

Valbrea's offering of telecommunications support systems includes GHEM Secure Access Control. **GHEM Secure Access Control is a secure remote access application that provides strict access and real-time monitoring to disparate network elements across the enterprise.** Our system manages secure connections to network elements over IP, X.25 and serial connections. With user-friendly, efficient web access available to administrators and users, remote access to network elements is simple, yet secure.

GHEM Secure Access Control

Filtering of commands at the group and individual user levels provides additional protection from costly outages and disastrous outcomes of less experienced users. The ability to classify ports on a network element gives priority access for automated tasks or super users. Connectivity to ports are static (or "nailed-up") to eliminate the possibility of users or individuals with hostile intentions from bypassing the security provided by GHEM Secure Access Control.

◆ Session Logging and Audit Trails

Each user session is logged for recall and playback. An audit trail for each network element, each port of each network element, users, etc. can be recalled for analysis and assessment of security risks, training needs and more.

◆ Command Limiting

Commands to network elements are limited by GHEM based on the particular user and particular network element type.

◆ Optimized Access

Users can utilize a wait function that queues them for the next available port.

◆ Session Management and Timeouts

Disconnects users from idle sessions based on configurations determined by system administrators.

◆ Scalable

The system is scalable and can be distributed across multiple servers for capacity management and failover protection.

◆ Web Access

As systems become more complex and more and more network element types arrive to the telecommunications arena, user efficiency decreases. A browser based user interface allows users to manage various types of network elements without the need to access multiple systems.

◆ Port Classification

All users are authenticated against a single sign on user ID and Password. Users do not need to know passwords at the network element level.

◆ Alias Management

The system provides for multiple aliases of network elements. Unique nomenclature and identifiers for network elements can be simplified for rapid user recall.

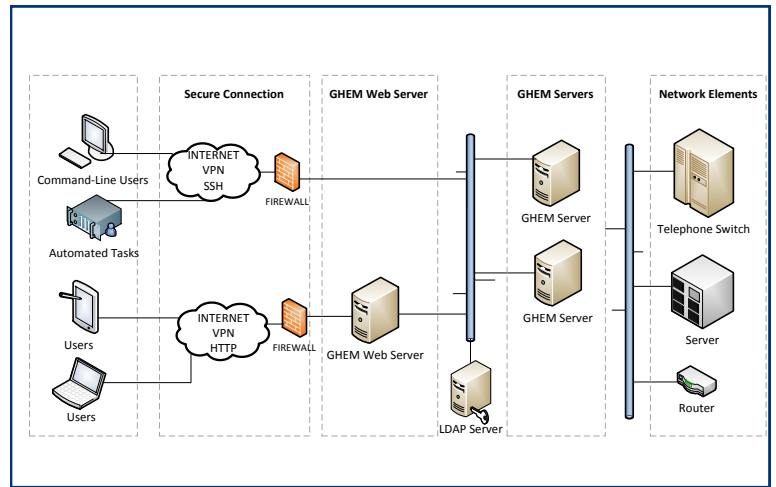
◆ SSO

All users are authenticated against a single sign on user ID and Password. Users do not need to know passwords at the network element level.

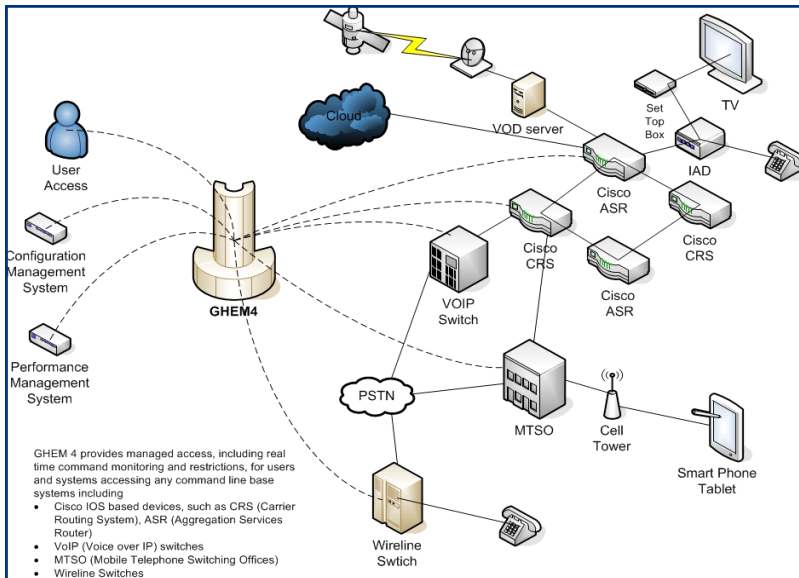
GHEM Secure Access Control manages user access to host systems such as servers, routers, telephone switches, and more. It supports communications over IP, X.25, or direct serial connections. Management functions include:

- Restrict User Access by Individual or Group
- Limit User Commands by individual or Group
- Optimized Access (GHEM allows users to log them in as soon as the port becomes available)
- Automatic Port Timeouts to Clear Inactive Sessions
- Single Sign On (SSO) for all Network Elements
- Designate Priority Access to Ports using Port Classification

Traditional Telco Implementation



CLEC Model Implementation



- Monitor and Control Any User's Session in Real-Time
- Override User Commands or Disconnect User in Real-Time
- Real-Time View of Every Port
- Logs connections and all user commands to a host
- Creates Session Files that allow administrators to replay a user's entire session
- Supports the following methods of connectivity for network devices: telnet, SSH, Modem Ports, and X.25

Scalability and Failover

To successfully secure a large telecommunications network, the solution had to scale and be fault tolerant. The simplicity of GHEM Secure Access Control makes it easy to scale by adding additional hardware. For small to medium-sized customers, adding memory and disk space handles most scalability issues. Larger customers would add additional servers.

Proven Technology

GHEM Secure Access Control is currently operating in small, medium, and large telecommunication companies across the globe.