

BICDROID QDocument Server Edition (QDocSE)

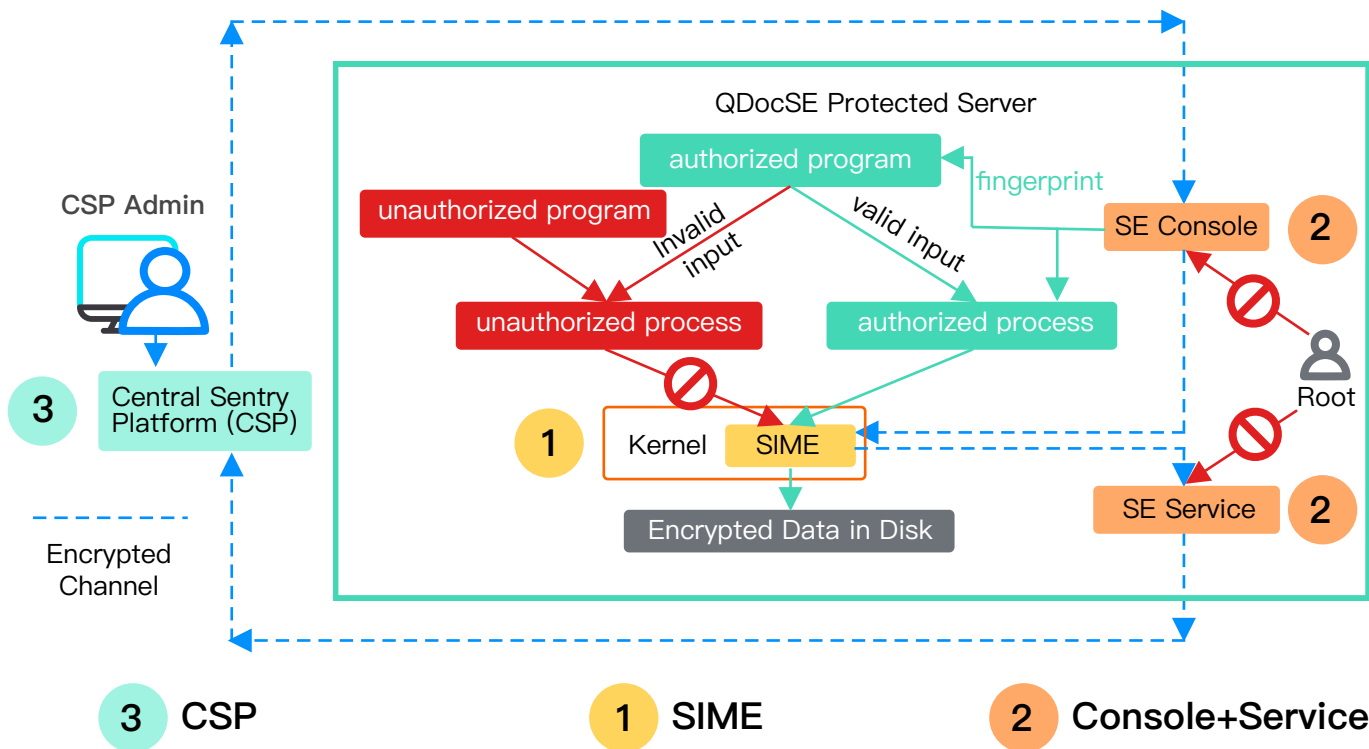
WHAT IS QDocSE?

QDocSE is the most **innovative, secure, and efficient** solution on the market for **server data protection**

With QDocSE, server data is **capable of protecting itself** against any known and **unknown** attacks including **root attacks**

With QDocSE, **data self-protection** can be enabled in any **cluster** environment with ease while being **monitored** with fine granularity

HOW DOES QDocSE WORK?



3 CSP

1 SIME

2 Console+Service

Connected to SE Console & Service installed on servers in a cluster, CSP is the one-stop web portal to **manage, control, monitor, analyze,** and **visualize** data security and health of the server cluster. Empowered by strong authentication and advanced multi-level authorization, CSP makes overwhelming data security management operations on server clusters simple and swift.

Smart Integration of Mandatory Access Control and Encryption (SIME) inside OS kernels is a key module to enable **data self-protection** against any attack by allowing only processes spawned from authorized programs with valid input to access encrypted data. With mandatory access control (MAC) and filesystem encryption coupled into a single unit, there is no data breach even when MAC is hacked. In addition, thanks to **Quantum Safe Key Management Service (QSKMS)** embedded inside SIME, each protected file is encrypted by a unique encryption key with no key management headache.

Taking inputs from CSP, SE Console configures data security policy, which is in turned enforced by SIME, while SE Service ingests logs of authorized accesses and blocked access attempts towards protected files from SIME, monitors server health, and then sends observed information to CSP for analysis, visualization, and alerting. Both SE Console & Service are protected by encryption **against root attacks.**

WHAT MAKES QDocSE UNIQUE? <<



Fully secure

With QDocSE, server data is immune to any known and unknown attacks, including system loopholes and malicious insiders with root privilege.



Easy to configure

Once data is protected, QDocSE can automatically learn which programs should be authorized, minimizing configuration complexity.



Highly efficient

QDocSE has little impact on server computation efficiency, e.g. when QDocSE is used to protect database server, the impact on the database server throughput is less than 5%.



Widely applicable

QDocSE can protect various services on various platforms, including relational databases, Hadoop, Tomcat, etc. on clouds and in containers.

ADVANTAGES OF USING QDocSE <<

1 More secure



QDocSE fully secures corporate data on servers. It protects against:

- data leaks and breaches;
- malicious insiders with root privilege;
- ransomware attacks;
- other known and unknown attacks; and
- loopholes and backdoors of third party libraries and operating systems.

2 More efficient



QDocSE, equipped with highly efficient ciphers, is totally transparent to legit service processes, and therefore has little impact on server computation efficiency:

- load and stress testing shows that the throughput of QDocSE-protected database servers, compared to that of unprotected database servers, only degrades by less than 5%.

3 More informative



CSP collects, processes and visualizes fine-grained data security and system information of QDocSE-protected servers in real-time, including:

- protected data access request information such as path of requesting programs, request time and result (granted or rejected); and
- CPU/memory/disk consumption of QDocSE-protected servers.

For more information on BicDroid QDocSE, check out <https://bicdroid.com/qdocument-se>

Address: Suite 104, 609 Kumpf Drive, Waterloo, ON, N2V 1K8

Website: <https://bicdroid.com>

Phone: 1-519-573-0096