



### **OPERATING SYSTEM SECURITY:**

#### **Linux Operating system**

Unlike other SCADA software programs that run on a Windows Operating System (OS), the DFS HT4 SCADA Software program runs on a Linux OS. Linux is highly regarded as the most secure operating system available. Linux is open-source, which allows DFS to fully customize the OS and secure it from outside access.

#### **Configurable Local Firewall**

The HT4 SCADA Software program includes a configurable local firewall called the “whitelist” feature. When activated, the whitelist will contain only those IPs and/or MAC addresses of specific devices that are permitted to access a Hyper Server Module (HSM). The firewall will deny requests (such as pinging, SFTP, etc.) from any device that is not included in the whitelist.

### **HT4 SCADA SOFTWARE SECURITY:**

#### **SSL throughout with 2048-bit encryption**

Secure Sockets Layer (SSL) is a security technology for establishing an encrypted link between a server and a client. The HT4 utilizes SSL and the encryption is 2048-bit key length.

#### **SFTP and SSH**

Secure File Transfer Protocol (SFTP) is a secure version of File Transfer Protocol (FTP), which facilitates data access and data transfer over a Secure Shell (SSH) data stream. HT4 utilizes SFTP and SSH.

#### **One-way SHA256 hashed passwords**

HT4 utilizes the one-way SHA256 hashing function on all HT4 access passwords.

#### **Enforcement of password policy**

DFS recommends a password policy. A password policy is a set of rules and best practices designed to enhance computer security by requiring users to employ strong passwords and use them properly. The policy is often part of an organization's official regulations and may be taught as part of security awareness training. HT4 supports the use of the full visible ASCII character set (1-9, A-Z, a-z, ~!@#\$%^&\*()-\_+[{]|\|;:'",<.>/?\*~+) with no limits to the password length.

### **VIRTUAL PRIVATE NETWORK (VPN):**

DFS recommends the use of VPN secure connections. The VPN provider is typically determined by the security requirements established by your IT department. DFS recommends a Secure Socket Layer (SSL) based VPN due to the wide range of device support (cell phone, tablet, PC, etc.). We also suggest utilizing a VPN that requires a 2-Factor authentication method.