

# Broadband Task Force

Operations Working Group

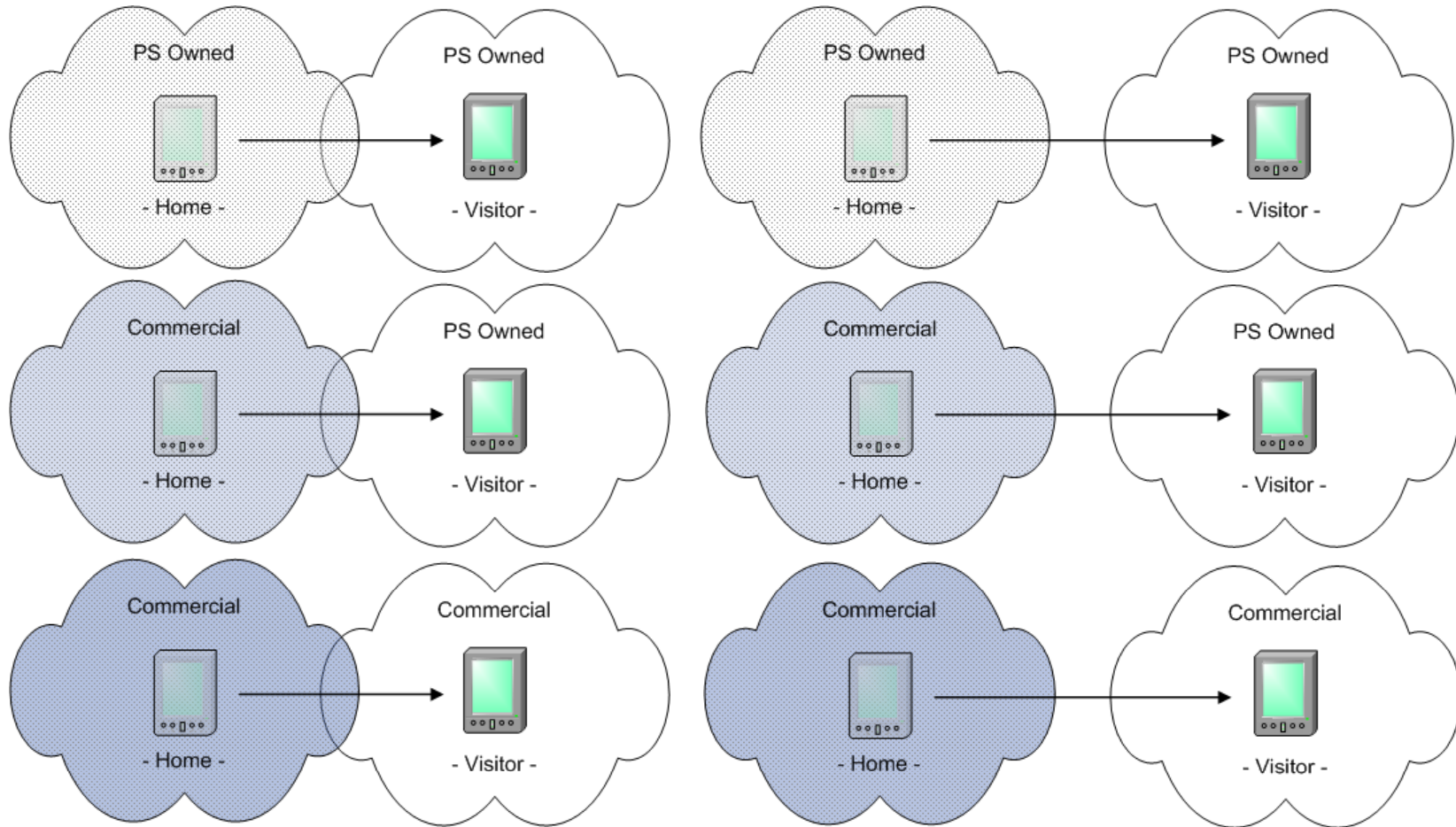
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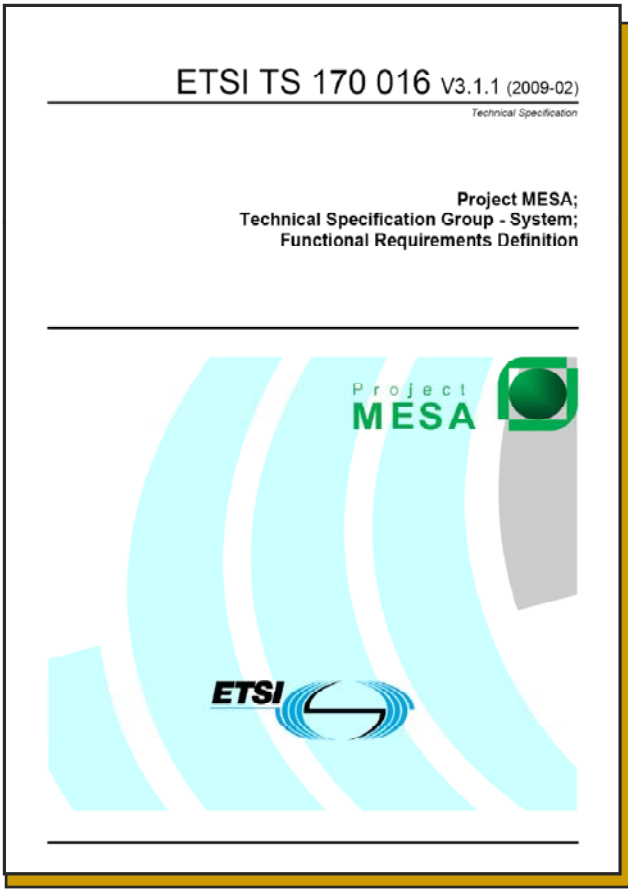
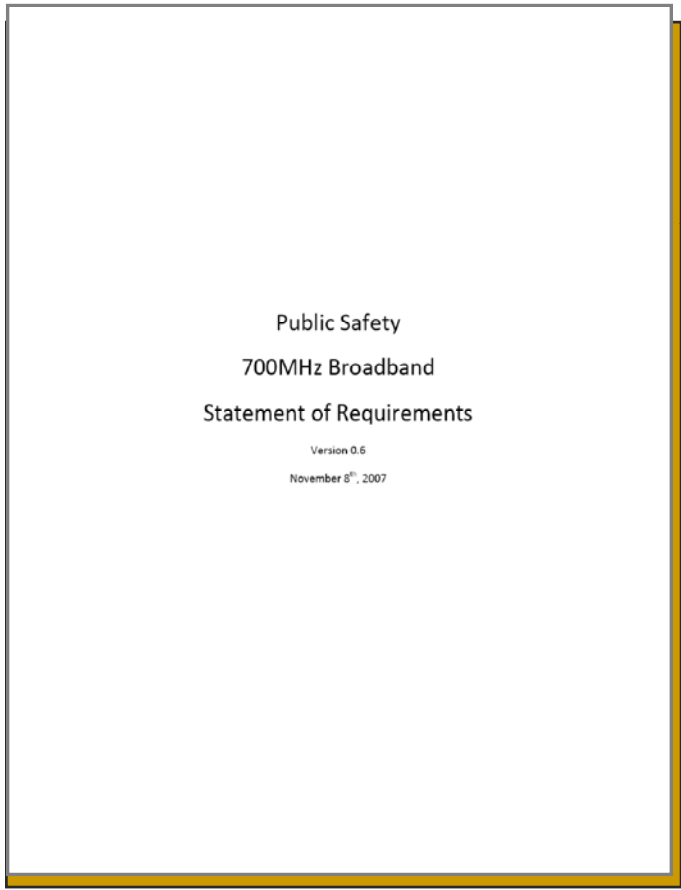
# [ Working Group Assumptions ]

- Task Force Assumptions
- Two basic operational scenarios
  - Routine or incidental use – Roaming
  - Mutual aid – Presence upon request
- Two sets of operational service scenarios
  - Public Safety ↔ Commercial
  - Adjacent ↔ Non-Adjacent

# Operational Service Scenarios



# [ Review of Prior Work ]



# [ Review of Prior Work ]

NPSTC Broadband Task Force

Requirements Working Document







Seq. No.	Source	Source Ref. No.	Source Categorization	Source Sub-Categorization	Contents	Compiler Notes
1	700 MHz SoR	2.1	Operational	Support	This section indicates the need for 24/7 support for infrastructure and subscriber equipment.	Because the regions will be responsible for their own support levels, this section is not applicable. However, the requirements in this section could be used for best practices for the regional deployments.
2	700 MHz SoR	2.2	Operational	Availability	This section provides a high level set of expectations of the kind of network hardening and availability of the network at the user level.	The direction from the BBTF chair is that the regions will determine their availability requirements, and therefore, this is not applicable. However, the requirements in this section could be used for best practices for the regional deployments.
3	700 MHz SoR	2.3	Operational	Access and Control	This section details the expectations of the users on the amount of access and control they would have on the BBN. It assumes a private network in each area.	In general, this section is not applicable since the regional entity will have full control over its network and full access to all of its resources. However, there are some elements that may be considered by the BBTF such as: 1) It contemplates notification of outages to the PSBL. Should a region be required to notify neighbors or the PSBL of outages? 2) It requires the ability to manage devices (e.g., upgrade software), does this need to be done while roaming?

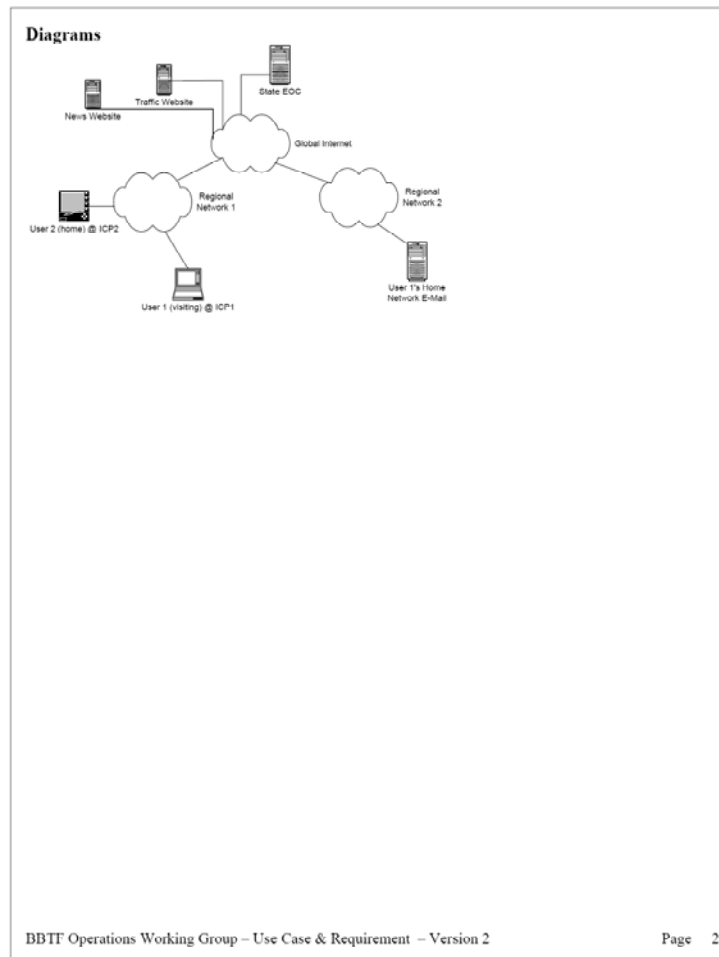
# [ Review of Prior Work ]

## Operations Working Group

	Applicable to Ops WG? [Compiler]	Best Practice? [Compiler]	Intersystem User Requirement? [Conclusion]	Best Practice? [Conclusion]	Operational Scenario	Open Issues?
	No	Possible	<input type="radio"/>	<input checked="" type="radio"/>		Best practice
he al	No	Possible	<input type="radio"/>	<input checked="" type="radio"/>		Best practice
er, ) it	No		<input type="radio"/>			Task Force questions

# Required/Desired Applications

<b>Short Title</b> Internet Access	<b>Operational Service Scenarios (check all that apply)</b> <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/> 
Submission Date: 8/7/2009	
Submitter(s): Gabe Elias, Joe Ross	
<b>Source</b> Title: 2007 Broadband SoR Section/Citation: Section 2.6, Item # 12	
<b>Basic Operational Scenario</b> Select: Any Use	
<b>Contents</b> Public Safety subscribers shall have access to the global Internet. Users will use the Internet both as a way to access home network systems and to access other systems and services available over the public Internet, including but not limited to messaging systems and web servers.	
<b>Applicability/Analysis</b> A Public Safety user arrives for mutual aid during a disaster recovery and uses the visited 700 MHz broadband network to access the visited state's web-based EOC management site, a publicly available traffic camera web site, home-network e-mail system to correspond, and sets up an IP voice and video conference with a distant incident command post to coordinate activities. Various types and volumes of IP traffic are transported to and from the public Internet by the 700 MHz subscriber device.	
<b>Suggested Language for Concept of Operations Document</b> While network operators (Public Safety, commercial or Public/Private Partnership) may engage in some traffic shaping and traffic or content filtering for network protection purposes, the subscriber should expect broadly open access to the global Internet on home or visited 700 MHz broadband networks. Network operators shall make every effort not to filter traffic unless necessary for security of systems. For example, Public Safety or Public/Private Partnership network operators should not restrict VoIP traffic. Network operators shall publish in a secure manner their particular network restrictions to the PSST so that public safety users understand network or application limitations and appropriate configurations. (These notifications apply to public Internet traffic and do not require agencies to publish internal firewalling information.)	
<b>Other Notes</b>	<b>Working Group Resolution</b>
BBTF Operations Working Group – Use Case & Requirement – Version 2 <span style="float: right;">Page 1</span>	



# [ Required/Desired Applications ]

## **Required Applications**

1. Internet Access
2. VPN Access to Home Networks
3. Status/Information "Homepage"
4. Status/Information "SMS-MMS Messaging"
5. AVL - Geo-Location Capabilities
6. LMR Gateway Devices
7. Access by Responders Under ICS (*New*)
8. Ambulance Roaming (*New*)

# [ Required/Desired Applications ]

## **Desired Applications**

9. One-to-Many Communications Across All Media
10. LMR Voice
11. PSTN Voice
12. Field-Based Server Applications (*New*)

# [ Required/Desired Applications ]

## 1. Internet Access

*Public Safety subscribers shall have access to the global Internet. Users will use the Internet both as a way to access home network systems and to access other systems and services available over the public Internet, including but not limited to messaging systems and web servers.*

# [ Required/Desired Applications ]

## 2. VPN Access to Home Networks

*Regional sublicensee and commercial networks operating in conjunction with the Public Safety Broadband Licensee (PSBL) shall be required to allow establishment and use of virtual private network (VPN) connections by roaming users on their networks to other networks.*

# [ Required/Desired Applications ]

## 3. Status/Information “Homepage”

*Public Safety or Public/Private Partnership network operators shall provide a universal method to obtain a "home page" for visitors to the system. This "home page" will facilitate access to and distribution of available applications, alerts, incident-specific information, system status information, and information that the operator deems important to share with visitors to the system.*

# [ Required/Desired Applications ]

## 4. Status/Information "SMS-MMS Messaging"

*Public Safety, Public/Private Partnership, and Commercial network operators shall provide the ability for users to send and receive SMS and MMS messages.*

# [ Required/Desired Applications ]

## 5. Location Based Data Capability

*National and/or regional networks should include the capability to collect and convey subscriber unit location data in real time. Location data should be accessible to appropriate applications, as may be authorized by management level policy.*

# [ Required/Desired Applications ]

## 6. LMR Gateway Devices

*Networks shall allow for connection and operation of IP-based voice interoperability gateways.*

# [ Required/Desired Applications ]

## 7. Access by Responders Under ICS

*All mutual aid responders managed under the ICS structure of a requesting agency served by a public safety broadband networks shall be provided access to that network to carry out incident objectives and communicate with their home networks.*

*[New]*

# [ Required/Desired Applications ]

## 8. Ambulance Roaming

*Ambulances from outside a region should be able to have BB access in a nationally standardized fashion to hospitals in that region for emergency consultations when going from a point outside the region to another point also outside the region and "roaming through", or when "roaming into" the region from outside for the purpose of bringing a patient to a hospital in the region or operating per a mutual aid request from inside the region.*

*[New]*

# [ Required/Desired Applications ]

## 9. One-To-Many Communications Across All Media

*Regional sublicensees should provide one-to-many communications capabilities to outside network users responding in mutual aid to the sublicensee. These communications capabilities should extend from voice, as commonly used in traditional land mobile radio systems, to text messaging, to video, and other forms of data communications.*

# [ Required/Desired Applications ]

## 10. LMR Voice

*Public Safety or Public/Private Partnership networks which provide voice service as an application should (but are not obligated to) provide voice interoperability interfaces to existing agency LMR systems in the area served by the 700 MHz Broadband Network. Public Safety users on such home or visited networks should be able to call or hail an authoritative dispatch agency or control point using the 700 MHz subscriber device with microphone and speaker for two-way audio and talk or be connected to other serving agency voice communications resources.*

# [ Required/Desired Applications ]

## 11. PSTN Voice

*Public safety 700 MHz voice capable devices such as cell phones, PDAs, or their equivalent shall be capable of placing and receiving full-duplex telephone calls to any telephonic device on the Public Switched Telephone Network (PSTN) in the visited network with the same functionality that cellular telephones operate nationally today. This includes location based PSAP call routing, E911 Phase II location transmission, and, if necessary CALEA. In the case where the user transitions in to or out of one regional system, the voice session shall be handed off between the two networks with limited loss of audio during the transition. Because the devices and device capabilities for this feature will develop over time, this feature is a future requirement.*

# [ Required/Desired Applications ]

## 12. Field-Based Server Applications

*The 700 MHz regional broadband systems shall support the use of field-deployed server applications. This requirement includes the need for client devices to consistently and continuously reach these server based systems from any other location on the Internet. The capability is not required for every subscriber device on the 700 MHz broadband network but is limited to a subset of the users that actually require such a feature.*

*[New]*