

home jurisdiction or in another location. In addition, the network will be designed with the capability of functioning as an interoperability bridge to legacy systems for users that have not migrated to the network.

As part of the solution, Cyren Call is proposing building an all IP backbone network that is Project 25 compliant and public safety grade into which existing legacy networks can be plugged. This interim solution will allow for voice interoperability while the enhanced broadband network is being constructed. It also will allow current systems to have a useful life prior to migrating to the new broadband network. Further, it will create a path for a smooth transition from the old network to the new with some users operating on both networks for a period of time as they confirm quality and reliability.

It is envisioned that this network will serve as a flat IP platform capable of allowing communications among users on the oldest public safety systems, the latest P-25 networks, and the new broadband network itself. A series of gateways will be tied together with an IP backbone which in the event of an emergency would allow voice communications among multiple organizations and jurisdictions.³⁹

As part of the solution, Cyren Call also will integrate a satellite gateway in the event the terrestrial networks are damaged or otherwise unavailable. Terrestrial build-out of the entire nation will not be possible for the reasons Cyren has described already. Nonetheless, those areas still will be tied to the other public safety and commercial user populations through a satellite overlay network that will provide coverage in areas that cannot economically justify a terrestrial network and redundancy everywhere; a ubiquitous back-up communications system when no terrestrial network coverage is available.

³⁹ Cyren is aware of numerous vendors who have what appear to be useful solutions for interoperability using hardware and software. Cyren expects these vendors to file comments in this proceeding.

This approach, depicted graphically below, is a transition solution. It is effective only if the agencies requiring interoperability have their own transmitting towers in the area. However, in terms of the history of public safety interoperability, it is a giant step forward.

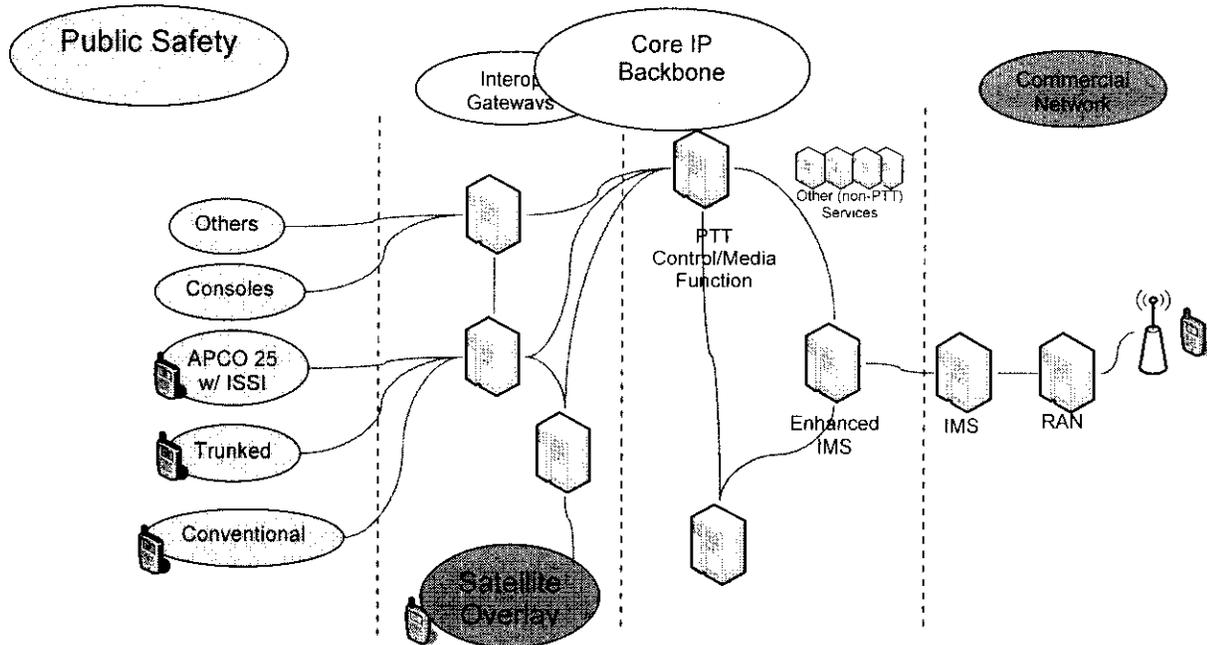


Figure 1 shows the interoperability bridge between Cyren's proposed network and currently operating public safety systems.

B. Only A Commercial Engine Will Drive Broadband Deployment

Cyren built its proposal around the findings in the FCC's Public Safety Needs Report.

However, in that same document, the FCC also identified the formidable challenge of funding a comprehensive network:

In addition to adequate spectrum and efficient technology, the realization of a nationwide interoperable broadband mobile communications network also would require sufficient funding. While of significant benefit to public safety, implementation of such a network would likely be costly.... Without adequate funding... it is likely that public safety would be unable to implement a nationwide, interoperable broadband network. In addition, absent adequate funding, cash-strapped public safety entities could implement broadband systems

that are less capable and efficient and do not include a nationwide interoperable feature, which could create gaps in a nationwide system.⁴⁰

Regrettably, the Commission's analysis is correct. Its conclusion was echoed by the Technology CEO Council which has called on Congress to establish a "multiyear funding mechanism to assist public safety organizations and other government agencies in deploying advanced technologies that use spectrum more efficiently and to make their network interoperable."⁴¹

It may be that the government, at some future date, will make available the billions of dollars required to build a truly advanced public safety network - and also will earmark the ongoing funding needed to maintain and consistently upgrade such a system. But even if that possibility were a certainty, which it clearly is not, that solution is not optimal.

Indeed, even if the government were able to fund a public safety broadband project at 700 MHz, both as to initial implementation and ongoing maintenance and technology refreshment, it is questionable whether it would be fiscally prudent to spend billions of dollars to deploy a stand-alone public safety network of this magnitude. As spectrum that is usable for mobile operations becomes increasingly scarce, it is incumbent upon all users, including local, state and federal public safety entities, to maximize utilization of the channels allotted to them. Given the significant efficiencies that can be derived from a properly designed and managed 30 MHz broadband network, it no longer serves the public interest to maintain the spectrum silos that historically have segregated the operations of local, state and federal public organizations. Further, technology such as that proposed on this network obviates the need to reserve for exclusive public safety utilization spectrum resources and related capacity that, outside the context of emergency or catastrophic events, largely will lay fallow.

⁴⁰ Public Safety Needs Report at ¶ 30.

⁴¹ Technology CEO Council Report at p. 3.

This “better solution” from a spectrum efficiency perspective also presents an unprecedented opportunity for public safety to share a network with commercial users and have the infrastructure build-out financed by the commercial operations. The economic benefits of this approach are obvious. It would avoid dedicating taxpayer dollars to construct a system with an upfront *per user* capital cost of perhaps hundreds of thousands of dollars - even if spread over the entire local, state and federal user base.⁴² This public/private partnership arrangement could be accomplished by the Commission expanding the vision articulated in its secondary market proceeding and extending its spectrum lease provisions to this unique public safety authorization.⁴³

In that proceeding the Commission recognized the efficiencies achieved through secondary licensing and stated that the development of secondary markets meets the Commission’s objectives “to encourage the development of broadband services to all Americans, promote increased facilities-based competition among service providers, enhance economic opportunities and access for the provision of communications services, and enable development of additional and innovative services in rural areas.”⁴⁴ All of these important objectives are met by the instant proposal. While the FCC permits secondary leasing in many circumstances for numerous service categories, licensees on public safety spectrum are expressly prohibited from entering into secondary market agreements except under limited circumstances.⁴⁵ The preclusion is intended to protect the public safety community generally from injudicious action by a given licensee in allowing its spectrum to be used for other than public safety operations.

⁴² See n. 14 *supra*. The per user cost of the network proposed herein, if spread only among the core public safety/first responder user group members, would far exceed even the very significant costs of the systems described in that note.

⁴³ *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, WT Docket No. 00-230 (rel. September 2, 2004), p. 3. See also, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Fcd 20604 (2003). See generally, SPTF, ET Docket No. 02-125.

⁴⁴ *Id.* at 3.

⁴⁵ See 47 C.F.R. § 90.20(h).

That limitation may be reasonable when applied to narrowband channels which should be returned to the FCC for use by other eligible entities in the event the licensee does not need the capacity. Those same concerns do not arise in the context of an advanced network such as that described in this Petition where usage is determined by capacity requirements at a given point in time rather than discrete channel assignments. The Commission has noted that secondary lease agreements expand “the scope of available wireless services and devices and [enable] more efficient and dynamic use of spectrum to the ultimate benefit of consumers throughout the country.”⁴⁶ As outlined in this Petition, the use of secondary market agreements creates the first self-sustaining business case model for public safety. The existing restriction on leasing of public safety spectrum certainly does not outweigh the tangible benefits of capitalizing on commercial operations to fund deployment of a broadband network that will be designed, managed and shared by public safety.

Others also have recognized the importance of harnessing the benefits of free market principles through secondary proceedings to promote more efficient use of public safety spectrum. For example, Joshua Marsh states “[i]f the FCC were to permit secondary markets in public safety spectrum, several types of markets might emerge that could benefit both public safety agencies and the public at large.”⁴⁷ Marsh outlines several possible spectrum scenarios for public safety using secondary markets and notes that “each provides more flexibility in spectrum management – potentially putting more underutilized spectrum into the hands of those who value it the most and providing a mechanism by which the market can alleviate interference.”⁴⁸

⁴⁶ Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, WT Docket No. 00-230, 19 FCC Rcd 17503 at 17506 (2004) (citing *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 00-230, 18 FCC Rcd 24817 (2003)).

⁴⁷ Marsh, Joshua, “Secondary Markets in Non-Federal Public Safety Spectrum,” p. 17.

⁴⁸ *Id.*

Shifting the infrastructure build-out cost to the commercial side of the *partnership* is critical to the success of this proposal. Public monies that otherwise might be devoted to a less feature-rich system deployment instead will be available for other first responder communications purposes. Public safety users will be responsible only for the reasonable, pay-as-you-go costs of their own equipment, which itself will be available at a discount in response to the combined size of the public safety/commercial user base. They also will pay usage-based service charges, including amounts to fund research and development activities focused on public safety-specific devices, services and solutions. In addition, those charges will fund network administration and coordination, as well as some portion of network upgrade expenses.

For these reasons, Cyren believes the public/private partnership proposed herein is the best, most economically feasible and most practical solution available from both a public policy and fiscal policy perspective.

C. The Framework for a Shared 700 MHz Public Safety/Commercial Broadband Network

There are essential building blocks for deploying a nationwide, IP-based, broadband mobile network capable of delivering innovative data applications as well as traditional public safety grade voice services and able to support an interoperability bridge with other local, state and federal governmental systems. This network will be constructed, maintained properly and upgraded when appropriate, provided the following steps are taken:

- Initiation of a process whereby the initial Broadband Trust is established based on recommendations of local, state and federal governmental organizations;
- Issuance of a license for the 700 MHz Spectrum to the Trust with specific authority to enter into leases with qualified carriers to construct, operate and maintain the network;⁴⁹

⁴⁹ See 47 C.F.R. §§ 1.9010, 1.9020, The spectrum leasing rules provide two options: the spectrum management lease and the *de facto* transfer lease. The question of which is preferable in the context of this public/private arrangement should be explored in the rule making proceeding.

- *Establishment by the Trust of network protocols and procedures that provide public safety entities with software “lock and key” control over their operations that in all critical respects are substantially equivalent to the physical control exercised over public safety facilities in traditional “command-and-control” operations;*
- Authority for the carriers to provide commercial service on the network subject to maintaining a flexible, as-demanded level of network capacity to meet event-driven, emergency public safety requirements;
- Recognition that the Trust must engage an agent to drive “evergreen” technology development consistent with public safety specifications, to oversee network deployment, to manage the inter-relationship of public safety and commercial operations, and to assist the Trust in all activities related to the network.

Adoption of a regulatory framework that includes these elements will provide a 21st Century solution to emergency response provider 21st Century communications requirements.

1. Sharing the Network

Public safety agencies bear a responsibility for protecting the public safety and welfare, a responsibility that cannot be assigned, transferred or out-sourced. This singular obligation historically has discouraged public safety entities from relying on communications facilities to meet critical requirements other than those under their direct, physical command and control.⁵⁰ The implementation of regional and even statewide trunking systems in recent years has required participating organizations to balance the cost and operational benefits of a shared radio system against the surrender to the organizing entity of the autonomous authority typical of public safety operations. Those arrangements have worked because decision making remains under the control of public safety individuals or organizations that are representative of the agency

⁵⁰ Governmental entities providing public safety services to public bodies receive certain liability protections. Likewise, private entities such as the commercial carriers and network manager that provide similar services to public bodies must be granted comparable “sovereign immunity” liability protections. These protections are a critical element to justify the significant financial investments required by the private sector to provide services on behalf of public safety to the public at large. Cyren intends to seek Congressional action in respect to providing the immunity that will be required.

participants. *Understandably, however, the emergency response provider community largely* has remained unwilling to move critical activities to commercial systems whose specifications they do not determine and whose operations, practices and policies they cannot direct.

It is uniquely the deployment of an all IP, advanced, broadband technology on a 30 MHz allocation that permits Cyren to propose a common, "shared" network, one that blends the economic advantages of commercial operations without sacrificing the controls essential to reliable public safety usage. The spectrum efficiency derived from having these disparate user groups sharing a single network is, by itself, a compelling rationale for adopting the regulatory framework proposed herein. It validates the FCC's most progressive thinking on spectrum management and would be unachievable but for the technology drivers that have delivered this IP-based broadband opportunity.

Cyren appreciates that public safety users historically have been reluctant to rely on commercial systems. Headlines decrying bottleneck congestion during large-scale emergencies are "red flags" for users whose need for reliable communications is greatest during just such events. This type of operational gridlock will not occur on this network since the network itself will be designed to ensure dynamic capacity assignments during emergencies that always favor public safety usage. The more common problems with commercial operations - such as scheduling maintenance windows, insufficient battery backup at transmitter sites, and unreliable T1s - will be addressed at the outset since the Trust will be establishing system specifications.

Thus, public safety organizations (through the Broadband Trust as the nationwide licensee) and customers of the commercial operators (as 700 MHz Spectrum lessees) will share an advanced, IP-based broadband network utilizing an industry standard technology.

Commercial operations will have presumptive access to whatever capacity is not being utilized

by public safety, while public safety will have preemptive access to whatever capacity is needed to satisfy its requirements at any given point in time. The essence of this shared network is depicted graphically below:

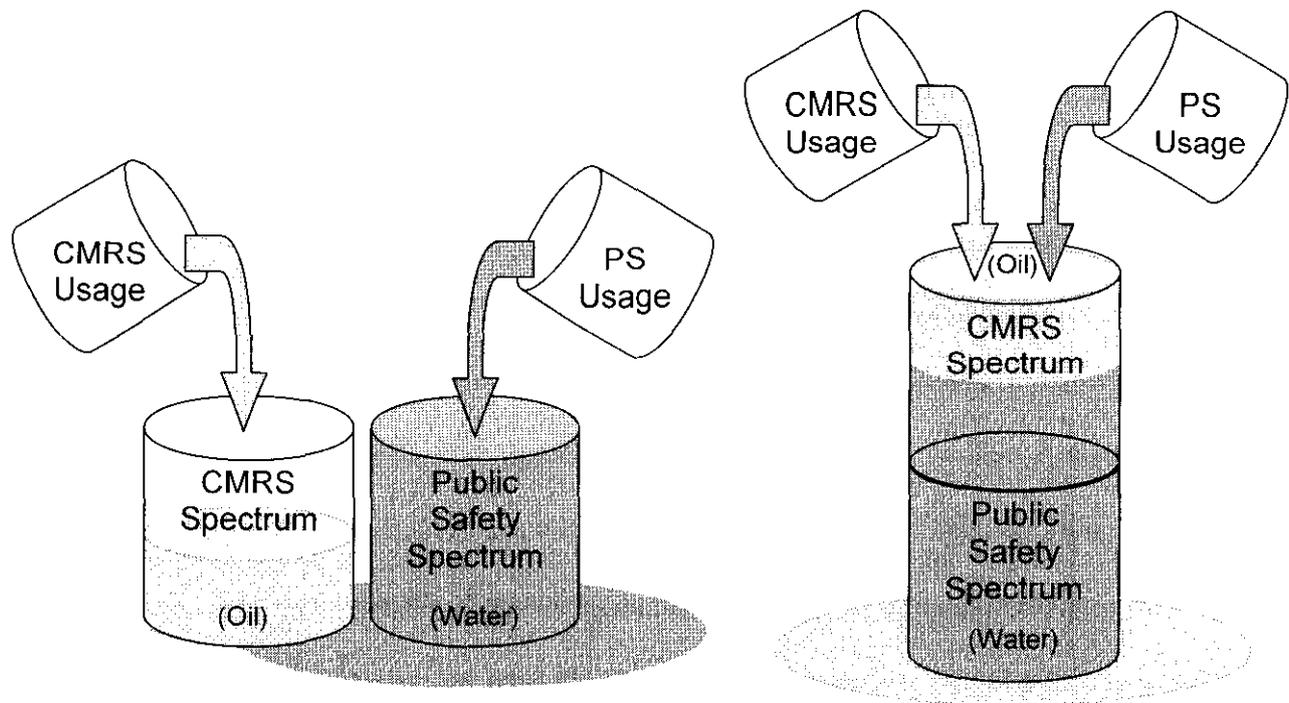


Figure 2 depicts how public safety and commercial services will share a single network licensed to public safety providing public safety preemptive access to whatever spectrum is needed to satisfy its requirements at any point in time.

This system design will provide an elegant structure of checks and balances that optimizes efficient utilization of this spectrum. Public safety and commercial users each will make use of their respective portions of the overall network capacity, transparent to the others' operations, until an emergency requires public safety to preempt some portion of the commercial capacity. After the event is over, each user group will revert automatically to its normal claim on overall network capacity. On a day-to-day basis, public safety has relatively limited capacity requirements; its needs are only sporadically intense. By contrast, commercial usage tends to be

consistent from day-to-day with predictable peak periods. In the context of a shared network, public safety will learn to weigh an inclination to reserve spectrum when it is not needed against the cost of unnecessarily displacing commercial operation. Importantly, this “capacity-on-demand” approach eliminates what on narrowband spectrum is the unavoidable, but spectrally wasteful, practice of maintaining channels for emergency purposes only. Ample capacity will be accessible whenever public safety needs it, but it will be available for productive commercial use at all other times.

There also will be an inherent tension between the features and coverage desired by the Broadband Trust and the commercial operators’ evaluation of the network that can be funded, maintained and refreshed. If public safety’s expectations are unrealistic, they will be tempered by the economic realities that the commercial side brings to this project. On the other hand, a commercial operator who is unwilling to satisfy legitimate public safety requirements will not be selected to participate. The result will be a balanced, fiscally prudent approach to network deployment, operation, and expansion.

2. Selecting Commercial Operators

a) Legal/Operational Qualifications

The Broadband Trust will need to consider a number of factors when selecting commercial partners. Obviously these lessees must meet all basic FCC qualifications for spectrum lessees. They also must have demonstrable technical, financial and operational capabilities that will permit them to fulfill their obligations in deploying the most advanced wireless system in the nation, consistent with the more rigorous specifications imposed by the Trust. The novel process by which the Trust will test applicants’ financial commitments and also fund network deployment is described more fully *infra*.

There is, however, an additional consideration dictated by the unique coverage requirements of public safety systems. A typical commercial system is built to serve markets of greatest population concentration and the corridors that connect them. As a commercial carrier reaches beyond populated areas, a rigorous cost benefit analysis is conducted to support the extension of cell site coverage. By contrast, public safety must operate wherever there are people or property to protect, however sparsely scattered. The network proposed by Cyren, of necessity, is national in scope. There undoubtedly will be numerous commercial entities eager to participate in its deployment in population centers. Some may already be providing commercial service in these markets; others may be new entrants that could provide competitive vigor to a consolidating wireless marketplace.

Yet it also is essential that the network be built out in more rural communities where prospective providers likely will be fewer. For this reason, the Broadband Trust should look to existing commercial operators as partners outside the major metropolitan areas. Companies with proven track records in operating successful wireless systems in less populated markets clearly represent the best choice for this purpose. Such operators have hands-on experience in building viable wireless businesses in challenging environments. They are able to recommend market delineations that make operational and economic sense in the more rural environments with which they are familiar. Rural carriers even may have existing infrastructure that can host this network, thereby reducing upfront costs and creating a viable economic opportunity in communities that national carriers typically avoid. Many likely have strong working relationships already with the public safety agencies in the markets they serve. They will be highly motivated to provide the quality of service this network will demand both to the first

responder and to the commercial user communities in their marketplaces. Cyren expects this segment of the wireless industry to be a capable, committed partner of the Broadband Trust.

b) Commercial Carrier Financial Commitment

Competitive bidding is an appropriate means of assigning spectrum to the party that values it most from among competing applicants. Spectrum auctions have proven to be a fair, fast and effective means of awarding licenses in many circumstances and also have contributed substantial monies to the Federal Treasury.

Nonetheless, both Congress and the Commission have confirmed that the generation of revenue is a fortuitous byproduct of, and not the motivation for, spectrum auctions. They recognize that the dollars paid for the acquisition of spectrum are then unavailable for other purposes such as system deployment, at least until recovered from subscribers in the form of usage charges. It is, in essence, a zero sum game and credible arguments have been presented that auctions may even cost the government money over the long-term.⁵¹

Under Cyren's proposal, it is not necessary to determine whether the 700 MHz Spectrum license should be auctioned by the FCC. Congress already has determined that spectrum used to provide public safety services is exempt from competitive bidding.⁵² The Trust, consisting of representative public safety entities, will be the sole licensee of the 700 MHz Spectrum and is exempt from any auction obligation.

Nonetheless, Cyren believes that a novel auction approach conducted not by the FCC, but by the Trust, could play an important role in ensuring nationwide network deployment. For example, it recommends that the Broadband Trust consider employing a "negative auction" as

⁵¹ See Exhibit I for a discussion of this perspective.

⁵² See 47 U.S.C. § 309(j)(2)(a).

part of the carrier selection process.⁵³ Each applicant for lessee rights in a market would identify either how much it would pay for the right to deploy in that market or, alternatively, how much funding it would need to justify network build-out and subsequent operations. While the party's economic proposal would not necessarily be determinative in identifying the optimal lessee, as qualifications other than financial also will be important for the reasons previously described, it would provide a mechanism for using the superior economics of major market operations to support rural deployment.⁵⁴ Monies paid by providers to secure spectrum lease rights in the more populated, economically self-sustainable urban market areas would be used to help fund build-out in markets where population density and growth potential would not normally justify deployment of a broadband network. This "Robin Hood" approach to maximizing system coverage is similar to the Universal Service Fund concept in which the cost of telephone service in rural or high cost areas is subsidized by all telephone network users.⁵⁵ It is amply justified by the overall public benefit in having a truly nationwide, advanced public safety network.

Thus, monies that would have been collected in a public auction instead will be used to finance development and implementation of the most advanced wireless system in the nation, tailored specifically to the requirements of public safety users. The overall public interest unquestionably is served by foregoing an immediate contribution of auction dollars to the Federal Treasury in favor of using those same dollars to deploy the nationwide network proposed herein.

⁵³ See Attachment F for a discussion of auction issues relevant to the instant proposal.

⁵⁴ Because the FCC generally has relied on Economic Areas ("EA") and larger geographic groupings to define auction properties and has established population coverage as the benchmark for retaining spectrum, it is not surprising that carriers have gravitated toward serving the population cores in their markets and that smaller, less urban carriers have not had meaningful opportunities to participate in auctions that use those geographic definitions.

⁵⁵ See 47 U.S.C. § 254.

3. Public Safety Financial Commitment

A public/private partnership is essential if public safety ever is to have access to a truly advanced network with the types of capabilities envisioned by the Commission and by Congress. There is no realistic opportunity for public safety to self-fund such an undertaking. However, if these users can avoid the substantial up-front cost of infrastructure build-out, there will be funds available to purchase or lease IP-based, broadband-capable end user units, pay network airtime charges consistent with the capabilities of the network, and participate in the ongoing funding of network and technology upgrades to keep the system "evergreen."⁵⁶ The cost of subscriber units will be driven down to levels heretofore unavailable to first responders since these units, although built to public safety specifications, will contain many of the same components as those in subscriber units deployed by commercial network users.⁵⁷ For the first time, there will be a broad enough user base to achieve the cost efficiencies that make cell phones and other wireless devices well within the means of virtually the entire population.

Network airtime charges obviously must be set within a range acceptable to the general public safety community, but are needed for several reasons. First, although public safety will avoid billions of dollars of infrastructure expense, it must assume a reasonable portion of the ongoing cost of operating and maintaining the network. Second, these charges are an important spectrum management tool. Public safety, like all users of the public airwaves, must manage its spectrum utilization prudently and for the general public interest. As the licensee, public safety will have access to the entire network capacity when and as long as needed to fulfill safety-

⁵⁶ The largely static characteristics of traditional private systems constructed by public safety entities too often have required total system replacement rather than selective updating of software and components to take advantage of technology advances.

⁵⁷ Cyren expects other wireless user categories, including, but not limited to, those in critical infrastructure industries, to have a keen interest in operating on this network with units built to public safety technical specifications.

related obligations. However, to the extent doing so may displace commercial operations, the economic engine of the network, it is appropriate to maintain an economic discipline on public safety's capacity usage.

Additionally, since one key feature of the network is its nationwide interoperability, it is important that it be accessible to public safety and commercial users whether located in urban or less populated areas. Communities with smaller populations often have commensurately smaller budgets to fund communications activities. Similar to the negative-auction concept described *supra*, the Broadband Trust should set and manage the public safety usage fees at a uniform nationwide level to promote network participation in smaller communities with higher costs since enhanced interoperability benefits the public interest generally.

Finally, it is imperative that public safety participate in funding and thereby influence the public safety-oriented aspects of network upgrades. As discussed previously, technical stagnation is one of the fundamental problems with public safety communications. It is exceedingly difficult to upgrade or replace systems because their initial deployment costs are so substantial. With typical technology development cycles now running no more than 24 months and lengthy public safety funding and bidding processes, even state-of-the-art systems can short-change first responders within a brief time after, and sometimes even before, deployment. Competitive pressures on the commercial side will be a powerful motivation for carriers to keep the network "evergreen," but public safety also will be responsible for participating in that important effort.

4. Managing the Network

a) Role of the Broadband Trust

The Broadband Trust – the entity holding the single public safety license for the 30 MHz of spectrum – is essential to Cyren’s proposal. The public safety community must be assured that the organizations that comprise the Trust fully and fairly represent the interests of first responders at the local, state and federal levels. It must be confident that the Trust is capable of developing technical, operational and coverage specifications for this network that will satisfy public safety requirements. That community must be certain that the Trust has the skills needed to manage an advanced network of this size and scope, including overseeing the relationship between the public safety usage it represents and the commercial operation, the viability of which is the foundation on which public safety operations are made possible.

For example, before the public safety community will embrace the use of a shared network, safeguards must be in place to ensure that operations will be, in important respects, as secure, confidential and responsive to individual user control as under a traditional “command-and-control” system. The Broadband Trust will be responsible for defining the software “locks and keys” of a mobile, technically advanced network to satisfy those criteria and for overseeing their implementation. The Trust also will remain responsible for meeting whatever construction timelines and coverage standards are conditions to its license. Thus, it will need to develop tools for measuring carrier deployment status and prophylactic measures should those efforts fall behind schedule in any market (or should service in a market be discontinued after construction) so that nationwide coverage and interoperability are maintained.⁵⁸ Because the Trust will speak with one voice to technology vendors and other providers on behalf of all public safety users on

⁵⁸ The Trust should have substantial latitude in defining and managing coverage obligations, consistent with the flexibility inherent in the FCC’s spectrum leasing rules.

the network, it will have significant leverage to dictate product development and negotiate attractive terms.

Cyren anticipates that the FCC will establish a process similar to that used when selecting the North American Numbering Plan Administrator in appointing the initial Broadband Trust members.⁵⁹ The Commission will have authority to approve the organizations that participate as public safety representatives during the first term of the Trust as well as the structure of the Trust itself, including the process by which new, qualified representatives replace existing organizations at pre-determined intervals. The Utah Communications Agency Network (UCAN) is one model the Commission might consider when considering organizational structures for the Trust. Others undoubtedly will be suggested during the rule making process since the Broadband Trust concept is one that has worked well in other instances.

b) Role of Cyren – Network Manager

While the Broadband Trust is vital to the success of this initiative, it will need experienced, qualified assistance in ensuring the success of this network. The Trust will play the essential role in defining network specifications and user controls and in establishing the protocols necessary to establish user priorities and interoperability. However, by definition, the Trust's members will have other responsibilities. They cannot be expected to devote full-time attention to this undertaking. Even if they could, management of a network of this scope and complexity will demand highly specialized skills that are not likely to be found within the Trust itself.

Cyren envisions a number of responsibilities that will devolve to the network manager. They include the following: (i) assisting the Trust in defining terrestrial coverage requirements, reliability levels, redundancy arrangement, Quality of Service levels, and other network criteria;

⁵⁹ See *NANP Administration Third Report and Order*, 12 FCC Rcd 23071 (1997).

(ii) assisting the Trust in evaluating technology options; (iii) assisting the Trust in establishing capacity requirements and procedures for seizing additional capacity when necessary; (iv) developing procedures to manage the Trust's relationship with the commercial carrier lessees; (v) overseeing carrier compliance with network deployment, other lease requirements and network protocols on behalf of the Trust; (vi) negotiating with equipment and service vendors on behalf of the Trust to obtain optimal pricing and packages; (vii) establishing procedures for and managing ongoing network operations in areas such as activation and deactivation of units, formation of talk groups, and interoperability; (viii) developing technology and product "roadmaps" for public safety, including processes for keeping the network "evergreen" through technology upgrades; and (ix) administering revenue streams on behalf of the Trust, including distribution of negative auction monies; and (x) establishment and distribution of network usage charges consistent with supporting nationwide participation and other billing and collection activities.

It is beyond question that the Trust will need to engage a qualified entity such as Cyren to manage this project under the Trust's direction and control. It is recognized that the selection of a manager will be entirely at its will.

V. CONCLUSION

For the reasons set forth above, Cyren respectfully requests the FCC promptly to initiate a rule making proceeding to consider this proposal. The men and women who put their lives at risk every day to protect us deserve America's best wireless technology. For too many years we have failed them.

CERTIFICATE OF SERVICE

I, Linda J. Evans, a secretary in the law office of Lukas, Nace, Gutierrez & Sachs,

Chartered, hereby certify that I have on this 27th day of April, 2006 caused to be hand delivered a copy of the foregoing to the following:

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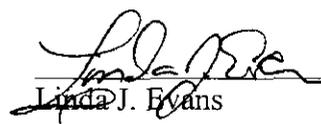
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EXHIBIT I

**The 700 MHz Auction:
Economic Analysis of the
Public Safety & Homeland Security
Benefits of a Public-Private
Partnership**

Alan Pearce, Ph.D.
Information Age Economics

April 2006

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Preamble

“Communications during emergencies and crises must be available for public safety, health, defense, and emergency personnel, as well as all consumers in need. The Nation’s critical communications infrastructure must be reliable, interoperable, redundant, and rapidly restorable.” So stated the Federal Communications Commission in its Strategic Plan 2006-2011.

The FCC currently confronts a unique opportunity to resolve the nation’s communications problems in times of crises with the allocation of a portion of the spectrum at 700 MHz. Its mandate comes directly from the US Congress, which, in 1937, added the following sentence to the Communications Act of 1934:

“For the purpose of obtaining maximum effectiveness from the use of radio and wire communications in connection with safety of life and property, the Commission shall investigate and study all phases of the problem and the best methods of obtaining the cooperation and coordination of these systems.”

Public Safety Communications have suffered from decades of benign neglect and today’s FCC can play a major role in developing a policy to establish a secure, reliable, and interoperable communication system that can be used by the nation’s public safety, federal law enforcement, and homeland defense organizations. Historically the Commission has repeatedly demonstrated its courage by politely resisting the efforts of entrenched forces that have attempted to protect the status quo. Time after time the Commission, in the name of pursuing its mandate from the US Congress, has prevailed in ways that have resulted in enormous economic, business, social, cultural, and educational benefits accruing to the nation as a whole. History suggests that it will tackle today’s challenge and take the steps necessary to resolve the Public Safety and Homeland Security Communications Crisis.