



SCONE CONFIDENTIAL COMPUTE

CONTACT

SCONTAIN UG
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<https://scontain.com/>



WHO WE ARE // OBJECTIVES

Scontain UG is a **private independent German SME** in the computer security domain that focuses on **simplifying building confidential applications**.

This means that it provides solutions to protect your application including code and data not only at rest and during transmission but also during computation. Scontain has developed these solutions for its customers using its confidential computing software platform called **SCONE**.

Despite being a deep-tech startup, Scontain has been profitable from the first year of operations and **quadrupled its revenue** from the 2018 to 2019.



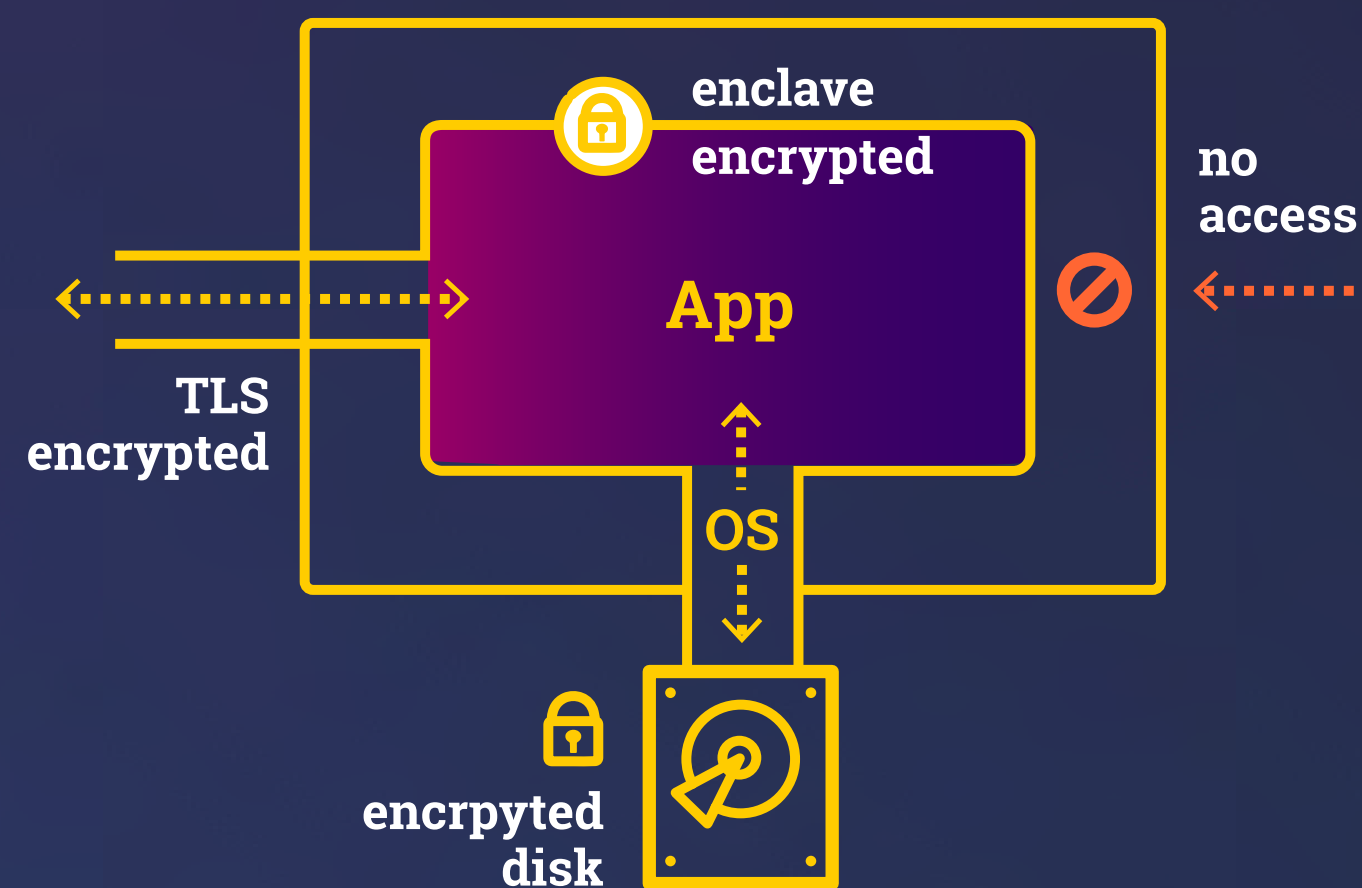
SCONE encrypts data **at rest**,



during transmission as well as



in use without requiring to change the applications.



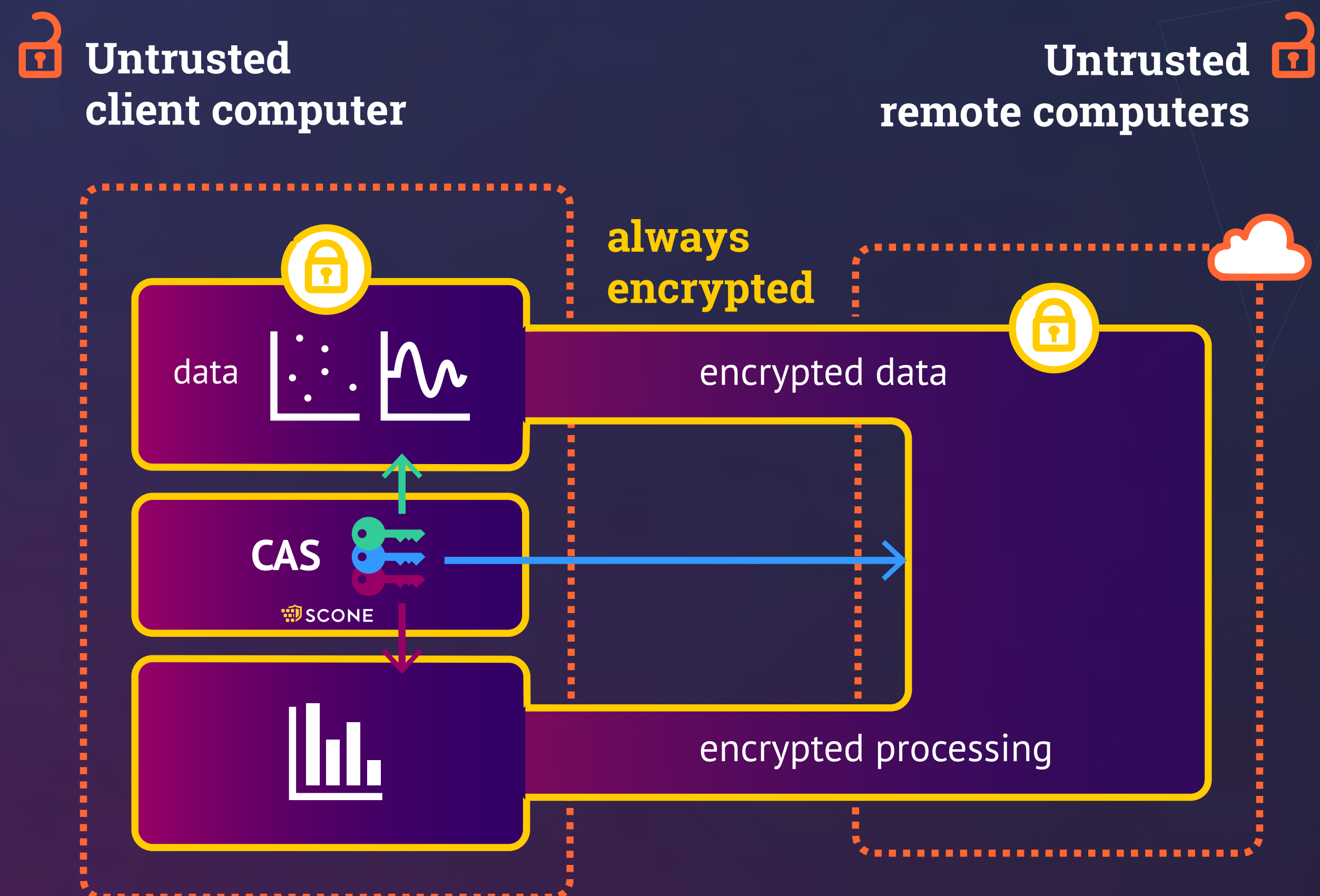
We are based in Dresden, Germany

The objective of the SCONE platform is to protect **data, code and secrets** against powerful adversaries like insiders or intruders which gained root access.



This can be used to **protect personally identifiable information (PII)** such that virtually all privacy legislation can be satisfied: data is always encrypted, i.e., in use, at rest and during transmission and the **encryption keys are always protected**.

Compared to other platforms, the attestation framework of SCONE is **extensible** in the sense that it can be integrated with external attestors (i.e., entities that can attest the integrity of the code or the platform) as well as the integration with external verifiers like an external HSM. The SCONE attestation framework requires interaction with Intel only during initial deployment to ensure that the CPUs are genuine Intel CPUs with up-to-date microcode.



SCONE PLATFORM

SCONE supports the development and operations of modern **confidential cloud-native applications** and **multi-party confidential computing**.



It enables service providers and software developers to transform their applications into confidential applications running inside **TEE hardware enclaves** (e.g., Intel SGX) **without requiring source code changes**.

The platform supports **all common programming languages** (e.g., C/C++, Rust, Python, Java/Scala, Javascript, etc.) and has excellent performance compared to other competitor platforms.

SCONE has improved security since **it attests** not only the program code but also the **encrypted filesystem** as well as **the platform**.

This enables the support of interpreted languages like Python. In turn, it enables confidential machine learning as well as classification supporting **all modern machine learning frameworks** (e.g., Tensorflow, PyTorch and OpenVino).



APPLICATION DOMAINS

SCONE has been deployed in production for various sectors of data analytics.



In the **healthcare domain**, Scontain has been working on the German Electronic Patient Record service (EPA), the secure processing and sharing of confidential records as well as confidential federated machine learning.



In the **blockchain domain**, Scontain has established a partnership with iExec to enable secure execution for blockchain-based applications.



In the **AI domain**, Scontain has provided a secure **multi-party computing solution** for a customer company in Japan that offers an online service for automatic conversion of Japanese handwritten documents into digital data via machine learning.

The solution defined the security policies to protect the intellectual property of multiple stakeholders in the online service. It allows the customers of the service to acquire inference results without revealing the input documents to the service provider and cloud providers. Meanwhile it also protects both the inference engine (implemented in Python) and machine learning models of the company.



FIND MORE INFORMATION

About **SCONTAIN**: <https://scontain.com>

About **SCONE**: <https://sconedocs.github.io>

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