

MerlinCryption®

Leading-Edge Encryption

Distinctly Different Key Approach

Data security in the contemporary business environment is increasingly complex, requiring acute acumen and calculated strategy. With new levels of severe and sophisticated threats penetrating the most fortified systems, a drastic change in security tactics is mandatory.

MerlinCryption meets this demand with a radically different encryption platform... vastly more powerful encryption with unpredictable and changing keys which defeats increasing computer-power and investigative technique.

Stand-alone encryption solutions for data-at-rest, data-in-motion, data-in-use, and data-in-change¹ security, the software distinctly differentiates from competitors in both key structure and algorithm.

The discrete key approach introduces scalable key sizes from 2000 bits to 2GB and eliminates recurrent PKI expense.

The proprietary encryption is not based on mathematical technique and not subject to statistical analysis. No two encryptions are alike: Using the same data input and the same encryption parameters (key and password) *always* produces different ciphertext results.

The CryptoFile: Absolute Stealth For Today's Precarious Environment

Common AES 256-bit encryption produces a simple short key strand, which continually repeats in cipher text. This fixed length key is detectable and routinely broken.

MerlinCryption's unique CryptoFile™ hides the key using the digital contents of any file. The key is not the file, itself, but a sequence of digital values embedded within the file.

This Key-in-a-File is scalable in length, using any portion, or all, of the contents of the file and can be designated in varying locations within the file. The CryptoFile is user-initiated and controlled (manually or automated) versus

application-generated and constrained. User determined key storage, communication, and exchange, achieves an unpredictable, undetectable, untraceable key.

The algorithm provides for CryptoFile keys from 2000 bits to 2GB in size. The dispersal of each CryptoFile multiplies available keys-for-use by up to billions of keys at a time.

By the very nature of the CryptoFile (which can be any type of file), keys can "hide in plain sight" on a laptop, in an email, or other. Generated CryptoFiles can be easily scripted to "create-delete-reconstruct" as needed.

TECHNOLOGY HIGHLIGHTS

PROPRIETARY ALGORITHM

- Not based on mathematical technique
- Not subject to statistical analysis
- No two encryptions are alike, even using the same input

KEY-IN-A-FILE TECHNIQUE

- Key scales from 2000 bits up to 2 GB
- User-controlled discrete key
- Initiated from existing digital file or file generator
- Key exchange cannot be anticipated or detected

PASSWORD PROTECTED

- Typed-in PW up to 31 characters, or
- Password-in-a-File 32 - 65,535 bytes

SIMPLIFIED KEY MANAGEMENT

- Eliminates PKI
- No Protocol needed
- Intrinsic Validation

Adapts for individual, enterprise, and partner markets. Scales to any business structure.

Effective Enterprise Security: Do More With Less

Because enterprises are as different as the data they protect, MerlinCryption delivers a portfolio of indestructible security for specific business requirements and corporate structures.

PKI is eliminated. A simple security blueprint, reinforcing an individual organization's security and operational structure, replaces the complex key lifecycle.

Enterprises strategically use the technology's CryptoFile key method to leverage role-based access rights for authorized user ease.

- IT has the ability to control all keys or designate key initiation to specific departments and/or individual users
- Management can independently use the encryption process or collaborate with IT departments for automated use.

Flexible options, in the encryption software, accommodate clients, vendors, and end users who have

contrasting levels of sophistication or need-to-know status.

The encryption products can effectively stand alone, or work in tandem with other MerlinCryption security programs, based on individual business goals and needs.

The astute solution adapts and scales from small businesses, without dedicated IT staffs, to large conglomerates with extensive geographies, business units, and functional areas supporting multiple priorities and objectives.

Out-of-the-box functionality, with easy installation helps organizations become quickly operational and secure, with little or no customization.

While the solution facilitates do-it-yourself success, MerlinCryption engineering is also available to blueprint, customize, and/or integrate security architecture, if desired.



Research shows that organizations spend between \$47 and \$592² for the creation, distribution, and maintenance of PKI each key in use.

MerlinCryption Eliminates PKI, Certificates, Registration Authority, Directory Management, Central Key Deposit, External Validation, and Protocol.

Encryption Innovation: Partnering in Breakthrough Technology



*Shape-Shifting Encryption:
Do Now, What You Couldn't Before*

Delivering an advanced encryption solution to companies that need a security component MerlinCryption helps OEM and VAR partners solve challenges and create new opportunities. By bundling breakthrough technology into their solution, partners provide their customers a complete integrated offering with flexible and compliant security.

MerlinCryption business partners benefit from accelerated time to market, reduced development costs, and improved profitability with benchmark encryption security offerings.

MerlinCryption's forward-thinking technology is built for change, easily integrated, adaptable and scalable. It bundles and assimilates easily to existing ecosystems, strengthening the partner's application as it is... and as it evolves in the future.

SUPERIOR SECURITY IS IN THE DETAILS

- All products check program size to detect tampering and alert.
- All encryption/decryption products scrub memory before exiting
- Upon decryption, MerlinCryption performs multiple-stage checking of version, key, and password.
- Automation produces mass-quantity, sub-second file encryption using command line switches with batch mode or shell scripting
- Speed Optimized: Encrypting or decrypting a 1MB file with a 1MB key takes less than 1 second to process on 3.2GHz PC.
- Source code API not sold or available. Only full program execution can be scripted
- Compliant with relevant legal and regulatory requirements
- Runs simultaneously with different and multiple applications
- Supports Windows, Linux, and DOS
- User-Centric Security
 - “Click and Go” GUIs, printable quick guides, and IT handbooks make user self-training an intuitive snap.
 - On-line support, help-desk, video tutorials, and user forum support ongoing enrichment
 - Decryption-Friendly. Recipients do not need to purchase to decrypt files. Free decrypt-only MerlinReader is downloadable from the website.
- Technology is scalable and adaptable for individual, enterprise, and partner environments



MerlinCryption Technology Software

MerlinFusion™ encryption software with FLEX Options

MerlinCryption's file encryption technology features hack-resistant CryptoFile embedded Key-in-a-File technique and an additional layer of password protection.

- Keys scale in size from 2000 bits to 2GB.
- Password capacity up to 65,535 bytes in length

Flexible program modes accommodate contrasting levels of access rights and user-sophistication.

- EZ Option for busy people and general users with little “need to know” access. A built-in mutable key and secret password enables immediate encryption action.
- FLEX Option with user-chosen key and password variables implement fine-tuned role-based security.
 - Users indicate key length within the CryptoFile
 - Users indicate the location of the key within the CryptoFile
 - Users choose between Secret Passwords up to 31 characters and Password-in-a-File with passwords up to 65,535 bytes

Supports role-based security architecture and access rights management
Includes MerlinGen, MerlinFileView, and MerlinShred

MerlinEZ® encryption software for quick and easy security

The same invulnerable security as MerlinFusion™ with EZ option only. A built-in mutable key and secret password enable immediate encryption action. Lightning fast file encryption protection supports ultra busy professionals, public clients, or users with minimal “need to know” access.

MerlinReader® Free decrypt-only

Recipients of MerlinCryption-encrypted data conveniently decrypt and open files with no purchase involved. Works in tandem with Merlin EZ and MerlinFusion's EZ Option to support non-MerlinCryption users, leveraging smooth operation with public clients, vendors, and other role-based access users. The MerlinEZ and MerlinFusion GUIs provide a link to MerlinReader at the end, making decryption seamless for users and their recipients. Conveniently downloads from the website.

Merlin4Chat™ encryption software for instant message, email, and broadcast

Side-channel encryption protects on unsecured IM, P2P, Skype, Facebook, GoToMeeting, webinar servers, email, and in the Cloud. On-the-fly encryption for quickly sending cipher text messages up to 1MB long.

MerlinEye™ encryption software for real-time creating, viewing, & editing activity

Access password lists, PII, and confidential accounts on demand, while blocking hackers, and over-the shoulder viewers. Text is never exposed in a file in unencrypted form.

MerlinGen • MerlinGigaGen • MerlinOneGen file generators

MerlinCryption file generators initiate 4 Billion different files ranging from 10K bytes to 2 GBs in length. Each file generated, has over 100 million++ possible keys or passwords. Custom versions carry an “Exclusivity Guarantee” for its client-unique properties.

MerlinShred Five-pass overwrite and delete feature destroys unencrypted data (or any file) beyond traceability.

MerlinFileView IT tool views the contents of any file in hexadecimal.

MerlinMD5 Free IT tool checks the hash value of data files and programs.

The Obvious Choice

Cyber criminals took in \$388 Billion in 2010, making the business of cybercrime as large as the international illegal drug trade.³ A swift and drastic solution is needed for this global problem.

MerlinCryption technology delivers a new genre of advanced encryption that thwarts crime through innovation and stealth. Easy-to-use software for home and business is available for quick download and immediate use.

Visit www.MerlinCryption.com for encryption products for home and lifestyle, encryption platforms for enterprise and partners, cyber security resources, and information.

Protect Your Privates – Encrypt for Safety!

About MerlinCryption LLC

A software technology company in Austin TX, MerlinCryption LLC develops invincible data security solutions that combine powerfully robust encryption products with surprising affordability and functional ease.

Leading-edge MerlinCryption technology secures data-at-rest and data-in-motion, and pioneers innovative products to protect data-in-use and data-in-change.

The unprecedented encryption protects file, email, instant messaging, password, and broadcast data as it is created, viewed, edited, shared, stored and moved around the Internet and around the world.

¹<http://merlincryption.com/assets/papers/FourthStateOfData20111129.pdf>

²http://www.nymity.com/Free_Privacy_Resources/Previews/ReferencePreview.aspx?guid=8539fba5-9d92-4293-b3ea-d10bf4b52cf0

³<http://technology.inc.com/2011/09/13/cyber-crimes-monetary-cost-equal-to-international-drug-trade/>

DATA-IN-USE • DATA-IN-MOTION • DATA-AT-REST • DATA-IN-CHANGE

MERLINFUSION: Business protection with versatility and client solutions

MERLINEZ: Protection for data file storage and transfer... simply

MERLINEYE: On-screen protection for creating, viewing, and modifying data.

MERLIN4CHAT: Instant messaging, email, and broadcast protection

Unique solutions, or custom versions, for individual specification

MerlinCryption Is Changing The Way The World Protects Data



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