Title*:	The Need for Network Intelligence – ISG ENI Proposal discussion - Meeting Minutes
from **Source***:	
Contact:	Tao PENG Raymond Forbes
input for **Committee***:	ENI

Contribution **For***:

Decision	X
Discussion	
Information	

Submission date*: 2016-12-19

Meeting & Allocation:
Relevant WI(s), or
deliverable(s):   **WORKSHOP/Network_Intelligence**

Decision/action requested:	For Information

Attendance list:

Name	Organization	Presence type
Bredel, Michael	NEC	F2F
Cao, Longyu	Huawei	F2F
Chatras, Bruno	Orange	F2F
Chen, Ai	China Mobile	F2F
Chen, Yan	China Telecom	F2F
Cheng, Ying	China Unicom	F2F
Gao, Zhijiang	Huawei	F2F
Huang, Junjie	Huawei	F2F
Jiang, Rui	Huawei	F2F
Karagiannis, Georgios	Huawei	F2F
Li, Hui	Peking University	F2F
Liu, Shucheng (Will)	Huawei	F2F
Matsuura, Takaaki	NTT	F2F
Mi, Penghui	Tencent	F2F
Niman, Bruno	Huawei	F2F
Peng, Tao	Huawei	F2F
Pieczerak, Janusz	Orange	F2F
Qi, Xiangtong	HKUST	F2F
Song, Xiaolin	Huawei	F2F
Strassner, John	Huawei	F2F
Tamura, Toshiyuki	NEC	F2F

Tang, Liqun	Huawei	F2F
Wang, Di	Huawei	F2F
Wang, Haining	China Telecom	F2F
Wang, Lifeng	Xilinx	F2F
Wang, Yu	HKUST	F2F
Xiao, Qian	Huawei	F2F
Xu, Huiying	Huawei	F2F
Xu, Li	Peking University	F2F
Xu, Weiping	Huawei	F2F
Xue, Haiqiang	HPE	F2F
Yang, Xin	Peking University	F2F
Yuan, Xiangyang	China Mobile	F2F
Zhang, Haodi	HKUST	F2F
Zhao, Peng	China Mobile	F2F
Zong, Ning	Huawei	F2F

1. Roll call

Raymond Forbes, the chair, made the roll call, attendees list above.

2. Agenda/Schedule

Agenda is approved.

3. Review of Presentations, Proposal & Terms of Reference

Raymond presented first. The minutes are listed below in the order of WI numbers.

3.1 WORKSHOP(16)000002_Network_Intelligence Welcome. (Raymond Forbes & LIU Shucheng (Will)) & WORKSHOP(16)000003_Network_Intelligence
The Chair provided an Introduction to the workshop and welcomed the participants. The goal of this workshop was to introduce the Need for Network Intelligence and to provide information and seek support for the proposed ETSI ISG ENI.

3.2 WORKSHOP(16)000010_Network_Intelligence Introduction and Problem Description of Network Intelligence (Raymond Forbes)
The chair provided information on the scope, challenges, objectives and phases of the proposed ETIS ISG ENI activity. The proposal is currently under the review of the ETSI Board.

3.3 WORKSHOP(16)000004_Network_Intelligence Evolution to Intelligent Network Resource Management and Orchestration (WANG Haining)
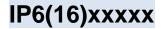Diverse requirements from subdivision service scenarios from the following were described: Broadband Access, Ultra-Low latency, Massive IoT, Ultra-dense communication, Ultra-high speed. By introducing technologies like SDN, NFV, network slicing, etc., the network becomes more flexible and powerful. The complexity of future network is not reduced, but transferred from hardware to software, from network itself to management and operation, from equipment to people. CTNet2025 Network Restructure Plan: Concise, Agile, Open, Intensive.

Haining said: China Telecom is happy to be able to cooperate with ENI group

3.4 WORKSHOP(16)000005_Network_Intelligence Intelligent Policy Controlled Service Management (CHENG Ying)
SUPA use cases were described; these included VPC (Virtualized Private Cloud), Instant

creation of VPN and traffic optimization and QoS assurance on ISP DC.

Ying mentioned that China Unicom is supporting the ETSI ENI ISG initiative.

3.5 WORKSHOP(16)000006_Network_Intelligence One Step of Service Provisioning (ZHAO Peng)

An overview of service provisioning, as well as the complexity to transfer 2G/3G users to VOLTE users (VOLTE provisioning is quite complex), was provided.

Peng mentioned that China Mobile is supporting the ETIS ISG ENI initiative

3.6 WORKSHOP(16)000007_Network_Intelligence Intent-based Network Resource Intelligent Reconfiguration: Mechanism Design (QI Xiangtong)

This talk introduced the "intent" definition from ONOS project, and described the various challenges present in defining, managing, and translating intent. Optimization and game theoretical analysis for defining intent and ensuring that different intents made the best use of available resources were discussed.

3.7 Questions and Answers associated with above presentations (Raymond Forbes)

This section enabled attendees to ask the presenters questions; presenters (sometimes supported by other people) answered.

3.8 DEMO (YOU Lizhao, ZHANG Haodi)

Lizhao introduced the ThinkNET demos. Lizhao and Haodi demonstrated the proof-of-concept prototype.

3.9 WORKSHOP(16)000009_Network_Intelligence Network Intelligence & the ENI White paper (John Strassner)

The motivation for ENI, as well as a brief review of the State of the Art in Network Intelligence, were presented. This lead to a high-level conceptualization of the Experiential Networked Intelligence initiative.

3.10 WORKSHOP(16)000012_Network_Intelligence Network Intelligence Q&A (Georgios Karagiannis)

This section presented the questions received during the ENI teleconferences and the answers that were provided. Moreover, Georgios asked a number of questions to the audience regarding whether the scope, objectives and phases of the ETIS ISG ENI proposal were clear.**Q&A on DEMOs (YOU Lizhao, ZHANG Haodi)**
This session served as a replay of questions received by the presenters on the demos, followed by their replies.

3.11 Discussion and conclusions (Raymond Forbes, LIU Shucheng(Will))

Will explained: we are now copying to all emails. We can create a mailing list before ETSI gives us a formal mailing list. We can reply to any received comments on Github as well.
Raymond explains the deadline to become founding member of this ISG is this Friday CET. If ETSI ISG ENI is accepted, then the work will probably start after the end of the Chinese New year.

4. AOB

Proposal & Terms of reference are with the ETSI Board, after review by the ETSI Secretariat.

5. Calendar of upcoming meetings

To be announced