

WORLD'S FIRST FEMTOCELL STANDARD PUBLISHED BY 3GPP

Three-way cooperation between 3GPP, Femto Forum and Broadband Forum creates new standard in record time enabling operators to deploy standards-based femtocells

London, UK –7th April 2009 – The Femto Forum, 3GPP and the Broadband Forum today announced that the world's first femtocell standard has been officially published by 3GPP, paving the way for standardised femtocells to be produced in large volumes and enabling interoperability between different vendors' access points and femto gateways. The new standard, which forms part of 3GPP's Release 8, and interdependent with Broadband Forum extensions to its Technical Report-069 (TR-069), has been completed in just 12 months following close cooperation between 3GPP, the Femto Forum and the Broadband Forum.

The new femtocell standard covers four main areas: network architecture; radio & interference aspects (both completed last December); femtocell management / provisioning and security (finalised this month). In terms of network architecture, the crucial interface between potentially millions of femtocells and gateways in the network core has been called Iuh. This re-uses existing 3GPP UMTS protocols and extends them to support the needs of high-volume femtocell deployments.

The new standard has adopted the Broadband Forum's TR-069 management protocol which has been extended to incorporate a new data model for femtocells developed collaboratively by Femto Forum and Broadband Forum members and published by the Broadband Forum as Technical Report 196 (TR-196). TR-069 is already widely used in fixed broadband networks and in set-top boxes and will allow mobile operators to simplify deployment and enable automated remote provisioning, diagnostics-checking and software updates. The standard also uses a combination of security measures including IKEv2 (Internet Key Exchange v2) and IPsec (IP Security) protocols to authenticate the operator and subscriber and then guarantee the privacy of the data exchanged.

"In just 12 months we've gone from initial discussions to publication of the world's first femtocell standard. Operators can now deploy femtocells in the knowledge that their vendors are working to the 3GPP standard." said Adrian Scrase, the 3GPP's Project Coordination Group Secretary. "Considerable effort was expended in 2008 with 3GPP meeting a very demanding schedule for the availability of 3GPP approved specifications."

"Our operator members have been insistent that the dozens of approaches to integrating femtocells with mobile operators' core networks had to be filtered down to a single standard. This new standard is crucial in turning the many femtocell operator trials taking place around the world into mass market commercial deployments," said Simon Saunders, Chairman of the Femto Forum.

"All technologies require standards in order to make the transition from niche application to wide scale adoption. By employing and extending best of breed standards, such as TR-069 for management of the Femto Access Point as part of the home network, this new femtocell standard has the best possible chance of succeeding. We are pleased to have collaborated on this new converged service with 3GPP and the Femto Forum" said George Dobrowski, the Broadband Forum's Chairman.

Building on this success, work is already being done to further incorporate femtocell technology in the 3GPP's release 9 standard, which will address LTE femtocells as well as support more advanced functionality for 3G femtocells. Femtocell standards are also being developed for additional air interface technologies by other industry bodies.

About The Femto Forum

Femtocells are low-power wireless access points that operate in licensed spectrum to connect standard mobile devices to a mobile operator's network using residential DSL or cable broadband connections. The Femto Forum (www.femtoforum.org) has been set up to promote the wide-scale adoption of femtocells. The Forum supports and drives the adoption of industry wide standards and common architectures to enable the widespread adoption & deployment of femtocells by operators around the world. It directs and implements a multi-faceted marketing campaign to raise the profile, drives technology development & deployment and promotes the potential of femto solutions among industry stakeholders, journalists, analysts, regulators, special interest groups, standards bodies and consumers.

About the Broadband Forum

The Broadband Forum mission is to develop the full potential of broadband. Focused on home-to-core network and management solutions, our standards empower providers to achieve more with their broadband deployment. Established in 1994 as the ADSL Forum and later as the DSL Forum, the Broadband Forum has seen its work over the past 15 years evolve from addressing physical layer ADSL transport specifications to advanced transport and management specifications for all forms of broadband. The Broadband Forum's formal BroadbandSuite™ Release Program and all technical reports are publicly available at www.broadband-forum.org.

About the Standards

3GPP Technical Specifications, all available from www.3gpp.org:

Number	Title
22.220	Service requirements for Home Node B (HNB) and Home eNode B (HeNB)
23.830	Architecture aspects of Home Node B (HNB) / Home enhanced Node B (HeNB)
23.832	IMS aspects of architecture for Home Node B (HNB)
25.367	Mobility procedures for Home Node B (HNB); Overall description; Stage 2
25.467	UTRAN architecture for 3G Home Node B (HNB); Stage 2
25.469	UTRAN Iuh interface Home Node B (HNB) Application Part (HNBAP) signalling
25.820	3G Home Node B (HNB) study item Technical Report
25.967	FDD Home Node B (HNB) RF Requirements
32.581	Telecommunications management; Home Node B (HNB) Operations, Administration, Maintenance and Provisioning (OAM&P); Concepts and requirements for Type 1 interface HNB to HNB Management System (HMS)
32.582	Telecommunications management; Home Node B (HNB) Operations, Administration, Maintenance and Provisioning (OAM&P); Information model for Type 1 interface HNB to HNB Management System (HMS)
32.583	Telecommunications management; Home Node B (HNB) Operations, Administration, Maintenance and Provisioning (OAM&P); Procedure flows for Type 1 interface HNB to HNB Management System (HMS)
32.821	Telecommunication management; Study of Self-Organizing Networks (SON) related OAM Interfaces for Home Node B (HNB)
33.820	Security of Home Node B (HNB) / Home evolved Node B (HeNB)

Iuh specific specifications

Number	Title
25.468	UTRAN Iuh Interface RANAP User Adaption (RUA) signalling
25.469	UTRAN Iuh interface Home Node B (HNB) Application Part (HNBAP) signalling