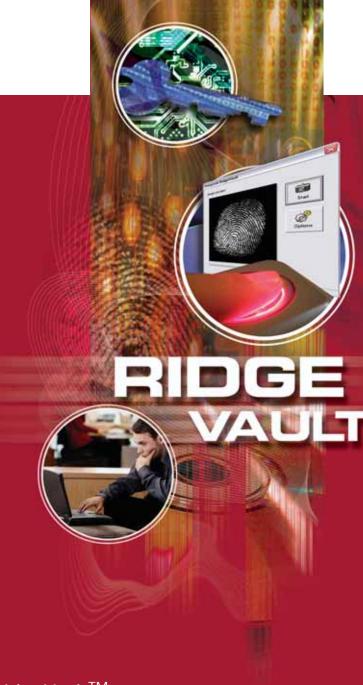


Founded in 1997 by Professor K.Y. Lam, PrivyLink is geared to meet the strong industrial demands for high-assurance delivery channels in secure electronic transactions and information exchange. We have established ourselves as the key innovator of strong security solutions. Our products offer adaptive end-to-end security protection for applications and data exchanged over fixed networks and mobile channels. In addition, we have been engaged by reputable organizations to provide consulting services, security system design and review. Our clients include government agencies, financial institutions and MNCs.





RidgeVault™

Equipped with superb consulting and product development expertise and track records, PrivyLink has once again set a new benchmark in the data security industry with its latest product RidgeVaultTM, an ICT security enabler designed to deliver ultrastrong assurance and non-repudiation capability to e-commerce, enterprise and homeland security applications.



bolstering ICT security through innovative integration of biometric & cryptographic technology

RidgeVault™ Enforces Accountability

RidgeVault™ minimizes business liability and fraud-related financial loss by preventing denials, disputes and unauthorized intrusions. Conventional approaches authenticate a user by what he can provide, such as a PIN, password or private key stored in a smart card. In contrast, RidgeVault™ authenticates a user by who he or she is, or more precisely whether a particular user, signer or an approver is the actual authorized personnel in an enterprise or the rightful owner of a bank account.



Versatile Biometric Vaults

RidgeVault™ is a patent-pending biometric vault generation and identity verification system. Each biometric vault is generated by a complex yet efficient cryptographic process which discretely scrambles the ridge patterns of a reference fingerprint with a secret key. The generated biometric vaults do not disclose any biometric nor private information of the users, thus they can conveniently be stored in servers, computers, smart cards or portable embedded devices such as PDAs and cellular phones.

In the authentication process, a matching or genuine query fingerprint invokes RidgeVault™ to re-generate the corresponding secret key from the stored biometric vault. The secret key is in turn used to encrypt or decrypt application-specific data, files, user credentials or other cryptographic keys. In mission critical applications, the secret key can be used to facilitate high-speed searching and matching operations.

Advanced Applications

RidgeVault™ offers important technical and administrative edges over other security solutions. Please contact us if you are interested in finding out more about our products and how RidgeSign can be used for:

- Creation of secure and computationally efficient checklists that are easy to distribute to border control points.
- Storage of biometric data in unprotected environments such as mobile devices
- Enhancing your public key system with strong non-repudiation capability
- Secure login applications without the need for online key distribution

RidgeVault™ versus Conventional Fingerprint Solutions

Fingerprints are static identity and they cannot be changed or revoked, hence extreme care must be exercised in handling and storing fingerprint data. In contrast, biometric vaults generated from RidgeVault™ are easy to use and safe to store in the variety of fixed and mobile environments. In fact, multiple biometric vaults can be generated from the same reference fingerprint for different applications and services.

RidgeVault[™] is the world-first biometric vault generation system ready for commercial deployment. It can easily be integrated into a wide spectrum of applications, from mass-market to enterprise-grade systems. RidgeVault[™] is a product of our intensive research, and it has been benchmarked and vigorous tested by our customers. In particular, it boasts excellent computational efficiency and accuracy unmatched by conventional solutions:

High level of assurance

- Strong non-repudiation
- Enabler for both asymmetric (e.g. PKI) and symmetric cryptographic systems
- Alternatives to conventional PIN, password, token and smart-card based systems
- Multi-factor authentication systems

Unique biometric vaults

- Light weight and highly secure
- Multiple biometric vaults can be generated for different applications and services
- They can be renewed or updated routinely as required by security policies
- No revelation of any fingerprint features or personal identity
- Designed for high-speed indexing, searching and matching (no decryption process involved)
- They can be used to re-generate secret keys to support application-specific cryptographic operations on data, documents, login ID etc.
- Suitable for servers, computers, ATMs, POS, mobile devices and smart cards

Distortion tolerance

Dynamic compensation for fingerprint plasticity (image distortion)

Diversified Industries / applications

- eGovernment systems
- Electronic polling / balloting
- Online bidding & submission of confidential documents
- Homeland security enforcement applications
- Banking applications (e- & m-banking, ATMs, POS devices)
- Health care sector
- Legal professionals
- Workflow and document management (internal & external)
- Vendor management and procurement
- Securing data and files in individual computers and mobile devices
- Seamless integration with PrivyLink's range of ICT security products & third-party applications and systems

International Standards:

RidgeVault[™] complies with the following standards:

- ISO/IEC 19794-2 Finger Minutiae Data
- ISO/IEC 19794-4 Finger Image Data

