



National Telecommunications and Information Administration,
U.S. Department of Commerce,
1401 Constitution Avenue NW.,
HCHB Room7324,
Washington, DC 20230.

Attn: FirstNet NOI,
Via email to: firstnetnoi@ntia.doc.gov

October 31,2012

Dear Sir:

Re: Notice of Inquiry (NOI) on behalf of the First Responder Network Authority (FirstNet) to seek public comment on the conceptual network architecture presentation as well as to invite input on other network design and business plan considerations

In Motion Technology is pleased to provide comments and input on the above referenced network architecture. In Motion Technology understands and strongly endorses the approach laid out in the conceptual network architecture presentation made at the FirstNet Board of Director's meeting Sept 25, 2012. We believe that a hybrid network utilizing both dedicated Band 14 public safety and commercial cellular network resources represents the most cost-effective way to achieve the ubiquitous nationwide high performance broadband connectivity First Responders require.

In Motion Technology has been delivering seamless, secure, multi-network capability to public safety organizations for the past 10 years. While originally intended to serve the needs for redundancy (from both geographic and reliability perspectives) and cost optimization, the functionality provided by our onBoard Mobile Gateway (oMG) and onBoard Connectivity Manager (oCM) product line lends itself particularly well to fulfilling the proposed hybrid network vision.

We would be pleased to provide a demonstration of how the vehicle-area-network paradigm instantiated by the oMG allows commercial, off-the-shelf WiFi and Ethernet devices to participate in a Band 14/LTE broadband wireless environment. A demonstration configuration is illustrated in Figure 1. Not only does this approach lower capital expense requirements for member agencies, it can help kick-start deployment in advance of broad availability of dedicated Band 14/LTE UE devices. This will ensure that FirstNet is able to deliver the functionality required by public safety agencies much earlier than otherwise possible.

We would also like to demonstrate how the oMG acting in conjunction with the oCM can provide a seamless, transparent user experience as the public safety vehicle roams between areas covered by the dedicated Band 14 network and those served by commercial cellular operators. A great advantage of this approach is that this can be demonstrated in advance of the implementation of any roaming agreements between FirstNet and the commercial cellular operators. The architectural support inherent in the In



Motion products can be demonstrated prior to deployment of Band 14 infrastructure by using two commercial cellular operators, one acting as a proxy for the future Band 14 network. This approach can even be used to demonstrate the FirstNet architectural philosophy in areas where a Band 14 RAN is not yet deployed.

Regards,

Larry LeBlanc
Chief Technology Officer
In Motion Technology, Inc

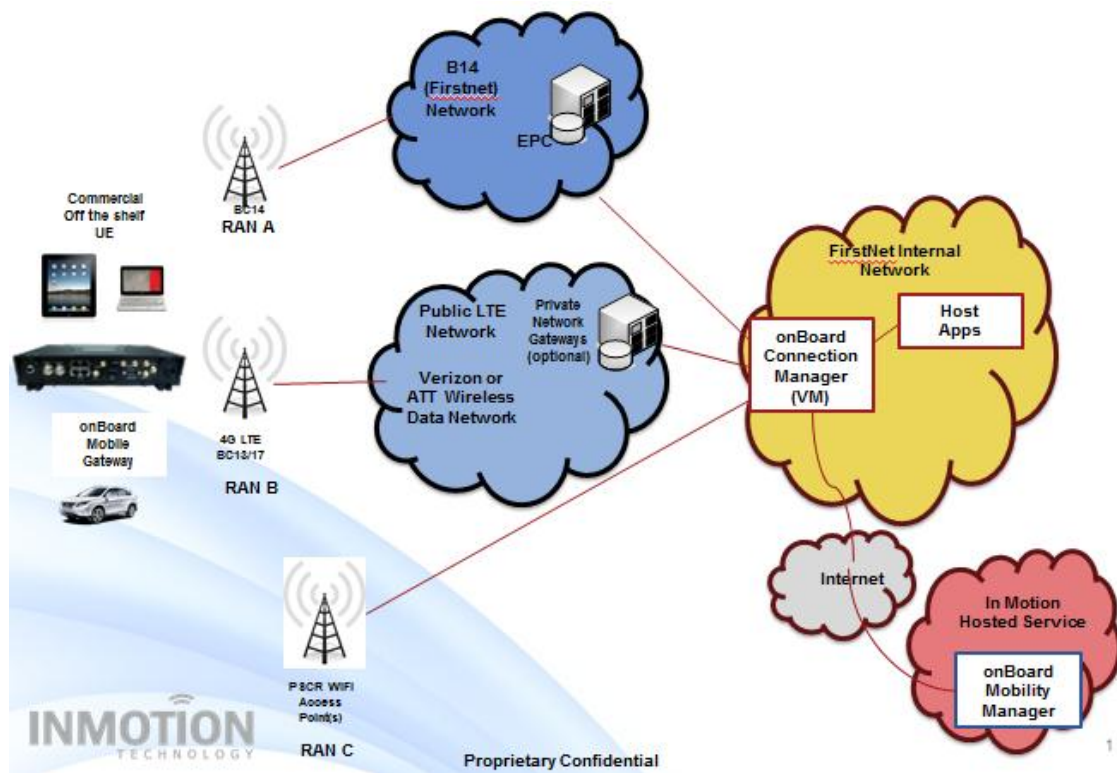


Figure 1

Figure 1 shows how the In Motion onBoard Mobile Networking System (comprising the onBoard Mobile Gateway(s); the onBoard Connection Manager; the onBoard Mobility Manager) may be deployed to demonstrate the vision articulated in the FirstNet Architecture. Much more information on the product details is available at <http://www.inmotiontechnology.com/technology/vehicle-area-networks-van/>

Key points to note:

1. The onBoard Mobile Gateway (oMG) allows a wide variety of commercial “off-the-shelf” devices (e.g. Laptops, Smartphones, Tablets, Printers etc.) in and around a mobile vehicle to communicate over a variety of wireless Wide Area Networks (RAN A = FirstNet B14; RAN B = Verizon or AT&T Public LTE ; RAN C = “Depot” Wi-Fi) via the onBoard Connection Manager to applications running on remote host computers. The oMG has software intelligence and policies to manage appropriately the switching between the radio networks.
2. The onBoard Connection Manager (oCM) allows for secure (FIPS 140-2; IPSECv2) communications AND maintains VPN session continuity across RAN network switches. Switching between network connections occurs in a sub-second interval. i.e. this functionality eliminates the need for a roaming agreement to be in place between FirstNet and the public carriers.
3. The onBoard Mobility Manager (oMM) provides management of the oMGs and can run either within the FirstNet internal network or as a hosted service residing at In Motion. In either case oMM will be accessible via browser-enabled PC at PSCR or other public safety agency.