Entrust KeyControl Vault for Secrets Management

Securing secrets across both on-premises and cloud-based applications

Overview

Secrets are sensitive pieces of information, such as passwords, API keys, and other credentials, that are used to authenticate and authorize access for both humans and machines, to various services and resources.

Since the advent of the cloud, organizations increasingly rely on containerized technologies for their operations, which in turn has grown the number of secrets exponentially.

With this growth comes an ever-increasing need for security measures to protect secrets from malicious actors. In the wrong hands, compromised secrets can lead to major security events such as data breaches, and many of the recently publicized data breaches have originated from the compromise of machine and human secrets.

KEY FEATURES

- Single pane of glass for the management of secrets across on-premises and cloud applications
- Validated integrations with leading CI/CD toolsets and container platforms
- Programmatic access to secrets using a RESTful API
- Policy-based access control
- Deployed as a virtual appliance
- High-availability (HA) support with active-active cluster
- Supports separation of duties, least privilege, dual control, and multitenancy
- Audit logs and forensic export
- (Optional) Hardware secret protection using FIPS 140-2 certified HSM root of trust
- (Optional) Automated compliance engine for PCI DSS, DISA STIGs, NIST SP 800-130, HIPAA, and other standards

Learn more about KeyControl at entrust.com

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More than 40% of data breaches involve the use of stolen credentials, with external attackers as the largest source of breaches.

Verizon 2022 Data Breach Investigations Report

To mitigate that risk, secrets' management – the art of managing the lifecycle of digital credentials such as passwords, API keys, certificate, tokens, etc. is essential to secure the environment and apply strict access control.

Having a global and consistent strategy for managing secrets across IT assets can significantly reduce cybersecurity risks, and specifically the access to critical information systems.

As organizations are facing an increasing diversity of secrets as well as secrets sprawl, (where organizations no longer have visibility or control over the distribution of secrets) this strategy should include global and central management of all passwords, API keys, and other secrets associated with privileged account applications, tools, containers, or microservices deployed across the environment.

Manual processing fosters poor secrets hygiene, including weak secrets, secret sharing, or lack of secret rotation, further increasing the risk of data breaches.

With Entrust KeyControl Vault for Secrets Management, businesses can easily manage secrets and access to credentials for resources across on-premises and cloud environments.

Using a Federal Information Processing Standards (FIPS) 140-2 certified platform, the solution is a scalable and feature-rich secrets vault that simplifies secrets lifecycle management and automates their lifecycle; including generation, storage, distribution, rotation, and revocation.

BENEFITS

Simplify secrets lifecycle management and protect your secrets with the highest level of assurance

Secrets management has become more complex with the adoption of cloud and container technologies, with serverless and cloud-provided micro-services. Secrets tend to be hard-coded and disseminated in scripts, configuration files, source code, file systems, etc. across the infrastructure.

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In addition to secrets sprawl, Administrators are faced with the complex and costly task of managing disparate secret forms such as SSH keys or short-lived tokens for multiple third-party solutions.

With Entrust KeyControl Vault for Secrets Management, businesses can easily manage encryption secrets at scale. Using FIPS 140-2 certified encryption algorithms, the solution securely catalogs and vaults each secret into a central encrypted, hardened location and simplifies management of secrets by providing a single pane of glass and automating the lifecycle of secrets.

The KeyControl vault enables organizations to understand where secrets are used and to enforce control over those secrets throughout the organization.

Finally, the KeyControl vault provides runtime secret access, in the form of a programmatic access secret directly from the code (script, application, ...) with policy-based and identity-based access control. The secret is protected and provided at runtime, and not at build time.

Facilitates compliance with regulatory requirements using KeyControl Key/ Secret Compliance Manager

Beyond the cyber-threat risk, an increasingly complex regulatory environment brings its own risks to businesses.

Ensuring compliance with legal requirements and standards is sometimes not possible when keys or secrets are not segregated from the encrypted data.

While the KeyControl vault offers a single pane of glass for the management of cryptographic keys and secrets, Entrust KeyControl Compliance Manager extends the vault capabilities by providing an automatic approach to help support compliance with industry regulations such as the Payment Card Industry Data Security Standard (PCI DSS), the Health Insurance Portability and Accountability Act (HIPAA), and the General Data Protection Regulation (GDPR).

KeyControl Compliance Manager makes an ideal complementary tool by making it easier to demonstrate compliance to auditors, not only for secrets vaults but for all kinds of vaults across your organization.

Wherever you operate and whatever the regulation, it can help you achieve and maintain compliance, improving your security and managing your risk.

Entrust KeyControl Vault for Secrets Management

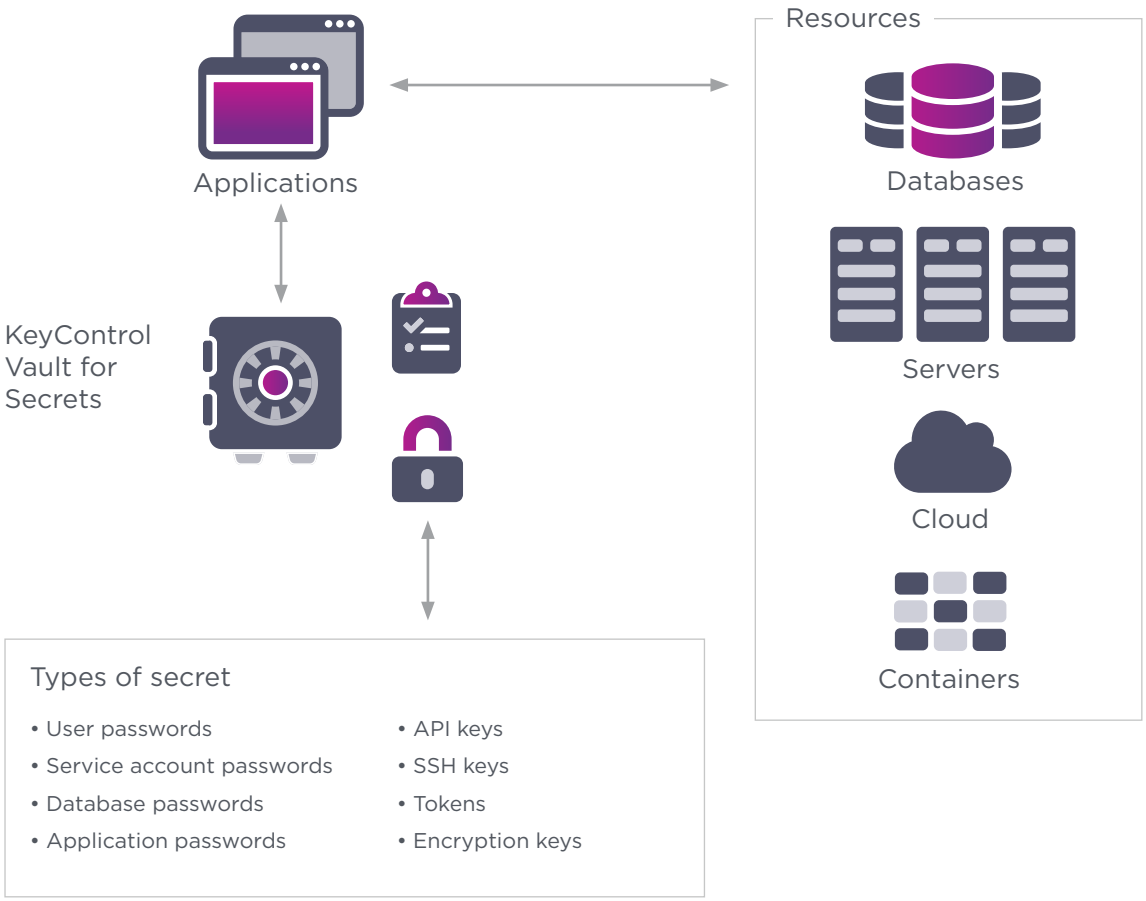
How does it work?

The KeyControl vault enables organizations to securely store and strictly control access to passwords, tokens, certificates, and cryptographic keys for protecting resources such as cloud services, databases, servers, or containers.

Secrets are centrally managed and securely stored across on-premises and cloud infrastructure using a highly available cluster of virtual appliances. The secrets can be accessed using either the vault web user interface, a command line tool, or a RESTful API.

The KeyControl vault offers a centralized service providing secrets management and data encryption services across large estates of applications and engineering teams, while globally managing policies and delivering consistent security.

The KeyControl vault access control mechanism supports different types of identity providers, such as Active Directories, LDAP Directories, and OIDC and SAML V2 identity providers.



KeyControl Vault for Secrets typical architecture

Learn more about KeyControl at entrust.com

Entrust KeyControl Vault for Secrets Management

TECHNICAL SPECIFICATIONS

Cloud Native and DevOps Integrations:

- Tools/Toolchains: Ansible, Jenkins, Datadog
- PaaS/Container Orchestration: Kubernetes, Red Hat OpenShift, VMware Tanzu

Authentication:

- Active Directory, LDAP, OIDC, SAMLv2

Management and Monitoring:

- Centralized management with Web UI and Rest API
- Syslog and Splunk integration

Platform support:

- Private cloud platforms: vSphere, vCloud Air (OVH), VCE, VxRail, Quantum, NetApp, KVM
- Public cloud platforms: AWS, Google Cloud Platform (GCP), Microsoft Azure, IBM Cloud, VMware Cloud (VMC) on AWS
- Marketplace: AWS, Azure and Google Cloud

Certification:

- FIPS 140-2 Level 1 Certified
- FIPS 140-2 Level 3 or eIDAS CC EAL4+ compliance via Entrust nShield HSM on premises or as a service

Deployment media:

- ISO, OVA (Open Virtual Appliance)

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Entrust KeyControl Vault for Secrets Management

Entrust KeyControl Platform

Entrust KeyControl Vault for Secrets Management is part of a suite of products designed to manage key and secret lifecycles at scale for encrypted workloads in virtualized environments across on-premises, multi-cloud, and hybrid deployments.

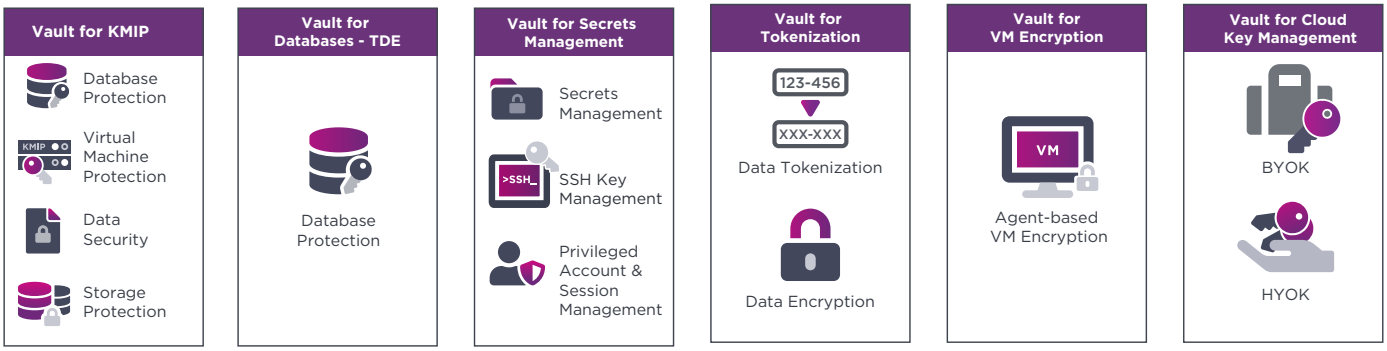
KeyControl

Enterprise Key Lifecycle Management & Compliance Platform

KeyControl Compliance Manager

Global Compliance Dashboard - Policy Enforcement - Granular Key Inventory - Audit/Risk

KEYCONTROL VAULTS & USE CASES



For more details on the KeyControl platform, KeyControl Compliance Manager, and the range of vaults download the Entrust KeyControl Solution Brief here.

Learn more at
entrust.com

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