

## Keynote

# Trusting a Trusted System

John McLean

Information Technology Division  
Naval Research Laboratory, USA  
mclean@itd.nrl.navy.mil

### Abstract

The biggest cost driver in building a High Assurance System can often be the choice of method used to attain sufficient trust in the system. This talk will take a look at trust methodology, some of the issues involved, and some of the history that surrounds these issues. We will then examine some newer applications for trusted systems where the traditional methods break down, and discuss a possible new paradigm for achieving trust.

### Bio

John D. McLean is Superintendent of the Naval Research Laboratory's Information Technology Division and a member of the Government's Senior Executive Service. As Superintendent, he supervises over 350 government scientists, support personnel, and contractors, and is responsible for formulating, selling, and executing ITD's \$80M program of basic research, exploratory development, and advanced technology demonstrations in Artificial Intelligence, High Assurance Systems, Modeling and Simulation, Computer Visualization and Virtual Reality, Computer and Communication Networks, Transmission Technology, and High Performance Computing. Prior to becoming Superintendent, Dr. McLean was a member of the Government's Senior Science and Technology Service and NRL's Senior Scientist for Information Assurance.

Dr. McLean came to NRL in 1980 as a Research Computer Scientist. Serving as Principal Investigator for several research projects, he has published widely in the areas of formal methods and formal modeling for computer security. In 1988 he helped create ITD's Center for High Assurance Computer Systems, establishing and heading the Center's Formal Methods Section and then becoming Director of the Center in 1994. While at NRL, he has also held positions as an Adjunct Professor of Computer Science for the University of Maryland, the National Cryptologic School, and Troisieme Cycle Romand d'Informatique.

Dr. McLean is an Associate Editor of Distributed Computing, Journal of Computer Security, ACM Transactions on Information and System Security, and International Journal of Information and Computer Security. He is a member of the Steering Committee of the IEEE Computer Security Foundations Workshop, the US National Leader of the NATO Research and Technology Organisation Panel in Information Systems and Technology, and a US Navy Representative to the Technical Cooperation Program (TTCP) C3I Group, where he previously served as the Chair and US National Leader of the Group's Technical Panel on High Assurance Systems and Defensive Information Warfare.

During his career at NRL, Dr. McLean has served as a Senior Research Fellow of the University of Cambridge's Centre for Communications Systems Research and as a member of the Scientific Advisory Committee of Cambridge's Isaac Newton Institute Program in Computer Security, Cryptology, and Coding Theory. He has been Conference Chair for the IEEE Symposium on Research in Security and Privacy and Program Chair for that conference, the IEEE Computer Security Foundations Workshop, and COMPASS, where he was also a member of the conference's Board of Directors. He is the recipient of an Outstanding Paper Award from the IEEE Computer Society and three Alan Berman Research Publication Awards from NRL.