PRESS RELEASE

Kreatel launches Certified Application Developer Program to promote third party development for broadband system.

Linköping, Sweden, December 11, 2001 – Kreatel Communications AB launches a Certified Application Developer Program to invite third party developers to build applications for the Tornado broadband system. For operators, this program will result in more applications to choose from, shorter time to market for new applications and greater reliability when buying or developing third party software.

By opening up the platform, Kreatel stimulates the development of services and interactivity for IP-based broadband systems. The certified third party developers must have documented expertise of the Tornado System and are provided with early roadmap information and software releases. The initiative has so far resulted in three certifications being issued.

The first third party developer to receive the certification is ESDG Konsult who from the start has participated in the development of the Kreatel broadband system. The company's teletext viewer application is compatible with DVB teletext, and offers a familiar user interface for TV viewers. The viewer is available both as a browser plugin and as a standalone application for greater flexibility in the deployment. The other two third party developers to receive the certification are Ingame Graphics for its gaming applications, suitable to handle with the remote control and A Kraft for the TV-Chat client.

- The Certified Application Developer Program will result in more options for operators when choosing development partners, says Jörgen Hammarstedt, Partner Development Manager at Kreatel. These companies are perfect examples of developers we wish to attract to provide our customers with useful new services.

About the Tornado System

The Tornado system is an IP-based system for multimedia services in broadband networks. The terminal, Tornado/K5, is connected to the TV set and gives subscribers access to services such as Interactive TV, Video on Demand and Internet via a simple and intuitive interface. The software-driven terminals are part of a systems solution and can easily be updated with new services as they are developed. Kreatel has delivered the Tornado system to operators in Italy, Germany and the Nordic countries.

Kreatel Communications AB, founded in 1996, develops and markets flexible service terminal systems that enable operators and service providers to offer services in the telecom and broadband networks. The product portfolio includes a broad range of products with high software content that enable value-added services on fixed telephone networks and the new broadband networks. Kreatel is located in Linköping, Sweden.

ESDG Konsult AB, founded in 2000, is a software consulting company focusing on embedded and networked systems. ESDG's main objective is to enhance and supplement customer development teams consultatively, but can also be responsible for entire or parts of development projects. The privately held company is based in Linköping, Sweden.

Ingame Graphics is an experienced producer of computer games and entertainment for digital media, such as Internet, CD-ROM and next generation digital-TV. The company is based in Linköping, Sweden. Ingame Graphics combines experience from the traditional game industry with today's possibilities of Internet and on-line gaming to produce custom made games for the client's special needs.

A Kraft Resources is a qualified team of project managers, specialized in product development within telecom amongst other things. A Kraft has been involved in the Tornado/K5 development from an early stage and has for several years been working on product and service development in broadband networks. During this time the company has acquired useful knowledge of services and applications within this new technology.

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