

Security Industry VoIP White Paper

VoIP is a new voice service option being made available to cable subscribers, among others, that typically offers unlimited local, regional and long-distance calling within the United States and Canada and popular calling features at one low, flat monthly rate. Indeed, this service may offer great value to a cable customer and it is instrumental in reducing attrition of the cable company customer base. This service, coupled with telephone number portability, has begun to skyrocket.

However, without understanding the consequences to other services such as alarm systems, cable companies have begun aggressive marketing programs to woo customers away from the traditional telephone companies onto their VoIP service.

In a number of cases, the result of a subscriber converting to cable VoIP has been the inoperability of the subscriber's alarm system. This is for four reasons:

- 1) First the actual tone signals emitted by alarm systems and their intended central monitoring station receivers do not reliably and consistently propagate over a VoIP channel. While some cable companies have had success in overcoming this, total compatibility is by no means universal.
- 2) Some cable companies will connect VoIP service on the backside of the in-place telephone service, eliminating the "line seize feature" demanded by alarm systems. The result is that, even if the tones were to propagate without distortion, in such a configuration the alarm system could not physically communicate with the central station anyway. The remedy could be a collaborative effort with the Alarm Company working with the Cable Company to rewire and test the "telephone" line connected to the alarm panel.
- 3) Alarm panels cannot sense the loss of the ability to sense a telephone line. The ability should be provided for control panels to "see" a telephone line equivalent, in other words the presence or loss of cable connectivity would reflect in presence or loss of line voltage and dialtone.
- 4) Power failures at the protected premises will render the cable modem and any VoIP hardware connected inoperative, even though the alarm panel has its own battery backup. The cable modem and VoIP hardware should be provided with sufficient battery backup. Typically alarm systems have a minimum of four hours backup and typically 24 hours backup. Since the cable modem and any attached VoIP hardware is in the path of the alarm system, these devices will also need a source of backup power.

Alarm systems help protect billions of dollars of property and millions of lives. The unintended consequence of converting to VoIP is the possibility that an alarm signal for a burglar, fire or other emergency may not be received by the alarm monitoring station, resulting in a serious loss of person or property. This could give rise to a claim against

the Cable Company for failing to properly advise the cable customer of the risk and for failing to take adequate steps to verify that any alarm system on the customers` premises is still functioning after the installation of the VoIP service.

To overcome these obstacles, it is the intent of the alarm industry, through the auspices of the Alarm Industry Communications Committee (AICC), to educate the cable industry of these issues and try to work out a mutually beneficial and rapid solution.

The AICC is uniquely poised to handle this matter for the security industry. AICC is a pan-association group, made up of the three main associations in our industry, the Security Industry Association (SIA), the National Burglar and Fire Alarm Association (NBFAA) and the Central Station Alarm Association (CSAA).

Action Plan Moving Forward

The Alarm industry, working together with the cable industry, should move quickly to adopt a plan for communications compatibility. Such a plan would be designed to provide the following benefits:

- Determine possible remedies at the customer level
- Facilitate a clear roadmap for manufacturers within each industry as to what actions are needed to achieve compatibility
- Coordinate joint industry press releases to the public about the actions being taken to insure public safety

Establish Working Groups

In order to achieve the above objectives, we need to establish industry-working groups that will be assigned by each industry to the problem. Within the security industry, either the SIA DC-06 working group or a sub-committee of AICC shall be the security industry representative. A similar cable industry-working group needs to be established.

It is our belief that the following roadmap of actions can take place, which should result in a timely result if we all work together.

- 1) Identify the working groups from each industry
- 2) Explain the high level objective of compatibility with security equipment
 - a. Quick overview of alarm communications formats need to be explained
 - b. Technical backup documentation for the formats needs to be presented
- 3) Quickly validate the problem areas described above within the networks today that are preventing backward compatibility
- 4) Establish a Qualification program – A way for cable providers to quickly assess their network's compatibility level with security equipment. This can come from a

number of options. A number of security equipment manufacturers stand ready to test their security equipment for any cable company that will provide an installation of its VoIP services.

- 5) So far, we have tested and know of compatibility with a few cable companies and maintain multiple accounts that send signals regularly to ensure compliance with alarm communications. In addition, Time Warner Cable has indicated their willingness and action plan to be compliant with Contact-ID and have a relatively large number of in-house test sites within their network that are now working.