



**OBJECTIVE INTERFACE LAUNCHES COMMUNICATIONS SOFTWARE TO  
REDUCE SECURITY THREATS IN HIGH-RISK ENVIRONMENTS**

*--New MILS-compliant middleware increases assurance for command and control systems, software-defined radios, missiles, advanced weapons platforms, airborne software and national security systems.*

**Atlantic City, NJ/MILCOM—October 17, 2005**—Objective Interface Systems, Inc., the worldwide leader in communications middleware for security-critical systems, today announced PCSexpress™, the first product to conform to a secure communications architecture that Objective Interface invented. PCSexpress is a secure high-performance communications middleware product that is integral to MILS (Multiple Independent Levels of Security), a foundational software architecture created to meet the gravest security threats to mission-critical systems. PCSexpress allows engineers to quickly design and build fast, flexible, highly-secure distributed systems. Developed for embedded systems, enterprise servers, workstations and global networks, PCSexpress provides off-the-shelf high-assurance communications security that reduces the duration, schedule risk and cost of designing, evaluating, accrediting and deploying highly secure systems.

PCSexpress meets a critical need in a market in which attacks on networked services, including viruses, worms and other security threats, will cost businesses a projected \$17.5 billion in 2005, according to Computer Economics, Inc.<sup>1</sup> PCSexpress was designed for certification at Evaluation Assurance Level 7 Augmented of the Common Criteria, the highest level of certification for security software. In addition, PCSexpress was designed for DO-178B level A certification, the highest level of flight safety-critical certification, and DCID 6/3 PL5 certification, the highest level of certification for sharing national security information.

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<sup>1</sup> "Service Providers Unveil Alliance to Beat Web Attacks," by Andrew Noyes and Greg Piper, *Washington Internet Daily*, March 29, 2005.

“I believe in the necessity of the MILS technologies. MILS directly addresses the most challenging security requirements of our defense and our core data and voice communications customers,” said Bill Beckwith, CEO/CTO, Objective Interface Systems. “We have invested tremendous funds, both in advancing MILS security awareness and in developing the secure MILS communications architecture. We have had good company in our support of MILS. Our close collaboration with the National Security Agency, U.S. Air Force Research Laboratory and the U.S. Department of Defense has been crucial in meeting these security problems with a valid approach.”

Mr. Beckwith added: “Today we are proud to bring the first MILS-compliant communications middleware to market—*PCSexpress*, a product long awaited by designers of high-assurance applications. We now offer a secure, affordable communications foundation to contain application failures and prevent—without modifying applications—unauthorized access to critical information.”

### **The Promise of MILS**

“MILS is an enabling architecture for highly secure systems. MILS software enforces the separation of information with a trusted foundation sufficient to protect critically important data under the most severe threat. For safety, it permits the separation of applications by level of criticality. What’s notable is that both corporate and government interests could accomplish this with commercially available software that would be certified to some of the highest levels of security, while affordably promoting portability across new and legacy systems,” said Joe Jarzombek, Director for Software Assurance, National Cyber Security Division, Department of Homeland Security.

“According to the National Security Telecommunications and Information Systems Security policies, information assurance is now a requirement for all systems that process, store, display or transmit national security information,” said Dr. Ben A. Calloni, PE, Research Program Manager and Principle Investigator, Common Platform Infrastructure and Architecture, Lockheed Martin Aeronautics Company. “By definition, MILS facilitates information assurance. Vendors that provide products based on MILS play a potentially important role, providing a portfolio of solutions that allow national defense and aerospace to endow their systems with a higher level of information assurance using commercially available products.”

## **MILS' Overview**

The current fail-first patch-later approach to addressing security threats, whereby technicians reactively repair software security flaws in a system, is not appropriate for the global communications infrastructure supporting mission-critical aerospace, defense, data communications, telecommunications, medical, utilities, transportation, financial, robotics and similar systems. Given that systems and application software can only be as safe and secure as their foundational technologies, MILS was designed from the ground up to provide the highest level of assurance, countering a wide range of security threats. The MILS architecture was developed to resolve the difficulty in developing, certifying and maintaining high-assurance systems. It functions by layering security policy enforcement into manageable components. This divide-and-conquer approach makes development, certification and maintenance significantly more achievable than ever.

MILS has been developed through a consortium of government and commercial organizations that include Objective Interface Systems, the National Security Agency (NSA), the United States Air Force Research Laboratory (AFRL), Lockheed Martin, Raytheon, Rockwell Collins, University of Idaho, Green Hills Software, LynuxWorks, Wind River, and many others. For more information on MILS, please visit: [www.ois.com/mils](http://www.ois.com/mils).

## **About PCSexpress**

PCSexpress is a new middleware communications product from Objective Interface Systems. PCSexpress is based on the Partitioning Communications Systems (PCS), the MILS middleware technology that was invented by Objective Interface. As the foundational middleware of MILS, PCSexpress provides highly robust separation of data throughout a network system. PCSexpress provides fast, low-latency and high-bandwidth performance and high-security communications that are transparent to the user. Through strong authentication and secure loading, PCSexpress provides a high level of trust to all parts of the communications channel—blocking malicious or faulty code, viruses, worms, Trojan horses and other software threats from bringing down an entire system. It works over ordinary network hardware, further reducing the costs of designing and deploying secure systems. PCSexpress allows the sharing of data among various communities of interest, enabling coalition force operations and specified workgroup information sharing. PCSexpress also enables the separation of user and administrative roles in legacy systems. This prevents malicious applications from changing security policies in MILS-compliant systems.

## **Availability**

Available from Objective Interface Systems in the first quarter of 2006, *PCSexpress* is fully compatible with commercially available MILS Separation Kernels from leading operating systems vendors, including Green Hills Software, LynuxWorks and Wind River Systems. For more information on *PCSexpress*, visit [www.ois.com/pcs](http://www.ois.com/pcs), call 1-800-800-OIS7, or e-mail inquiries to: [info@ois.com](mailto:info@ois.com).

## **About Objective Interface Systems**

Objective Interface is the worldwide leader of high-performance, real-time and embedded communications middleware solutions. The company provides Real-time Common Object Request Broker Architecture (CORBA), publish-subscribe technology based on the Data Distribution Service standard (DDS) and secure communications middleware development tools based on the MILS architecture to meet the high-performance requirements of military and aerospace, telecommunications, data communications, industrial automation and process control, transportation and consumer electronics markets. Objective Interface products are the communications core of many mission-critical products and systems including mission-critical avionics systems, network management, vehicle control and management systems, software defined radio, telecommunication systems, process control systems and nuclear fusion ignition facilities. Customers of Objective Interface include Boeing, BAE Systems, British Aerospace, CERN, Daimler-Benz, EADS, Ericsson, Eurocontrol, General Dynamics, Harris, Hughes Network Systems, ITT, Kawasaki Heavy Industries, Lawrence Livermore National Labs, Lockheed Martin, Lucent, Nikon, Nortel, Northrop Grumman, Raytheon, Rockwell Collins, Saab, Samsung, Sandia, TEAC, TRW, the U.S. Department of Defense and many others.

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*PCSexpress* is a trademark of Objective Interface Systems, Inc. All product and company names are trademarks or registered trademarks of their respective holders.

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