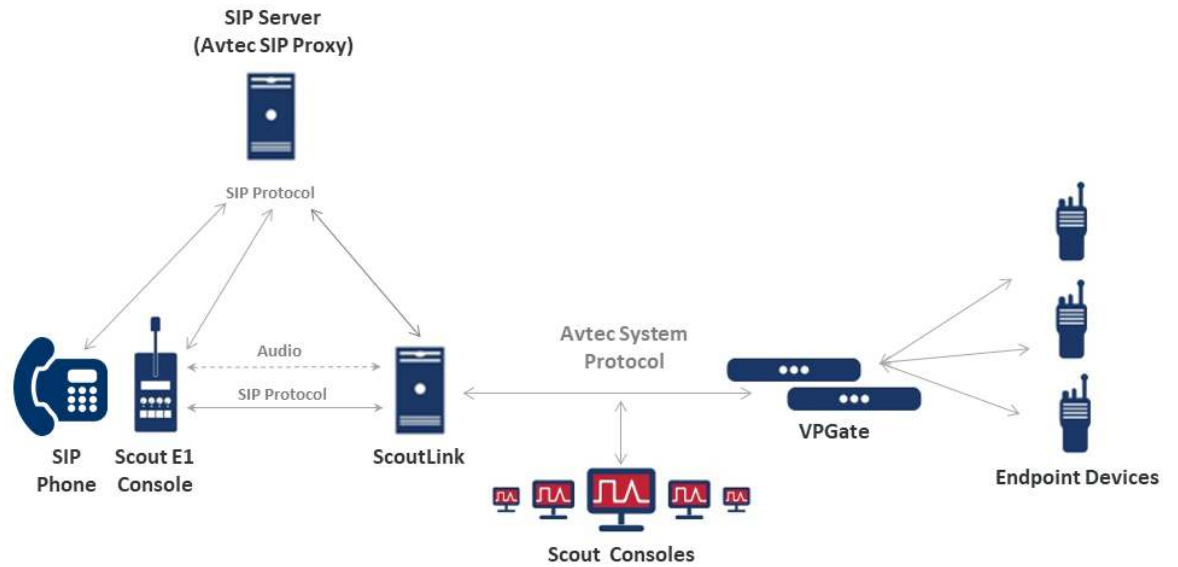
- Scout Central Distributor (SCD) – Provides alarms, events, and System View data
- Scout Manager – Enables ScoutLink to be added to a Scout system under the Site node
- VPGate – Accesses the endpoint devices in the field
- Avtec SIP Proxy – Registers the SIP console devices and the ScoutLink endpoints and directs incoming calls to ScoutLink to connect the call to VPGate
- ScoutLink – Receives calls from SIP console devices using the SIP protocol and links the calls to VPGate endpoints using the Avtec System Protocol

Sample Topologies

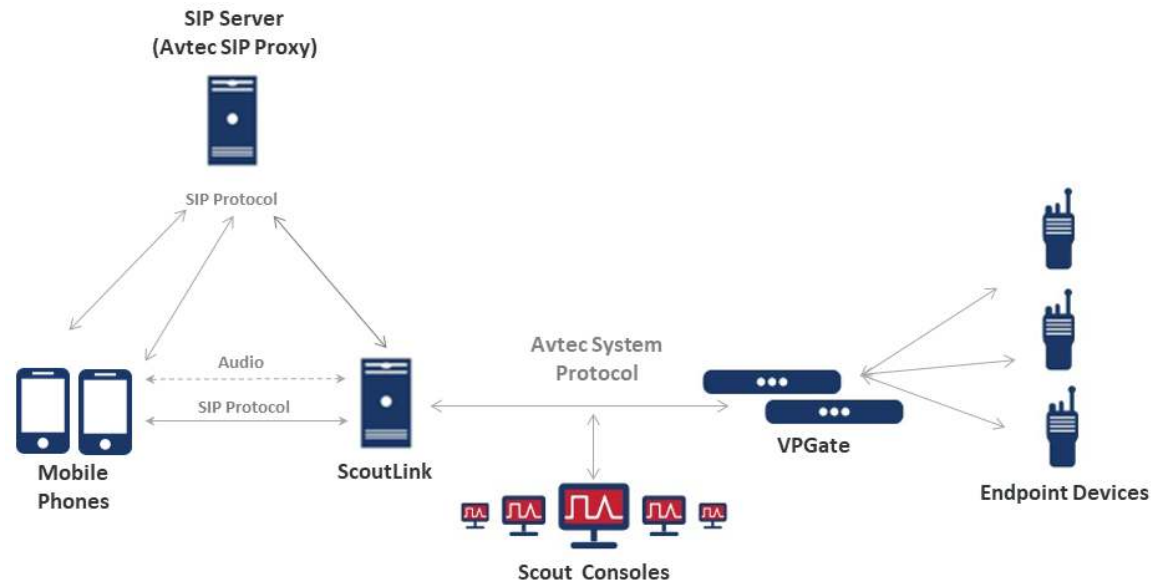
The following examples represent typical implementations.



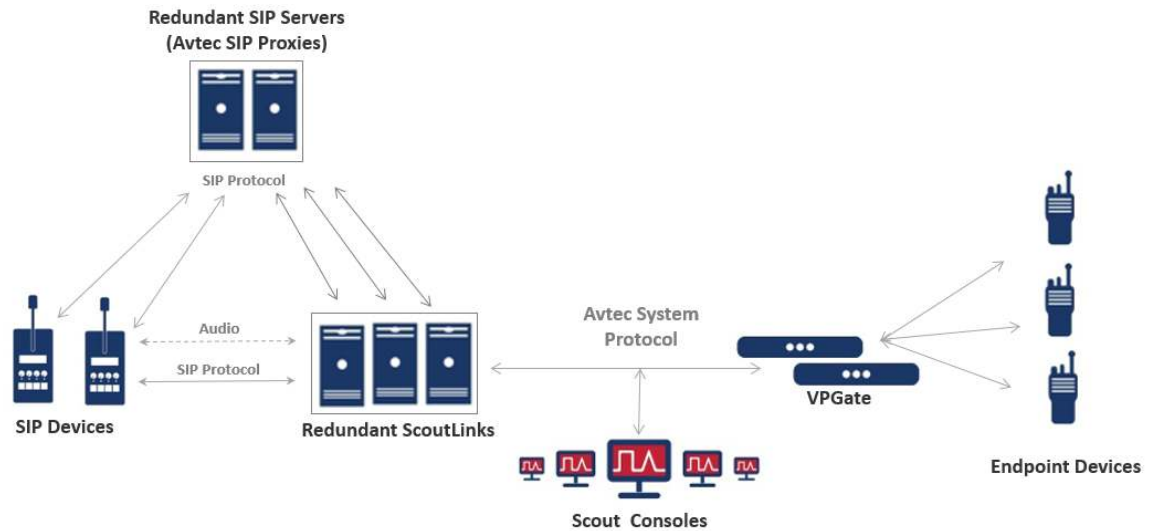
This image depicts ScoutLink in a simple implementation, without redundancy. The SIP audio devices reside within the Scout system network and they send and receive audio via ScoutLink and VPGate with endpoint devices in the field.



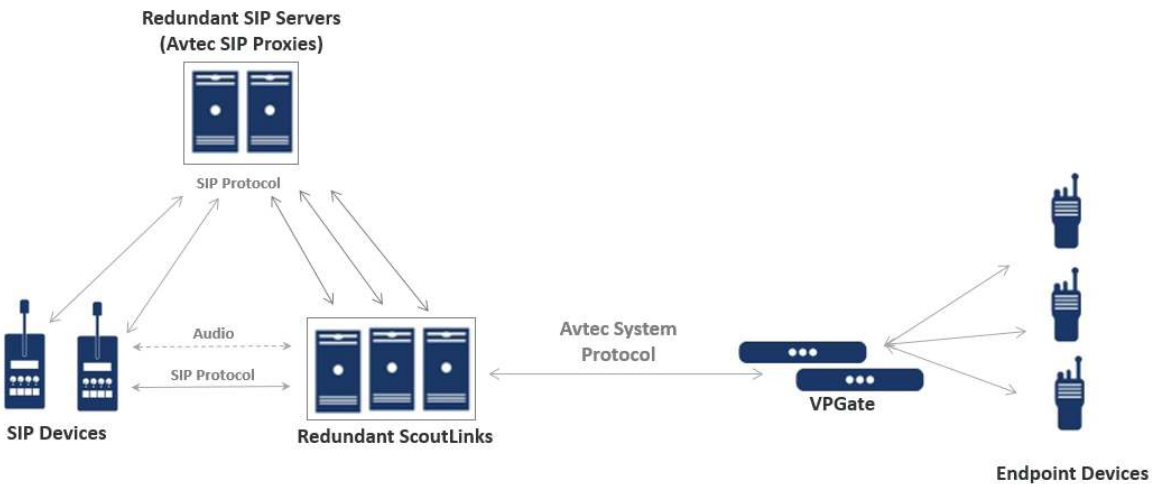
This image depicts ScoutLink in a Telephone to Radio Connect implementation, without redundancy, SIP Phones. The SIP audio devices reside within the Scout system network and they send and receive audio via ScoutLink and VPGate with endpoint devices in the field.



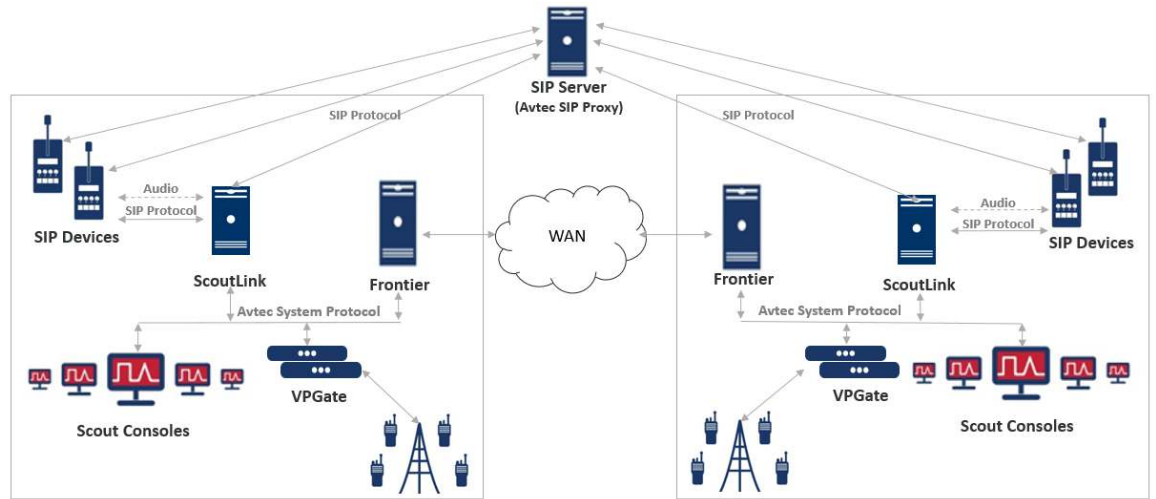
This image depicts ScoutLink in a Telephone to Radio Connect implementation, without redundancy, using Mobile Phones that send and receive audio via ScoutLink and VPGate with endpoint devices in the field.



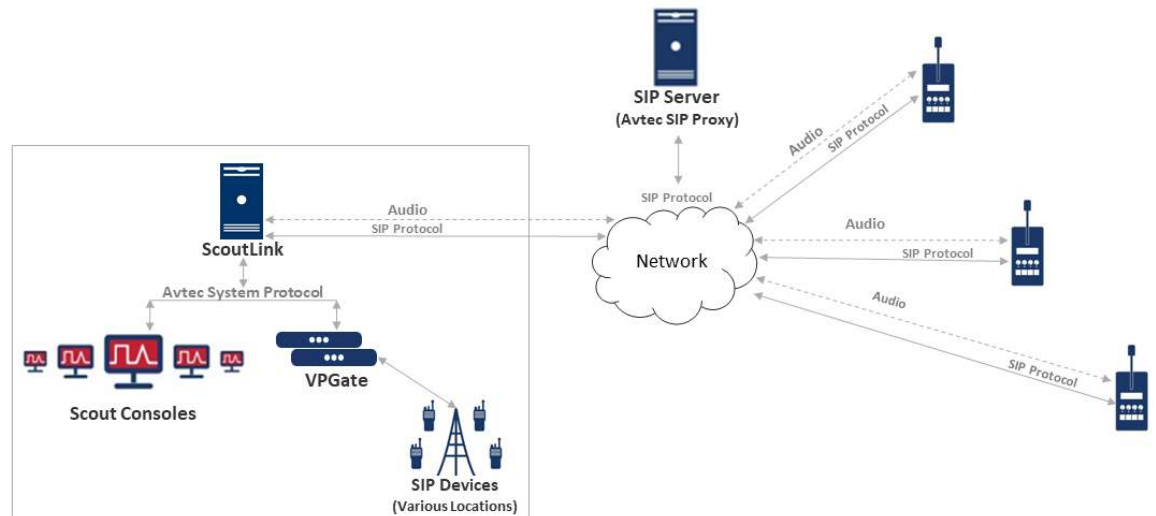
This image shows ScoutLink implemented in a redundant configuration. Each instance of ScoutLink includes identical configuration information which provides the link between the SIP console devices and ScoutLink.



In this image, ScoutLink connects SIP devices to VPGate endpoints; however, the SIP console devices are the only consoles in the system.



This is the view of an enterprise-level Scout system with two sites. Frontier enables the sites to share endpoints between each site's VPGate. The SIP Devices use SIP protocol to register and then send audio to VPGate via ScoutLink.



In this Scout system, the SIP Devices act as remote consoles, placed in locations away from the main site. The devices use the network where ScoutLink resides to send and receive audio as well as SIP messages. ScoutLink passes the audio to the endpoint devices via VPGate.

ScoutLink Licensing Overview

Avtec requires a license to operate ScoutLink. The license key must reside on the computer where ScoutLink resides, including a computer used for ScoutLink redundancy. ScoutLink verifies an available license when it receives a call from a SIP device.

The ScoutLink license defines a specific number of concurrent connections or active calls. For example, a Scout E1 Console, which connects to endpoints via ScoutLink, has four channels available for calls to Scout system endpoints. A license that provides four connections to ScoutLink would allow calls from one Scout E1 Console. Similarly, a license that allows 20 connections to ScoutLink would cover calls from five Scout E1 Consoles. Note that a customer with five Scout E1 Consoles requires a license for 20 connections, even if the calls are to the same endpoints.

Avtec offers ScoutLink licenses in sizes up to 100 connections. The license is available in redundant and non-redundant versions. Contact your Avtec sales representative for more information on purchasing a ScoutLink license.

Telephone to Radio Connect Licensing Overview

Avtec requires a license to operate Telephone to Radio Connect. The license key must reside on the computer where Telephone to Radio Connect resides. Telephone to Radio Connect verifies an available license when a call is made from a SIP device or mobile phone.

Telephone to Radio Connect base licenses include the ScoutLink software and 100 connections. Additional connections are available in bundles of 100 connections up to 500 per server. For more connections, you need additional servers.

Contact your Avtec sales representative for more information on purchasing a Telephone to Radio Connect license.

Recommended System Requirements

ScoutLink is a 32-bit application that runs on Windows 10, Windows Server 2016, or Windows Server 2019. Refer to the *Scout System Requirements* document for additional system requirements.

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