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PROJECT 2
"3GPP2"

3GPP2 Announces Publication of Comprehensive Specifications for CDMA2000 Femtocells

Cross-organization collaboration delivers foundation for interoperability, advanced services

3GPP2, building on a collaborative partnership with the Femto Forum, has reached a major milestone for the deployment of multi-vendor femtocell networks based on CDMA2000 radio access technologies, including the first industry standardized capabilities for advanced Local and Remote IP Access capabilities that are the foundation for femtozone services as pioneered in the Femto Forum.

March 10, 2010 – Arlington, VA - 3GPP2, CDG, and the Femto Forum today announced the formal publication of comprehensive specifications for femtocell devices that incorporate CDMA2000® 1X and HRPD (EVDO) radio access technologies. These specifications describe all aspects of a SIP/IMS-based femtocell architecture for highly-scalable deployment of femtocells that can provide voice, multimedia, and data services to existing CDMA2000 1X and HRPD mobile devices. The comprehensive 3GPP2 specifications will allow the integration of existing mobile devices, enhanced femtocell-aware mobile devices, femtocell devices (FAPs), security gateways, and femtocell convergence servers from multiple vendors. Furthermore, the specifications support capabilities for new mobile devices that are femto-aware, providing Enhanced System Selection features for improved battery life, faster femtocell and macrocell system acquisition, improved handoff between the femtocell and macrocell system, and femtozone awareness when CDMA2000 femtocells are deployed.

3GPP2 has been engaged in highly successful Market Representation Partnerships with the CDMA Development Group (CDG) and the Femto Forum, and the new specifications reflect many of the building blocks for femtozone services that have been pioneered in the Femto Forum, including Local IP Access (LIPA) and Remote IP Access (RIPA). The new 3GPP2 specifications feature support for LIPA, allowing packet data traffic to be directly offloaded from femtocells to customers' home networks, corporate intranets, or to the public Internet. When mobile devices are operating outside of the femtocell subsystem, the 3GPP2 specifications also include a RIPA capability to allow mobile devices to connect to the user's IP network at home and exchange IP data with their home network via a secure remote tunnel (for example to reach a printer, computer, or media server in a user's home network while the user is receiving EVDO data service via the macrocellular network).

The 3GPP2 specifications provide a complete security architecture that allows CDMA2000 femtocell networks to support large numbers of femtocells via standard commercial IPsec/IKEv2-based security gateways. The 3GPP2 security architecture and protocols (most notably for the security gateway and FAP authentication mechanisms) are compatible with the security architecture for 3GPP radio

technology-based femtocell devices. The foundations of that common femtocell security model were pioneered in the Femto Forum. This architecture not only protects system operators' core networks, but also provides for highly secure authentication of FAP devices using secure certificate-based mechanisms and protocols that are widely deployed and validated for security, robustness, manageability, and scalability.

Deployment of CDMA2000 femtocell networks is simplified by permitting system operators to exploit the advantages of SIP/IMS-based Femtocell Access Points (FAPs) that can be integrated into existing 1X mobility Core Networks (CNs) using a Femtocell Convergence Server. At the same time, HRPD (EVDO) packet data services can be directly integrated into system operators' packet data core networks using existing interfaces to Packet Data Service Nodes (PDSNs). This minimizes the impact on system operators' existing Core Networks while providing a smooth evolution to all-IP SIP/IMS-based networks that are compatible with the 3GPP/3GPP2 Common IMS architecture.

"This announcement represents culmination of the first major phase of 3GPP2's extensive standardization project for femtocell devices – work that has been heavily supported by CDMA2000 system operators, many of whom have already announced commercial femtocell deployments or plans for commercial offerings in the near future," said Cheryl Blum, 3GPP2 Steering Committee Chair. "The advanced SIP/IMS-based architecture and inclusion of industry-first femtozone service capabilities represent the commitment of the CDMA2000 vendors and system operators to delivering advanced interoperable femtocell solutions."

"We are extremely pleased to see the substantial progress that 3GPP2 has demonstrated by providing the comprehensive foundation for multi-vendor integration of femtocells and core network elements for CDMA2000 system operators – and for end users of CDMA2000 1X and EVDO mobile devices," said Simon Saunders, Chairman of the Femto Forum. "It is especially gratifying to see 3GPP2 provide industry standards that lay the groundwork for advanced femtozone services built on the framework pioneered within the Femto Forum."

"The CDG is pleased to assist the development and incorporation of femtocell capabilities in CDMA2000 networks," said Perry LaForge, executive director of the CDMA Development Group (CDG). "Advanced femtozone solutions will help address the growing demand for network coverage and capacity, which is becoming increasingly important as smartphones, netbooks and other connected devices drive more data usage."

About CDG

The CDMA Development Group is a trade association formed to foster the worldwide development, implementation and use of CDMA2000 and other complementary wireless solutions. Its member companies include many of the world's leading service providers and equipment manufacturers. The primary activities of the CDG include development of advanced features and services, evolution of standards, technical education, advocacy, regulatory affairs, global roaming and device availability. Currently, there are more than 500 individuals working within various CDG industry initiatives.

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. It has over 120 members including over 55 operators representing 1,4 billion mobile subscribers – 27% of the global total . 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 also 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 3GPP2

The Third Generation Partnership Project 2 is a collaborative Third Generation (3G) telecommunications specification-setting project comprising North American and Asian equipment manufacturers and carriers. The five Organizational Partners of the Third Generation Partnership Project 2, which are nationally recognized Standards Development Organizations are: Association of Radio Industries and Businesses (ARIB) – Japan, China Communications Standards Association (CCSA) – China, Telecommunications Industry Association (TIA) – USA, Telecommunications Association (TTA) – Korea, and Telecommunication Technology Committee (TTC) – Japan. For more information about 3GPP2, contact Henry Cuschieri of the 3GPP2 Secretariat at +1-703-907-7497, email secretariat@3gpp2.org or visit the 3GPP2 web site at www.3gpp2.org . -

About the Standards

The 3GPP2 specifications are all available from www.3gpp2.org.