

The following comments, ideas and recommendations are in response in the matter of implementing a nationwide, broadband, interoperable public safety network in the 700 MHz Band. The views expressed below are based upon the underlining principles of equity and equality derived from a *Comprehensive Information and Service Providing System* (U.S. Patent 6,480,121). Therein with regards to:

Paragraph 2)

After amending the user of the Public/Private Partnership (paragraph 55), it is recommended that only official government purpose vehicles should have use of both 700MHz spectrum bands of 758-768/788-798 MHz.

It would be equitable that no required mandates be imposed by the Commission or by any other agency for local/state/federal agencies or departments to subscribe to the network, just as it would have no jurisdiction to impose participation by the general public or by legacy private vehicular service providers (private VSPs).

Further, redefining the user changes the requirement of the PSBLs from a non-profit entity to be a state municipality-type entity (hereinto referred also as govt. VSPs). Under this condition, motivation for financial longevity of PSBLs is focused mostly in collecting registration service fees from the general public and receiving periodic spectrum/network usage fees from an as-of-yet trust fund. As a result of redefining operational roles, the commercial DBLs may be re-classified as a new public utility provider (hereinto referred also as public VSPs).

Paragraph 3)

issue 1 - Technical requirements of a shared wireless broadband network will depend more on a standardized telematics control unit (TCU) to engender an economy of scale in which vehicle owners, public and private, may easily and inexpensively equip the vehicle to transmit and receive data from the VSP of their choice.

Specifically, the TCU should be an interface between the vehicle's databus having GPS coordinates and a plug-in modem. PSBL modems for official government use should operate in the 758-768/788-798 MHz band. DBL modems for general public use should operate in the 758-763/788-793 MHz band. Modems for private use by businesses or individuals should operate in the frequency band allocated to the wireless carrier used by a private VSP.

issue 2 - Since the call centers for PSBLs and DBLs are essentially automated data switching centers, priority access to the D Block spectrum are under command control of official personnel from a network connected operation center.

issue 3 - The DBL should create and distribute realtime traffic status-maps for use by surrounding network members. It should be allowed that vehicles approaching an emergency area under control of an operation center may still receive traffic status-maps but have only the area of concern be highlighted.

The DBL license term needs further discussions relative to capital responsibilities, spectrum fees, operational reserve costs, narrowband relocation negotiations, research and development of TCUs, service area coverage, etc.

issue 4 - It is recommended that neither PSBLs or DBLs provide any services as an MVNO. Since both entities have partnership rights to the spectrum, it can be said that neither shall have any obligation to, nor ever be dependent upon, a third-party provider or wireless carrier. It should be understood that the PSBLs and DBLs depend on each other and that any other private VSP participation must abide by cooperative network bylaws for congruency amongst all member vehicles.

issue 5 - The various fees associated to the shared network are discussed later as a cooperative telematics network (paragraph 42).

issue 6 - It is recommended that the negotiation and the establishment of a Network Sharing Agreement be set and made known before any auction starts. In this way, there will be no ambiguity as to the realistic cost and obligations to investors on bidding for REAG DBLs.

issue 7 - To ensure PSBL and DBL sovereignty, it is recommended that no entity with interests in a media company, Internet company, communication company, wireless company, or a vehicle manufacturer should be eligible to bid on a REAG DBL without having the ability to divest itself from said interests. This restriction should create a favorable environment for today's independent mobile service providers, application service providers, third-party logistics providers, value-added resellers, etc., to rethink their business model of subscription-based services and change to an advertising sponsored-based service to the mass public.

It has been suggested that there should be a multitude of DBLs. Each REAG DBL (public VSP) should be licensed within the jurisdiction of a State (except California, there should be two DBLs to provide services to the 30+ million privately registered vehicles). It is recommended that any eligible entity may openly bid on any and all REAG DBLs, however licenses should be awarded such that no entity may have jurisdiction across two state borders. It satisfies the premise that data is shared amongst public VSPs and further ensures that no one, or just a few entities, has such a mass audience that the Commission will hesitate in license suspension if it is discovered that the public VSP has compromised network bylaws.

As stated above, eligible entities can bid on every state DBL they desire but will be required throughout the process to choose specific DBLs based upon jurisdictional availability and its working capital and funding. Awards should be determined by the very highest bid for a state DBL (probably CA, TX or NY). For example, let's assume Texas receives the highest bid of the 50 states from entity-A (DC may be incorporated with MD). Texas is awarded to entity-A and its bids for New Mexico, Oklahoma, Arkansas, and Louisiana would thereby be disqualified. However, any bid made for Arizona, Utah, Colorado, Kansas, Missouri, Tennessee and Mississippi would still be active.

It is conceivable that entity-B now has the highest bids for both Oklahoma and Louisiana and should have the option to withdraw its bid from one or both in anticipation of holding the highest bid in a neighboring state. If entity-B does accept the awards for both states, its bids on New Mexico, Colorado, Kansas, Missouri, Arkansas, and Mississippi would be disqualified. Its other bids for the surrounding states would still be active, just like entity-A's bids for those states.

It is possible that the third, fourth, or fifth highest bid for New Mexico would be awarded DBL rights. It is the same for Arkansas, and so on. In this manner, it can be assured that at least four entities will build and operate a cooperative telematics network (SWBN).

It is recommended that there be a new "reserve price" calculation for each State REAG DBL (as a result of comments for paragraph 172). So it is conceivable that the lowest dollar bid can win licensing rights for the State with the least amount of registered vehicles. Nevertheless, that entity must still fulfill its obligations to build and operate the cooperative network in a time frame set for that State before the auction began.

It is recommended that each entity set aside funds (determined by required square mile coverage for each state) in an escrow account for each state awarded. Those funds should be at risk of forfeiture if the DBL fails to meet the minimum performance requirements within two years after a standard TCU comes to market.

issue 8 - It is of opinion that the relocation of public safety narrowband operations will be the single largest impediment to the scheduled build-out rate of the SWBN.

Paragraph 4)

Since there will be a winning bid for each REAG DBL, and any bidders that default can be quickly replaced without disrupting a nationwide build-out, alternative recommendations to a Public/Private Partnership is not a matter for discussion. Consequently, no further comments for paragraph 192 and beyond are possible.

Paragraph 5)

Interoperability, balance, and economies of mass are inherent to a public service telematics system that relies on a cooperative of public, private and governmental VSPs.

Paragraph 7)

It is recommended that the Commission does not release the Further Notice of Proposed Rulemaking prematurely. Specifically, the release of rules for expediting deployment without finalizing the specifics of an NSA will incite uncertainty amongst the investment community.

Paragraph 21)

Clarifications regarding an entity's eligibility to use the public safety spectrum are essential for the success of a SWBN. It is of opinion that separating emergency from non-emergency vehicles by having a separate VSP for each is not the proper approach to alleviate the tremendous financial burden placed upon the DBLs. Rather, it is recommended to have two separate but equal VSPs (a PSBL and a DBL) in which mobile TCUs serviced are divided by domains of hierarchy. Even though their jurisdictions lie within the same state, the PSBL's domain of users should serve both state and federal mobile TCUs, emergency and non-emergency alike, and the DBL's domain of users should serve the local and countywide communities of mobile TCUs, emergency and non-emergency alike.

Re-classification of users for PSBLs (govt. VSPs) would require a different organizational structure, network monitoring personnel, bylaws and oversight.

The re-classification of users serviced by public and govt. VSPs in itself provides the appropriate comments requested in paragraphs 28-32.

Paragraph 22)

A further clarification regarding the principle purpose of a SWBN should include that it also serves the general public on a moment-to-moment basis even when there are no active emergency vehicles within the vicinity during their travels in traffic. More importantly, it will cost the general public user nothing to use every day but for a DMV registration fee. It is of opinion that the SWBN does not truly serve the public interest by mainly focusing on developing a network primarily for public safety users.

Paragraph 33)

It would be reasonable to expect that local police departments will utilize their spectrum of the SWBN for realtime video transmissions in short order of implementation. Modifications to dashboard cameras for connecting to the TCU's USB port will enable remote monitoring. This function will allow third-party surveillance during a traffic-stop in which a dispatcher and/or back-up unit may listen and observe for suspicious or aggressive behavior and respond accordingly without the need of the officer to signal for help while in the midst of a physical conflict. Although more for the patrolman's safety rather than for a public citizen, in time the public will become quite aware that traffic-stops bring more than one officer on the scene. So in the long term it is safe to say that such a function will deter criminal behavior, which is in the public best interest.

It should be a matter of redundancy that the legacy network that connects to the officer's in-vehicle laptop computer remains (or relocated) and not unnecessarily occupy the SWBN.

Also, ambulances may transmit video images of an injury to emergency room personnel for evaluation and recommendations of treatment if necessary.

Paragraph 35)

Some local jurisdictions may indeed choose not to opt-in to a SWBN cooperative. This is assumed with the premise that the Commission or any other agency will not impose mandates

upon a local/state/federal agency or department to subscribe to the network, just as it would have no jurisdiction to impose participation by the general public or by legacy private VSPs. It is of opinion that, for the same reason of having a standardized TCU that accepts different sets of modems as commented for paragraph 3-issue 1, all members of the cooperative SWBN should have freedom of choice.

Lack of adequate funding in the early years of deployment may deter rural agencies and departments to opt-in until funds are made more available through the spectrum/network user and DMV registration fees. In the long term, all agencies and departments will voluntarily opt-in as a matter of public demand.

It would become a matter of public speculation as to why their local government would not elect to participate even though the funds were available to connect their operation center to the SWBN. The only other reason why a local government would choose not, or flat-out refuse, to participate in a transparent and equitable network would be a matter of compliance to network bylaws. Just as the possibility exists that shady characters within the general public will not opt-in to a cooperative network, so too it may become obvious to the community that their government has a reason why it doesn't want its movements to be known, and more importantly, document-able.

It is recommended that the areas in which local jurisdictions elect not to participate should not be used for public use. Firstly, modems used by the general public would be limited to the lower-half of the spectrum. Secondly, there will still be state and federal vehicles in that area utilizing the spectrum through the govt. VSP. Thirdly, it would become a matter of public debate as to why their local government has yet to participate. Eventually, as a matter of media pressure, the public safety spectrum will be utilized by local jurisdictions.

If the recommendations are adopted that the general public cannot use the public safety spectrum by restricting the general public to using only modems in the 758-763/788-793 MHz band, and that the users of the PSBL and DBL are re-classified, then compensation for the unused public safety spectrum is not a matter for discussion.

It is of opinion that the Commission can only provide financial incentives (as part of the winning bid proceeds) to encourage and facilitate use of the broadband network by local jurisdictions. Only a neighborhood community can pressure its government to opt-into the cooperative SWBN.

Paragraph 37)

If the recommendations are adopted that the general public cannot use the public safety spectrum by restricting the general public to using only modems in the 758-763/788-793 MHz band, and that the users of the PSBLs and DBLs are re-classified, then the DBLs have a fair amount of certainty that its viewership would be increased for sponsors whenever official local government purpose vehicles participate in the general traffic community while in a non-emergency status.

Similar to state and federal agencies' and departments' obligation to pay taxes, govt. VSPs should not collect user fees related to wireless transmissions. Further, it is recommended that govt. VSPs are not required to pay the Commission spectrum usage fees but rather receive funding from the required spectrum and network usage fees collected periodically from the public and private VSPs. Therefore, the notion for public safety users to actually purchase airtime by any means is no longer a matter for discussion.

Paragraph 40)

It is recommended that the requirement for a PSBL to be a non-profit organization be clarified as a governmental cooperative having representatives from both state and federal justice departments. Under such terms, govt. VSPs would be legally bound to obtain debt or equity financing from sources comparable to any other state or federal administration.

It is recommended that users of govt. VSPs be redefined as "official government users" instead of "public safety users" as to be indicative of its service and inclusiveness. Further, it clarifies the business relationship with the public VSP as to the distribution of location related data within the cooperative network of users. Sharing of location specific data with the public on outside communication networks should be limited by the scope of the government vehicle's purpose. General public warnings and alerts by govt. VSPs concerning site-locations that pose a public safety risk should not be limited for distribution to just within the SWBN but also communicated to outside media outlets by legacy means.

Paragraph 41)

If the recommendation for the above paragraph is adopted, the threat to govt. VSPs of being unduly influenced by for-profit motives or having outside commercial influences should never become a matter for discussion.

Paragraph 42)

It is of opinion that the best way to fund a govt. VSP operation is not by having direct payments from a public VSP to its respective jurisdictional govt. VSP. Rather, it is recommended that the public VSP deposit a quarterly spectrum user fee into a trust fund that should be directed towards the administrative/operational costs of its respective govt. VSP. In addition, private VSPs should deposit an annual or semi-annual SWBN user fee based upon wireless coverage and that the Commission should mandate that it be distributed equally amongst all govt. VSPs. Although not within the Commission's jurisdiction, each govt. VSP may further be funded by annual general public user fees collected by its respective department of motor vehicles. Finally, network bylaws may require the public VSP to invest a percentage of its gross ad-revenue toward a statewide network build-out and an operational cash reserve requirement. It is recommended that some financial commitments be waived after a set wireless coverage is satisfied and its cash reserve is sufficient for a one week crisis in which ad-sponsorship is lost to primary access on the D spectrum for public safety users.

Paragraph 43)

Any public funds that are applicable to a SWBN and obtainable by any local, state or federal agency that benefits from its success should financially contribute within its power.

Paragraph 44)

If the recommendations for paragraphs 40 and 42 are adopted, then any future excessive revenue problem for PSBLs should benefit the DBLs as a reduction in mandated spectrum fees.

Paragraph 45)

If the recommendation for paragraph 40 is adopted, then the legitimacy of incurring certain reasonable and customary expenses incurred by a govt. VSP should follow the same criteria as any other government administrated service.

Paragraph 49)

It is of opinion that the Commission's criteria for the PSBL to focus "exclusively on the needs of public safety entities that stand to benefit from the interoperable broadband network" falls short in creating a communication network that truly benefits all government agencies and departments. Ideally, the separation of levels of government provides inclusiveness for equal benefits to general public users as well.

With respect to the articles of incorporation for govt. VSPs, it is recommended that provisions be made to ensure a transparent, equitable and sustainable relationship with their public VSP

counterparts. With such an agreement, the objectives for each VSP are achieved and an NSA is defined.

In order for a PSBL (govt. VSP) to sustain an optimal partnership with a commercial entity (public VSP), it is recommended that the criteria that only the PSBL may provide wireless services to public safety users be amended to include serving any state and federally owned vehicle and its respective operation center. With such a change should include that a REAG DBL (public VSP) is responsible for serving any other local government's fleet of official vehicles (*i.e.*, emergency and non-emergency users alike) and its respective operation centers in which viewership for advertising into vehicles may be increased. It should be noted that in times and locations for emergency response communications, the dispatch operators may override advertising impressions to their fleet and further override advertising impressions to the general public and in extreme conditions utilize the primary access to the D spectrum.

With that relationship understood, it is recommended that a single governing board be established to include both sets of VSPs. It is recommended that more members be added that should include a representative on behalf of the public VSPs, and representation from federal law enforcement, public advocates, and Congress. After a charter set of rules are established for the equitable and equal operation of the cooperative SWBN, it is recommended that only a unanimous vote of the standing board may alter the network's function or ability.

There has been included below a set of bylaws governing the operation of a SWBN by VSPs. Although stated as law, they are merely recommendations towards the establishment of a transparent, equitable and equal cooperative community amongst and between providers, governments, industries, motorists and neighborhoods.

Operational Bylaws of a Cooperative Telematics Network

It is to be debated on the floors of Congress on the important issue of database sharing of archived and realtime telematics within a public-private SWBN partnership. Legislators may have difficulty choosing between the lobbyists who represent the multi-billion dollar industries that currently thrive due to mischance/misbehavior and the lobbyists who represent other commerce industries that will profit in the reduction of travel mishaps and crime. Furthermore, there will be massive lobbying efforts, both pro and con, as a result of the potential impact from the shifting of 100's of billions of dollars within the US economy. More importantly, legislators will have to balance their own interests while also being accountable to their constituencies as to what is truly desired in the communities. The bottom line to elected officials is the public's perception of invasion of privacy from a SWBN network verses an ultra-libertarian perception of protecting the liberty of individuals under the guise that it jeopardizes everyone's constitutional rights. After all, each citizen will ultimately decide how much privacy he/she individually wish to tradeoff for peace-of-mind on the road and in their own neighborhoods. The SWBN bylaws should be understood in black and white (*i.e.*, no gray matter loopholes) by public advocates that there would be no sacrifice of freedom but to those who exploit public anonymity to the fullest extent of the criminal/civil justice system that exists today.

The bylaws of the SWBN network should be the net result of the collaboration of government agencies, corporate and civic lobbyists. These three influences represent the social, economic and moral ideologies that should define the legal boundaries of tracking (defined in this disclosure as the monitoring of current movements) and profiling (defined as a review of past movements) of network members and user service parameters. The complete privacy of members verses the complete security for society is the extremes in determining the stability of households, neighborhoods, counties, states and ultimately the nation. Maximum privacy can be ensured to travelers if the public VSP deletes all of the contributing input probe data as soon as the traffic status-maps are created for each moment of time. Unfortunately, many of the network benefits to society, such as emergency response efforts, safety data collection, insurance fraud

exposure, and witness identification, cannot be used as a tool by authorities in their service to protect and serve the public. To the other extreme, maximum security can be achieved when everyone's progressive moments are stored indefinitely. Realistically, technical and capital limitations of mass data storage systems for graphics, probes and inquiries of all mobile TCUs for every moment would fill capacity within months. Fortunately, just a few weeks of history could provide enough data storage to deter the use of a mobile unit for nefarious purposes.

After the parameter of VSP data storage is established, the purpose of such data, and the use by whom, must also be defined and protected by checks and balances to ensure individual privacy. The checks and balances are ultimately executed by the network users themselves as a result of certified ownership of the very data that each contributed toward shared aggregate data in public use. Ironic as it may seem, a SWBN network that ensures individual privacy can also provide transparency to all participants such that the requested data received is always of greater value than the required data transmitted.

There are many entities that would desire profile-data within the private sector of business, none of which may legally possess without the authorization from the registered vehicle owner. The list would include, but certainly not limited to, insurance companies, 1-800-lawyers, body shops, car leasing agencies, auto club services, tire manufacturers, auto parts retailers, telemarketers, etc. It shall be impermissible for a public VSP to sell or otherwise transmit unauthorized tracking or profiles of members to anyone inside or outside of the SWBN network. The public VSP must disclose specific tracking and profiles only upon request by the recognized registrant, owner sanctioned parties, or official investigative agencies within strict guidelines. The required authentication for govt. VSPs deemed necessary for disclosure should have similar standards.

With regards to bylaw compliance, the temptation to betray public trust of privacy for an increase in profit or power shall warrant federal seizure and the temporary loss of its operating license until investigators determine the means, the method and the responsible parties held for prosecution. Even so, people who believe that a bylaw violation may be connected to a recent event or movements (*i.e.*, car accident, road service, point of purchases, etc.) can go to the public VSP's chat room website to request stories of others having similar events or movements in order to establish a recognizable pattern. If webspace holders (*i.e.*, private vehicle owners having registered an account with the public VSP) are able to establish a pattern, they then may create a united front to warrant a further investigation by authorities or advocacy groups. It would be more likely that a particular company exploited the identities of consumers (*e.g.*, a towing or credit service, or a private VSP's wireless carrier that was common to all plaintiffs). It shall be made transparent by open-source software that the public VSP is unable to transmit member-specific data to others outside of law enforcement without it first being owner sanctioned via an in-house authorization database. The penalties to the identified company shall be the loss of positive business recognition on the SWBN network and instead be posted as a notice of removal on its "hall of shame" webpage.

It would also be allowable under the terms of authorization for two or more mobile TCUs to track one another if the participants simultaneously confirm acceptance of this public service. It should be noted that each party may terminate the mutual tracking feature at anytime without consent from the other(s). This service provides and supports the equitable ability of the SWBN network to supply the mobile public with the same private realtime monitoring only before offered to business, government and municipal fleets.

Local law enforcement, which may choose to opt-in for a continuous link to the public VSP, shall obtain profiles and tracking surveillance without the registrant's permission under constitutional law. There shall be only one justification available for law enforcement agencies to compromise the constitutional right of individual privacy, and that is to have probable cause in identifying the past movements of a vehicle. The SWBN shall offer the authorities two dynamic

segments of time, any of which may be extended, for surveillances based upon the objective source of the inquiry.

The first form of inquiry shall be of a short duration, not to exceed several minutes, originated by officers on patrol and requested through the officer's command center to the public VSP as authorized. In addition the command center, by accessing the state DMV database, would supply the public VSP with the TCU's modem IP number and thereby sanction it as an authorized request for a specific member's tracking and have it transmitted to the requesting patrol car. The VSP must document the validated request in its data warehouse, thereupon, the specifics of the request such as date, time, dispatch authorization number, patrolman's ID number, sector car number and the progressive vector data viewed for the duration.

The situations for a short term profile are as numerous as there are suspicious characters. This service feature is intended as an initial check of a motorist without stopping the vehicle. Currently, police execute this function as a license plate inquiry for obtaining any information that may signal further investigation of the occupant(s). The enhanced benefit of adding the suspect's vehicle icon to the officer's mobile unit is for justifying suspicions in either of two ways. The first is by depiction of the target icon located on the officer's viewscreen, it should be directly in front of his mobile unit's reference point if the license plate, VIN number and modem IP numbers match. The second verification is provided when the officer selects his REW (rewind) button to view the suspect's movements over the last several minutes. For the intention of identifying suspicious vehicular whereabouts or behavior, the movements from recent history shall be dynamically displayed in condensed time of several seconds or may be chosen to be statically viewed as a color highlighted path extending from the current target reference to the location of several minutes ago. An interesting note pertaining to suspicious mobile TCUs that are database depicted as "off-line"; the officer's justification would then be by his own judgment as to the notion that shady characters will not have their mobile TCUs online during times of mischief. However, the officer must also keep in mind that there is no law that mandates mobile unit use - it's an opt-in service.

The second form of inquiry related to probable cause is of a longer duration that shall originate from an investigative unit within a law enforcement agency. As with the short term surveillance, the command center must make the request and would supply the public VSP with TCU modem IP numbers, commander's authorization number, investigators' ID numbers, and sector car numbers. Further information would be required for identifying and authorizing the long term surveillance, such as a court order number and case number or field report number. Again, as with any inquiry to the public VSP, all identities are recorded and stored in the data warehouse.

It is reasonable to suspect that the public might be apprehensive as to the potential exploits of dishonorable public servants within the police force just as much as the police are suspicious of the scrupulous encountered in today's society. In order to alleviate public suspicions of the use and operations of a SWBN, it shall be required that the public VSP maintain both a public and a member's only forum in which to express and discuss concerns (chat rooms).

As demonstrated previously that a registrant shall have the ability to use his/her own private web space to investigate the public VSP of commercial exploitation, the public may also gather and share data to discuss a documented abuse of power by the police. The only stipulation is that police inquiries shall not be made available to the registrant until the surveillance duration has expired. That is also to say that if the duration is extended, the first duration would be made available for notice on the owner's web space at that time and the current extension would not be known until it expires.

It is also the network's function to provide surveillance services by which the police may use to document criminal activity. Because of the realtime monitoring of probe vehicles by the SWBN and its validity in identifying true whereabouts, the police may lawfully record transmissions at the command center and may hold it indefinitely. Aforementioned, the public VSP is also documenting the event and will hold it for a limited time for which the registrant may request it

held. It shall be valid for the vehicle owner to also download it to a home PC or similar device with certification of authenticity. As a result, objective records have been created and made equable in accuracy and distributed equitably to the public for its opinion of justice with regards to issues of search and seizure, harassment, invasion of privacy, racial profiling and whatsoever in connection to an event or to the frequency of one's own surveillances. The historic profile generated during the surveillance shall be declared a certified account of a member's vehicle movements in which to prove in court of a specific individual's involvement. That is also to say, prosecutors have a new recognition tool that can identify who broke the law - from rouge cops, to dumb criminals that use SWBN services, to third-party witnesses that were using SWBN services at/near the time and place of a specific investigation.

What has even more ramifications to privacy, security, and the freedom to move about, is the exploitative use of the REW function by police of a targeted mobile unit. It may be disturbing to the scrupulous and unscrupulous alike that the whereabouts of their vehicle in the past few days may be reviewed by law officials. The usable content from REW must be legitimized for the purposes of investigation and confirmation of criminal activity only, and not for identifying traffic offenses that the police did not witness in realtime. It would thereby be prohibited for officials to issue traffic summonses based upon a review of the past obtained through the SWBN. This granted immunity for network members, even those who have committed traffic violations while under review, provides a tradeoff of traffic offenders for potential public witnesses to criminal offenses associated to a given location, at a specific time, and that was documented by an unlawful event. There may be one exception due to federally mandated Hours-of-Service regulations for commercial drivers; however that data can be retrieved from a separate and dedicated onboard recorder for duty compliance upon roadside inspection by officials or automated DSRC that may be used to document probable cause for obtaining proof of non-compliance from its private VSP (also, owner-operators receiving services from a public VSP would not be exempt from traffic violations).

It can be assured that law enforcement agencies cannot use the REW function in the short duration surveillance as a source to issue tickets without being identified by its improper use. The ability of the VSP's data warehouse to provide specifics of an event associated to the registered member will certainly document the REW request by the officer before the summons was issued. In order for the officer to positively prove the witnessing of a traffic infraction, he should not use the REW button, for if he does, he will signify his doubts of the event he supposedly saw. It's not until both parties have separated that the historic profile of the event may be used in establishing the justification of the vehicle-stop and subsequent traffic summons. In retrospect, the officer's use of REW before or during the vehicle-stop will grant the motorist impunity for any traffic offenses occurred within the allotted profile duration. Rather, REW shall be used to give the officer peace-of-mind in verifying the vehicle's whereabouts on suspicion or investigation of criminal offenses without immunity to prosecution.

The public VSP shall not supply member profiles to police, or anyone else but the registrant, based solely upon a location before a specific event has occurred. For example, the police shall not require the public VSP to alert a highway patrol car of a speeding motorist within its jurisdiction. Even after the traffic violation has occurred, the public VSP will not convey the event to anyone, except to the registered webspace holder under the terms of home profiling. The reason is twofold. First; even though the VSP can recognize traffic offenses as they occur in realtime, the provider can only identify the mobile unit and not the actual driver behind the wheel. Secondly; and most important for the protection of all members, the police did not furnish either a modem IP number or a criminal investigation number. It is only by legitimate requests in accordance to SWBN bylaws of authorization that prevents tracking and profiling exploitation by police, just as it would be for anyone else. Furthermore, it can be said that the public VSP shall not do the job of the police but can only assist as a witness or may further supply mobile unit eyewitnesses only after a documented event has occurred. Enforcement of traffic laws will still

remain the responsibility of the police officer to witness and summons the offender. Additionally, injustices are more identifiable in traffic court if the accused offender decides to save his/her profile, downloaded through the VSP's website, in defense of the charges and further authorizes it to be later validated at a judge's workstation.

The public VSP shall also be required to create and maintain a webpage that depicts the realtime usage of the D Block and public safety spectrums. All members, and non-members alike, shall be given the means to monitor not only the amount of set users, but also be given a realtime pie-chart in which to observe the percentage used by the general public, used by official vehicles, percentage of unused spectrum, and the percentage of spectrum used for video in both spectrums. It shall also be required that all participating VSPs use and maintain specific back-office open-source enterprise programs that ensure privacy and data sanctity.

All network participants upon membership must agree to privacy waivers when, unlike the surveillance services stated above, law enforcement demands to contact the network TCUs through the public VSP after a specific event has occurred. In essence, all members agree to be identifiable in a cooperative neighborhood watch program that may or may not occur in their own geographical neighborhood. Although members may or may not have witnessed (or wish to get involved in) specifics of an event relative to the time they were near the location, the VSP shall continually remind the vehicle TCU operator to contact the police. The VSP shall remove the reminder upon contact through the SWBN or upon acknowledgement by the agency having jurisdiction. Lastly, any information provided by potential network witnesses shall be confidential and may not be subpoenaed for testimony unless the witness opts-in.

It has been broadly shown the regulatory importance for the public VSP to document the identification and authorization of transmitted information from mobile TCUs and official agencies. The same regulations must also hold true for data exchanges amongst public VSPs, amongst govt. VSPs, between public and govt. VSPs, and exchanges between a public and a private VSP to prevent criminal intent from entering the network. Whereupon, the mandate for all SWBN cooperative VSPs is that it shall be impermissible to allow any unidentifiable entry into its databases due to the potential exploitation in having an anonymous source from an unknown origin develop an attractive and undetectable environment for which to track and profile a public or private vehicle.

The data exchanges amongst and between cooperative VSPs rely more on standardized obligations to each other with confidence that the data received has been documented as accurate from the transmitting VSP. Since all network VSPs are accountable for safeguarding the data content within its domain, the receiving VSP shall be required to document the mobile TCU's legitimacy, even from another provider. A particular case in point is when a member leaves the jurisdiction of one public VSP (or from one govt. VSP) and must be switched to a neighboring public VSP (or to a neighboring govt. VSP). Whenever a mobile unit is turned on, that in itself is authorization for data exchange between the driver and the provider. Thereupon, the network's integrity of authentication requires the originating public or govt. VSP to validate all security codes, including TCU number, in its database before the first data set is transmitted. As the vehicle approaches the limit of a VSP's jurisdiction, all associated mobile unit data currently held is transferred via high-speed landline to the database of the next VSP as being authorized from the active mobile unit. The required data from a public VSP of origin deemed as necessary for documentation should contain the current wireless ID, modem IP address, TCU ID number, a limiting access code to update the mobile unit's webspace, and the changeable security code stored in the unit by the originating VSP. A motorist (or federal user) may now travel from state to state without loss of service and still maintain data sanctity under SWBN bylaws. The required data from a govt. VSP deemed as necessary for documentation shall have similar standards.

The basis of private profiling, with respect to public VSPs, has been modeled to provide every household with similar services that until now have only been offered to business, government

and municipal fleets. Private VSPs within the cooperative, however, are commercial enterprises that will compete directly with today's current model providers of vehicle tracking services. The superiority of a SWBN private VSP would be in its network congruency of supplying navigational information based upon, and continually updated with, the omniscient traffic status-maps created by the public VSP. The traffic status information on the SWBN shall have copyright ownership by the public VSP but shall be waived for reciprocal private VSP probe data that's usable in its graphic generating servers. Therefore, all private VSPs shall be eligible for equal access and thereby all shall receive the same and accurate traffic status-maps as being cooperative contributors. The competitive field amongst cooperative private VSPs themselves is therefore focused solely on the service of providing its clients with customized back-office applications and marketing, and not by the differentiation of navigation and traffic information services.

The public VSP's business relationship with private VSPs is not as a competitor but rather an ally. In accordance with the network bylaws for bartered data reciprocation, all private VSPs must supply some probe data to the local domain in exchange for access to the public VSP's proprietary realtime traffic status-maps and public safety connections. The content contributed by private VSPs may be of anonymous identity for the purpose of supplementing motion data necessary during times of low traffic volume. The public VSP shall accept data on the authority of the private VSP as being valid without documenting the TCU ID number. The public VSP would need only to record the private VSP's ID number that's associated to the anonymous vehicle's movements. In order for the network to recognize covert surveillances, it shall be required that any VSP that is transmitting tracking data from a third-party to a mobile unit within its domain shall also share that data in realtime with the other VSPs through the SWBN network.

Private VSPs shall also comply with requests from the public VSP that may require specific identities of its clients. Those inquiries would be identified as originated from a specific law enforcement agency in need of information or a specific network member in need of services. Private VSPs shall automatically notify the client of official investigative inquiries and road-call assistance immediately. Private VSP compliance to official inquiries for vehicles are always granted and without anonymity of the private client during the time in question. Compliance to road-calls and the like from the general public or other cooperative private VSPs is at the discretion of the queried private VSP client.

It shall be permissible for persons to subscribe to private VSPs for the value-added services obtainable only as a private VSP client, such as routine voice communications. Therefore, it would also be equitable for a person to register a commercial vehicle (having a public TCU modem - public TCUM) with a public VSP for access to the same free services offered to the general populous. In order to prevent businesses from exploiting public telematic services for financial gain, it shall be prohibited for entities to register more than two commercial vehicles in the public domain through the DMV. In effect the public VSPs may be used for back-office record keeping by owner-operators of commercial trucks by regularly downloading their own onboard computerized logs to their respective webspaces.

All VSPs within the cooperative shall provide safeguards against covert surveillances by outside providers of location-based services. Unidirectional tracking devices (*e.g.*, for semi-trailers, pets, ankle GPS, cellphones, etc.) can be of importance to network members for quickly tracking and finding people or pets in realtime while using their mobile TCU. There is a potential, however, for a network member to attach a device from an independent tracking service to an unwitting vehicle. This action cannot be prevented by any means from being used by an individual that has a legitimate account from a company that extracts data from a tracking device and does not return data to the same device but rather to a Web-enabled device. Fortunately, this practice can be detected by the SWBN and subsequently stopped to members who want to track another member from his/her own mobile TCU. The public VSP's traffic-status

server shall recognize a mobile TCU that is receiving one-way location data from an outside source that also mimics the movements of any other member's mobile TCU in use. Upon computer recognition, service to the receiving mobile TCU coupled with the third-party tracking provider shall be terminated and documented. The network member that was being tracked shall be notified immediately on his/her mobile display and be provided further notice for documentation on his/her webpage. Private VSPs may continue third-party service to a client's mobile TCU for legitimate business operations (*e.g.*, semi-trailer tracking coupled to a client's mobile TCU). There shall not be direct data exchanges amongst private VSPs in order to prevent unauthorized tracking within the SWBN.

It shall be mandated that there are no exceptions to covert surveillance of network members. Law enforcement currently places GPS devices on suspect vehicles for covert tracking. If that suspect vehicle receives SWBN services and the police wish to track said vehicle on a SWBN-enabled undercover car, the suspect shall know of the surveillance just like any other network member would be made aware of a mimicking violation. Conversely, tracking devices placed on police cars would also be identified to the police if placed by the unscrupulous. By this bylaw, all network members are not vulnerable to spying eyes and shall have equal privacy protection while traveling. By the way, it is speculative as to the practical purpose of adding an additional tracking device to a vehicle of a person who voluntarily uses a SWBN-enabled TCU. Police use of tracking devices on non-SWBN vehicles would not be effected but rather enhanced by allowing the suspects whereabouts to be displayed on any network connected mobile TCU(s) the agency's operation center desires.

As a matter of economic stability amongst VSP domains, the cooperative private VSPs shall not be subsidized in any way by advertising sponsors. Congruently, the public and govt. VSPs shall not collect fees from, nor pay fees to, its associated members. The public and participating private VSPs shall incur spectrum and network user fees, respectively, to aid in subsidizing govt. VSPs' operations through a trust account. It shall be further required of a public VSP to maintain a capital reserve sufficient enough to ensure SWBN operations in case of a catastrophic event.

Whenever a general public TCU is turned on, the unit/modem information identification shall be confirmed by the public VSP's authentication database made valid by the DMV registry. Since mistakes can occur due to unintentional human error, it should be in the interest of justice that an opportunity be presented for voluntary compliance. For example, if a person inserts a TCUM that is not associated to a particular mobile TCU, the first set of graphics received by the unit shall be an alert notification identifying the mismatch and the corrective steps the potential user needs to comply in order to enter the network. If the correction is not made within a reasonable time (attempts), the authorities shall be notified – thus preventing stolen identities (modems) to be utilized for nefarious purposes.

It shall be required that a public and its respective govt. VSP have equal and equitable access to the core spectrum network servers. Official TCUs from both domains shall share the public safety spectrum until such a time when emergency responders exceed the capacity of the towers in the given area. Thereupon, primary access to the D Block spectrum shall be initiated and members of the general public notified on their TCU displays that their status-map services are no longer timely. It shall be also required that video surveillance use in the public safety spectrum be minimally reduced to a pre-set primary access trigger-level before initiation.

In summary, the rules written and arranged henceforth are merely concepts in the spirit of providing a service to the public that should be as legal binding as black and white. It is a strong foundation on which borders are set but allows for detail design changes.

1) Requirements:

- a) that a network VSP maintains data storage of all the identities within its domain;
- b) that a network VSP maintains the network's privacy policies;
- c) that a network VSP maintains the network's integrity with required open-source programs;

- d) that a network VSP maintains network data exchanges;
- e) that a network VSP shares third-party tracking data;
- f) that a network VSP provides contact to members identified in a neighborhood watch alert
- g) that a private VSP contributes 5% of its clients' vehicles anonymously to the public VSP
- h) that a public VSP shall waive copyrights to traffic status-maps for network VSPs
- l) that a public VSP maintains both an open and a closed Web chat room forum;
- j) that a public VSP maintains a realtime spectrum usage chart on the Web;
- j) that a public VSP alerts the user of a unit/modem combination identification mismatch;
- k) that a public VSP and its govt. VSP counterpart maintain equal spectrum access; and
- l) that a network VSP be subjected to license suspension immediately upon detection by State or Federal authorities concerning compromise of public trust (privacy non-compliance).

2) Allowances:

- a) that a network VSP shall accept data requests from another network VSP without an associated TCU ID number;
- b) that a network VSP shall disclose realtime tracking and historic profiles upon verified identification and valid authorization; and
- c) that a network VSP shall collect fees in accordance to its domain marketplace.

3) Restrictions:

- a) that a network VSP accepts data requests via the SWBN without TCU ID numbers;
- b) that a network VSP competes for revenue beyond its domain category of service;
- c) that a public VSP discloses surveillance by authorities before the expired duration;
- d) that a public VSP displays Web content while the mobile unit is in motion;
- e) that a public VSP accepts webspace owner requests without a realtime bioprint;
- f) that a public VSP maintains two jurisdictions that share a common state boarder;
- g) that a public VSP accepts a member with more than two commercial vehicles; and
- h) that the police issue traffic summonses revealed by the use of a VSP's database.

Paragraph 50)

If the recommendations for paragraph 49 are adopted, it would be necessary for the voting board to include representation equitable to both govt. and public VSPs. The Commission's approval of specific members to the Board of Directors may need to be reconsidered to include federal department or congressional representatives. It is recommended that whatever the amount of representatives are for government administrators, then an equal number of selections should be required to represent the commercial and public communities. Given the mass amount of representation, it is recommended that each board member be selected by its respective organization for a length of term and appointment method it desires. It is further recommended that the selection of the chairperson should be by a two-thirds majority vote.

Paragraph 52)

If the recommendations for paragraph 49 are adopted, then it would be appropriate for State governments to assume responsibility for coordinating the participation of state and federally owned vehicles along with its respective operation centers. Neither the Commission nor any other federal agency can mandate State participation in a nationwide network - it's an opt-in service. States that choose not to operate a govt. VSP should be excluded from having a public VSP since it is essential for SWBN security and integrity.

It would become a matter of public speculation as to why their State government would not elect to participate even though the funds were available to connect their operation centers to the SWBN. The only other reason why a State government would choose not, or flat-out refuse, to participate in a transparent and equitable network would be a matter of compliance to network bylaws. Just as the possibility exists that shady characters within the general public will not opt-in to a cooperative network, so too it may become obvious to the State's citizenship that

their government has a reason why it doesn't want its movements to be known, and more importantly, document-able.

It is of opinion that the Commission can only provide financial incentives to encourage and facilitate use of the broadband network by State jurisdictions. Only a neighborhood community can pressure its government to opt-into the cooperative SWBN.

Paragraph 53)

If the recommendations for paragraphs 49 thru 52 are adopted, then it would be appropriate for the Commission to rescind the current 700MHz PSBL. It is recommended that the Commission seek further comments from the organizations and stakeholders that have been suggested above in terms of governing two separate but equal VSPs for a perpetual relationship in a cooperative telematics network.

Paragraph 54)

If the recommendations for paragraphs 21 and 49 thru 52 are adopted, then the development of a nationwide, interoperable wireless broadband network would serve the general public, commercial enterprises and government agencies and departments. It is of opinion that the 700MHz spectrum will yield phenomenal benefits to all vehicular users that participate in a telematics cooperative for every moment-to-moment of travel. Furthermore, the signal penetration of the spectrum makes it ideal for maintaining communications between vehicles and public safety transmission towers.

Paragraph 55)

If the recommendations for paragraphs 21, 42 and 49 thru 52 are adopted, then it would be appropriate for the Commission to establish and redefine all the requirements, obligations and operational roles for govt. (PSBL) and public (DBL) VSPs before an auction is offered. It is recommended that the Commission and other state/federal agencies and associations, including public advocacy groups, should contribute towards an NSA that all potential DBL bidding parties may evaluate with a high degree of certainty of a nationwide acceptance.

Regarding operational roles, it is recommended that DBLs service mobile units, including public safety units, on a local and county level. Further, the domain of PSBLs should encompass mobile units, including public non-safety units, on the state and federal level.

The interconnectivity between the two domains would allow data exchanges from local jurisdictions directly to state and/or federal jurisdictions and to any other official agency in between (or to members of the general public domain for that matter). It would also serve the public interest to have allowances for data exchanges amongst and between individually owned mobile units.

It is of opinion that public safety users may exercise primary access to the D Block spectrum in times and in locations whenever the demand for vast data exchanges are needed amongst agencies when responding to an emergency. It is recommended that on-line general public users served by the towers in the effected area be notified that their status-map services are no longer timely.

Due to the lack of comments from SWBN stakeholders for a cooperative nationwide public service telematics network, comments and recommendations concerning build-out obligations of public VSPs under revised terms are unable to be expressed at this time.

Paragraph 56)

If the recommendations for paragraphs 55 are adopted, then there would be no failure to agree on network sharing by spectrum domain holders. Consequently, further comments in regard to NSA defaults and its ramifications are no longer a matter for discussion.

Paragraph 57)

In continuation to comments for paragraph 3 regarding recommended revisions and clarifications in support of a REAG auction model; the following issues are addressed with the same perspective.

issue 1 - It should be understood that a disruptive technology system such as this will divert 100's of billions of dollars from some industries to other industries. Although the potential revenue income generated for public VSPs as a new medium for advertisers should exceed 10's of billions of dollars annually, it is important to set guidelines and restrict the methods of generating revenue for each domain of VSPs. With that said, it is recommended that no domain may use a method of income regulated to another domain.

Restrictions on who may participate in REAG DBL bidding should include any entity that has an interest in, or association with, any advertising medium, wireline or wireless communication carrier, or truck or car maker. Therefore, it is recommended that no winning bidder should have any said interests after the established date of SWBN deployment. If the recommended network goal is revised to also serve a vast majority of users from the general public, it should further be understood that this service would pose a definite threat to future revenue currently enjoyed by some telematic alliances.

If the recommendations for paragraph 50 are adopted, then having any restriction on bids for REAG PSBLs is not a matter for discussion.

issue 2 - It is recommended that a reserve bid price should not be imposed on eligible DBL bidders. It is assumed that the required winning bid payments will be immediately used toward the PSBLs' obligated build-out of the SWBN. It is of a conservative opinion to expect 75 million dollars in bids for the 6 major markets alone. Furthermore, smaller entities that wish to participate may be awarded a winning bid that is considered low but nevertheless may become a public VSP domain holder with just one jurisdiction.

issue 3 - It is of opinion that the success of a cooperative SWBN is in its charter of bylaws that explicitly states that generating revenue is restricted to within the scope of a VSP's domain. Therefore, it would be impermissible for a public VSP to charge fees for its services and for private VSPs that voluntarily opt-into the cooperative to sell airtime to sponsors. It is recommended that there should be no exceptions to any charter rules in order to maintain stability in the cooperative. To that end, any exception to any of the rules will offset the network's intrinsic checks and balances that ensure equality for all member users.

issue 4 - As recommended for paragraph 3-issue 1, the focal point in which vehicle owners may easily and conveniently choose, select, or switch VSPs lies at the end user's mobile device. Such a SWBN-enabled TCU has yet-to-be designed to meet performance levels necessary to fit an as-of-yet cooperative network. It should be determined with a reasonable amount of assurance that once this in-vehicle retrofit starts in production, the SWBN could be on-line in major populated areas within a couple of years (maybe months) thereafter.

Given the amount of time for R&D and SWBN deployment, it would be reasonable to assume a significant expense would have been invested by the public VSPs. It is of opinion that it would be fair and equitable that the escrow money being held for build-out purposes be returned in increments to each DBL so that it may be further invested towards the public VSPs' obligation to serve rural jurisdictions (further discussed for paragraph 172) or utilized in compliance for the operational reserve of a tower's coverage.

It is recommended that the amount held in escrow should be determined by a given public VSP's square area coverage of 25 or 50 percent of its rural market domain. That square area may be multiplied by the estimated cost to cover rural areas served per tower deployment in determining the escrow necessary for each State. It is recommended that the escrow account depletion coincide with 75 percent State population coverage.

The probability of a DBL to default on its obligation to deploy a SWBN within its jurisdiction is greatest soon after the time that the SWBN-enabled TCUs start production. It is recommended

that if a DBL is not at the point of minimum deployment of its network by then (from an as-of-yet determined set of benchmarks), the Commission should exercise its rights to rescind the license and seize the account within binding terms of an as-of-yet default forfeiture clause. If a DBL falls below the set of predetermined benchmarks over the course of the term agreement, the default payment may be smaller but the SWBN would already be established and turnkey-ready for another bidder to take the build-out to completion.

Paragraph 58)

If the recommendations for paragraph 57 are adopted, it can be reasonably assured to bidders in the D Block license that the required shared network is commercially viable.

Paragraph 63)

It is of opinion that the allowance of flexibility by the Commission to negotiate most of the details on network specifications prior to auction would immensely serve the public interest goals of the partnership. Other details not within the scope of the Commission's jurisdiction should be negotiated by other federal and state agencies in regards to network management and services. It is recommended that there be no negotiation of technical requirements left to be resolved after the auction, just as there should be no NSA negotiations left for resolution after the auction. Under such conditions, each potential public VSP bidder will not have any uncertainties whatsoever regarding its obligations for establishing a SWBN.

Paragraph 64)

If the recommendations for paragraph 63 are adopted, then a national standardization is inherently achieved in the SWBN requirements and implementation to which there would be no uncertainties towards network efficiency or economies of scale and scope.

Paragraph 68)

If the recommendations for paragraph 42 are adopted, then fees to a government's vehicular user of wireless service have been resolved. However, it is further recommended that public VSPs maintain an operational cash reserve to handle several days without any income to ensure continued operation of the SWBN during a mass unanticipated demand for services by all authorities in which services to the general public would be suspended throughout its jurisdiction. No concrete numerical estimate on a cash reserve for each State is possible at this time.

Paragraph 71)

It is recommended that the Commission mandate all VSPs joined in the cooperative network to operate certain back-office open-source computer processing programs, such as a yet-to-be offered mimic-probe identification suite of programs.

Paragraph 75)

If the recommendations for paragraph 55 are adopted, then it would be equitable that the SWBN conform to the robustness and hardening standards for current public safety wireless systems. In addition, since both public and govt. VSPs serve official vehicles, it would also be equitable that the SWBN antennas be placed on existing towers already secured on local, state or federal property.

Paragraph 76)

If the recommendations for paragraph 75 are adopted, then variations to robustness and hardening relative to environmental conditions are no longer a matter for discussion. However,

variations to deter/prevent human premeditations should become a serious matter for discussion.

Paragraph 77)

It is recommended that the Commission require the public VSPs to maintain a website open to the general public (*i.e.*, is available for viewing by its registered members and non-members alike). In continuation of comments for paragraph 71, it is recommended that the Commission require the public VSPs to maintain back-office open-source programs that monitor its quality of service and network traffic and display it in an aggregate format to the public. A particular format that would provide transparency to users would be a realtime pie-chart and archived timeline that indicates the percentage of video surveillance in use by official agencies in the public safety spectrum.

Such a disclosure would enable all to monitor the capacity, throughput, QoS, and usefulness of the SWBN. Further, it provides an assuredness that official agencies are not overburdening their spectrum with non-emergency uses (*i.e.*, services that do not support vehicles and locations warranting user response with lights/sirens within the traffic community) as the reason why they need to reduce the availability of the D spectrum for the general public.

Paragraph 78)

It has been recommended in prior paragraphs to revise public safety user access from one to both licensees. It was also recommended that a separate TCU modem (TCUM) limiting general public access to the public safety spectrum be imposed. Further, it has been recommended that the public VSPs have allowance to transmit advertising impressions along with the user's requested status-maps to local government vehicles in times of non-emergency status. Accordingly, it is recommended that the Commission require the public VSP to sacrifice bandwidth in the D spectrum as determined by emergency response demands.

In essence, primary access to the D spectrum by local authorities in times of emergency status is offset by the revenue generated from advertisers with secondary access to local official TCUMs in all other times and places of non-emergency status. It is of opinion that the Commission's key element of secondary access to the public safety spectrum for this commercial operation (advertising) would be a viable platform for discussion.

With respect to inappropriate (resulting in excessive) use by official agencies, it should be equitable that video surveillance be limited to conditions for mobile-to-operation center and mobile-to-mobile applications that meet pre-set levels. With this recommended restriction, routine video surveillances from fixed locations-to-operation center-to-mobile units would not unduly overburden the public safety spectrum capacity and create a primary access condition in the D spectrum.

Paragraph 79)

If the recommendations for paragraph 55 are adopted, it would be equitable that public VSPs be held to the same standards and methods for security and encryption as its govt. VSP counterparts. Realistically, if the FBI sanctions the standards and methods it uses on the SWBN from govt. VSPs, it would also be safe and secure enough for local governments and the general public to use on the SWBN from public VSPs' data servers.

Paragraph 80)

If the recommendation for paragraph 3-issue 1 is adopted, then general public use of the 700MHz Band is limited to 10 megahertz in the D spectrum while official government vehicles will have all 20 megahertz available across both spectrums.

Paragraph 81)

If the recommendation for paragraph 3-issue 1 is adopted, there can be no further discussion of combined spectrum use by the general public. This should satisfy the statutory mandate of Section 337 of the Communications Act of 1934.

Paragraph 83)

If the recommendation for paragraph 3-issue 1 is adopted, modification as to the requirements of the mobile unit device needs further discussion with regards to its significant affect on commercial viability and ability to meet the needs of official mobile units. Such discussions should include regulating the radiated power of mobile units.

Services to mobile units are only as effective for as long as communications from the mobile unit can reach the public safety tower. Requiring low power units would not cause a problem for service disruption in urban areas but would create an undue burden to erect more public safety towers in remotely populated areas.

It is recommended that the study of mobile TCU retrofits include high/low radiated power capabilities that can be enabled/disabled remotely by its respective VSP. It is further recommended that the Commission set regulations regarding designated areas and emergency conditions in which allowance for high power emissions is suitable for selection by VSPs.

It is further recommended that the Commission have authority to penalize VSPs that may exploit this function. Further discussions as to a failsafe means to disable a malfunctioning high powered mobile unit in an urban area should be addressed.

Paragraph 87)

The occurrence of major emergencies, as defined in paragraph 86, that could effect emergency responders simultaneously across America is not likely. However, those defined emergencies are possible to effect portions of the country simultaneously. Although more likely, thousands of local emergencies will emerge on a daily basis that would effect only D Block spectrum from a small percentage of public service towers and not for long durations.

If the recommendations for paragraph 55 and 78 are adopted, then it would be appropriate for agencies to claim priority access to the D spectrum upon demand from any given emergency operation center having jurisdiction in the effected area. It is recommended that the Commission mandate a capacity requirement to be at a maximum of 5 percent video surveillance use on the public safety spectrum at the time before claiming primary access to the D spectrum by govt. VSPs or local operation centers connected to the public VSP. As recommended for paragraph 77, compliance can be easily monitored through the public VSP's website.

Paragraph 90)

If the recommendations for paragraph 75 are adopted, then it would be equitable that construction performance requirements follow standards governing any other public safety wireless system.

Paragraph 98)

If the recommendations for paragraph 7 and 63 are adopted, then it would be equitable to offer a fifteen year license term in which to satisfy a certain population and highway coverage. Although a near 98 percent coverage would not be met at that time, the SWBN would be making returns on investments. However with that benchmark met, the Commission's goal of a commercially viable SWBN would be achieved.

To that end, it is recommended that licensees be granted 5 year self-renewing terms. It is recommended that the Commission stipulates that it reserves the right to revoke the license upon investigation by a third-party of any non-compliance that violates the public trust. It is of

opinion that that the Commission's pursuit to require population coverage over 90 percent would be better determined by market demand and public opinion of State citizenships.

Paragraphs 99-103)

It is of opinion that there be no satellite service agreements with public VSPs. Catastrophic events that result in massive infrastructure damage may not disable the capabilities of coordinating response from high-gain boosted base stations around the effected areas. Satellite redundancy should remain as a stand alone system. Satellite use within the SWBN not only dampens the spirit to serve everyone but would also create the situation in which a licensee would have to depend upon a third-party for data exchanges.

If the recommendation for paragraph 3-issue 4 is adopted, then using satellite carriers would make the licensee an MVNO.

Paragraph 104)

If the recommendations for paragraph 75 are adopted, then obtaining rights-of-way to public safety towers should become a matter for discussion between State and local officials.

As stated previously, it would become a matter of public speculation as to why their State or local government would not elect to participate even though the funds were available to connect their operation centers to the SWBN. The only other reason why a State or local government would choose not, or flat-out refuse, to participate in a transparent and equitable network would be a matter of compliance to network bylaws. Just as the possibility exists that shady characters within the general public will not opt-in to a cooperative network, so too it may become obvious to the community that their government has a reason why it doesn't want its movements to be known, and more importantly, document-able.

It is of opinion that the Commission can only provide financial incentives to encourage and facilitate use of the broadband network by government administrators. Only a neighborhood community can pressure its government to opt-into the cooperative SWBN.

Paragraph 105)

It is of opinion that the Commission's consideration to allow for a "two tiered" approach as a means to incrementally enhance the build-out would not serve the public interest. It is recommended that the Commission not allow services to be available to one set of users in an area without it also being available to the other sets. Furthermore, such an approach would not be in the spirit and scope of implementing a network of equitable and equal users.

Paragraph 112)

If the recommendations for paragraph 37 are adopted, then the Commission's foresight to have "commercial operations" throughout the 20 megahertz band of spectrum a necessity in order to "harness private sector resources to facilitate construction" of the network would come to fruition as a new advertising medium in vehicles. It is unprecedented to have visual ad impressions within a vehicle other than that of the vehicle or stereo manufacturer.

Paragraph 113)

If the recommendations for paragraphs 37 and 55 are adopted, then issues of customer care and billing are no longer a matter for discussion.

Paragraph 114)

If the recommendations for paragraphs 37 and 55 are adopted, then the ability of public VSPs to finance its construction obligations of the SWBN would have much less uncertainties.

Paragraph 115)

If the recommendations for paragraphs 37 and 55 are adopted, then there would no longer be a question as to whether the DBL's day-to-day management of all traditional (telematics) network service provider operations would better enable its PSBL counterpart to administer access and coordinate frequency usage for both licensees to the public safety spectrum by public safety entities and other government vehicles within jurisdiction of each public safety tower.

Furthermore, issues regarding usage fees, approved equipment and applications, and NSAs are no longer a matter for discussion when operating the cooperative SWBN.

Paragraph 116)

If the recommendations for paragraphs 37 and 55 are adopted, then there would no longer be a question as to whether the DBL's telematics business plan for commercial operations and profitability are viable but also ideal under the terms of a cooperative SWBN.

Paragraph 123)

Aside from the recommendations discussed for paragraph 55, the basic role of the PSBL to administer access to the public safety spectrum and coordinate its use remains unchanged. In order to ensure public safety requirements are met, it is recommended that the PSBL be interconnected with the CBN server located at the DBL's central office to monitor its use by local agencies and regulate priority access to the spectrum on a tower by tower basis. Communications to state and federal vehicles should also pass through the CBN such that the DBL may accurately monitor, track, compile and then display spectrum usage to the general public.

Paragraph 124)

If the recommendation for paragraph 123 is adopted, then the PSBL's responsibility to administer access and coordinate spectrum demand-use should be in-concert with the public VSP's users that share the same towers. It is of opinion that this issue between government jurisdictions of who claims priority for its associated vehicles, when, and under what circumstances or conditions in which one has eminence over the other would be the sticking point of an NSA. Therefore, no further comments towards a solution in the matter can be offered at this time.

Paragraph 125)

If the recommendation for paragraph 3-issue 4 is adopted, then issues concerning profit incentives should never become a matter for discussion.

Paragraph 126)

If the recommendations for paragraph 21 are adopted, then emergency and non-emergency federal vehicles are included in a cooperative SWBN. It is of opinion that the exclusion of federal vehicles would weaken, but not preclude, an interoperable SWBN cooperative.

Paragraph 131)

If the recommendations for paragraph 42 are adopted, then issues concerning spectrum user and service user fees are a matter for discussion with Congress.

Paragraph 138)

In continuation of paragraph 124, the issue of eminence amongst government jurisdictions would be the core of an NSA. It is of opinion that a validation issue between official entities and

the surrounding traffic of private citizens for co-existence in the D spectrum does not pose a greater matter for discussion.

Paragraph 156)

Suggested auction related recommendations are cited for paragraphs 3-issue 7 and 57-issue1

Paragraph 163)

In continuation of paragraph 57-issue 2, it is recommended that a reserve price should not be imposed on eligible DBL bidders. It is assumed that the required winning bid payments will be immediately used toward the PSBLs' obligated build-out of the SWBN. It is of a conservative opinion to expect 75 million dollars in bids for the 6 major markets alone. Furthermore, smaller entities that wish to participate may be awarded a winning bid that is considered low but nevertheless may become a public VSP domain holder with just one jurisdiction.

Paragraph 166)

If the recommendation for paragraph 3-issue 4 is adopted, then business models with impermissible material relationships are no longer a matter for discussion.

Paragraph 172)

It is of opinion that a delicate balance of imposed fees and build-out responsibilities are going to be placed upon the financial backs of DBLs. To be sure, if the Commission can broker an NSA between public and govt. VSPs that engenders a widespread use of public users, a SWBN with a potential national market for advertisers to some 100 million viewers-per-day would attract some serious bidders.

In order to ensure only financially qualified parties are assigned licenses, it is recommended that the Commission require an upfront "build-out rate" fee be made payable upon assignment in lieu of default payment liability. It is recommended that the amount held in escrow should be determined by a given public VSP's square area coverage between 25 to 50 percent of its rural market deployment plus 10 percent of the winning bid. That square area may be multiplied by the estimated cost to cover rural areas served per tower deployment in determining the escrow necessary for each State. It is recommended that the escrow account be incrementally returned to the DBL at a rate that coincides with build-out to 75 percent State population coverage.

The probability of a DBL to default on its obligation to deploy a SWBN within its jurisdiction is greatest soon after the time that the SWBN-enabled TCUs start production. It is recommended that if a DBL is not at the point of minimum deployment of its network by then (from an as-of-yet determined set of benchmarks), the Commission should exercise its rights to rescind the license and seize the account within binding terms of an as-of-yet default forfeiture clause within the "build-out rate" contract. If a DBL falls below a set of predetermined benchmarks over the course of the term agreement, the remaining "build-out rate" account seized may be smaller but the SWBN would already be established and turnkey-ready for another bidder to take the build-out to completion.

If the assignee cannot meet the required "build-out rate" fee, then the Commission has succeeded in identifying an entity that most likely does not have the sufficient capital funding anyway. Furthermore, such a required fee ensures that a minimum "reserve price" for each State is now the combination of an open auction bid + "build-out rate" fee. With the addition of 10 percent added to the end-of-term rural build-out coverage, it can be assured that entities will be mindful of not overbidding.

Paragraph 181)

It is of opinion that relocation and operating cash reserve, together, be considered as the focal point in determining the rate of deployment of the SWBN for each DBL assignee. That is to say,

that SWBN services in a given area cannot go on-line until the expense of moving the narrowband users and increasing the public VSP's operating reserve to encompass the given area are met. It is recommended that the Commission set the build-out rate proportionally to the rate of return from gross ad-revenue generated from urban centers (*i.e.*, areas of first deployment).

It is recommended that the PSBL, representing its DBL partner, have recourse to the Commission if it determines cost estimates by individual public safety entities appear unreasonable. Such negotiations would add time to a DBL's build-out and should be taken into account in the NSA. However, the public VSP can still proceed in another direction (local jurisdiction) where negotiations are complete and a percentage of gross ad-revenue is available from established jurisdictions.

It is of opinion that swift relocation and deployment be kept relative to a one-by-one process. With that said, the completion of a SWBN by all DBLs on the same date, let alone year, should not be mandated. Upon deployment, a cooperative telematics network will grow by a rate of its own popularity, neighborhood by neighborhood.

Paragraph 183)

It is of opinion that a telematic cooperative SWBN is a reason to change the approach taken in the *Second Report and Order*. Comments concerning size of geographic areas and other related rules and regulations for the co-existence of commercial and official operations to equally serve the general public are contained within this discussion. More specific details are a future matter upon further requests for public comments.

Paragraph 184)

If the recommendations for paragraphs 2, 3, 21, 37, 42, 49-55, 57, 63, 68, 71, 77, 78, 99-103, and 123 are adopted, then issues regarding REAG DBL rules, primary goal, interoperability, first responder priority, unified functioning, and any unsuccessful auction scenario are solved. However, the devil is in the details of NSA negotiations for establishing the required roles and responsibilities between public and govt. licensees (before an auction) that would be the determining basis for certainty viewed by the investment community.

Paragraph 185)

If the recommendations for paragraphs 2, 3, 21, 37, 42, 49-55, 57, 63, 68, 71, 77, 78, 99-103, and 123 are adopted, then DBL split-licensing in regard to population density is not a matter for discussion.

Paragraphs 186-187)

If the recommendations for paragraphs 2, 3, 21, 37, 42, 49-55, 57, 63, 68, 71, 77, 78, 99-103, and 123 are adopted, then many of the uncertainties of offering multiple D Block licenses are resolved (other than the NSA issue).

Paragraph 189)

It is recommended that the Commission aggressively pursue RFPs that would be necessary for selecting the standards for operation and services of a SWBN from the get-go. Again, it should be inclusive to having an NSA for which a public/private partnership has no ambiguities. If the recommendation for paragraphs 49 and 50 is realized, it cannot be overly expressed that whatever terms the Commission mandates in the NSA, it would be difficult for the Board of Directors to unanimously amend any part of it for a very long time.