3GPP TSG CT Meeting #28 **CP-0500041**
1st – 3rd June 2005. Quebec, CANADA.

Source:	**CT3**
Title:	**CR to Rel-6 on Work Item "Support of the Presence service in core networks signalling protocols"**
Agenda item:	**9.2**
Document for:	**APPROVAL**

Introduction:

This document contains 1 CR to Rel-6 on Work Item "PRESNC" that have been agreed by TSG CT WG3, and are forwarded to TSG CT Plenary for approval.

WG_tdoc	Spec	CR	R	Cat	Title	Rel	C_Ver	Work Item
C3-050417	29.161	002	2	B	Pp Interface	Rel-6	6.0.0	PRESNC

3GPP TSG-CT WG3 Meeting #36 ***Tdoc ⌘C3-050417***

Cancun, Mexico 25th - 29th April 2005. **Revised C3-050369, C3-05033**

CR-Form-v7.1

CHANGE REQUEST

⌘ **29.161** **CR** **002** ⌘**rev** **2** ⌘ 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 **X**

Title:	⌘	Pp Interface
Source:	⌘	Huawei, Lucent, China Mobile
Work item code:	⌘	PRESNC
Date:	⌘	27/04/2005
Category:	⌘	**B**
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:
Ph2 (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)
Rel-7 (Release 7)

Reason for change:	⌘	The Pp interface is defined in 23.141 as follows: 4.3.13 Reference point Presence Network Agent – PDG (Pp) This reference point shall allow the PDG to report presence relevant events to the Presence Network Agent (such as tunnel establishment/removal, allocation of the remote IP address for the WLAN UE). This reference point is based on reusing of the Wi reference point. Therefore this interface needs to be specified in 29.161.
Summary of change:	⌘	A profile for the Radius interface of the Wi reference point is added for the Pp reference point.
Consequences if not approved:	⌘	Stage 3 functionality is missing.

Clauses affected:	⌘	1, 2, 3.3, 12 (new)

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

Other comments: ⌘

1 Scope

The present document defines the requirements for Packet Domain interworking between a:

a) PLMN with WLAN access and PDN;

b) PLMN with WLAN access and PLMN.

The present document also defines, in clause 12, the usage of Radius at the Pp Reference Point between the Packet Data Gateway and the Presence Network Agent, see 3GPP TS 23.141 [18].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 23.234: "3GPP system to Wireless Local Area Network (WLAN) interworking; System description".

[2] 3GPP TS 29.234: "3GPP system to Wireless Local Area Network (WLAN) interworking; Stage 3".

[3] 3GPP TS 24.234: "3GPP system to Wireless Local Area Network (WLAN) interworking; User Equipment (UE) to network protocols; Stage 3".

[4] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".

[5] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[6] IETF RFC 1034 (1987): "Domain names - concepts and facilities".

[7] IETF RFC 1035 (1987): "Domain names - implementation and specification".

[8] IETF RFC 2131 (1997): "Dynamic Host Configuration Protocol".

[9] IETF RFC 3315 (2003) "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)".

[10] IETF RFC 2865 (2000): "Remote Authentication Dial In User Service (RADIUS)".

[11] IETF RFC 3162 (2001): "RADIUS and IPv6".

[12] IETF RFC 2866 (2000): "RADIUS Accounting".

[13] IETF RFC 2373 (1998): "IP Version 6 Addressing Architecture".

[14] IETF RFC 2461 (1998): "Neighbor Discovery for IP Version 6 (IPv6)".

[15] IETF RFC 2462 (1998): "IPv6 Stateless Address Autoconfiguration".

[16] 3GPP TS 33.234: "3G security; Wireless Local Area Network (WLAN) interworking security".

[17] 3GPP TS 24.229: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[18] 3GPP TS 23.141: "Presence Service; Architecture and functional description".

3.3 Symbols

For the purposes of the present document, the following symbols apply:

Wi Reference point between a Packet Data Gateway and an external IP Network

Pp Reference point between a Packet Data Gateway and a Presence Network Agent

**********Next Modification**********

12 Usage of RADIUS on Pp interface

12.1 General

The Pp interface is defined in 3GPP TS 23.141 [18] and allows the PDG to report presence relevant events to the Presence Network Agent (such as tunnel establishment/removal, allocation of the remote IP address for the WLAN UE). The Pp interface is implemented by reusing mechanisms of RADIUS authentication and accounting via Wi interface as defined in clause 11.

12.2 Radius Profile for Pp interface

The RADIUS interface on Wi reference point as defined in Clause 11 is used for the Pp Reference Point as clarified in the Profile in this Clause.

Only the following messages are required for the Radius Profile for the Pp reference Point:

- Accounting-Request START
- Accounting-Response START
- Accounting-Request STOP
- Accounting-Response STOP

For the Radius Profile for the Pp Reference Point, only the mandatory Parameters within the Accounting-Request START and Accounting-Request STOP messages according to 3GPP TS 29.061 [4] Clauses 16.4.3 and 16.4.4~~29.234 [2]~~, respectively, and the Parameter "Calling-Station-Id" need to be supported. The usage of other parameters is optional. They may be ignored by the Presence Network Agent.

12.3 Interconnecting the Presence Network Agent and the PDG

The Presence Network Agent may be directly attached to the PDG or via a Radius Proxy.

If the PDG needs to connect both to ~~an~~some AAA server via the Wi interface and a Presence Network Agent via the Pp interface for the same APN, but supports only a single RADIUS interface, the PDG can be directly attached to that~~e~~ AAA server. The Presence Network Agent can in turn be attached to that~~e~~ AAA server, which acts as a RADIUS proxy. If the AAA server is configured as a RADIUS Proxy between the Presence Network Agent and the PDG, the Radius Profile for the Pp Reference Point shall be applicable on the interface between the Presence Network Agent and the AAA server.