

### Introduction

Private Safety Network and its enhanced features of a Status Reporting System and Advanced Location Technology create a fully integrated, comprehensive communication system. The integrated PSN communication system uses Security and Access Control System interfaces, Bluetooth Low Energy (BTE) beacon technology, and Barcode/QR scanning, to provide a vast array of powerful tools to all varieties of administrative needs, in schools, nursing homes, fire and police departments, college and business campuses etc. PSN is the best solution available to users since many available products feature less direct, slower, centralized communication, or are built on a company heritage which leads to a less complete and less effective approach. PSN is a complete, multi-directional communications system which is designed and dedicated to your safety.

### **Private Safety Network Communications**

Ø	Private Safety Ne	etwork
Ø	TAP TO S EMERGENCY B	
Enter Messa	ge:	
I see that ki	d that got expelled	in the parking lot
To:		R
Groups:		
All Teachers	My Group	Students Security
✓ High Price	prity	SEND

PSN at its foundation is a rapid, virtually-real time, communications network connecting to your predetermined participants as well as any other chosen PSN networks. Communication is routed by your choice, encrypted, shared with as many of your trusted participants as you pick at any time. The multi-directional component to this system allows you to communicate with multiple chosen individuals instantly, all of whom can respond just as quickly to you and others in their network, and to any other chosen linked networks. There is a High Priority option to choose individuals, or that can be combined with the ALL option that allows your message to reach all participants

at once. Chaotic situations can be dealt with immediately, with trusted recipients, who respond to your situation in near-real time. By tapping the send button on your phone, your messages, including your location for help to find you, are sent immediately. Additional messages with more information can be sent later, as time permits. What matters is that a vast, rapid call for help has been initialized to bring protection to you.



#### **Emergency Broadcast**

PSN is a *private* messaging system which allows the user to send *normal or high priority* messages to specifically chosen recipients; or to send an *Emergency event*, by instantly broadcasting to the entirety of their PSN network, and other linked PSN networks. This global broadcast occurs automatically in one motion by tapping the *lightning bolt* button at the top of the phone. The lightning bolt shoots out an emergency notification to all of the participant population in virtually-real time. Responses and additional information among all of the various group participants can then be exchanged providing a *rapid global response* of information again in virtually-real time. The sheer speed of your PSN exchange of information in an emergency event is a powerful force.

Private Safety Network					
lessages:					
enter message here		SEND			
Security - Brett Gilson (9:2	7 AM)				
We have him, there are inj	uries, calling fo	r EMTs			
Admin (9:26 AM)					
People in 205, evacuate if stairwell, Rooms in the fro		the rear			
Security - Brett Gilson (9:2	6 AM)				
We're on the way					
Jim Welch (9:26 AM)					
He's trying to get into roor	n 221				
Joan Y. Baxter (9:26 AM)					
It's coming from the front	of the building				
Admin (9:26 AM)					
People on the first floor of 205, evacuate now. All other buildings, evacuate to the west parking lot.					
Kevin A. Macdonald (9:25	AM)				
It's in building 205, 2nd flo	or				
Kevin A. Macdonald (9:25	AM)				
I hear shots!					

PSN is not just for schools. Any organization can use it – businesses, hospitals, nursing facilities, apartment buildings – anywhere there is a network of people who want to communicate. Individual PSN networks can also link with other PSN networks, creating a broad, far reaching messaging system. For example, a nursing home PSN can link with a first responder PSN, providing the first responders with nearly instant firsthand information about the situation.

The *private* network participant is in charge of their own safety, and that of others, by what they see, hear, or sense; and, then rapidly share using the lightning bolt button. No need to hide behind insufficient barricades, to be afraid to speak or receive a phone call, or to wonder what your friend or family member on the top floor or next building is experiencing. Predetermined

family members, network members, and reliable, chosen responders can act very rapidly knowing what the situation is, where it is located, and what is needed. Private Safety Network is a lightning bolt to action, to your protection, and the safety of others.



#### **PSN Control Center Website**

PSN includes a Control Center website which can act as a command and control station during a crisis. Today's messages are seen in real time, so administrators have current information with which to make decisions and to issue directions. Message replies can be directed to individuals, groups, or the entire network. This allows administrators to provide instructions and information to targeted groups.

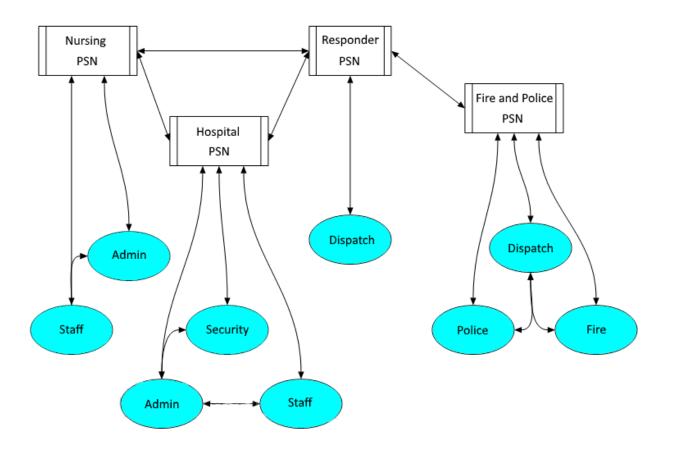
In calmer times the Control Center provides user maintenance functions. In the user group management area, group names, roles, permissions, and membership can be edited. PSN users can request new members be added to the network. The Control Center provides administrators the ability to approve or disapprove these requests, to edit contact information for users, as well as the capability to delete expired users.

All PSN messages are archived, allowing administrators to monitor the network usage. Postmortems of emergencies can be also be conducted by reviewing the message flow. In the Control Center, messages can be searched by content, user and/or date, message threads and individual message content can be viewed.

Time	From	Last Message				
1:28 PM	Admin	Use PSN to contact your parents and family	View Messages			
1:08 PM	Admin	All students please return to home room classes. School will let out at 2:05pm.				
11:16 AM	Admin	bring them to front office now	View Messages			
10:50 AM	Admin	To all, we've had an incident in the parking lot. It's under control, and the police are coming. No one has been harmed, and we're all safe. We'll give you more news when we get it.				
ø Enter Messa	age		View I - 4 of			



# **PSN Linked Networks System**

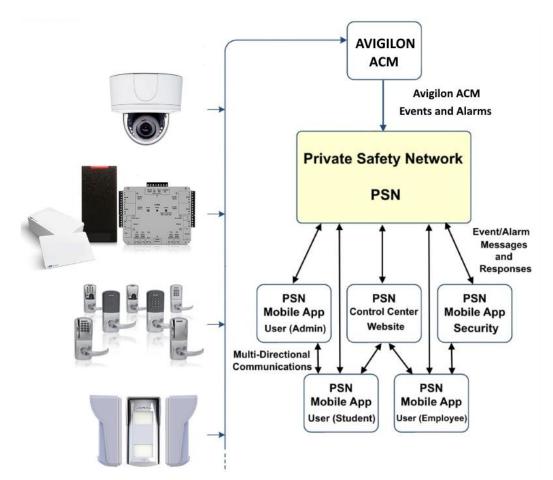


Private Safety Network's Linked Networks provides an interconnected system based on choice and need. Though interconnected, each network retains its own identity, and it remains completely independent and autonomous. When linked together they form a complete PSN Linked Networks System. The distributed architecture of the system increases reliability, speed and performance. This system also allows for a free flow of multi-directional near-instant information to be communicated and responded to. Every unit within the Networks System can be connected while being completely self-contained at the same time.

This process creates a constantly evolving system that adjusts to the inevitable changes and needs of both the independent networks and the Linked Networks System. Linked networks are seamless to the user. They simply appear as another group for messaging. The PSN Linked Networks System is both complexity and simplicity at the same time.



## **Security System/Access Control Integration**



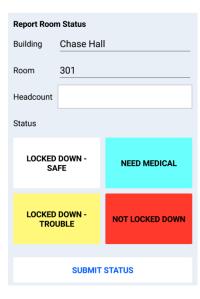
PSN can also interface with Security systems and Access Control systems, adding data from devices to user input. Security hardware such as cameras, motion detectors, ID badge readers, access control management (ACM) systems, and other devices communicate their event information to PSN users via PSN push notifications. The information includes the sensor name, location, event or alarm type, and a message. PSN converts the sensor data into a human readable message. The message is then sent out to PSN user groups. The groups are selected on the basis of the event/alarm type, and are configurable in the PSN Control Center. The device messages start a PSN message thread, and recipients can respond on the thread with more information, combining with capabilities of the PSN communication system, thus forming a complete, coordinated response system. The event data from access control systems is also used to determine user locations.



### **Room Status Reporting**

In an emergency, knowing who is safe and where the trouble spots are is essential. PSNs Room Status Reporting gives administrators a fast visual report of statuses throughout their campus or facility.

Private Safety Network		Home Room Status		Users/Groups	Roles/Permissions	Linked Networks	Archiv	Archived Messages	
Room Statu	S								
Setup Room Statuses		Imp	oort Rooms						
Chase Hall									
Room				Status				Count	
101		Not Lock	ked Down			2	22	12	
102	•	Need Me	Need Medical					32	
201	$\bigcirc$	Locked D	Locked Down - Safe					25	
202	$\bigcirc$	Locked D	Locked Down - Safe					7	
301	(!)	Locked D	)own - Trouble			1	R I	5	
Frye Hall									
Room <sup>\$</sup>				Status				Count	
101		Locked D	Locked Down - Safe					2	
102		Not Lock	Not Locked Down				22	15	
103	?	Unknowr	Unknown				2.2	15	
104		Need Me	Need Medical					24	



The room status report displays both the status of each room as well as the number of people in each room. Administrators can provide as many status descriptions as they like, and can customize the icon and color associated with each status.

Room statuses are reported by PSN app users with a simple, intuitive user interface. Teachers can relay their students' status and needs. Assistant living and nursing home staff members can describe the condition of their patients. Security teams can report the status of each room in a facility. This information allows administrators to allocate resources where they are needed.



# **PSN Advanced Location Technology**

Location information from a cell phone's GPS can be very helpful, but is only as good as the accuracy of the GPS in the area, and does not help identify the floor a user is on. PSN provides additional location information through the use of barcode/QR scanning, BLE beacons and/or smart lock access control systems. Combine one of these options with our Private Safety Network Room Status Report sent directly to your Control Center website to determine your room by room safety status, including the number of persons, along with the names of those using the PSN app.



Barcode/QR scanning allows scanning of ID cards, or scanning of rosters or student class lists. This reports a user's location to the Control Center. Administrators can then view the number of users and their names/ID numbers on the room status page.

BLE beacons can be used to pinpoint user's locations without requiring any user action. As a user comes within the proximity of a beacon, the whereabouts of the user is reported to the Control Center.

PSN can also interface with Access Control systems, combining data from ID card scanning at entrances along with scans of smart locks throughout the facility. Administrators can see all the users



who have entered the facility, if they have safely exited, or their current location.

With the Advanced Location Technology, the names, locations, and head counts along with your customized room risk assessment designations are based on real-time knowledge from these Room Status Reports sent to your website. The reports are sent automatically and continuously without requiring any user input. This can provide valuable information during any critical event.

These are optional additions to the Private Safety Network System. Our goal is always to provide you with the easiest, fastest, most efficient path to your safety and that of those around you.



## **PSN Security**

The security of a Private Safety Network (PSN) is extremely important. Here is how PSN addresses various threats:

- All communication is encrypted and sent over secure links (HTTPS). This is to prevent fake messages from being sent into the PSN (spoofing).
- Redundancy is built into the messaging system. For optimal speed, push notifications are used as the primary method for message transmission. PSN provides a backup methodology as well. If no messages have been received for a period of time (10 seconds), the app will request all the latest messages from the PSN server. This allows the app to make sure that all messages have been received.
- All messages can be traced to an individual user. If there is a bad actor who is sending
  out disinformation messages, their user name is displayed on all of their messages. They
  cannot anonymously send out bad information. This allows administrators to quickly
  remove bad actors by using the Control Center website. Also, users can see who the
  messages are coming from, and can discount those coming from an unreliable source.
- Message senders are validated before messages are sent. A user must be a valid, current user in the PSN to be able to send messages. Every transmission contains authentication data to identify to user sending the message request. This prevents people from outside of the network from being able to send misleading information and fake messages.
- Administrators can manage users quickly and easily. The Control Center provides the ability to manage users. Users can be easily removed from PSN if they are no longer part of the school, organization or group. They can also be removed if they misuse PSN. Administrators also have approval rights on users added to their PSN. No user can be added without an administrator approval. In this way, administrators can make sure the members of the PSN are legitimate and are helpful to the PSN. Users can be removed at any time.
- Administrators have the ability to review all messages sent through their PSN by using the message archive feature of the Control Center. This allows them to determine if there were any bad actors during an event. It also allows them to understand the information flow, and provides a timeline of events as they happened. This can be very helpful in doing a post mortem analysis of an event.