Source:	**MCC**
Title:	**Draft Minutes of Future Evolution ~~Workshop~~ meeting #2**
Document for:	**Approval**
Agenda Item:	**8.9**

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1. Opening of the meeting

The second Future Evolution meeting took place immediately before TSG SA #18 meeting in New Orleans, USA, on the morning of Monday, December 9th 2002. It was chaired by Mr Hiroshi Nakamura, NTT DoCoMo, SA vice-chairman and convenor of this meeting, and was supported by Mr Alain Sultan, MCC, author of these minutes (the summary of input documents to the TR in the conclusion is provided by the Convenor).

2. Approval of the agenda

EV-020020, *Agenda*, Source Convenor

The scope of this session is to progress the roadmap and the scope of future evolution meeting, and to elaborate a first draft of the TR on the long-term roadmap. Another issue was to identify the candidates for chairmanship of Future Evolution. The actual election will take place at SA plenary. The different items of the agenda are used as a structure of these minutes.

Conclusion: Approved.

EV-020027, *Minutes of Future Evolution Workshop meeting #1*, Source MCC

The minutes were already distributed and approved at SA#17. They are provided here for delegates' convenience.

The main conclusion was to work on the elaboration of the long-term roadmap, a Technical Report, which first draft table of content is the following:

1. Purpose of the high level road map

2. Executive summary

3. Drivers & influences

> For each of the following subject areas, identify and briefly describe the potential / likely relevance of current / planned trends and/or activities: Business drivers, Regulatory, Spectrum, User equipment & user expectations, Radio technology, Core network, Service provision, Operations Support Systems and Techniques for standards production.

Conclusion: Noted.

3. Review of the identified internal / external activities

3.1 Internal activities (3GPP future evolution workshop in Helsinki)

EV-020021, *TR22.941 Annex C (output of Future Evolution Workshop in Helsinki)*, Source Convenor

This document summurises the conclusion of the workshop held roughly one year ago in Helsinki on Future Evolution. In particular, the assumed Basic Assumptions concluded there are duplicated, which are:

· Future is evolution not revolution

· Where possible, re-use existing techniques/technologies (potential through co-operation with external fora)

· Stabilise before extending

· Improve requirement setting, e.g., include commercial considerations

· Separate fundamental technology (evolutionary part) from dynamic applications (to ensure rapid development of applications)

Other conclusions refer to High Level Requirements, Focus Areas of 3GPP, Service Examples and Summary. The summary is:

- ·   Be realistic – correct and complete the existing standard before any major new changes are made
- ·   To fully utilise the existing standard, the end-to-end and end-user aspects needs to be in focus
- ·   Improve the support for 3rd party applications
- ·   Simplicity for the user
- ·   Better mechanism for customer care
- ·   Reduce deployment cost and options
- ·   Spectrum efficiency needs to be kept in mind

Conclusion: Noted. The basic assumptions and the high level requirements will be incorporated in the TR.

EV-020031, *Existing 3GPP Releases as a starting point for 3GPP future evolution*, Source Ericsson

Ericsson provides here the global scope of 3GPP and reminds that the scope of the Future Evolution Meeting has to be included within the scope of 3GPP. The content of Releases 99, 4 and 5 as well as the foreseen content of Rel 6 are summarised here.

The proposal is to include the text in the section "Scope of 3GPP and its Releases " into a new chapter X (and its subchapters) into the 3GPP future evolution high level road map document.

Discussion: There was an agreement to use this text as a basis for the definition of the scope of this meeting, with the amendments described below.

"3GPP shall consider the long term evolution." should be added as a third bullet point in the section entitled "Scope of 3GPP and its Releases ".

Samsung asked whether GERAN evolutions should also be considered and listed in these bullets.

"The scope of 3GPP..." should be changed to "the current scope of 3GPP..."

Conclusion: It is agreed to include the text under section x (and sub-sections) into the TR with these modifications.

3.2   External activities (ITU vision, etc.)

3.2.1   ITU-R vision

EV-020023, *Draft new recommendation ITU-R m.[imt-vis]*, Source ITU-R (presented by Mr. Peter Adams, O2)

This is an update of the document presented at meeting #1 in Biarritz. It was approved in October in Geneva at the ITU-R plenary with reservations from the French administration and objections from Syria.

Discussion: The figure 4.2 on capabilities of IMT-2000 and systems beyond IMT-2000 was pointed out during the presentation, as it is particularly relevant for this meeting.

Conclusion: Noted.

EV-020024, *Working Document Towards A Preliminary Draft New Report On Technology Trends*, Source ITU-R (presented by Mr. Peter Adams, O2)

Mr Adams made a quick introduction. This report is one of a series of document describing the vision and possible evolution of IMT-2000 and Systems Beyond.

The document is not stable.

Conclusion: Noted.

3.2.2   ITU-T vision

EV-020025, *LS on Provision of ITU-T SSG Vision Recommendation to 3GPP Evolution Ad Hoc Meeting*, Source ITU-T SSG Chairman

~~The~~ This is an LS from ITU-T SSG Chairman introducing the document Rec. Q.1702 on "Long-term vision of network aspects for systems beyond IMT-2000" (June 2002) ~~describing the ITU-T's position is introduced~~. The LS and Q.1702 were presented by Mr. Nakamura, acting as vice chairman of ITU-T SSG. The document

itself, normally restricted to ITU paying members, is available for free, especially for you, and just for the short duration of 3GPP Future Evolution meeting.

Discussion: the document was quickly displayed to the delegates using the videoprojector.

The key long-term network design objectives described in Q.1702 were introduced. These are: Broadband and multiple bearer service capability, Service expandability and application service support, Security support, User platform support, High performance and system efficiency, System flexibility, System scalability, System interoperability and System robustness.

Several delegates complained that the document itself has not been made available to the 3GPP delegates. The convenor explained that this is due to the fact that ITU does not want an ITU copyrighted document to be available free of charge on the 3GPP server, and a link on where to get the document for free from ITU is provided in the LS. The compromise was to ~~distribute~~ store it on the local server for the meeting duration but not to store it on the 3GPP server afterwards.

The current activities on long-term mobile system(s) at ITU are the following: ITU-R intention is to update Rec Q.1702 roughly every 2 years, ITU-T has on-going activities on high level service capabilities requirements and network capability requirements for Systems Beyond IMT-2000~~this topic~~.

Conclusion: this LS will be answered by the Convenor, mainly to thank them and to give them a quick indication on the results of this meeting. This LS will be handled in the SA meeting.

4. Roadmap to the future evolution

EV-020022, *Preliminary identification of deliverable*, Source H3G

This document was already submitted as EV-02007 in the first meeting but there was no time to discuss the conclusion.

This document proposes that the high level road map will contain two parts: 3G Enhancements (short to medium term evolution), and Long Term Evolutions.

Examples of short to medium term evolutions are IMS Optimisation, 3GPP & 3GPP2 Core Network Harmonisation, Optimised QoS, etc.

Examples of long-term evolutions are new and adaptive radio access techniques, higher data rates in multi-user and multi-cell environments (e.g. up to 100 Mb/s), efficient and effective use of spectrum (Dynamic spectrum sharing and allocation), etc.

A series of trends to be considered when investigating these fields is also identified.

Discussion: the document high-level objective and roadmap could be used in the deliverable.

The requirement "New & adaptive radio access techniques " seems to contradict with "Smooth evolution of 3G System."

Conclusion: it was agreed to re-use the text under section "High Level Objectives" and bullets under "High Level Road Map" in the TR.

EV-020022, *Need for focus or How to set the objectives*, Source Vodafone

Vodafone proposes to introduce the concept of "Focus Area" to group the requirements and sort them by hierarchy of importance. This results from a closer examination of the requirements in ITU-R Rec made by Vodafone, which has lead them to conclude that there is a multitude of requirements of different levels, sometimes conflicting each other, or sometimes some low level requirements are attributes to high level requirements (e.g. "Flexible Network Configuration" contributes to "Reduced Cost of Network Ownership"). There should be a very limited number of Focus Areas.

They propose the first Focus Area, on "Ubiquitous access for a core set of services".

Discussion:

On the concept of Focus Area:

Nortel, BT and Nokia support the proposal of the introduction of the concept of Focus Area.

Samsung also supports the concept but has some concerns about the proposed focus area.

Nokia stressed a potential conflict in the terminology, in particular it starts to become unclear what the difference is between "High Level Objectives" and "Focus Area". The convenor proposed a two-steps approach: the first one, at this meeting, is to capture in the TR as many requirements (or "trends" or whatever it is called) as possible from the different contributions without being clear on their category; the second step, at next meeting, will be to make some house-keeping in the TR using the Focus Areas as "cupboards".

On the proposed Focus Area:

Samsung notice that few hundreds of kbit/s will be available already in Release 99. Vodafone answered that the value added by the proposed Focus Area is to provide these bit rates on all the geographical coverage of the network,

The convenor proposed to delete "(hundreds of kb/s)" in the description of this Focus Area.

AWS asked whether the central point is "Simplified network and service architectures with less interfaces, easy and auto configuration means.". This has to be clarified when discussing the actual Focus Area.

Conclusion: **it is agreed to use the concept of "Focus Area" as a basis for future work**. The first Focus Area has however to be refined.

EV-020029, *Proposed Principle, Timeline, and Scope for 3GPP Future Evolution*, Source Samsung

Samsung proposes to follow the ITU Vision and Timeline provided in Rec. Q.1702 when 3GPP builds up its evolutionary Vision and timeline and also proposes to split the timeline of evolutionary development into mid-term (~ 2006) and long-term (~2012) with some examples classified in "focusing items". Mid-term focusing items are Wide area wireless internet access, Wide provision of MBMS, Harmonized IP CN between 3GPP and 3GPP2 and Service harmonization. Long-term focusing items are Interworking between 3G Mobile Network and other Networks and "Ad Hoc Networking" (defined as a group of wireless hosts without any pre-existing infrastructure and central administration).

Discussion: Hutchison 3G was interested by the information that " 2.3 GHz is allocated for public wireless internet access in Korea".

Nortel appreciates most of the text presented here but comments that it might sometimes focus more on the technical possibilities (e.g. on how to provide high data rates) rather than on the requirements.

Conclusion: The first part (i.e. down to " 3. Proposal to 3GPP Evolution Timeline" not included) is noted, as it concerns the scope of the Future Evolution. The second part, including section 3 and end of section 2 (ITU-T network key issues, is to be copied in the TR.

EV-020030, *Structure of Access Technology and Applications in Future Networks*, Source Nortel

Nortel notices that there is an on-going tendency for already at least 10 years to decouple the "Access Technology" (which provides data transport services between end points) from Applications (which uses the data transport capabilities of the Access Technology to deliver services to end users). They forecast that this trend will remain important throughout the next 5 to 10 years and recommend that requirements on future evolution of the 3GPP focus should encompass:

· 	Strong decoupling between Applications and Access Technologies is adopted as a design principle

· 	The IP protocol suite is used as a mechanism to support this decoupling

· 	The decoupling should be applied in both the infrastructure and terminal specifications

· 	APIs and/or interfaces are standardised between Applications and the Access Technology in the infrastructure and terminals

· 	Mechanisms to manage the provision of third-party services over decoupled networks are introduced

Discussion: Nokia mentions that although these principles are "nice in general", the particularity of the radio interface should however be taken into account and there are sometime benefits in coupling the application to the transport (i.e. to be more cost-effective). Siemens supports this view. This is an example of contradicting requirements mentioned by Vodafone in an earlier contribution.

In the first bullet point, AWS wish to add "new" just before "Applications". For , adding the word "new" is

irrelevant because the text deals with principles.

Conclusion: the bullet points under "Importance for 3GPP Evolution" should be incorporated as such in the TR. The trends of decoupling "Transport" (or "Access") from "Application" is supported.

EV-020026, *Draft template of the Road Map*, Source Convenor

This documents contains a~~A~~ quick presentation of the foreseen roadmap for trends and technologies. It was proposed to incorporate this information in the TR on long-term roadmap.

Conclusion: Noted. No conclusion on the proposal to include it in the TR.

5. Chairman's election

The formal election will take place in the SA session.

The only identified candidate so far is Ian Sharp, from Nortel, and this is what will be reported to SA.

H3G and Alcatel clarify that in their point of view, it will be much more efficient if the future evolution activity is to be run as SA activity, and as such has to be led by SA chairman. O2 and Orange do not share this view.

Vodafone stressed that the status of this group is not very clear, whether it is workshop or ad-hoc or something else. This has some impacts on e.g. where the chairman has to be elected (in Future evolution meeting or in SA).

These issues will have to be solved by SA meeting.

6. Conclusion

This second meeting of Future Evolution enabled to elaborate a first draft of the long-term roadmap. The new version of the Technical Report will be provided after the meeting.

The text to be added in the TR comes from the following Tdocs:
- EV-020022 (H3G contribution), ~~and EV020023 (M.[imt-vis] ITU-R vision)~~
- EV-020028 (Vodafone contribution) ~~and EV020023 (M.[imt-vis ITUR- vision])~~
- EV-020021 (TR22.941 future evolution workshop in Helsinki)
- EV02029 (Samsung contribution) ~~and EV-020025 (Q.1702 ITU-T SSG vision)~~
- EV02030 (Nortel contribution)
- EV02031 (Ericsson contribution)

Document EV-020032, from the Convenor, details which parts of each of these contributions should be included in the TR. Due to lack of time, t

~~EV-020032, *Text agreed to be included in the TR as a result of Future Evolution meeting #2*, Source Convenor~~

> *Conclusion:* there was no possibility to ~~have an~~ approve~~al of~~ this document during the meeting, but it was agreed to use EV-020032 for further discussion to progress the work through the Future Evolution e-mail reflector~~so e-mail approval will be used~~.

The ~~requirements~~ text decided to be included in the TR ~~at~~ during this meeting ~~in the TR~~ will be later sorted according to the "Focus Area" concept. This ~~is matter of~~ will be done in future meetings.

The convenor thanked MCC for the support and the delegates for their participation, and encouraged them to further progress the issue by e-mail, using the Future Evolution reflector.

Annexes

Annex 1- Tdoc list

Tdoc #	Source	Title	Ag. Item
EV-020020	Convenor	Draft Agenda	2
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EV-020022	H3G (Hashem Madadi)	Preliminary identification of deliverable	4
EV-020023	Peter Adams	Draft new recommendation ITU-R m.[imt-vis]	3
EV-020024	Peter Adams	Working Document Towards A Preliminary Draft New Report on Technology trends	3
EV-020025	ITU-T SSG chairman	LS on Provision of ITU-T SSG Vision Recommendation to 3GPP Evolution Ad Hoc Meeting	3
EV-020026	Convenor	Draft template of the Roadmap	4
EV-020027	MCC	Minutes of Future Evolution #1	2
EV-020028	Vodafone	3G Future Evolution – Need for focus or How to set the objectives	4
EV-020029	Samsung	Proposed Principle Timeline Scope for 3GPP Future Evolution	4
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EV-020031	Ericsson	Existing 3GPP Releases as a starting point for 3GPP future evolution	3
EV-020032	Convenor	Text agreed to be included in the TR as a result of Future Evolution meeting #2	6

Annex 2- Draft Participants list

Final Participants list to be provided later

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