

National Security Assessment: U.S. Information Network Infrastructure

This assessment was initiated by the Trusted Mission Systems and Networks Division of the Office of the Chief Information Officer, Secretary of Defense, U.S. Department of Defense (DOD). The U.S. Department of Commerce, Bureau of Industry and Security, Office of Technology Evaluation performed this effort with assistance from DOD agencies, the Department of Homeland Security, National Telecommunications & Information Administration, Department of Energy national laboratories, and U.S. telecommunications carriers.

The assessment focused on carriers' long-haul and metropolitan area access transmission, switching, and aggregation systems; and wireless transmission systems. It did not examine enterprise-level equipment used by carriers, industry, and organizations, nor equipment serving residences. OTE designed two structured survey documents to perform the assessment. Eighty-nine information network operators (telephone companies, cable operators, internet service providers, and data center operators) provided information on the operation of their wired and wireless networks.

Network operators reported on the types of services provided to customers, how networks are managed, the security practices they employ, the use of third-party entities to provide network services, factors driving network equipment purchasing decisions, recent equipment purchases, replacement cycles for equipment, and types of equipment installed in their systems.

The goals of the study were to:

- Understand management and security methods employed in U.S. networks
- Measure use of Best Practices for operational reliability
- Gain insight into the use of third-party contractors in network operations
- Assess the competitiveness of manufacturers of network equipment
- Quantify replacement cycles for network systems

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