Information management and telecommunications upgrades connect Pentagon to the 21st Century

Separate but related to the Pentagon Renovation Program is a necessary modernization of the building's information management and telecommunications infrastructure and systems. "The basic information system infrastructure in the Pentagon was installed long before the advent of personal computers, facsimile machines, video teleconferencing, and digital telephone service, and has evolved without a design plan," said Col. Robert Kirsch, Information Management and Telecommunications (IM&T) Project Manager for the Pentagon Renovation Program. "In 1943, when the Pentagon was built, there was one telephone for every three employees, but over the last 58 years, new information technology capabilities have emerged and the new systems have been laid on top of the old." According to Kirsch, over time, this merging of technology has become unmanageable and not easily upgraded. "As requirements emerged, facilities and systems were added with little or no regard to existing capabilities or long-term requirements," he said. "The individual military departments and agencies simply engineered and installed equipment and cables to meet their immediate specific needs."

The objective of the IM&T effort is to provide cost-effective services and capabilities that will best serve the needs of the Pentagon tenants and Department of Defense senior leadership by leveraging technology advancements and designing and developing integrated systems. The information technology modernization is being accomplished in conjunction with the building's wedge-by-wedge renovation.

Telecommunications technicians install new fiber optic cables and copper telephone lines in Wedge 1. 16,000 miles of new copper lines will replace the 75,000 miles of old copper lines existing in the Pentagon.

Today, the 20,000 personnel in the Pentagon and the 5,000 more in swing space are largely "Information Age" workers with at least one telephone and desktop computer system per person. They require state-of-the-art systems that will provide immediate access to local as well as world-wide networks and the tools to rapidly collect data, analyze it, and present it to decision makers in a timely manner. This requirement defines the objectives of the IM&T Project:

- Provide modern telecommunications and information management services throughout the Pentagon with access to global networks. The communications network will support voice, data, and video at varying security levels.

Col. Robert Kirsch (right), IM&T Project Manager for the Renovation Program, describes telecommunication upgrades to Army personnel during a tour in Wedge 1.

- Relocate all command and operations centers to renovated facilities. These include the Air Force Operations Group, Navy Command Center, Marine Corps Command Center, National Military Command Center, and the Army Operations Center.

- Modernize and consolidate the functions and responsibilities of the seven technical control facilities in a single Pentagon Consolidated Technical Control Facility.

- Relocate the Defense Information Systems Agency, Joint Staff Support Center, Command and Control Automated Data Processing Centers from existing facilities into one new facility located in renovated space.

- Three to four consolidated server facilities will be built in each wedge. These server facilities will allow the many server requirements of all services and agencies to be consolidated into these 18 common facilities without the need to build hundreds of special purpose facilities throughout the building.

- Provide the renovated Pentagon with improved voice communications currently provided by 22 Command and Control, Tactical, and Administrative telephone switches located in 12 different facilities. Reduce the number of telephone switches in the Pentagon from 22 to 8.

- Replace the 130 radio systems distributed throughout the building with one Consolidated Radio Room in each wedge.

In 2000, the Renovation Program's IM&T team completed the Outside Plant Infrastructure, which for the first time in 58 years provides the Pentagon with assured continuity of operations for its telephone and data cables and the services they carry in the case of a catastrophic event. The first part of the year included the Y2K rollover date which, due to the dedicated efforts of the entire IM&T team, transpired without any disruptions of service or negative impacts.