

CHANGE REQUEST

CR-Form-v2

⌘ **182 027** CR **088** ⌘ rev - ⌘ Current version: **3.1.2** ⌘

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

Title:	⌘ WI2070_Procedure_for_Personal_Service_Composition		
Source to WG:	⌘ TNO & KPN M. Oskar van Deventer oskar.vandeventer@tno.nl Omar Niamut omar.niamut@tno.nl Pieter Veenstra pieter.veenstra@kpn.com		
Source to TB:	⌘ WG2		
Work Item Ref:	⌘ WI2070	Date:	⌘ 23/1/2009
Category:	⌘ B 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) <i>Note: Detailed explanations of the above categories can be found in TISPAN Working Methods.</i>		
	Release: ⌘ Rel-3 Use <u>one</u> of the following releases: <i>Rel-1 (Release 1)</i> <i>Rel-2 (Release 2)</i> <i>Rel-3 (Release 3)</i>		

Reason for change: ⌘ r4: Correcting minor "oops" in the CR clean-up.

Aligning terminology with DVB (see [19tTD256](#)), using SERVICE composition instead of the confusion-cause STREAM composition.

Note: A similar alignment should be made in TS 181 016.

This contribution follows up on discussions at TISPAN 19bis on contribution [19bTD115r3](#) ("WI2070_Multiple_Content_Delivery_Items").

[TS 181 016 V3.2.1](#) clauses A.12, 5.1.31A and 5.2.27 describe the Personalised Stream Composition (PSC) service and its service requirements.

A.12 Use case examples for Personalized Stream Composition

5.1.31A The IPTV solution should support mechanisms for flexible, personalized stream composition set-up and control.

5.2.27 The IPTV solution should support alternative streams to allow a flexible, personalized stream composition of video, audio and text (subtitle) streams.

The following cases of receiving multiple media streams at a UE are already implicitly covered by [TS 182 027 V3.1.2](#) clauses 8.3.1 and 8.4.1.

- Multiple media streams within a single BC or CoD session.
- Multiple simultaneous independent BC and/or CoD sessions.

The case of PSC is not yet covered by [TS 182 027 V3.1.2](#).

- Multiple associated BC and/or CoD sessions.

The association of BC and/or CoD sessions within a PSC session is needed to handle the PSC composite as a whole.

- Initiation of the PSC composite as a whole.
- The SCF handling cases, where there are insufficient resources for the PSC composite as a whole, and the SCF offering alternative solutions.
- Modification the PSC by adding or removing PSC constituting BC/CoD sessions.
- Synchronization of the associated media streams within the PSC session.

	• SCF-assisted termination of the PSC session as a whole. • N-PVR recording of a PSC composite. • Continue viewing the PSC composite on another device. • Bookmarking the PSC for future use. • Share the PSC with friends by sending a bookmark to the PSC. • Having a shared PSC content session with friends. • PSC trick play: pause, fast forward, rewind. • SCF-initiated pausing of the PSC streams simultaneously to insert a targeted advertisement, a hurricane warning or other content. This contribution proposes procedures for PSC configuration and PSC session initiation, associating multiple BC and/or CoD sessions within a single PSC session.
Summary of change: ⌘	This contribution proposes procedures for Personalized Stream Composition.
Consequences if not approved: ⌘	No support of Personalized Stream Composition

Clauses affected: ⌘	8										
Other specs affected: ⌘	<table border="1"> <thead> <tr> <th>Y</th> <th>N</th> </tr> </thead> <tbody> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </tbody> </table>	Y	N		X		X		X	Other TISPAN ⌘ Other 3GPP O&M Deliverables	
Y	N										
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How to create CRs using this form:

Below is a brief summary about how to create CRs

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the deliverable to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All TISPAN deliverables can be downloaded from the docbox FTP server.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the deliverable just in front of the clause containing the first piece of changed text. Delete those parts of the deliverable which are not relevant to the change request.

--- Proposed change to TS 182 027 new clause 8.22 ---

8.22 Personalized Service Composition (PSC) procedures

This clause describes procedures for the PSC service where multiple BC and/or CoD sessions are composed into a single Personalized Service Composition. Existing BC/CoD procedures are used for session setup in order to compose the PSC. Additional steps include selection and configuration of the PSC between the UE and SSF, handling of cases where there are insufficient resources available for the full PSC and synchronization of the PSC constituting media streams.

NOTE: This clause only applies when multiple BC and/or CoD sessions need to be associated with each other at the SCF and/or other functional entities. Initiating multiple not-associated BC/CoD sessions and including multiple media streams within a single BC or CoD session are implicitly covered by clauses 8.3.1 and 8.4.1.

The following compositions of multicast and unicast media streams are supported.

- UE receiving multiple multicast streams within multiple BC sessions;
- UE receiving multiple unicast streams within multiple CoD sessions.
- UE receiving any combination of multicast and unicast streams within BC and/or CoD sessions.

Figure 39F depicts the typical steps that occur during the establishment of a Personalized Service Composition session and its constituting BC/CoD sessions.

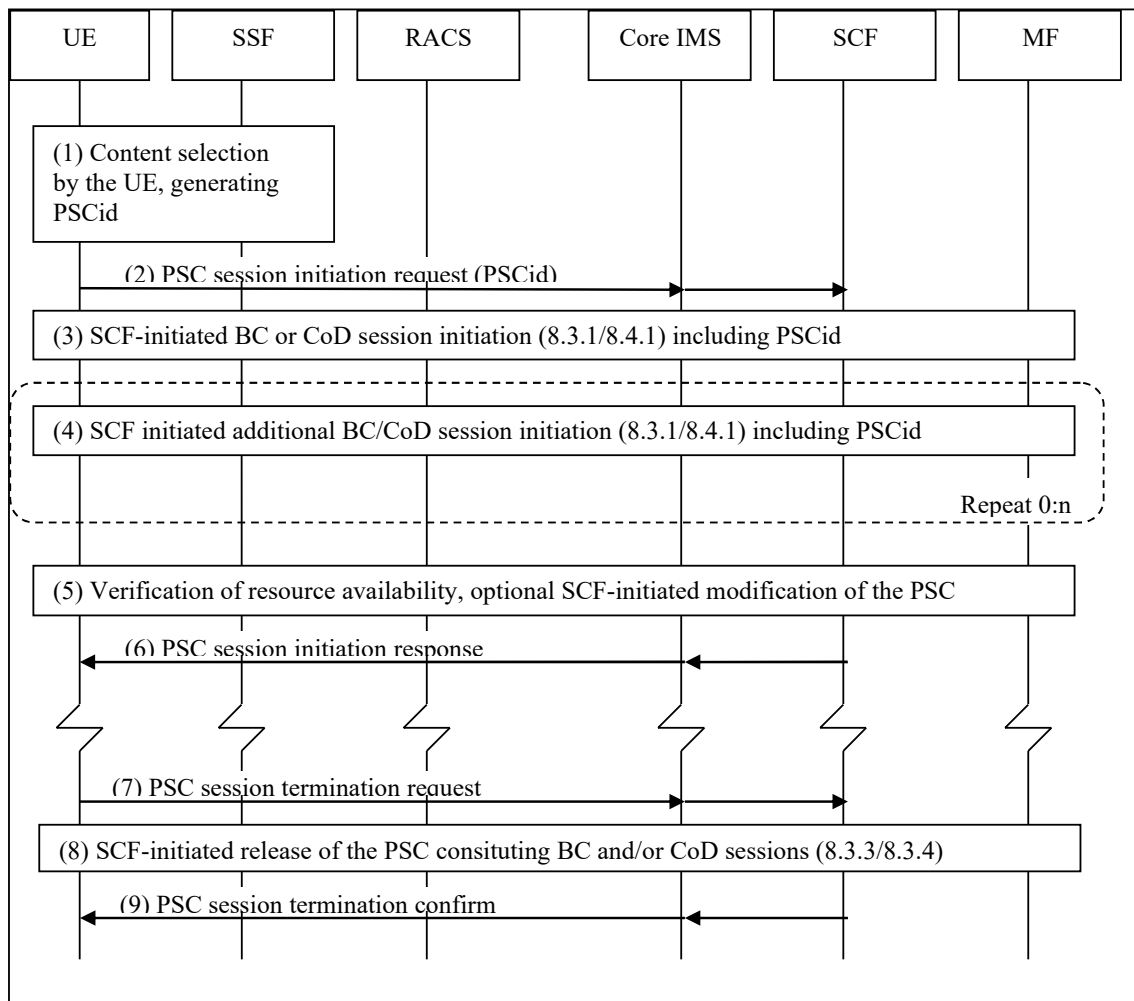


Figure 39F: Signaling flows for Personalized Service Composition

- 1) The UE makes a selection of a Personalized Service Composition (PSC) from the SSF. The PSC, to be composed from multiple BC and/or CoD sessions, is either preconfigured in the SSF or configured by the user. The UE generates a PSCid that correlates the different BC/CoD sessions in the PSC.

NOTE: PSC combinations of multiple BC and/or CoD sessions may require more complex EPG data, as supported by e.g. OMA BCAST service guide.

NOTE: Users can bookmark a particular PSC combination including its PSCid for future usage.

- 2) The UE initiates a PSC session with the SCF. The PSC session initiation request contains the PSCid and content identifiers of the PSC constituting BC/CoD sessions. Such content identifiers are for example BCServiceId (clause 7.4.1), CoDId (clause 7.4.1), NPVRContentId (clause 7.4.1), ad content id (clause 8.14.1) UGC content id (8.9.2) and/or shared content identifier (see 8.21.2). It may also contain handling instructions, e.g. instruction for the case that there is insufficient bandwidth to constitute all requested BC/CoD sessions simultaneously.
- 3) The SCF initiates a BoC or CoD session to the UE, following the procedures of clause 8.3.1 Figure 13 or clause 8.4.1 Figure 21A. The session initiation request includes the PSCid which is used by the UE to correlate the incoming BC/CoD session initiation request with the PSC session.
- 4) The SCF initiates additional BoC and/or CoD sessions to the UE to build the PSC. Step 4) may be repeated zero or more times.
- 5) The SCF verifies resources availability. If step 3) and/or one or more of the steps 4) fails due to insufficient resources, then the SCF may try and set up an alternative offer that is either preconfigured in the SCF or signalled as handling instructions in step 2). Examples of such an alternative offer are downgrading, not-initiating or terminating one or more of the PSC constituting BC/CoD sessions, or terminating the PSC session as a whole.

Editor's Note: SCF-initiated PSC session is for further study.

Editor's Note: UE-initiation of the PSC-constituting BC/CoD sessions is for further study.

- 6) The SCF confirms the establishment of the PSC session.

At this point, the PSC constituting BC/CoD sessions and their associated media streams are available at the UE and they can be presented to the user as a composite, e.g. picture-in-picture, replacing an audio stream, etcetera.

If synchronization is needed between the media streams within the PSC, the procedures in 8.15 will be applied.

Once the PSC session is established, the UE or the SCF may use the PSCid and the associated PSC constituting BC/CoD sessions to perform actions on the PSC as a whole, for example adding or removing PSC constituting BC/CoD sessions; N-PVR recording the PSC; or terminating the PSC session as a whole.

Editor's Note: Modification of a PSC session is for further study.

Editor's Note: Adding existing BC or CoD sessions to a PSC session is for further study.

Editor's Note: N-PVR recording of a PSC is for further study.

Editor's Note: Continue viewing a PSC on another device is for further study.

Editor's Note: Bookmarking a PSC is for further study.

Editor's Note: Shared PSC content is for further study.

Editor's Note: PSC trick play is for further study.

When the PSC session is no longer needed, it is terminated by the UE or SCF.

- 7) The UE sends a PSC session termination request to the SCF.
- 8) The SCF terminates the PSC constituting BC/CoD sessions following the procedures of clause 8.3.3 Figure 18 and/or clause 8.4.3 Figure 30.

- 9) The SCF confirms the PSC session termination to the UE.

Editor's Note: Implicit termination of the PSC session by terminating all of its constituting BC/CoD sessions is for further study.

--- End of proposed change to TS 182 027 new clause 8.22---