

For the trade press

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Next Generation Telecom Architecture:

Siemens mobile moves mobile telecom architecture to new foundation

At the 3GSM Congress in Cannes, the Siemens Information and Communication mobile Group (Siemens mobile) announced the introduction of its “Next Generation Telecom Architecture”, a standards-based platform model designed to speed development and simplify mobile service deployment for carriers. Siemens is the industry’s first telecommunications equipment provider to present a comprehensive concept for next generation mobile infrastructure including a hardware platform based on the new industry standard Advanced Telecom Computing Architecture (AdvancedTCA). The new hardware platform will be developed using application and network processors from Intel, delivering industry-leading performance to meet the growing demands on network resources.

Infrastructure network elements were previously based on proprietary, product-specific hardware, but the Next Generation Telecom Architecture from Siemens mobile will leverage the use of interoperable industry standards including AdvancedTCA, carrier grade Linux, and SA-Forum’s application interface specifications for high availability middleware. Siemens will increasingly implement transport, control and service network elements as software applications based on a common modular hardware platform approach. In particular, providers of 3G mobile services will benefit from this transition due to the need for rapid deployments and network build outs.

“Siemens mobile’s Next Generation Telecom Architecture will substantially reduce the technical complexity of mobile networks. Among other things, this simplifies the network administration, enhances scalability and serviceability and increases both performance and capacity of the switches. The new standard-based networks will meet all our customers’ requirements with respect to performance, reliability and availability, while at the same time helping, in particular, to noticeably reduce operating costs,” said Christoph Caselitz, President of Networks within Siemens mobile. “We will bring the first network applications based on the new architecture to market in about two years. Siemens will ensure that existing mobile networks can be transferred in stages into infrastructures based on the Next Generation Telecom Architecture.”

“As a leader in the mobile communications industry, Siemens has a clear vision of the need for services to be based on modular communications platforms,” said Howard Bubb, vice president, Intel Corporation, general manager Communications Infrastructure Division. “Together, Intel and Siemens are developing a leading-edge hardware platform based on Intel processors and AdvancedTCA building blocks that will enable carriers to offer high-performance solutions and services while reducing operating expenses.”

Networks and applications that meet the particularly high demands placed by operators on their infrastructure are considered “carrier grade”. As operating system for its Next Generation Telecom Architecture, Siemens will utilize Carrier Grade Linux (CGL), an open source, highly reliable solution designed specifically for developing and operating sophisticated voice, data or mobile applications. Specifications for Carrier CGL were developed in cooperation with industry leading technology vendors and network equipment providers under guidance of the Open Source Development Lab (OSDL).

Positioned between the network applications and the AdvancedTCA hardware is the TSP7000 middleware developed by Siemens, whose recovery and high-availability features already provide today’s networks with 99.999 percent reliability. In the future, TSP7000 will meet the platform and application interface specifications as defined by the Service Availability Forum (SAF), further enhancing application portability and simplifying deployments.

The background

Advanced Telecom Computing Architecture (AdvancedTCA)

AdvancedTCA is an open industrial standard for new hardware platforms in “carrier-grade” networks. AdvancedTCA was developed in late 2002 by the PCI Industrial Computer Manufacturers Group (PICMG), a committee of more than 100 companies in the IT and telecom industries. In this standard, PICMG combines the industry’s requirements of the next generation of operator networks: a more cost-effective, modular, interoperable and scalable hardware platform for communication and data applications that — since it is standards-based — can be offered by many manufacturers on an open market. More information is available at <http://www.picmg.org/newinitiative.stm>

Carrier Grade Linux (CGL)

With this Carrier Grade Linux, providers in the telecom industry can more easily develop and operate new applications on standards-based, modular communication platforms. The CGL functionality allows the use of special applications for operating and business support systems, gateway, signaling and management servers, and for future generations of voice, data and wireless components.

More information is available at http://www.osdl.org/lab_activities/carrier_grade_linux/.

Service Availability Forum (SAF)

The Service Availability Forum has standardized the interfaces between middleware and applications in carrier-grade infrastructures. Furthermore, the SAF offers a framework for managing availability, checkpointing, event notification, messaging services, cluster membership, and distributed locking mechanisms.

More information is available at <http://www.saforum.org/home>.

The **Siemens Information and Communication Mobile Group (Siemens mobile)** is one of the world’s leading full-line suppliers in the field of mobile communication, offering mobile phones, cordless phones, wireless modules and mobile infrastructure, as well as all radio and switching modules, consulting services and systems integration. The mobile communication arm of Siemens AG markets products and services in more than 120 countries, generating sales of € 10 billion with a workforce of some 26,900 people in fiscal 2003 (September 30). Siemens mobile is the world market leader in prepaid solutions and digital cordless phones.

More: www.siemens-mobile.com/press