Technical Specification Group Services and System Aspects ***TSGS#8(00)0453***
Meeting #9, Kapolei, Hawaii, USA, 25-28 September 2000

Source: **TSG SA WG2**
Title: **Revised WI coversheet on FS on Push Services**
Agenda Item: **7.2.3**

Tdoc 3GPP S2-001660

3GPP TSG-SA WG2#14
Bristol, U.K.
4th -8th Sep. 2000

Title: **Proposed change to WI: A feasibility study of an architecture for network requested PDP context activation with User-ID**

Source: **WI Rapporteur (NTT COMWARE)**

Agenda Item:

Purpose: **For Approval**

Work Item Description

Title : A feasibility study of an architecture for push service

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

none

3 Justification

The requirements have already incorporated in TS 22.060v4.0.0 as follows:
As an option the GPRS network may request the activation of a specific interworking profile for a GPRS attached mobile, when an mobile terminated packet or activation request from external data network with user-ID (e.g. MSISDN) packet is received even if a mobile is inactive.

4 Objective

The purpose of this WI is to study the feasibility of architecture for push service over Packet Switched Networks.
A number of current and future services require the capability for an external IP network to "Push" data to 3G terminals in PS Domain. Current R99 specifications allow operators to provide push services by using static IP address (and only when GGSN stores static PDP information for the IP address) or by having long-lasting PDP contexts. However, as mobile application services

in the PS Domain are emerging in the future, the following additional service requirements should be considered.

(1) Push services should be provided whenever networks can reach mobile users. In other words, even though the connection between network and MS is not established, users should be able to enjoy push services.

(2) When IPv4 connectivity is used, IP address should be assigned not only statically but also dynamically. Also, in order to use dynamic IP address, other identites than IP address are necessary.

How common push services can be offered both through an UMTS IP access and through other IP access networks has to be studied (the work being performed by IETF should be considered to this respect).

How the service works in a roaming case has also to be studied.

5 Service Aspects

None.

6 MMI-Aspects

None.

7 Charging Aspects

None.

8 Security Aspects

How to prevent the (UMTS) IP access network from being flooded by denial-of-service attack that might be induced by this service has to be evaluated.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes		X		X	X
No	X		X		
Don't know					

10 Expected Output and Time scale (to be updated at each plenary)

Meeting	Date	Activity
SA1#6	Nov 29 - Dec 3, 1999	Start CR process on 22.060
SA1#7	Feb 7-11, 2000	Continue the CR process on 22.060
SA#7	March 15-17, 2000	Finalize the CR process on 22.060
SA2#13	May 22-26, 2000	
S2 WI adhoc	June 14-15, 2000	
SA#8	June 26-28, 2000	WI approved.
SA2#14	September 4-8, 2000	Start the feasibility study for architecture
SA#9	September 25-28, 2000	
SA2#15	November 13-17, 2000	Finalize the feasibility study
SA#10	December 11-14, 2000	All study approved.

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
23.874	Feasibility study of an architecture for push service	S2		SA#9	SA#10	

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments

11 Work item raporteurs

Yoshinori Kitada (NTT Comware)
Nobuyuki Uda (NTT Comware)

12 Work item leadership

S2

13 Supporting Companies

Fujitsu, NEC, Nippon Telecommunication Consulting, NTT Communicationware, NTT DoCoMo, NTT Software

14 Classification of the WI (if known)

X	Feature (go to 14a)
	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

The building blocks of this feature still have to be identified. (See table on the last page.)
(list of Work Items identified as building blocks)

Proposal for the Features, Building Blocks and Work Tasks of Push Services

Inter Group Co-ordination	***Feature***	***Building block***	***WG: work task*** **expected completion date**
Call Control and Roaming	**Push Services**	**Capabilities of push service including Network requested PDP context activation with User-ID**	**S2: feasibility study**