

Three Tier Security Model

User Security

The Mercury ES Browser Panel provides users with a highly available, rapid, secure and reliable voice communications capability for a single enclave as well as to other security levels* and across domains. Because of the sensitive nature of these communications, the Browser Panel is designed to keep users aware of the sources and destinations of voice communications at all times. Call Negotiation Security Dialog Boxes, clear labeling of call buttons, and persistent Security Level Summary Windows make it possible for users to extend their communications reach without compromising security. Each browser panel can be customized to support the least privilege principle. The ability to store multiple profiles for a single user gives organizations the ability to rapidly configure for new or changing missions.

Administrative Security

Database Configuration: Mercury ES can be deployed to support either a centralized or decentralized database configuration management scheme. In a centralized mode, configuration files may be distributed from a single server to the entire enterprise. In a decentralized mode, the configuration management databases can be used at different sites by different administrators and subsets of data can be imported or exported between sites. This allows sites to continue to operate without reliance on a single server. To maintain the integrity of the configuration management process, an MD5 checksum is created and saved when data is exported. This checksum is verified at load, save and import operations. Database metadata allows administrators to make annotations to ensure all sites maintain proper revision control.

Administrative Roles: The Mercury ES system is designed to accommodate any number of administrative roles. If separation of roles is required, the system allows administrator privileges to be completely customized using feature access management. All menus and features can be individually defined for each role. For example, enterprise level administrators may be tasked with defining system architecture and global parameters while local administrators may take on the responsibility for establishing user profiles and making other site-specific settings.

Voice Bridge for Multi-Level Security & Cross Domain Communications

The Mercury ES Voice Bridge is a first-of-a-kind technology that allows high quality, instantaneous voice communications to flow between IP network security levels and from one domain to another without actually joining the networks. Voice communications within a security level or domain are IP-based, however, if the need to communicate with another level or security or to another domain arises, IP audio is converted to analog audio prior to passing through the security boundary of the Voice Bridge. Once audio passes through the boundary, it is converted back to IP audio and mixed and routed to the appropriate destination. A sophisticated signaling technique is used to negotiate calls between levels and domains.

*DCID 6/3 Protection Level 4

