Press Release -- not to be published before Sep. 10th, 2010

Munich, Sep. 10th, 2010

Real-time distribution of audio in IP-based network environments

ALC NetworX, together with renowned partner companies from the pro audio market, is introducing RAVENNA, a technology for real-time distribution of audio and other media content in IP-based network environments. Utilizing standardized network protocols and technologies, RAVENNA can operate on existing network infrastructures. Performance and capacity are scaling with the capabilities of the underlying network architecture. RAVENNA is designed to meet the strict requirements of the pro audio market featuring low latency, full signal transparency and high reliability.

While primarily targeting the professional broadcast market, RAVENNA will also be suitable for deployment in other pro audio market segments like live sound, install market and recording. Possible fields of application include (but are not limited to) in-house signal distribution in broadcasting houses, theaters, concert halls and other fixed installations, flexible setups at venues and live events, OB van support, inter-facility links across WAN connections and in production & recording applications.

Selected RAVENNA key features comprise of:

- Precise media clock distribution as defined by AES-11
- Sample-accurate play-out alignment of all nodes across the network
- Concurrent support of multiple media clocks
- Full signal transparency
- Low latency - sub-milliseconds range feasible
- Channel capacity scales with network performance
- Full redundancy support through dual network interfaces
- Flexible stream configuration for data format, number of channels and bandwidth utilization
- Unicast and multicast mode supported on a per-stream basis
- Operation on existing networks and in shared traffic environment possible

As an IP-based solution, RAVENNA is in general infrastructure-agnostic and can be used on virtually any existing network technology and topology. All protocols and mechanisms used within RAVENNA are based on widely deployed and established methods from the IT and audio industry:

- Streaming is based on the RTP/RTCP protocol, as it is widely used and supported by numerous applications and comes with a large number of standardized payload formats.

- DiffServ has been selected as QoS mechanism as it is widely supported by most modern managed switches. RAVENNA packets receive a high priority classification ensuring expedited transport across the network.

- Synchronization across all nodes is achieved through IEEE1588-2008 (PTPv2 Precision Time Protocol), another standard protocol which can be operated on IP.

- System configuration and device discovery can utilize Zeroconf or DHCP / DNS methods to either provide hassle-free configuration in small networks or support for fully managed administration in complex network environments.

Unlike most other existing networking solutions, RAVENNA will be an open technology standard without a proprietary licensing policy. In order to emphasize this open approach, ALC NetworX has already teamed-up with renowned companies from the Pro-Audio market to present a variety of RAVENNA-powered technology prototypes: Genelec, Lawo, Merging Technologies, Innovason, DirectOut, LSB / VSM Control and DSA Volgmann are amongst the early RAVENNA adopters.

About ALC NetworX GmbH

ALC NetworX is a competence center with its own R&D department in Munich, Germany. A team of experts with excellent reputation from the Pro Audio industry and in-depth knowledge in networking technologies has been assembled to develop the RAVENNA technology platform. Although product implementations will be executed by individual partner companies, ALC NetworX will continue to keep the lead role in the RAVENNA technology development.

Contact information:

ALC NetworX GmbH
Am Loferfeld 58
81249 Munich
Germany

Phone: +49 (89) 44236777-0
Fax: +49 (89) 44236777-1
Email: ravenna(at)alcnetworx.de
Url: ravenna.alcnetworx.com