



THE 1997 RSA DATA SECURITY CONFERENCE

SPEAKER BIOGRAPHY

DEVELOPERS' TRACK

Panel: Securing Broadcast Transmissions

Speaker: **Howard Pinder**

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Company Background:

Scientific-Atlanta, Inc. helps people connect with entertainment, information and each other. They are at the forefront of today's telecommunications revolution, as cable operators, broadcasters, telephone and utility companies, government and corporations worldwide rely on our advanced broadband and satellite networks to customers' networks by supporting the development of new applications, and investing in intensive research and development programs that allow us to provide exciting new products, systems and services. Headquartered in metropolitan Atlanta, Georgia for more than 40 years, Scientific-Atlanta is a global company that conducts business from Argentina to Zaire through 16 worldwide offices and representatives in more than 70 countries.

Presentation Overview:

Major deployments of digital cable TV converters are finally happening, with less emphasis on interactive applications, and more on digital broadcast, cable modem, and Internet uses. Today's security systems must perform advanced cryptography, combining secret key ciphers in hardware using quickly changing working keys, and public key techniques for key and entitlement delivery, all for under \$10 per settop decoder. They must go beyond software security products which are vulnerable to copying attacks, and beyond cellular identity proving techniques because a reverse channel isn't always available. They must allow multiple entities to authorize services in a decoder (with full cryptographic separation and no shared secrets), with the entire conditional access system being replaceable and upgradeable. Learn how this tall order has been met by employing the RSA public key algorithm in low-cost hardware, ASIC-based hardware solutions, and optimized messaging techniques.

Speaker Background:

Howard Pinder is an electrical engineer with Scientific-Atlanta, Inc., working in the Digital Video Compression Division. He is on a team that is redefining conditional access and signal security in the age of digital entertainment services, and leads a design group for head end encryption hardware and software. His previous assignment at S-A was the lead audio engineer with the MPEG video/audio encoder team. He has experience applying encryption technologies in other product areas, including secure telephone and fax equipment.

PRESENTATION