CYPHRE
a RigNet company

SUPERIOR ENCRYPTION POWERS ENERGY SECTOR CYBERSECURITY

Information is the 'Juice' that Powers the Energy Sector

Energy generation involves a host of equipment and devices transmitting confidential information that must be protected with absolute security. Oil and gas companies have experienced a growing number of successful cyberattacks in recent years. Protecting proprietary data and sensitive information has become a vital priority for everything from complying with stringent regulatory requirements to communicating production information over the public internet or private networks, from improving operational efficiency to ensuring worker safety. Other unique data security challenges facing energy sector businesses range from heightened industry reporting rules and regulations to guaranteeing 100% cloud data availability and control.

Distributed equipment gather a significant amount of information that is stored and transmitted daily to site operators, who may be hundreds or thousands of miles away. This necessitates an extraordinary distributed infrastructure that spans off-shore and remote land-based locations. The network must interoperate with multiple systems to provide reliable, highly secure connectivity, even in the harshest of environments. Data streams and data files of unlimited size often traverse satellite communications links and the public internet before coming to rest in a cloud-based IT server.

All of this complex, mission-critical infrastructure can be vulnerable to cyberattack by hostile global parties seeking to disrupt operations or steal secrets.

Energizing the Defense Against Cyberattacks

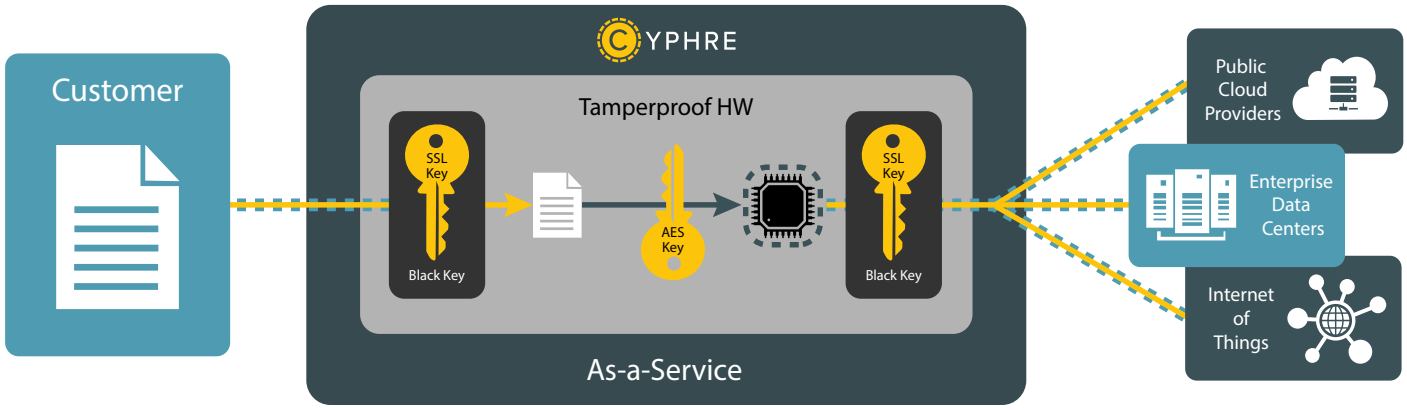
Fortunately, there are many examples where the proper application of **encryption technology** across the entire IT infrastructure can fully secure energy sector information, both behind firewalls and during transfer over private intranets or the public Internet.

Whether at rest or in motion, data is best protected by encryption. Encryption provides the highest level of security, but the way encryption is achieved matters vitally. When single encryption software keys are memory resident on a host server, they are vulnerable to attack and data can be stolen. This presents a well-known vulnerability and major opportunity for hackers to exploit.

Cyphre's BlackTIE® technology augments vulnerable single encryption keys with hardware-encrypted Black Keys to nullify breaches, hacks, and other cybersecurity threats. Chip-resident Black Keys are completely isolated from hacker exposure. BlackTIE® assigns one key per file rather than one key for many files, establishing maximum protection for encrypted data at rest and limiting the 'blast radius' of any breach.

"Cyber-attacks targeting the energy industry are predicted to result in a growth in **security spending from $26.3 billion in 2015 to $33.9 billion by 2020**."

CYPHRE
a RigNet company



With authentication taking place on the hardware, no software installation is required on the host server. By offloading encryption activities from the host system Cyphre hardware increases encryption performance.

BlackTIE® also protects traffic as it leaves the network. Cyphre's automatic protection of information in transit requires no proactive action by the teams moving the data. This establishes a "zero knowledge" stance for employees, eliminating them as a possible point of exposure. Network administrators can easily monitor and control all file sharing activities within an organization, as well as integration with LDAP authentication systems.

In short, Cyphre BlackTie® technology secures data in transit and at rest with a uniquely powerful encryption service solution that is invisible to end users, highly scalable, device-resident, and cost effective for medium and large-scale environments.

About Cyphre

Cyphre, a RigNet company (NASDAQ:RNET), is a cybersecurity company deploying disruptive data protection innovations by enhancing industry standard encryption protocols with our patent pending BlackTIE® technology.

www.cyphre.com @getcyphre Cyphre /getcyphre