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## Nortel Pilot Demonstrates Improved Communication Agility through CAMX

by Andrew Dugenske, Georgia Institute of Technology

Another successful pilot of the CAMX standards was undertaken at **Nortel Networks** Calgary Systems House in Calgary, Alberta, in February. The pilot was the first that involved functional test sets in a live production environment and showed the ease and agility in which CAMX can be used to communicate among applications and equipment. Nortel Networks partnered with the **Georgia Institute of Technology's Manufacturing Research Center, GTC, MAPICS and Visiprise** to conduct the pilot. CAMX is a new set of communication standards developed by IPC, **NEMI** and industry members which leverage existing internet infrastructure and technology to enhance communication through the virtually integrated supply chain.

During the pilot, the team was able to demonstrate the ease at which third party software applications could be integrated into a CAMX environment and begin processing data from functional test sets. By making use of an IPC-2501 compliant message broker written by Georgia Tech, basic connectivity among the applications and functional test sets was accomplished by noon on the first day. By the end of the day, the applications were receiving and processing data from the test sets.

"I have never seen a data collection set up so quickly" said **Dave Morris**, test software group leader at Nortel Networks. "Test processes developed in one location can quickly and easily be deployed in another location without the integration problems that are typically encountered when trying to integrate with proprietary data collection systems." After the basic setup and configuration was complete, Nortel Networks locations across Europe and North America were able to access real time test yield information from the test sets in Calgary using a web browser. The test systems and software applications involved in the pilot exchanged IPC-2541 and IPC-2547 event messages using the IPC-2501 protocol.



The pilot team members agreed that this new technology has the potential to greatly simplify integrating functional test systems with factory information systems and improve agility in the virtually integrated supply chain by providing real time visibility into a process being performed at a remote location. For more information, visit <http://webstds.ipc.org>.