



Merlin Cryption®

PROTECT YOUR PRIVATES

Effective SCADA Security

Closing Vulnerabilities for Complex Industrial Control Systems

Protecting access to status, states, reports, machine software updates, commands, and controls is critical to SCADA security. Adequately securing within constrained memory requirements is paramount.

MerlinM2M Security Platform delivers a dynamic 25KB In-Memory encryption engine, which works in tandem with strong authentication in one platform.

This encryption-authentication platform secures SCADA's unique high risk challenges in different network zones, automated processes, and device networks, including servers, human machine interface (HMI), intelligent electronic devices (IED), controller logic, and industrial network protocols.

The weakest link in a SCADA system is transmission between machines. A criminal takeover of machine control spells disaster.

The MerlinM2M cryptosystem's patent pending random data generator outputs keys and passwords, which are 'generated-destroyed-recreated' on demand, making key/password transfer between end points unnecessary. The communication and storage of encryption keys and passwords are not needed.

>10 Multi-Factor Encrypted Authentication

MerlinCryption's dynamic, variable, changeable, Smart-Authentication Platform empowers industrial control system and SCADA security teams to take control with "under-the-hood" scripted security elements, resulting in unparalleled protection.

The indomitable power behind MerlinCryption's solution is not only in the *number* of factors available, but also in the ability to customize each industrial control client with factors that are unique to their system environment. These confidential, interchangeable factors are unlike other client's factors and cannot be predicted by criminals.

ADVANCED TECHNOLOGY

ENCRYPTION INNOVATION

- Keys scale from 2008 bits to 2 GB in length
- Passwords scale up to 64KB
- Flexible >10 multi-factor authentication
- No two encryptions are alike, even using the same input
- Parameter-controlled customized key generation
- ASBE algorithm not subject to Statistical Analysis or attacks by Cryptanalysis
- NSA reviewed/BIS approved for export
- OFAC compliant
- Enables partners with HIPAA, HITECH, and FDA compliance
- Scrubs memory before exiting
- Upon decryption, performs multiple-stage checking of version, password, and key

IN-MEMORY AUTOMATION

- In-Memory small footprint <25KB
- Sub-second automation

The Smart-World's Smart-Encryption™

Security Is In The Script

MerlinCryption's security platform runs a scripted controller, which integrates end-to-end processes into a tightly customized and impenetrable sequence of execution. The controller automates all machine nodes during end-to-end encryption, decryption, and authentication processes.

User-defined scripts dynamically calculate and feed parameters to the scripted programs. *The script, which runs programs, can itself, be encrypted.*

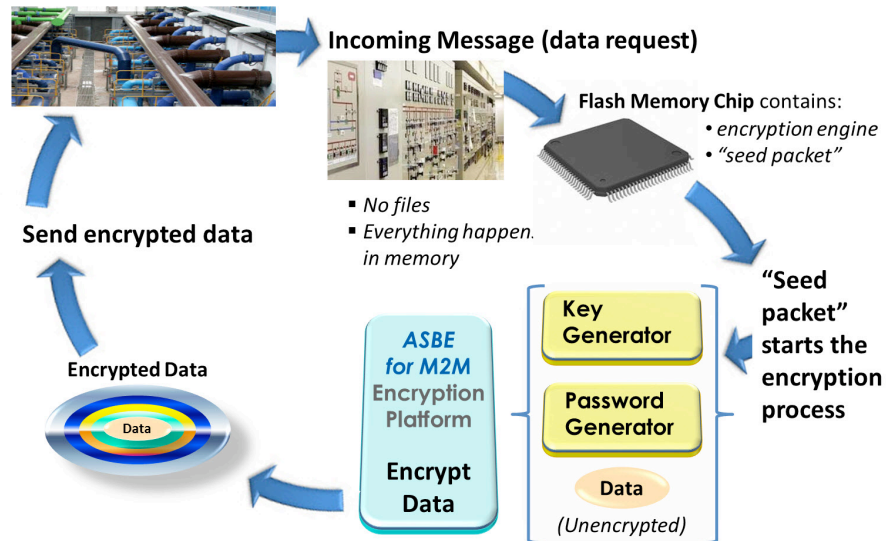
Algorithmic Innovation: *Outmaneuvers Attack*

The MerlinM2M cryptosystem is built on Anti-Statistical Block Encryption (ASBE) and utilizes variable key length. Each key scales in size between 2008 bits and 2 GB. Additionally, the encryption engine allows scalable passwords up to 64 KB.

The algorithm is not subject to Statistical Analysis or attacks by Cryptanalysis, which secures data, networks, and endpoints across the entire SCADA infrastructure. Every encrypted transmission between MTUs, PLCs, and RTUs, is different, as the algorithm produces different cyphertext with varying length, even when repeating the same plaintext, key, and password input.

*MerlinCryption
Security Platform
contains special components
that dynamically alter the
generated data, exponentially
increasing security.*

*Small In-Memory
Footprint is <25KB*



Game Changing Details

- In-Memory M2M Solution, with efficient small footprint of less than 25KB satisfies constricted memory requirements
- The encryption software is portable to any CPU
- Payloads can be transmitted by any communications protocol and on any network
- Written in C# for Windows and in C for DOS, Linux, and QNX

THE SMART-WORLD'S SMART-ENCRYPTION™

MerlinCryption develops invincible smart-world solutions that protect against cyber theft, cloning, and compromise in embedded and diverse M2M environments. Breakthrough technology secures dynamic end-to-end data for smart-grid, SCADA, medical device, industrial systems control, and POS.

The unprecedented encryption platform protects data as it is created, viewed, edited, shared, stored and moved across communications channels and through The Cloud.

MerlinCryption Is Changing The Way The World Protects Data



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