

INVENTION DISCLOSURE

1. **Invention Title.**

Emergency Service Alert to CPE using a remote controller

2. **Invention Summary.**

This invention proposes an emergency response system by linking home data service subscribers to first responders through the simple click of a button, or a combination of buttons on customer premise equipment remote control or other connected devices on a home network.

3. **Invention Description.**

a. Describe the invention in detail.

There are three broad claims to this invention disclosure:

1. The method and apparatus of communication of the alert from the user via the remote control, receiver and customer premise equipment.
2. The design, method and apparatus of the network elements for communication between the customer premise equipment and the emergency service equipment to relay the alert from the home to the emergency service provider. This may include returning responses to the requestor and forwarding those messages to other services.
3. The design and method of a peer notification system. Also, the method and apparatus for communication between the peer notification system and other customer premise equipment in the network to alert others.

When an MSO subscriber uses a CPE remote control or a connected device in the home network, with a single or a given set of button presses, an emergency service request is sent to the receiver which communicates the same to service provider-controlled equipment (CPE). This request, which is relayed by the CPE to the EAMH server, is then enhanced with additional data and forwarded to public or private emergency service systems and personnel, and also (optionally) to friends/family/neighbors of the requestor.

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**b. Why was the invention developed? What problem(s) does the invention solve?
How is it better?**

The reach of cable today in the United States (and many other countries) is unmatched. Millions of MSO subscribers (56.8m acc. to SNL Kagan of Sept. 2012) already have at least one CPE in their homes. Depending on the study, the average time a subscriber spends watching television ranges from about 3-6 hrs a day. This includes the elderly, disabled, kids, etc. who might need emergency help in various situations (health or safety related). It is, therefore, safe to assume, that they might need this help in the 3-6 hrs of the day they spend watching television with the CPE remote right beside them within arm's reach. This invention proposes to have a big red button, or a combination of existing buttons on the CPE remote to call for help in a quick and easy way when an unforeseen situation occurs. This alert system could also be extended to other devices in the home network. The home network continues to grow with connected devices such as mobile phones ('smartphones'), game consoles, laptops, PCs, refrigerators, etc. These 'connected' devices with coordination could signal the IR receiver of the alert.

The CPE then relays this alert to the EAMH server. The EAMH server then processes the information it receives and enhances it with additional data by communicating with other already existing network elements to furnish data comprising the alert type (input by the requestor), location (from the customer data) to the EMS personnel. This communication between network elements is the second part of this claim.

Optionally, the MSO subscriber can choose to receive and/or send alerts to other select MSO subscriber households- who could be friends, family, neighbors, etc. This 'socializing' feature, which is the third part of this claim, is intended for better communication and quicker response to alerts.

Of course, the current alternative would be to call 911, but there are known limitations to this process, such as, the time it takes to do so when one is not sitting right by the phone. Also, if an intruder breaks into one's home, one might not be in a position to call for help. With the CPE remote right beside the MSO subscriber when he/she is watching TV, it becomes extremely easy to alert for help (even stealthily) when needed.

Also, this invention allows for a way to alert the neighbors/friends/family. In the case of an intrusion/threat to the requestor, when alerted, someone who has signed up to receive alerts can be notified. He/she may choose to then call 911 for supplemental help. Also, if it is a medical alert, maybe neighbors who are qualified to help (such as First Aid/CPR AED certified) could provide medical assistance while the paramedics arrive. This 'help-your-neighbor' socializing feature is not something that the current 911/e911

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alternative has. Cable, on the other hand, with its already existing infrastructure can leverage this functionality.

c. Briefly outline the potential commercial value and customers of the invention.

This would greatly help current subscribers of cable, and also attract new subscribers. When an old-age home, for example, is considering between cable TV and satellite TV subscription, this could be a major deciding factor in them choosing cable over satellite. With an increasing attrition rate of cable subscribers, this would also be an incentive for current subscribers to remain loyal customers. Also, cable could earn some goodwill from both the customers and the regulatory agencies.

4. HOW is this invention different from existing products, processes, systems?

There is currently, no such existing implementation on the cable infrastructure as known to the inventors. The comparable alternative is 911/e911 service that uses the PSTN, Cellular Network, GPS (eg. vehicle telemetry) or a combination of these, but not the HFC network in the way proposed in this disclosure.

- a. Instead of using the phone for voice/text, this method uses **simple pressing** of buttons on the CPE remote or one of the connected devices on the home network to alert first responders.
- b. **Socializes** the intruder alert/medical-help-needed message to the neighbors/friends/family who could be informed (in ways such as, a message displayed while watching TV, a text on the phone, an automated phone call, a pop up of their screen when browsing the Internet on the computer, etc.) and can accordingly take action- which could be either calling 911 (supplemental help) and be aware of the threat themselves and take preventative measures, or in medical alert cases go over to the neighbor that might need some medical assistance while the paramedics arrive.