A Linux-based Open Standard for Smart Buildings:

A Group of Finnish Companies to Create a Futuristic Operating System for Homes, Offices and Buildings

HELSINKI, Finland, Nov. 27, 2001. The leading Finnish companies in the construction, building automation and ICT areas have initiated a standardization effort called COBA (Connected Open Building Automation) to develop an OSGi-, Java- and Linux-based open software architecture for a '*building operating system'*. The COBA Group today published a Technical White Paper. The first commercial release of the software will be launched in summer 2002.

The aim of the COBA project is to develop an open standard for easy and secure access to the building data and connected devices, via browser over the Internet and mobile terminals. Standard access creates a new business structure by enabling applications and services to access the building functionality. Applications do not need to know anything about the technology used inside the building. An easy way of controlling the buildings increases security and comfort, and reduces costs and energy consumption throughout the life cycle of the facility.

Case Example: Facility Control at Office Building
In an office building Megahouse there are several separate systems: HVAC-automation systems facility access control, security cameras, burglar alarm systems, fire alarm system, etc. Each of these are operated and maintained by different companies or peer groups. One company – the user of the facility – wishes to reduce costs of the maintenance, so they install a COBA server to the facility. No changes to the subsystems are required. Now maintenance companies can access the systems even remotely, and the maintenance can be carried out by any capable company on the market.

Members of the COBA Group include e.g. Nokia, ABB, Elisa Communications, Hewlett Packard and Lonix, and the project has been initiated by one of the best known proponents of smart homes, Mr **Risto Linturi,** one of the leading telecom and futurology consultants in Finland. "In 2005, COBA will be an open standard for easy and secure access to building functionality on a global scale. It will be as relevant to make sure that there is a COBA access in my home or office, as it is today to ask whether there is an Internet connection in my PC. Controlling the houses via Internet and mobile phones will be widely popular," promises Risto Linturi, whose state-of-the-art family residence, the Linturi-house, has been covered extensively in the world media. The COBA project is a spin-off of the Helsinki Arena 2000 project that is internationally one of the best known IT experiments initiated in Finland.

The Standard Proposition is Based on Linux

The COBA will first be implemented to the Nokia Home Server environment. Nokia has chosen Linux as the platform of its Home Server and therefore the COBA Group has decided to base their standard proposition on Linux environment. "This development will establish open standards also for the building automation industry," forecasts **Tuomas Koskenranta**, CEO of Lonix.

The project is based on the needs of users, owners and service providers of smart homes, offices and buildings. The project strives to open the building automation market where at the moment the customers building smart houses are tied into systems that are proprietary and therefore expensive. Installation and maintenance are difficult because of non-uniform system architecture. Each system is controlled separately, with different devices and means. The systems are hard to use and control, and of course unable to communicate with each other.

"In 2005, the building automation market structure has evolved from vertical into horizontal. Monopolistic mammoths no longer control the whole value chain. Open interfaces at every level of system enable open competition throughout the life cycle of buildings and systems. As the result, life cycle costs will be remarkably lower," says **Antero Lehtinen**, Vice President of Marketing and Business Development, ABB Building Systems, Finland.

COBA will be also serving the needs of building users, owners and service providers. A secure standard interface opens up the opportunity of directly connecting a building to a variety of service providers. The best service offer can be automatically selected in real-time, so saving time and money. Companies networked with the architecture will form a new, networked market open to competition and capable of delivering 'best of breed' services and solutions.

Additional information:

Risto Linturi, chairman of COBA steering group and chairman of board, Lonix Ltd. Tel. +358 50 511 4332

Tuomas Koskenranta, chairman of COBA technical workgroup and CEO, Lonix Ltd. Tel. +358 50 352 8333

http:// www.coba-group.com

ABOUT COBA
COBA (Connected Open Building Automation) is a standardization effort initiated in September 2000 by 15 companies in the construction, building automation, telecommunications, and information technology areas to develop an OSGi-, Java- and Linux-based open software architecture for a 'building operating system'. COBA aims to become an open standard for easy and secure access to building functionality on a global scale.

COBA Group members include the following companies: ABB, Air-Ix, Akumiitti, Elisa Communications, FCS Partners, Public Works Department in City of Helsinki, Hewlett Packard, Lonix, NCC Finland, Nokia, SOL, Securitas, Senate Properties, Solid Information Technology and YIT Huber. Lonix is coordinating the project.