

RoadShout!™



Executive Summary

RoadShout!TM is a revolutionary application that breaks down the barriers to communication between drivers on the road. RoadShout!TM can transform your commute from a miserable, solitary experience, to a dynamic, socially interactive, and unifying experience with the other drivers on the road. A driver using RoadShout!TM, known as a Shouter, can use their smartphone to access groups of other drivers that are available to talk or to establish their own group and let other drivers join in!

RoadShout!TM includes 4 modes: RoadShout!TM GeoTM, RoadShout!TM Private, RoadShout!TM MutualTM, and RoadShout!TM ShoutOut!TM.

In RoadShout!TM GeoTM, groups are established geographically at a certain radius from the initial Shouter. Later Shouters that are within the geographic extent of the group can then join the group if they want to – or start their own group with a geographic radius and a Shouter limit of their choice!

In RoadShout!TM Private, a Shouter establishes a group and then asks their friends to join by sending them an e-mail or text invitation – or by using our Shazam! locality-based automatic invite application.

In RoadShout!TM MutualTM, a group may be established just for Shouters traveling on a particular highway – or even a single direction on a highway – to allow Shouters to commiserate and easily pass on more relevant information to each other.

Finally, in RoadShout!TM ShoutOut!TM, a Shouter can call out to form a group with another Shouter identified by the characteristics of the other Shouter's car and the position of the car relative to the Shouter.

RoadShout!TM Generally

CB (Citizens Band) Radio has been popular with drivers for decades and is still in wide use today. Although use of CB radio by drivers other than professional truckers peaked in popularity in the 70s and 80s, the recent rise in near-constant communication through smartphones has reawakened the social spirit that drove the CB pioneers to reach out to each other while on the lonely road.

RoadShout!TM is a downloadable application for your smartphone that allows you to transform your smartphone to an incredible, social driving experience that provides driver-to-driver, hands-free communication in a limitless number of ways chosen by the driver. Unlike traditional CB radio, which only has a range of up to 4 miles, RoadShout!TM uses the driver's cell phone carrier. Thus, the effective range of communication between drivers is potentially infinite, and only occasionally limited by lack of cell phone coverage in an area.

RoadShout!TM is predominantly driven by voice commands so that a user can remain hands-free in compliance with local anti-cell phone laws. Similar to applications such as Google Glass and Xbox One Kinect, one activated RoadShout!TM "listens" for the driver to say "RoadShout!" followed by the command code that the driver wants to implement. When menu selections are available, RoadShout!TM reads out menu selections for the driver.

RoadShout!TM forms dynamic groups of drivers to which drivers may be added or removed, such as when they move too far away from the originator of the group.

RoadShout!TM includes 4 modes: 1) RoadShout!TM GeoTM, 2) RoadShout!TM Private, 3) RoadShout!TM MutualTM, and 4) RoadShout!TM ShoutOut!TM.

I. RoadShout!TM GeoTM- Talk with people within a chosen geographic area

In RoadShout!TM GeoTM, drivers are able to talk with other nearby drivers that are also running RoadShout!TM. From the driver's perspective, this is similar to the classic CB Radio.

Once the app is running in voice-sensing mode, the driver may use the voice command of "RoadShout! Geo" to enter this mode. RoadShout!TM then checks with the already-established driver groups that are available on its servers to determine if the new driver is located inside a driver group. RoadShout!TM then gives the driver the option to add themselves to one of the available driver groups, to create their own driver group, or to request addition to a protected driver group.

To make their own driver group, the Shouter can either select in real time the parameters of their group or can have already pre-configured the group parameters using the application on the smart phone. Group parameters include such things as the geographic extent of the group from the Shouter and the maximum number of Shouters to allow in the group. Additionally, the group may allow Shouters to remain in the group if they were ever part of the group, even if they are now outside the geographic extent of the group.

If the original Shouter needs to leave the group, the Shouter can pass the group to one of the other Shouters in the group who will then be in charge of the group.

II. RoadShout!TM Private - Talk with your friends

In RoadShout!TM Private, only Shouters that are invited to join a group may participate. One neat feature is something that we like to call Shazam! – several users stand together, enter Private mode and then one user initiates Private using the Shazam! button. When that happens, our system automatically searches for all smartphones that are within 2 meters of the activating cell phone and adds them to a Private group. It's kind of like synchronizing your watches before a road trip!

Alternatively, the Shouter setting up the group can send texts or e-mails to the desired group members with hyperlinks allowing them to join the group.

With Private, the Shouter that originated the group remains in charge and can add and delete Shouters to the group if desired.

III. RoadShout!TM MutualTM- Going my way?

RoadShout!TM MutualTM lets you talk with people that are going your way. For example, when the Shouter enters MutualTM, RoadShout!TM determines whether they are on a highway and also determines their direction. Instead of groups being defined by a circular geographic area, groups are defined by a distance forward and back along the highway, so only people on the highway can participate – and, if selected by a Shouter, only people going their way. That way, Shouters can more easily talk with other Shouters about conditions on the highway that might affect them both.

If the Shouter is in an urban area, then MutualTM just forms a group with people on the street that the Shouter is using. Urban the linear distance forward and back is typically much reduced.

IV. RoadShout!TM ShoutOut!TM - Call out to other individual drivers

ShoutOut!TM lets you instantly form a connection and talk with another Shouter on the road based on observable characteristics of the other Shouter's car. In ShoutOut!TM, Shouters supply details of their car to RoadShout!TM, including color, make, and model such as "Green, Toyota, Corolla, for example. RoadShout!TM associates the vehicle information with a specific Shouter and keeps track of the positions of the Shouters relative to one another.

ShoutOut!TM also recognizes basic positional information of drivers relative to the shouter including FarAhead, NearAhead, EvenWith, PassedMe, NearBehind, and FarBehind.

Thus, one Shouter might want to talk to a car that just passed him and might say, "RoadShout", "Shoutout", "Green car", "Passed Me". RoadShout!TM then uses the positional information of other Shouters that have ShoutOut!TM enabled to attempt to find the right driver. If the driver is found, ShoutOut!TM provides an audible indication and then sets up a private group with just the two drivers so that they can talk. The group automatically ends when either of the drivers exits.

If ShoutOut!TM identifies more than one potential target for the ShoutOut, then it provides the driver with the differentiating information and asks the driver to select. For example, if the driver asks for a ShoutOut to a White Ford and there are three White Fords nearby, ShoutOut lists them as options and requests that the driver select. For example, "There are three White Fords nearby. White Ford #1 is a White Ford F-150 that is NearBehind. White Ford #2 is a White Ford Escort that is FarBehind. White Ford #3 is a White Ford Mustang that is FarAhead." At any point the driver may state "White Ford #2" or just "2" to make their choice.

ShoutOut!TM can be configured to override other modes so that if a driver is in Mutual and a ShoutOut arrives, communication will switch to the ShoutOut.

Also, ShoutOut!TM may be configured so that a driver is presented with the option as to whether to form the communication connection. In one mode, the driver may just be informed that a ShoutOut connection is requested. In another mode, the driver may also be told the identifying characteristics of the other driver, such as “White Honda Accord, NearBehind” and then the driver can choose whether to allow the ShoutOut to proceed.

ShoutOut also allows individual people to be blocked and allows drivers to report an abusive Shouter so that the Shouter may have their access blocked.

RoadShout!TM – Underlying Technology

RoadShout!TM primarily uses voice activation technology and the smartphone's GPS system. We operate using the smartphone's internet connection to provide VOIP voice and send and receive command signals to the smartphone.

When a driver starts our app, we establish a link with our server and start recording the driver's position and direction using the smartphone's GPS system. Our server including an identifier of each Shouter running our app, along with their position, direction, group memberships, group options, and Shouter-selected preferences such as whether they are open to ShoutOuts. Additionally, an identifier for each group is stored, along with the geographic extent of the group, members of the group, and any other group parameters.

When a driver indicates that they want to join a group, we use the driver's position obtained through the GPS, access the group list and determine if the position falls inside any group. All such groups are presented to the driver, and the driver then selects a group. The driver ID is then associated with the group and all VOIP signals received from all members of the group are relayed to our server and then transmitted out to all members of the group. That is, when there are multiple members of a group, in order to save bandwidth, the VOIP feed is received from all group members at our server and then combined into a single VOIP feed representing a combined voice channel of all of the VOIP feeds. This combined VOIP feed is then transmitted to each of the members of the group.

Thus, our infrastructure needs are fairly conservative because we primarily operate over the preexisting smartphone internet network.

Future Development

We have three important developments that we are working on right now.

1. Direct integration with the car

Many cars now have onboard communication systems that provide wireless service. We are attempting to have our product directly integrated into a console screen. We anticipate that a user may still access their RoadShout!TM account either using their mobile or through the computer, but the primary access would be through a console-integrated touch screen that also has a microphone. For example, the OnStar system primarily uses Verizon Wireless as a carrier and is a prime candidate.

2. Link Private to Facebook and LinkedIn to invite friends

We are not sure if we are going to market this as a special type of Private mode or if we are going to market it as RoadShout!TM FriendsTM. In this mode, a driver could either send an invitation to all of their Facebook friends, or a desired subset of their friends, to join a Private session. The driver could import a listing of their friends or contacts into RoadShout!TM and then import individual friends into a group identifier they could establish. The driver could then initiate the group and contact information could be sent to all of the friends in the group.

In another mode, when the driver has activated RoadShout!TM FriendsTM, an indication would appear on their Facebook when friends visit their page. Approved friends could then click on an icon and join the group.

3. Integrate with Google Glass

Google Glass already displays a real-time map for a driver. What we would do would be to take that map and then populate it with the locations of the Shouters so that when a driver looked through Google Glass, a Shouter would be highlighted or otherwise easily viewable. For example, Shouters that are accepting ShoutOuts might be highlighted in blue. Those in Mutual or Geo might be highlighted in Green and those in Private might be highlighted in red. Additionally, Shouters that in more than one category might be highlighted in both colors, such as half green and half blue for a user in Mutual that is also accepting ShoutOuts.

Additionally, all voice commands and audio may be routed through Google Glass.

Other Patents

The CEO passed on your recommendation to search the PTO's website, so I did. I made a list of the patents below. The CEO says that all of these patents look pretty close to what we came up with. However, the CEO says that you are the best patent attorney around and that you will be able to find a way to get us our patent without infringing on these other patents.

Patents:

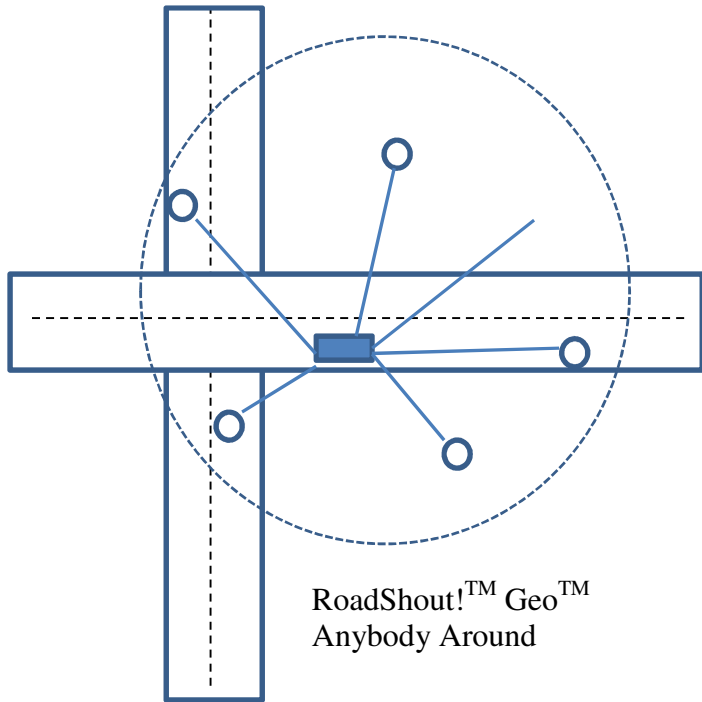
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US 8429287 B2

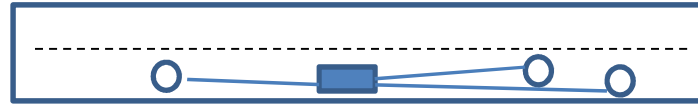
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US 20130214939 A1

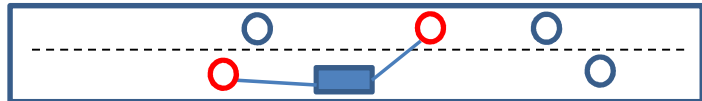
US 20140012665 A1



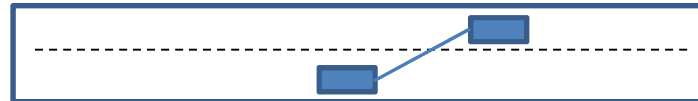
RoadShout!™ Geo™
Anybody Around



RoadShout!™ Mutual™
Those Suffering Along With You



RoadShout!™ Private™
Just Your Friends



RoadShout!™ ShoutOut!™
Someone Special