



IGCs Report at TSG-SA#9 Meeting
Agenda point 7.6

SP-000478
25-28.09.2000

3GPP IGC Report



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Work co-ordination of 3GPP (1/3)

Basic Principle:

- ▼ Each IGC convenor monitors a set of features and check the consistency of the work plan for these features



Work co-ordination of 3GPP (2/3)

▼ 12 IGC groups:

- ⇒ 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 (3/3)

▼ IGCs (continuing):

- ⇒ Service platforms (Christophe Gourraud, Ericsson)
- ⇒ Security (Chris Pudney, Vodafone)
- ⇒ 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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NOTE

- ▼ **The foreseen completion dates mentioned in these slides are the ones known by September 20th (except for IGC on Bearers). These dates are subject of modifications by the TSG #9 meetings.**



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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#11 for Release 4;
 - ❑ TSG GERAN has created a lot of work items;
 - ❑ TSG CN has removed WT on interworking aspects and most of the work should be completed for 12/01



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

- ❑ The main focus continues to be on Real Time (RT) for Packet Services (PS). The work is expected to continue until summer 2001, for both the PS domain and the IM subsystem.
- ❑ Work on optimization of QoS for AAL2 connections over the Iub and Iur is now planned to continue until summer 2001.
- ❑ SA2 is actively working on End-to-End QoS reservation scenarios and protocol requirements (to be incorporated in 23.107).
- ❑ QoS and SIP protocol requirement interactions need a closer look. This takes place via ad-hoc meetings in 3Q and 4Q 2000.
- ❑ SA5 has started to look at charging aspects for QoS.



▼ IGC on QoS (2/2)

- ❑ CN1 has included QoS parameters from SA2 (TS 23.107) into its specifications. The mapping of parameters between UMTS and external networks is planned to be done in the CN groups.
- ❑ RAN3's work on Radio Access Bearer service negotiation over Iu is expected to have completion on 4Q 2000 (to be potentially revised by RAN).
- ❑ RAN Groups need to start the definition of UTRAN / GERAN Admission control mechanisms and algorithms involving QoS parameters.
- ❑ It is expected that the work on UMTS QoS protocols like SIP-relationships to convey End-To-End parameters and RSVP signalling will trigger inputs to IETF.



▼ IGC on Call control and Roaming (Alexander Milinski, Siemens)
(1/4)

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

⇒ Provisioning of IP-based multimedia services

⇒ Evolution of circuit-switched architecture and services



▼ IGC on Call control and Roaming (2/4)

Feature: Provisioning of IP-based multimedia services

- ❑ IP-based multimedia services in UMTS
 - ⇒ Major challenges for cross-phase compatibility, roaming...
 - ⇒ Introduction of a new network subsystem in the UMTS core network (CSCF, HSS, SIP client-server...)
- ❑ S1 and S2 work items ongoing, CN groups started
- ❑ Completion of stage 2 by S2 planned for 12/00
- ❑ Full IM Subsystem in 12/01
- ❑ Parts of this feature outside the scope of 3GPP (IETF etc...)
- ❑ 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



▼ IGC on Call control and Roaming (3/4)

Evolution of circuit-switched architecture and services (1/2)

□ Feature: **Enable bearer independent Circuit-switched network architecture**

⇒ Work on stage 2 and 3 started in N4; Completion of stage 2 expected for 12/00, stage 3 in 03/01.

□ Feature: **Global text telephony**

⇒ work ongoing in S1, S2, S4; stage 1 spec achieved v1.0.0; stage 2 work started; completion of feature planned for 03/00.

□ Feature: **Facsimile**

⇒ work item completed by N3.



▼ IGC on Call control and Roaming (4/4)

Evolution of circuit-switched architecture and services (2/2)

□ Feature: **Circuit-switched multimedia services**

⇒ Work on Circuit-switched multimedia swap and fallback ongoing in N3. Completion planned 03/01

□ Feature: **Bearer/Service Modification without pre-notification**

⇒ Work ongoing in N3. Completion planned 03/01

□ Feature: **Emergency Call Enhancements**

⇒ N1: Emergency call categories (almost completed) and recalling



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

□ **Feedback from:**

- ⇒ S4 Secretary, ongoing activity. Codec detailed project plans updated by S4
- ⇒ S2 reviews
- ⇒ Output of TrFO Drafting meetings (update from Workshops) and CN4 Chairmans reports
- ⇒ CN WGs now identified IGC contact points/names

□ **WB AMR**

- ⇒ On schedule
- ⇒ Specifications should be approved by TSG#10
- ⇒ Characterization complete by TSG#11
- ⇒ S4 maintain detailed project plans
- ⇒ WB AMR Implementation in GERAN, UTRAN and CN completion expected TSG#12



▼ IGC on Codecs (Ian Doig, Motorola) (2/2)

□ Transcoder-Free Operation (TrFO)/Out of Band Transcoder Control

- ⇒ Workshops making progress but further workshops required
- ⇒ challenging to be completed within anticipated Release 4 time frame.
- ⇒ Increased progress is expected between TSG#09 and TSG#10
- ⇒ Timescales somewhat dependent on the alternatives decided upon e.g. more or less 3GPP standardisation effort.
- ⇒ Possible that the stage 2 can be finalised at TSG CN #10.
Required stage 3 specifications possible at TSG CN #11.

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

- ⇒ On schedule.



▼ IGC on Messaging (Martin Guntermann, Mannesmann)

□ Status:

- ⇒ Focus of work on Multimedia Messaging to be finalised within the Release 4 time frame
- ⇒ Advanced Cell Broadcast to be removed by T2 (no work at all on this Feature).

□ Open Issues:

- ⇒ Definition of the Architecture for Multimedia Messaging not yet stable
- ⇒ Risk that Requirements towards the WAP Forum can not be formulated in time



▼ IGC on Terminal local features (Paul Voskar, Nokia)

□ MExE: on schedule

⇒ MExE Security completed

Little work on VHE in MExE, and work not started on AT command support

⇒ MExE Improvements & Investigation: on schedule

□ Terminal interfaces: on schedule

⇒ AT commands on schedule

⇒ Wide Area Data Synchronisation

Globally on schedule but no progress so far on vObjects and Other Constructs for Use in Data Synchronisation.

⇒ Terminal Local Model on schedule



▼ **IGC on Service platforms (Christophe Gourraud, Ericsson)**

- ❑ Completion of the stage 3 work on OSA foreseen by end of 2001.
- ❑ A large part of the OSA-related standardisation that was performed for R99 by SA2 in TS 23.127 will in Releases 4 and 5 be addressed by CN5 in other TSs.
- ❑ SA2 will now concentrate on the VHE concept, for which OSA is only a possible toolkit (others being MExE, CAMEL, and USAT). SA2 will also work on the support of VHE by the above mentioned toolkits.



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▼ IGC on Security (Chris Pudney, Vodafone) (1/3)

Main issues:

▼ Access security for IM subsystem

- work on TR started in 08/00
- TR approval in 12/00
- draft TS in 03/01 - *for presentation to other groups*
- end date: TS approval in 06/01 (was 03/01)

▼ Security aspects of reliable QoS for PS domain and IM subsystem

- input due from S2 by 06/00 - none received
- end date was 09/00 - now ?

▼ Prevention of user fraud concerning TrFO OoBTC solution

- input due from N4 by 08/00 - none received
- end date was 03/01 - now ?

▼ FIGS for PS domain and IM subsystem

- work behind schedule - WID needs more supporting companies

▼ Other items as described at SA#8

▼ S3 will propose six new WIDs plus two revised WIDs at SA#9



▼ IGC on Security (2/3)

Current schedule (1/2) :

▼ Target completion date: September 2000

☐ GEA2 support

▼ Target completion date: December 2000

☐ MAP security - *part of network domain security WID*

▼ Target completion date: March 2001 (continued on next slide)

☐ GTP security - *part of network domain security WID*

☐ enhanced visibility and configurability of security

☐ MS-triggered authentication during connections - *was part of misc. security WID*

☐ enhanced control of security by HE - *was part of misc. security WID*

⇒ required by 3GPP2

☐ lawful interception architecture

⇒ includes provisions for bearer independent call control architecture and IM subsystem architecture

☐ USIM toolkit security - *new work item*



▼ IGC on Security (3/3)

Current schedule (2/2) :

- ▼ Target completion date: March 2001 (continued)
 - ❑ location services security - *new work item*
- ▼ Target completion date: June 2001
 - ❑ network domain security including key management
 - ❑ A5/3
 - ❑ GERAN security - *use of Kasumi will increase confidence in end date*
 - ❑ MExE security
 - ❑ OSA security
 - ❑ VHE security
 - ❑ study of network-based denial of service attacks - *new work item*
- ▼ Target completion date: September 2001
 - ❑ location services security for IM subsystem - *new work item*
 - ❑ enhanced user plane protection in access network



▼ IGC on Billing, charging and management (Yukio Hiramatsu, NTT)

□ Mode of Coordination:

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

□ Definition of WIs:

- ⇒ Most S5 WIs are already defined.
- ⇒ WIs of T2, RAN3, SA1 and SA2 are also defined.
- ⇒ One revised WI on "Service Operation Management" and one new WI on "UTRAN operations and maintenance procedures" are proposed to be defined.

□ Work Plan:

- ⇒ Features/BBs/WTs are revised based on the progress of work.
- ⇒ Target date for each feature/BB has been clarified.



▼ IGC on Testing (Ian Doig (acting), Motorola)

⇒ Note, testing time scales should not impact the tested work items release.

□ UE Conformance/test

⇒ T1 program now introduced into work plan
(Thanks to Peter George, T1 Vice Chair and Lidia Salmeron, T1 MCC support).

⇒ Work plan now includes, prose, TTCN and PICS timescales covering existing relevant work items at TSG#8.

□ BTS test

⇒ Work plan now being addressed in RAN 4.

⇒ Work plan update expected soon.



▼ **IGC on Location related issues (Jan Kall, Nokia)**

- ❑ S1 Ad-hoc meeting in August, discussed LCS in PS domain, OSA support for LCS, etc. Unresolved issues are event based LCS and DEfined Geographical Areas (DEGA)
- ❑ S2 is adding location services support in GPRS and UMTS PS domain, common core network specification for UMTS and GSM, TS 23.271, version 1.0.0 is presented for information to SA
- ❑ LCS support in IP Multimedia SubSystem to be added (foreseen for R5)
- ❑ CN WGs to develop detailed LCS support in UMTS packet switched domain and GPRS (foreseen for R4)
- ❑ RAN WGs starting work on enhanced positioning methods in TDD and FDD
- ❑ TSG GERAN adding EDGE and GPRS support for LCS



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Continuation of the work

- ▼ Maintenance of the work plan will be done by MCC
- ▼ Information of the updates to the work plan agreed by the working group will be included through MCC
- ▼ S2 role is to verify that the overall architectural consistency is taken into account in the work plan