

# On-the-Move Apps

## Tactical Android Applications



### General Description

The new SRW network and other IP-based waveforms under deployment need tools to support the radios and networks during test, integration, and deployment. *On-the-Move* Tactical Android apps respond to the immediate need for tools that support mission activities, network configuration, and troubleshooting. The applications are low-cost and available on a smartphone, thus creating the ability to be fielded quickly at the squad and platoon levels, requiring minimal Warfighter training.

*On-the-Move* apps operate in a standard Android system and are available to any user in the same manner as commercial Android apps. The Apps available include BlueLink, PLI-Cam, and PLI-Resend

*On-the-Move* Tactical apps are a low cost, easy to use solution enabling superior communications previously unavailable to most tactical radio users.

### Benefits

- Situational awareness for dismounted troops:
  - BlueLink SRW Network Status app displays data about the SRW network from the local radio user's perspective
  - PLI-Cam records all PLI data received by a radio node and displays the message completion rate from each node in the SRW network
- User has access to all applications on their smart phone
- Situational awareness and data is available to the entire user group, providing cost savings as users can access video, imaging, and data with the tactical apps
- Provisioning Adapter is available for programming SideBridge

### Applications

- User groups can access any application with a smart phone and securely communicate with a tactical radio
- Image and video transfer through the tactical radio network via *On-the-Move* applications with video compression and store/forward algorithms in development
- Configurable radio connection: wireless, serial, or USB

### Simplified Network Diagram



***On-the-Move* Tactical Android apps operating on smart devices connected via USB and wirelessly to tactical radios**

### Features

- Operates as an Android-based application
- BlueLink app displays SRW network status
  - SRW Neighbors
  - Adjacent Nodes
  - Island Heads
  - Nodes reachable via 1 or more network hops
- PLI-Cam app displays PLI message completion status
- Position location data captured for each of the nodes and geo-located on a map display
- Extends network connectivity to smart phones, accessing the wealth of applications and communications options available
- Smart phone is integrated with the tactical radio network; unwanted cellular transmissions are avoided
- Use DataSoft's SideBridge wireless connection module to interface with the tactical radio providing a wired USB or a wireless Bluetooth connection to the smart phone

# On-the-Move Apps

## Tactical Android Applications



### BlueLink Screenshots

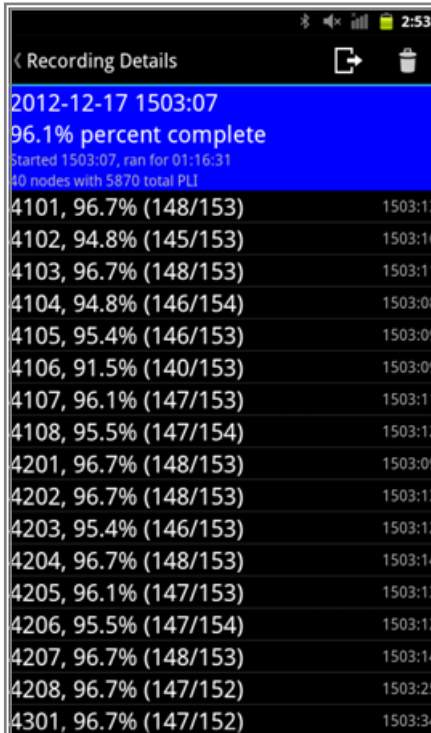


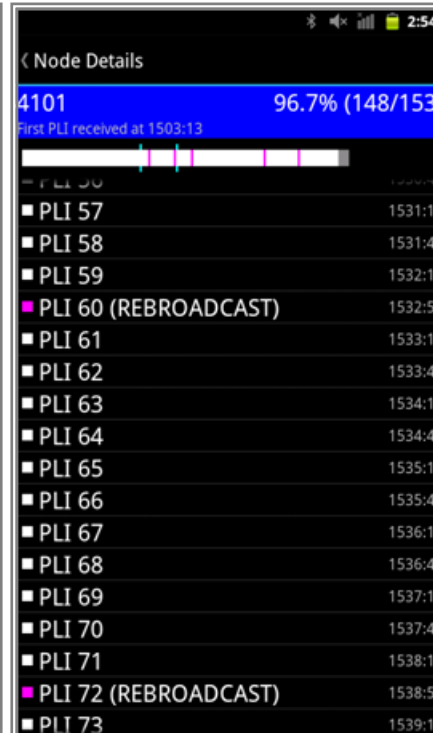
#### BlueLink Help Card

1. The direct neighbor count
2. The Bluetooth connection indicator
3. The Map View tab
4. The local radio status
5. A direct neighbor node
6. A node reachable through another node (Radio 4)
7. A PLI was received for this node but the node is not in the SRW Network
8. An inactive node
9. The Platoon/Company/Battalion and the ID/URN of the node
10. The battery life of the local radio
11. The MGRS coordinates of the local radio
12. The distance from the node
13. The time elapsed since a PLI arrived for the node

BlueLink offers a map view or a list view of the network

### PLI-Cam Screenshots





PLI-Cam Screenshot and Drill-down Screen



# SideBridge Module

## Bluetooth/WiFi Connection Module



### General Description

The SideBridge module interfaces directly with a tactical radio to enable secure wireless connectivity with a Bluetooth enabled device. The SideBridge module expands communications options available from voice-only to the wealth of applications available on a standard smart phone – imaging, data, and video.

The smart phone is integrated with the tactical radio's network and does not require 3G or 4G networking to operate, thereby avoiding unwanted transmissions from the smart phone. Each team member now has access to each other for communication, image sharing, network status, and situational awareness.

The SideBridge module is a low cost, easy to use solution enabling superior communications previously unavailable to most tactical radio users.

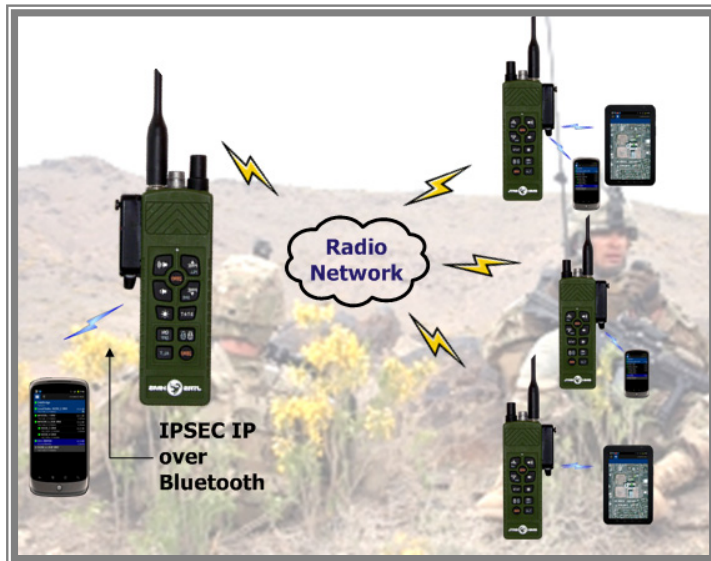
### Benefits

- Secure wireless connection from a Bluetooth enabled device to User's radio—no external cabling required
- User has access to all applications on their smart phone/ or other Bluetooth device
- Situational awareness and data is available to the entire user group, providing cost savings as user can access video, imaging, and data
- Provisioning Adapter is available for programming SideBridge

### Applications

- Remote management/configuration system with SideBridge communicating to any Bluetooth enabled equipment
- User groups can access any application with a smart phone and wirelessly and securely communicate to a tactical radio through the SideBridge module
- Image and video transfer through the tactical radio network via smart phone applications with video compression and store/forward algorithms in development
- Configurable SideBridge-to-radio connection: serial, USB, or custom

### Simplified Network Diagram



### Features

- Secure wireless IP connectivity to a tactical radio; architecture and design are FIPS-140-2 certifiable
- Extends network connectivity to smart phones, accessing the wealth of applications and communications options available
- Smart phone is integrated with the tactical radio network; unwanted cellular transmissions are avoided
- Use SideBridge to communicate with DataSoft's On-the-Move tactical Android applications for situational awareness, network status, and position location information for dismounted troops



# SideBridge Module

## Bluetooth/WiFi Connection Module



### Technical data

#### Wireless interface

Name	Bluetooth
Wireless standard	Bluetooth 2.1+EDR, Power Class 1.5
Frequency range	2.402 GHz ... 2.48 GHz (ISM bandwidth)
Authentication	SHA-256
Encryption	AES with 256 bit keys

#### Antenna

Center frequency	2.4 GHz
Number	1
Type of connection	Direct solder (SideBridge is assembled with Antenna)

#### General data

Width	1.3"
Length	3.4"
Thickness	1"
Weight	2.6 oz
Power consumption	< 1 W max
Operational temperature	-40°C to +85°C



DataSoft Corporation  
1275 W. Washington St.  
Suite 106  
Tempe, AZ 85281  
1-800-797-7153 x447  
[sales@datasoft.com](mailto:sales@datasoft.com)

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