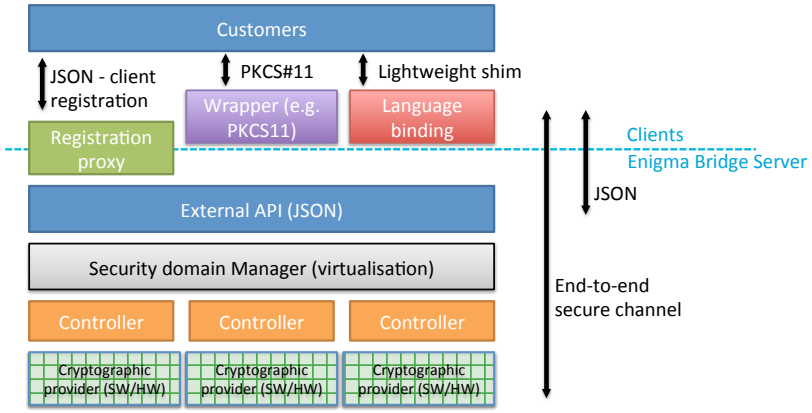
ENIGMA BRIDGE

Enigma Bridge – Encryption Platform

Encryption service designed for private and public cloud

Enigma Bridge provides managed encryption for a variety of use cases. The encryption service is built on top of our game-changing encryption system. This design ensures that your developers will never have to know anything about encryption and the application interface is as simple as it can get.



Enigma Bridge encryption platform is a general-purpose system for data protection and an ideal solution for building applications compliant to the GDPR regulation.

Its functions include tokenization, key management, re-encryption.

Its interface simplifies the use of cryptography for developers and it is also for software, as well as hardware cryptographic providers.

Interface and deployment

The Enigma Bridge service has been designed and implemented as a cloud service, it can be equally deployed on-premise or in private clouds. Its multi-tenancy properties, and audit logging capabilities are suitable for internal auditing, accounting, as well as attack detection.

The native API is a REST web-service. While you can call the API directly, we have developed several language bindings to simplify integration of the Enigma Bridge service into your applications. We currently support JavaScript (client-side and node.js), Python, and Java.

Functions

You can access the Enigma Bridge Platform directly as a web-service or via legacy drivers, e.g., PKCS11 libraries. The set of operations includes:

- **encryption** - simple encrypt, MAC, sign, and so on;
- **re-encryption** - atomic re-encryption, from transport (data in transit) to storage (data at rest) keys;
- **key management** - generate, unwrap, manage keys;
- **user authentication** - create user context, verify passwords and one-time passwords, reset passwords;
- **secure random data generation** - using FIPS140-2 certified generators.

The tokenization functions with re-encryption capabilities are suitable for payment systems' data security, especially when used with hardware cryptographic providers (FIPS140-2 Level 3 validated).

Pricing Model

Integrations with public cloud instances are priced on the pay-as-you-go basis, i.e., the cost is calculated for the number of calls made.

On-premise / private cloud deployments are provided as managed service and clients buy (site) licenses for their use.

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Comparison With Other Cloud Encryption Solutions

The following table shows a brief comparison of the Enigma Bridge service with hardware security modules (HSM), two cloud services (Amazon's CloudHSM, and Microsoft Azure KeyVault), and also Vormetric, an enterprise data encryption solution.

The Enigma Bridge service offers a modern, web-service API, scalability, and charging models. We also believe that many existing applications can benefit from our hardware-secure encryption and so we provide legacy PKCS11 integration tools.

	HSM products	CloudHSM (Amazon)	Azure KeyVault Amazon KMS	Vormetric	Enigma Bridge
Type of product	Crypto provider	Crypto provider	Key management	Service with crypto provider	Service with crypto provider
Form-factor	Appliance	Hosted appliance	Hosted service	Service	Service / Platform as a service
Ownership	Client owns	Rental	Amazon	Licence	Enigma Bridge, or Licence
API	Proprietary / PKCS#11	PKCS#11	Web service	Direct integration	Web service, PKCS#11
Pricing model	Purchase & annual support	Allocation & use/hour	Pay as you go	Licence	Pay as you go / License
Scalability	HW device	HW device	Web service	Virtual platform or HW device	Platform as a service
User separation	none	hardware	logical	logical	hardware
Users per instance	1	1	many	many	many
Capital cost (HW purchase)	yes	yes	no	no	no
Security level	FIPS140-2 Level 3	FIPS140-2 Level 3	FIPS140-2 Level 2	Software, FIPS 140-2 Level 2 or 3	FIPS140-2 Level 3, or software only

For more information please contact sales@enigmabridge.com. You can also visit our website at: https://enigmabridge.com/ or follow us on Twitter @enigmabridge.