

## REDUCING THE COST OF IPv6 SATELLITE COMMUNICATIONS FOR THE AVIATION INDUSTRY

**10 March 2010, Munich** – [TriaGnoSys](#) has today launched [Network Crossing via Translation](#) (NeXT), the first cost-effective solution for transporting IPv6 data over IPv4 satellite links, future-proofing next generation aircraft communication services, including air traffic control applications.

NeXT provides cost savings by reducing the amount of additional information that needs to be transmitted, as well as improving the efficiency of bandwidth use.

Dr Axel Jahn, Managing Director of TriaGnoSys, said, “IPv6 has been developed to alleviate the imminent exhaustion of IPv4 addresses, as well as to improve security and mobility, and is expected to become mainstream within the next five years. However, because there are no satellite networks using IPv6, a situation that is unlikely to change for at least several years, it became clear that a new protocol was required to handle the period before IPv6 is truly ubiquitous.”

Technology currently exists for IPv6 to IPv4 communication and vice versa. However, while it is possible to transfer data from IPv6 to IPv6 with an IPv4 segment in between, which will increasingly be the situation with satellite-based aircraft communications, it is very expensive.

Jahn continued, “The only real alternative to NeXT is the Layer 2 Tunnelling Protocol. The main advantage NeXT has over L2TP is a reduction in the satellite segment costs of somewhere between 35% and 50%, depending on the nature of the communication. NeXT also provides more efficient use of the available bandwidth, meaning faster downloads, for instance weather maps for air traffic control.”

The cost savings are achieved by reducing the header information required for each packet of data, headers being the instruction manuals that enable the receiving servers to reconnect the information in the correct way. Using NeXT, headers that cover the entire session are sent as part of the first packet and are therefore not required subsequently.

NeXT is a modified version of the NAPT-PT standard (Network Address and Port Translation-Protocol Translation), which is currently widely used to alleviate IPv4 address exhaustion. NeXT was developed by TriaGnoSys as part of NEWSKY, a project examining the future concepts a mobile aeronautical communication network, which was funded by the European Commission within its 6<sup>th</sup> Research Framework Programme (FP6).

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**About TriaGnoSys**

TriaGnoSys is the expert in mobile communication, information and media, enabling communications and information transfer to and from air, land and sea.

TriaGnoSys solutions employ satellite, air to ground and other radio links, to connect communication networks through its cutting-edge mobility routers.

Our innovative products for GSM, UMTS, VoIP and compression deliver low-cost and efficient data communication. We also deliver tailored industry solutions through strategic partnerships with OEMs, system integrators and service providers.

TriaGnoSys Research and Development focuses on a broad range of mobile communication fields, including mobile end-to-end solutions, wireless In-flight Entertainment (IFE), next generation satcom and cabin/cockpit communication, as well as combined navigation and communications technologies.

For more information, go to [www.triagnosys.com](http://www.triagnosys.com)

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