
Source: SA1
Title: Release 6 CRs to 22.174 on PUSH (Various subjects)
Document for: Approval
Agenda Item: 7.1.3

SA Doc	Spec	CR	Rev	Phase	Cat	Subject	Old Vers	New Vers	SA1 Doc
SP-020661	22.174	001		Rel-6	F	Removal of Note	6.0.0	6.1.0	S1-021947
SP-020661	22.174	002		Rel-6	C	Removal of Media from Charging Parameters	6.0.0	6.1.0	S1-021949
SP-020661	22.174	003		Rel-6	D	Removal of void reference	6.0.0	6.1.0	S1-021950
SP-020661	22.174	004		Rel-6	C	Push Delivery Class	6.0.0	6.1.0	S1-022188
SP-020661	22.174	005		Rel-6	C	Revision of Requirments for One-Off Charging	6.1.0	6.2.0	S1-022334

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CHANGE REQUEST

⌘ **22.174 CR 001** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

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 Radio Access Network Core Network

Title:	⌘	Removal of Note	
Source:	⌘	SA1 (Research in Motion)	
Work item code:	⌘	PUSH	Date: ⌘ 08/10/2002
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 be found in 3GPP TR 21.900 .	Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘	All 3GPP charging requirements must be included in the Stage 1	
Summary of change:	⌘	Removal of unnecessary Note.	
Consequences if not approved:	⌘	Charging Requirements are misleading.	

Clauses affected:	⌘	9									
Other specs affected:	⌘	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> </table> Other core specifications ⌘ Test specifications O&M Specifications	Y	N							
Y	N										
Other comments:	⌘										

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

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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.

9 Charging

This paragraph specifies charging requirements for the Push service.

~~NOTE: Value added services, that use the push service as a service capability, may have additional charging requirements. These are out of scope of this specification.~~

The Push service shall support various charging mechanisms (e.g. reverse, prepaid and reply charging etc.).

The following charging scenarios shall be supported:

1. Charging for the push service can be subscription based.
Different charging options shall be permissible whether the user is provisioned with the Push Service as a Push initiator or as a Push recipient.
2. Charging for the push service can be based on the push data, the resources used and time needed to carry out the push service.
3. Charging for the push service can be based on the size of the push data pushed to a receiver.
4. It shall be possible to charge the Push recipient only, the Push Initiator only, or both.
5. It shall also be possible to mix and match the various different charging scenarios outlined above.
6. One-off charging for subscription and cancellation of Push Service should be possible –FFS
7. It shall be possible to charge a Push initiator for an attempt to send push data to a push recipient, even if the push recipient rejects the push data

It shall be possible to include the following data in the CDRs as charging information if available:

- message types, length, storage time in the network, etc
- delivery time, upload / download method,
- Push service sender / -recipient
- the amount of the push data sent
- the amount of the push data received.
- roaming conditions (e.g. in a visited network)
- location conditions
- media.

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CHANGE REQUEST

⌘ **22.174 CR 002** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

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 Radio Access Network Core Network

Title:	⌘	Removal of Media from Charging Parameters	
Source:	⌘	SA1 (Research in Motion)	
Work item code:	⌘	PUSH	Date: ⌘ 08/10/2002
Category:	⌘	C	Release: ⌘ Rel-6
		Use <u>one</u> 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 <u>one</u> 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:	⌘	This parameter is unnecessary as there are already other parameters, such as message type, that will enable suitably flexible charging.
Summary of change:	⌘	Removal of requirement
Consequences if not approved:	⌘	Unnecessary requirement will remain in Stage 1

Clauses affected:	⌘	9							
Other specs affected:	⌘	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="width: 20px; height: 15px;"></td> <td style="width: 20px; height: 15px;"></td> </tr> <tr> <td style="width: 20px; height: 15px;"></td> <td style="width: 20px; height: 15px;"></td> </tr> </table> Other core specifications	Y	N					⌘
		Y	N						
Test specifications									
O&M Specifications									
Other comments:	⌘								

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4. It shall be possible to charge the Push recipient only, the Push Initiator only, or both.
5. It shall also be possible to mix and match the various different charging scenarios outlined above.
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It shall be possible to include the following data in the CDRs as charging information if available:

- message types, length, storage time in the network, etc
- delivery time, upload / download method,
- Push service sender / -recipient
- the amount of the push data sent
- the amount of the push data received.
- roaming conditions (e.g. in a visited network)
- location conditions
- ~~media.~~

CR-Form-v7	
CHANGE REQUEST	
⌘ 22.174 CR 003 ⌘ rev - ⌘	Current version: 6.0.0 ⌘

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 Radio Access Network Core Network

Title:	⌘ Removal of void reference		
Source:	⌘ SA1 (Research in Motion)		
Work item code:	⌘ PUSH	Date:	⌘ 08/10/2002
Category:	⌘ D	Release:	⌘
	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 be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Reference is incorrect
Summary of change:	⌘ Removal of reference
Consequences if not approved:	⌘ Incorrect reference

Clauses affected:	⌘ 10								
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> </table>	Y	N					Other core specifications	⌘
	Y	N							
		Test specifications	⌘						
		O&M Specifications	⌘						
Other comments:	⌘								

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10 Push Subscription Profile Information

For each Push recipient the Push Service shall keep a Push subscription profile. This Push subscription profile shall contain the Push recipient's access rules ~~as described in chapter 7.2.~~

Optionally (as an operator's option) the Push subscription profile may contain additional Push personalization settings of the Push recipient, e.g.

- Permissible minimal QoS per data format for receiving push data
- Permissible maximum size of data packages permitted to be pushed
- Permissible charging thresholds to receive push data
- ...

At any time the Push Service shall permit a Push recipient to modify her Push subscription profile information.

A Push initiator shall be able to interrogate any Push Recipient's Push subscription profile information. However only information relevant to this Push Initiator shall be revealed by the Push Service

NOTE: The Push subscription profile may be realized as part of the 3GPP Generic User Profile (TS 22.240) [3]

<small>CR-Form-v7</small>
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 22.174 CR 004 ⌘ rev - ⌘ Current version: 6.0.0 ⌘

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 Radio Access Network Core Network

Title:	⌘ Removal of Delivery Class		
Source:	⌘ SA1 (Research in Motion)		
Work item code:	⌘ PUSH	Date:	⌘ 05/11/2002
Category:	⌘ C	Release:	⌘ Rel-6
	Use <u>one</u> 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 <u>one</u> 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:	⌘ Attribute for "Delivery Class" is superfluous as attributes for delivery time, and priority already exist.
Summary of change:	⌘ Removal of Delivery Class
Consequences if not approved:	⌘ Unecessary requirement will exist in Stage 1

Clauses affected:	⌘ 1, 4							
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="width: 20px; height: 15px;"></td> <td style="width: 20px; height: 15px;"></td> </tr> <tr> <td style="width: 20px; height: 15px;"></td> <td style="width: 20px; height: 15px;"></td> </tr> </table>	Y	N					Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘
	Y	N						
Other comments:	⌘							

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Change in Clause 1

1 Scope

This Technical Specification defines the Stage 1 description of the Push Service and is the set of requirements that shall be supported for the provision of push, seen primarily from the subscriber's, service providers' and delivery network points of view.

This TS includes information applicable to network operators, service providers, terminal and network manufacturers. It is of use to manufacturers and organisations which have devices or machines benefiting by availability of push service.

This TS contains the core requirements for the Push Service, for operator and external Push Initiators, which are sufficient to provide a complete service capability and service capability feature.

This TS defines the requirements for the Push Service to enable delivery of push data, including such functionality as:

- Transfer of push data from a Push Initiator to a Push Recipient
- Latency and Priority classes,
- ~~Delivery class,~~
- Definition of handling of undeliverable push data.

End of Change in Clause 1

Change in Clause 4

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.

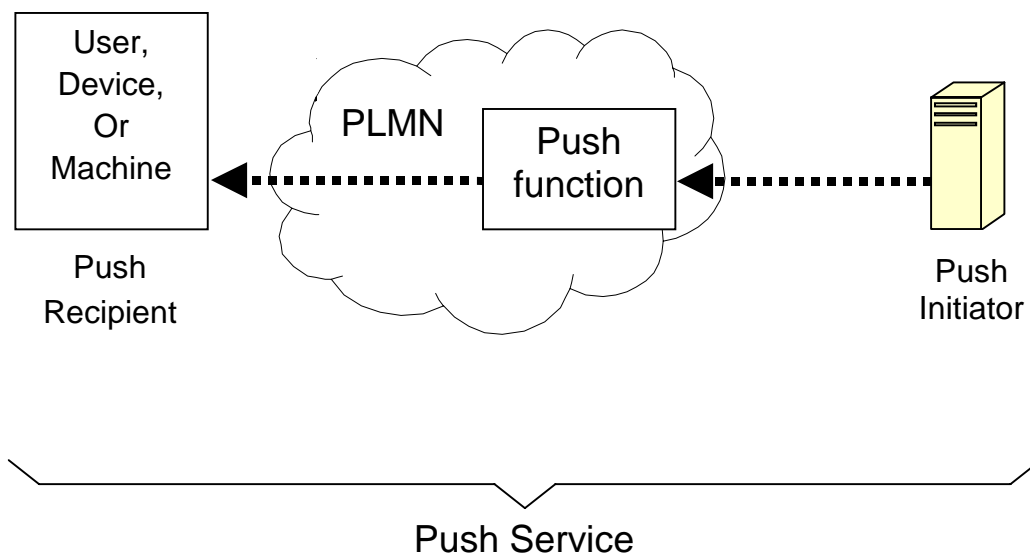


Figure 1: Push Service Overview

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 ~~delivery class~~, priority, delivery time parameters, etc.
- The Push function takes the responsibility of delivering the push data, optionally following the ~~delivery class~~, 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.

End of Change in Clause 4

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CHANGE REQUEST

⌘ **22.174 CR 005** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

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 Radio Access Network Core Network

Title:	⌘ Revision of Requirements for One-Off Charging		
Source:	⌘ SA1 (Research in Motion)		
Work item code:	⌘ PUSH	Date:	⌘ 08/10/2002
Category:	⌘ D	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
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		Rel-6 (Release 6)	Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Charging for cancellation of a service is unnecessary		
Summary of change:	⌘ Modification of requirement		
Consequences if not approved:	⌘ Unnecessary requirement.		

Clauses affected:	⌘ 9								
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;"> </td> </tr> </table>	Y	N					Other core specifications	⌘
Y	N								
		Test specifications							
		O&M Specifications							
Other comments:	⌘								

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6. It shall be possible to charge for the initial push service activation.~~One-off charging for subscription and cancellation of Push Service should be possible—FFS~~
7. It shall be possible to charge a Push initiator for an attempt to send push data to a push recipient, even if the push recipient rejects the push data

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