SOFTWARE

RTI's middleware wins contract

Real-Time Innovations (RTI), has won a contract from the United Kingdom’s National Air Traffic Services, Ltd. (NATS), for the use of its Network Data Distribution Service (NDDS) middleware in a mission-critical air traffic management system.

NATS is using RTI’s NDDS middleware as part of its Automatic Callsign Information Distributor (ACID) system. The NDDS-based system will increase performance and provided greater control over critical system behavior.

S. Schneidner, Real-Time Innovation’s chief executive officer said, “Its successful integration in only a few months demonstrates the value of commercial-off-the-shelf (COTS) middleware in creating mission-critical systems quickly and reliably.”

The ACID system provides UK Radar Data Processors (RDPs) with up-to-the-minute flight data, allowing them to correlate aircraft callsign and other flight information with secondary surveillance codes returned from aircraft transponders.

The correlated information provides controllers with essential data needed to monitor and control the flow of traffic through the U.K.’s busy airspace. Antony Vaudrey, ACID’s project manager, said, “RTI’s product provided us with a commercially attractive solution that will improve our time-to-market and help to reduce the risk to ACID’s successful deployment.”

Flight data is entered into ACID from civil and military flight data processing systems (FDPs). The data’s integrity and freshness are critical to the preparation of UK Air Traffic Control (ATC). The real-time processing system and delivered ACID with the ability to rapidly distribute information updates to as many as 128 RDPs tracking as many as 4,000 flights.

An important element in the NATS decision to commit to NDDS was the middleware’s proven history in other mission-critical systems. RTI’s experience serving military and aerospace application agencies the confidence they needed to approve the final ACID design using NDDS.

The system will be deployed in the London area control centre near Southampoton.

A key requirement of all ATC systems is reliability. If ACID should fail, safety precautions require that traffic be grounded or re-routed, resulting in flight delays and substantial business costs to both NATS and its customers. To meet the service availability requirement, the ACID system is configured to maintain service in the event of hardware or software failure. The NDDS middleware simplifies the messaging needed to provide that fault tolerance.

“We require a low-latency, secure, ordered and reliable point-to-point messaging service,” said Roland Ellis, ACID Product Design authority.

“This is an opportunity for ACID to take advantage of the proven history of NDDS, and its ability to maintain a consistent, reliable and available service,” said Ellis.

The publish/subscribe communications model of NDDS permits the addition or removal of system nodes without disturbing the traffic among other nodes.

This allows ACID’s communications processors that handle the data coming from external systems to seamlessly switch communication to an alternate database processor without needing to pause service or require manual intervention.

LINUX

MontaVista sets up mobile program

MontaVista Software has set up a program to advance the increasing adoption of Linux within the mobile phone industry.

The Mobilinux program encourages semiconductor vendors and mobile operators looking to build Linux handsets.

MontaVista says that a growing number of mobile phone vendors are transitioning from proprietary operating system platforms to Linux. The Mobilinux program will feature reference architectures that include mobile software components from leading software vendors.

These components will be ported to MontaVista’s Linux operating system and delivered on semiconductor platforms.

The program has been endorsed by a number of software vendors and handset integrators including ACCESS, Aplix, ARM, Cellon International Holdings, COSMOBIC Technolgy, Ericsson, E28, InnoPath, Jaluna, Openwave, Opera, PalmSource, Pollex Mobile Software, RealNetworks, SKY MobileMedia, Teleca, Texas Instruments, and TTPCom.

Jim Ready, CEO of MontaVista Software, said, “Our handset customers view Linux as a strategic platform enabling them to differentiate their phones and meet increasingly complex operator specifications. The Mobilinux program creates an open framework that helps solve the challenge of integrating disparate hardware and software components from a diverse group of vendors.”