



TSG-S2 Status Report at TSG-SA#7 Meeting
Agenda point 6.6

SP-000330

15-17.03.2000

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3GPP IGC Report



Work co-ordination of 3GPP for R00 (1/4)

Basic Principles:

- ▼ IGCs extended from 6 in R99 to 12 in R00 to cover all the issues
- ▼ Each IGC monitor a set of Features and creates the project plan per each feature



Work co-ordination of 3GPP for R00 (2/4)

▼ 12 IGC groups for R00:

- ⇒ Bearer and Access Stratum (François Courau, Alcatel)
- ⇒ QoS (Oscar Lopez-Torres, T-Mobil)
- ⇒ CC and roaming (Alexander Milinski, Siemens)
- ⇒ Codecs (Ian Doig, Motorola)
- ⇒ Messaging (Martin Guntermann, Mannesmann Mobilfunk)
- ⇒ Terminal local features (Paul Voskar, Nokia)
- ⇒ (continuing on next page)



Work co-ordination of 3GPP for R00 (3/4)

▼ R00 IGCs (continuing):

- ⇒ Service platforms (Christophe Gourraud, Ericsson)
- ⇒ Security (Chris Pudney, Vodafone-Airtouch)
- ⇒ Billing, charging and management (Yukio Hiramatsu, NTT)
- ⇒ Testing (Ian Doig (acting), Motorola)
- ⇒ Location related issues (Jan Kall, Nokia)
- ⇒ Overall Co-ordination and general issues (Alain Sultan, MCC)



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- ▼ IGC on Bearer and Access Stratum (Francois Courau, Alcatel)
 - ❑ Main review on Access Stratum has led to update the ending date approved by RAN#8;
 - ❑ Several new Work Items have been added;
 - ❑ TSG RAN has agreed major principle of ensuring better coordination with emphasise on the role of Work Item Rapporteur.



▼ **QoS (Oscar Lopez-Torres, T-Mobil) (1/2)**

- ❑ The Main Focus on the *Real Time Packet Services*. It is Expected to Continue Through the End of the Year. *Real Time Services* Represent the Real Challenge for QoS
- ❑ Active Input with Contributions – on SA2 – Has Been Devoted to *End-to-End Reservation Scenarios and Protocol Requirements*. This is Reflected on TR 23.821. Most Likely Leading To Extensions of IETF Protocol Suites; e.g., SIP and RSVP
- ❑ Other Groups Should Start Work based on 23.107 (23.821 content will be incorporated into it)
- ❑ A New Work Task was Added in Order to Detect Transport of User Data on IP-Based Signalling Protocols.



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▼ **QoS (Oscar Lopez-Torres, T-Mobil) (2/2)**

- **RAN Groups Need To Be Involved in The Definition of UTRAN/GERAN Admission Control Mechanisms, In Order to Guarantee A Good QoS in Conversational Real Time Services; e.g., VoIP. These WTs Need To Be Created Soon**



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▼ Status of project planning on Call control and Roaming (Alexander Milinski, Siemens) (1/5)

□ Main sub-areas of the area Call Control and Roaming

⇒ Provisioning of IP-based multimedia services

⇒ Evolution of circuit-switched architecture and services

⇒ Optimization of signaling procedures:

» *Proposed for deletion by N1 and by joint CN/S2 work shop*



▼ Status of project planning on Call control and Roaming (Alexander Milinski, Siemens) (2/5)

□ **Feature: Provisioning of IP-based multimedia services**
(to some known as the „all-IP network“) (1/2)

⇒ **UMTS R00 offers IP-based multimedia services**

- **Major challenges for cross-phase compatability, roaming...**
- **Introduction of a new network subsystem in the UMTS core network (CSCF, HSS, SIP client-server...)**

⇒ **S1 and S2 work items ongoing**



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▼ Status of project planning on Call control and Roaming (Alexander Milinski, Siemens) (3/5)

□ **Feature: Provisioning of IP-based multimedia services**

(to some known as the „all-IP network“) (2/2)

⇒ Important building blocks of this feature will be reported under other IGC's

– Security, Bearer and Access Stratum, QoS, Billing and Charging, Codecs, Service Platforms

⇒ CN work items proposed, work starting

⇒ S2 work item on architecture time line slipped one meeting
80% complete at S2#14 (i.e. SA#9)

💣 Issue to highlight: Feature depends on work outside the scope of 3GPP, in particular SIP in IETF-> 3GPP does not have full control on timely finalization in R00



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- ▼ Status of project planning on Call control and Roaming (Alexander Milinski, Siemens) (4/5)
 - Evolution of circuit-switched architecture and services (1/2)
 - ⇒ *Feature: Enable bearer independent Circuit-switched network architecture*
 - S2 work ongoing
 - S2 work item on architecture time line slipped together with IP based multimedia feature, but less critical here
 - cf. also IGC on Codecs
 - ⇒ *Feature: Global text telephony*
 - work item generated at SA#7, no new status



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- ▼ Status of project planning on Call control and Roaming (Alexander Milinski, Siemens) (5/5)
 - Evolution of circuit-switched architecture and services (2/2)
 - ⇒ **Feature: Facsimile**
 - shifted from R99 to R00;
 - ⇒ **Feature: Circuit-switched multimedia services**
 - ⇒ WI on **Circuit-switched multimedia swap and fallback generated**
 - ⇒ **Feature: Bearer/Service Modification without pre-notification**
 - WI proposed by N3



▼ **Codecs (Ian Doig, Motorola) (1/2)**

□ **Feedback from:**

- ⇒ **S4 Secretary, outgoing Chair and Codec detailed project plans**
- ⇒ **S2 reviews**
- ⇒ **Reviews by CN Working groups**
- ⇒ **Output of TrFO Drafting meetings (update from 1st Workshop)**

□ **WB AMR**

- ⇒ **progressing well**
- ⇒ **Specifications should be approved by TSG#10**
- ⇒ **Characterization complete by TSG#11**
- ⇒ **S4 maintain detailed project plans**



▼ **Codecs (Ian Doig, Motorola) (2/2)**

□ **Transcoder-Free Operation (TrFO)**

⇒ Workshops and discussion ongoing

□ **Tandem Free aspects for 3G and between 2G and 3G systems**

⇒ Scenarios identified, on schedule.

□ **Support of Transcoder in CN**

⇒ No update available.

□ **Transmission planning in 3G networks**

⇒ Limited progress



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▼ **Messaging (Martin Guntermann, Mannesmann) (1/1)**

□ **Status:**

- ⇒ IGC Plan Messaging was mainly reviewed by S1, S2 and T2
- ⇒ No new requirements for Cell Broadcast Service so far
- ⇒ Release 2000 Work for Multimedia Messaging started

□ **Open Issues:**

- ⇒ Architecture for Multimedia Messaging not yet defined
- ⇒ => Risk that Requirements towards the WAP Forum can not be formulated in time



▼ Terminal local features (Paul Voskar, Nokia) (1/2)

Alternatives to AT commands

- ❑ TBD

AT commands

- ❑ Edge AT commands. T2 : New AT commands to be added to 27. 007 4Q2000
- ❑ MMS AT commands. T2 : New AT commands to be added to 27. 007 4Q2000
- ❑ Other At commands T2 : New AT commands to be added to 27. 007 4Q2000

Wide Area Data Synchronisation

- ❑ Continues evolution of Synchronisation protocol T2: additions to 27.103 TBD
- ❑ vObjects and Other Constructs for Use in Data Synchronisation
T2: additions to 27.103 Dec 2000



▼ Terminal local features (Paul Voskar, Nokia) (2/2)

UE Multiplexer

- ❑ Multiplexing protocol (simultaneous sessions over UE).

⇒ T2: Addition to 27. 010.

TBD

UICC/ME interface

- ❑ UICC/ME Performance Enhancements

T3: Feasibility study on speed enhancements on existing UICC interface and alternatives .

Dec 2000

Terminal Local Model

- ❑ T2: new TS

Dec 2000

UICC API

- ❑ Test specification for UICC T3: UICC interface.

Dec 2000

- ❑ Java API transfer to 3GPP T3: Java API specification affects T1 specs.

Dec 2000



▼ **Service platforms (Christophe Gourraud, Ericsson) (1/2)**

- Feedback from S1 still expected
- Separation between VHE and OSA BBs approved in Sophia Antipolis
- Schedule information not included yet
- Issue: should there be other service platforms BBs and associated WTs (e.g. based on IETF service solutions, like SIP CPL or SIP servlets)?



▼ Service platforms (Christophe Gourraud, Ericsson) (2/2)

□ VHE

- ⇒ Concept supported by various toolkits (e.g. OSA, CAMEL, MExE)
- ⇒ Just starting at S1 and S2 level (initial requirements definition from S1 expected by S2 by the end of July)

□ OSA (may be renamed, e.g. Open Interface for Service Provisioning)

- ⇒ Defines access to network capabilities via API
- ⇒ Just starting at S1/S2/N5 level (initial requirements definition from S1 expected by S2 by the end of July)

□ CAMEL Phase 4

- ⇒ Phase 3 leftovers + support of multimedia as appropriate
- ⇒ Definition of features still required from S1

□ MExE

- ⇒ Normal evolution, support of terminal part of VHE, and interaction with other service platform BBs (e.g. OSA, CAMEL)



▼ Security (Chris Pudney, Vodafone-Airtouch) (1/3)

- ❑ Input received from joint CN/S3 meeting (June)
 - ⇒ including presentation from S2 on system architecture
- ❑ Input expected based on GERAN presentation at S3#14 (August)
- ❑ Input required from RAN
 - ⇒ user plane integrity protection in access network, end-to-end security,...
- ❑ Input required from T
 - ⇒ access security for IP services, MExE, visibility and configurability,
- ❑ Descriptions for all currently identified WIs presented for approval to SA#8 by S3



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▼ **Security (Chris Pudney, Vodafone-Airtouch) (2/3)**

- ❑ **Enhanced user identity confidentiality**
 - ⇒ **Moved to R00 at SA#7**
 - ⇒ **No R00+ work items created - no support in S3**

- ❑ **Target completion date: June 2000**
 - ⇒ **MAP application layer security**

- ❑ **Target completion date: October 2000**
 - ⇒ **GEA2 support**

- ❑ **Target completion date: December 2000**
 - ⇒ **visibility and configurability of security**
 - ⇒ **GTP security (part of core network security)**
 - ⇒ **lawful interception architecture**
 - ⇒ **general enhancements to R99 architecture**



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▼ **Security (Chris Pudney, Vodafone-Airtouch) (3/3)**

□ Target completion date: June 2001

⇒ access security for IM services

⇒ A5/3

⇒ enhanced MExE security

⇒ OSA security

⇒ core network security (except GTP security)

⇒ GERAN security

□ Target completion date: December 2001

⇒ end-to-end security

⇒ user plane protection in access network (move to high priority if BB of IM services WI)

⇒ FIGS

□ Target completion date: to be defined at S3#14

⇒ key management for core network security



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▼ **Billing, charging and management (Yukio Hiramatsu, NTT)**

□ Mode of Coordination:

- ⇒ SA5 is in charge of coordination across WGs, etc.
- ⇒ Information made available to SA2.

□ Status of Coordination:

- ⇒ Comments received from SA5 by E-mail.
- ⇒ Liaison received on new WI, 'Service Management'

□ Definition of WIs:

- ⇒ Most S5 WIs are already defined.
- ⇒ RAN3 WI is also defined.
- ⇒ A new WI on 'Service Management' is proposed to be defined.

□ Work Plan:

- ⇒ A new WI on 'Service Management' is submitted to SA#8 for approval.
- ⇒ Other WIs are being tackled to be completed Dec. 2000.



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▼ **Testing (Ian Doig (acting), Motorola) (1/1)**

- ❑ **No Activities so far on this IGC**
- ❑ **Ian has just started the work**
- ❑ **Contact T1 Vice-Chairman to start the work on IGC**



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▼ **Location related issues (Jan Kall, Nokia) (1/1)**

- ❑ SoLSA work item was not supported in SA1, therefore it could be moved to later releases
- ❑ Work item description on location services, Approved in SA#8
- ❑ Tentative schedule information included for some work tasks
- ❑ No comments received yet from SA3, SA5, RAN1, RAN4, T2
- ❑ SA1 will evaluate new location service features (Building Blocks) for release 2000:
 - LCS support in packet switched domain and IM CN SS
 - Defined Geographical areas (DEGA): mobile sends trigger to the network when it enters or leaves the area
 - event based and periodic locationing
 - IP-adressing of LCS Client and target mobile
 - Privacy level depending on active PDP context or not