

From: [Norman Fekrat](#)
To: [Nicholas Labun](#); [Shao-Wei Pan](#)
Subject: Fwd: Lemko Differentiators
Date: Friday, September 13, 2013 7:43:29 PM

FYI... You can see what ATT is asking us.....

Regards,
Norman



Norman Fekrat
Chief Strategy & Revenue Officer
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Begin forwarded message:

From: Norman Fekrat <normanfekrat@lemko.com>
Subject: Lemko Differentiators
Date: September 13, 2013 5:21:42 PM EDT
To: "SMITH JR., PAUL" <PS7360@att.com>
Cc: MICHAEL RECCHIA <mr1796@att.com>

Paul -

Thanks for the call. Per your request, here are the unique differentiators of Lemko's distributed mobile wireless network solution.

1) Software based EPC (MME, PGW, SGW, HSS, PCRF & IMS Core) that runs on any x86 intel architecture.... we are pushing it to run on silicon chipset (EPC chipset)

- Can be easily orchestrated by an orchestration engine (we can run in a VM but do not do the orchestration)
- Can be easily integrated into an eNodeB virtualization capability & we provide an integrated eNodeB but we don't virtualize the eNodeB

2) Smart Distributed Elastic EPC - we put the EPC at the edge

eNodeB and integrated it to the eNodeB (we do provide an integrated eNodeB solution)

- all the distributed eNb/EPCs (node1) look like 1 EPC to the carrier network and to the UE
- by distributing the EPCs to the edge you actually get more network capacity (RAN capacity = EPC capacity)
- eNb/EPC (node1) connects directly to the Internet allowing the internet to do what it is good at (video opt) and allowing the MNO to do likewise (device and wireless user experience)

3) Peer-to-Peer Communications:

- Our eNb/EPC's (node1's) all communicate to each other in a peer-to-peer fashion (S1-MME EPC-2-EPC) interconnect & handoffs over any IP connection (wireless, in-band, wired)

4) Swarming Self-Organized Networks (mobility in motion - think of eNodeBs/EPCs moving around)

- Independent nodes that all act like one network or as standalone network (ad-hoc wireless networking)
- Drop and go network capacity (eNodeB/EPC)

5) Service Chaining/Workflow:

We have a one-2-one eNodeB to EPC relationship. At our eNodeB/EPC (node1) we can dynamically treat traffic uniquely based on application parameters or PCRF rules for individual subscribers (or applications). We do this today for signaling traffic vs. voice traffic vs. data traffic. Our solution can route based on unique APNs related to a VPN or a specific route. We can resolve an APN on a per node basis to a specific application or routing rule to support VPNs, dedicated links for specific applications for video optimization. Our approach is to let the application drive the voluntary tunnel (preferred routing). For video optimization, we route traffic directly to the Internet or we could have a distributed CDN or video optimization engine at our eNb/EPC (node1).

Please call me with any questions.... we really need to spend a few days with the team to really get to the bottom of the uniqueness and flexibility of our solution (along with the economic value).

Regards,
Norman



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