Source: SA1

Title: CRs to 22.174 on various subjects (Rel-6)

Document for: Approval

Agenda Item: 7.1.3

SA Doc	Spec	CR	Rev	Phase	Cat	Subject	Old Vers	New Vers	SA1 Doc
SP-030027	22.174	006	-	Rel-6	C	Removal of MMS content	6.1.0	6.2.0	S1-030059
SP-030027	22.174	007	-	Rel-6	C	Barring of Push Service	6.1.0	6.2.0	S1-030250
SP-030027	22.174	008	-	Rel-6	C	Removal of 'Null' Interworking Chapter	6.1.0	6.2.0	S1-030063
SP-030027	22.174	009	-	Rel-6	D	CR to the PUSH Stage 1 TS on the Feature Interactions section	6.1.0	6.2.0	S1-030117
SP-030027	22.174	010	-	Rel-6	F	Push Service Independence	6.1.0	6.2.0	S1-030281

CR-Form-v7

CHANGE REQUEST

⌘   **22.174** CR **006**   ⌘**rev**   **-**   ⌘   Current version: **6.1.0**   ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐   ME **X** Radio Access Network ☐   Core Network **X**

Title:	⌘	Removal of MMS content	
Source:	⌘	SA1 (Research in Motion, NTT DoCoMo Inc.)	
Work item code:	⌘ PUSH	***Date:*** ⌘	13/01/2003

Category: ⌘ **C**   ***Release:*** ⌘ Rel-6

Use <u>one</u> of the following categories:	*Use <u>one</u> of the following releases:*
F *(correction)*	*2 (GSM Phase 2)*
A *(corresponds to a correction in an earlier release)*	*R96 (Release 1996)*
B *(addition of feature),*	*R97 (Release 1997)*
C *(functional modification of feature)*	*R98 (Release 1998)*
D *(editorial modification)*	*R99 (Release 1999)*
Detailed explanations of the above categories can	*Rel-4 (Release 4)*
be found in 3GPP TR 21.900.	*Rel-5 (Release 5)*
	Rel-6 (Release 6)

Reason for change:	⌘	Requirement duplicates a function already available in MMS
Summary of change:	⌘	Removal of requirement
Consequences if not approved:	⌘	Duplication.

Clauses affected:	⌘	4

		Y	**N**		
Other specs affected:	⌘			Other core specifications	⌘
				Test specifications	
				O&M Specifications	

Other comments:	⌘	

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Below is a brief summary:

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4 Overview of the Push Service

The overview of push is followed by a summary of the relationships among the entities involved (operators, users, push recipients and push initiators).

NOTE: these are functional descriptions: multiple functions may, depending on business arrangements, be performed by a single entity.
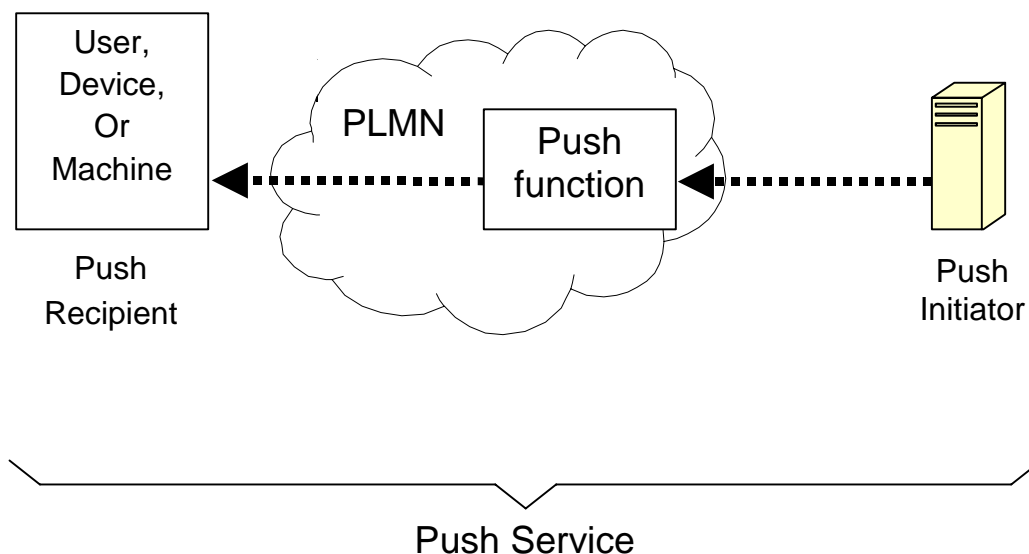
Figure 1: Push Service Overview

The Push Service is a service whereby the Push Initiator sends push data through a Push Server to a Push Recipient, without interaction from the Push Recipient.

The typical mode of operation is as follows:

- A Push Recipient (e.g. user, receiving device like a meter) explicitly or implicitly subscribes to a set of value added services offered by various Push Initiators and allow these Push Initiators to send it push data that meet the Push Recipient's configured criteria. (This configured criteria is part of the Push user profile.)

- A Push Initiator identifies information matching the criteria set by the Push Initiator and package it up into the push data

- The Push Initiator delivers the push data to the Push function, identifying the Recipient's address, and optionally priority, delivery time parameters, etc.

- The Push function takes the responsibility of delivering the push data, optionally following the priority and delivery time parameters, to the Push Recipient and for providing feedback to the Push Initiator regarding delivery of the push data if requested by the Push Initiator.

Key characteristics of the Push Service include:

- The Push Initiator may, but is not required to deal with the specifics of the wireless transport, selection of appropriate bearers, out-of-coverage or roaming issues, and other wireless network anomalies. These are all managed by the Push Service and hence can be optimised at the network level rather than being handled by all applications. Using an available bearer the push service offers as many capabilities that are available to delivery of the push data following the requested push services requested by the push initiator.

- The push initiator shall be provided with a means to query the push server for a specific recipient's push user profile subject to privacy considerations.

- The push server shall not change the push data (contents). Any transformations that the Push Server provides shall be compliant with user privacy requirements as defined in the push subscriber profile.

- The push service shall be able to handle user groups (i.e. have the ability to target a certain group of push recipients).

- The push service is capable of supporting asynchronous communication between a Push Initiator and the push recipient on a wireless device.

- The privacy of the user is important and the introduction of the push services should in no way result in unwanted information "spam" being sent to mobile users.

The Push data could contain:

- Application specific data exchanged between a server and its client e.g. ERP, CRM, Field Service management, m-commerce transaction data or a meter reading

- Provisioning or configuration control data

- MMS content data

The entities shown in Figure 1 are Push Initiator, Push Server (PLMN) and the Push Recipient. The Push Initiator may be outside the Operators network and hence will require well-defined relationships amongst them.

For example, a Push Initiator can be within the Operator domain (e.g. an operator portal) or an external VASP. A Push Recipient (e.g. a User) will need to be part of the Operators network and will require allowing the network to pass through push data and also subscribing to the Push Initiator to generate the data it wants pushed. To support flexible billing models, it becomes necessary for the Operator to have a defined commercial relationship with the Push Initiator.

CR-Form-v7

CHANGE REQUEST

⌘   **22.174 CR 007**   ⌘**rev** **-** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐   ME **X** Radio Access Network ☐   Core Network **X**

Title: ⌘	Barring of Push Service
Source: ⌘	SA1 (Research in Motion, NTT DoCoMo Inc.)
Work item code: ⌘	PUSH ***Date:*** ⌘ 13/01/2003

Category: ⌘ **C**   ***Release:*** ⌘ Rel-6

Use one of the following categories: *Use one of the following releases:*
   F *(correction)*   *2*   *(GSM Phase 2)*
   A *(corresponds to a correction in an earlier release)*   *R96*   *(Release 1996)*
   B *(addition of feature),*   *R97*   *(Release 1997)*
   C *(functional modification of feature)*   *R98*   *(Release 1998)*
   D *(editorial modification)*   *R99*   *(Release 1999)*
Detailed explanations of the above categories can   *Rel-4*   *(Release 4)*
be found in 3GPP TR 21.900.   *Rel-5*   *(Release 5)*
                                                Rel-6   *(Release 6)*

Reason for change: ⌘	Requirement is unclear, and open to misinterpretation.
Summary of change: ⌘	Addition of "…, providing a service to deliver the Push Content is available."
Consequences if not approved: ⌘	Unclear requirement, confusion and unhappy people.

Clauses affected: ⌘	12.2.2

	Y	N	
Other specs affected: ⌘		X	Other core specifications ⌘
		X	Test specifications
		X	O&M Specifications

Other comments: ⌘	

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12.2.2 Barring of the Push Service

It shall be possible to provide the pPush sService to a user regardless of barring status of other services, providing that a servicebearer to deliver the Push Content is available.

It shall be possible for user to bar thea pPush sService regardless of barring status of other services.

CR-Form-v7

CHANGE REQUEST

| ⌘ | **22.174** CR **008** | ⌘**rev** | **-** | ⌘ | Current version: | **6.1.0** | ⌘ |

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐   ME **X** Radio Access Network ☐   Core Network **X**

Title:	⌘	Removal of 'Null' Interworking Chapter
Source:	⌘	SA1 (Research in Motion, NTT DoCoMo Inc.)
Work item code: ⌘	PUSH	***Date:*** ⌘ 13/01/2003

Category: ⌘	**C**	***Release:*** ⌘ Rel-6

Use one of the following categories:
   F *(correction)*
   A *(corresponds to a correction in an earlier release)*
   B *(addition of feature),*
   C *(functional modification of feature)*
   D *(editorial modification)*
Detailed explanations of the above categories can
be found in 3GPP TR 21.900.

Use one of the following releases:
   2   *(GSM Phase 2)*
   R96 *(Release 1996)*
   R97 *(Release 1997)*
   R98 *(Release 1998)*
   R99 *(Release 1999)*
   Rel-4 *(Release 4)*
   Rel-5 *(Release 5)*
   Rel-6 *(Release 6)*

Reason for change: ⌘	No requirements have been identified	
Summary of change: ⌘	Removal of 'null' chapter	
Consequences if not approved: ⌘	Empty chapter.	

Clauses affected: ⌘	12	

	Y	N		
Other specs ⌘		X	Other core specifications ⌘	
affected:		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

# 12	Inter-working

This section describes the inter-working between 3GPP networks and other networks (e.g. the internet) and 3GPP services.

## 12.1	Inter-working with the Internet

## 12.2	Service Independence

### 12.2.1	Forwarding

TSG-SA WG1 #19　　　　　　　　　　　　　　　　　　　　　**S1-030117**
San Francisco, USA, 20ᵗʰ–24ᵗʰ January 2003　　　　**Agenda Item: 8.2**

CR-Form-v7

CHANGE REQUEST

⌘　　**22.174** CR **009**　　⌘**rev**　**-**　⌘　Current version:　**6.1.0**　⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects:　UICC apps⌘ ☐　　ME **X** Radio Access Network ☐　Core Network **X**

Title:	⌘	Removal of "Null" Feature Interactions chapter
Source:	⌘	SA1 (RIM, AT&T Wireless Services)

Work item code: ⌘	PUSH		***Date:*** ⌘	13/01/2003

Category:	⌘	**D**	***Release:*** ⌘	Rel-6

Use one of the following categories:
F (correction)
A (corresponds to a correction in an earlier release)
B (addition of feature),
C (functional modification of feature)
D (editorial modification)
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change:	⌘	Feature Interactions will be placed in a separate TR in SA1. There is no reason for Push to do this differently from other SA1 capabilities. Also, no requirements have yet been identified.
Summary of change: ⌘		Removal of "Null" chapter
Consequences if not approved:	⌘	Empty chapter

Clauses affected:	⌘	13.

			Y	N		
Other specs affected:	⌘				Other core specifications　⌘	
					Test specifications	
					O&M Specifications	

Other comments:	⌘	

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13 Feature Interactions

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CHANGE REQUEST

⌘   **22.174** CR **010**   ⌘**rev**   **-**   ⌘ Current version: **6.1.0**   ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐   ME **X** Radio Access Network ☐   Core Network **X**

Title: ⌘	Push Service Independence
Source: ⌘	SA1 (Research in Motion, NTT DoCoMo Inc.)
Work item code: ⌘	PUSH ***Date:*** ⌘ 13/01/2003

Category: ⌘ **F**   ***Release:*** ⌘ Rel-6

Use <u>one</u> of the following categories:	*Use <u>one</u> of the following releases:*
F *(correction)*	*2 (GSM Phase 2)*
A *(corresponds to a correction in an earlier release)*	*R96 (Release 1996)*
B *(addition of feature),*	*R97 (Release 1997)*
C *(functional modification of feature)*	*R98 (Release 1998)*
D *(editorial modification)*	*R99 (Release 1999)*
Detailed explanations of the above categories can	*Rel-4 (Release 4)*
be found in 3GPP <u>TR 21.900</u>.	*Rel-5 (Release 5)*
	Rel-6 (Release 6)

Reason for change: ⌘	Requirement for Push to be independent of other services is vague.
Summary of change: ⌘	Requirement made explicit to both IMS and SMS
Consequences if not approved: ⌘	Unclear Requirement.

Clauses affected: ⌘	5.1

	Y	N		
Other specs affected: ⌘		X	Other core specifications ⌘	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

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5   Requirements

The following list gives the high level requirements for the Push service.

5.1   General

The Push Service shall allow a Push Initiator (which may be external to the PLMN) to initiate delivery of push data to the Push recipient. It shall be possible to deliver push data to the push recipient without any user intervention, subject to settings in the push subscription profile. The Push Initiator may interrogate the push subscription profile, if available, in order to establish the user preference related to the Push Service.

- The push mechanism shall be efficient in the use of network resources and terminal resources.

- It shall be possible to support Push Service independently over CS (including CS data and SMS), PS domains or IMS.

- NOTE: Operators should be able to choose which of these options they use to deliver Push services, and it should be possible to use these options independently from each other. E.g. delivery over the PS domain would allow operators who are not planning to introduce IMS and SMS to offer Push Services.

- ~~It shall be possible to deploy Push Services independently of other services defined by 3GPP.~~

- It shall be possible to deploy the Push Service without the need to deploy SMS or IMS

- The quality of service delivery shall be able to include time-sensitive as well as reliable delivery choices

- It shall be possible to use all available access networks (e.g. GERAN, UTRAN,).

- It shall be possible for the Push Initiator to specify a bearer for the Push Service, as a default the push service shall identify the bearer. The Push Initiator may, however, require certain grade of service for delivery, e.g. speed of delivery or delivery acknowledgement.