

AISWare Privacy-Enhancing Computation PEC

AISWare Privacy-Enhancing Computation PEC (hereinafter as AISWare PEC) integrates secure multi-party computation (MPC), Federated Learning(FL), trusted execution environment (TEE), blockchain and Cryptography and other digital technologies, and provides out-of-box scenario-based trusted data circulation services with software and hardware integration.

Overview



Product Orientation

Solve the pain points of data protection and circulation to improve delivery efficiency and develop trusted circulation scenarios; provide service development and operation capabilities of enterprise-level FL model in low-threshold, visualized, secured and trusted for quick implementation and application.



Target Customers

Telcos, finance, government, manufacture and retails.

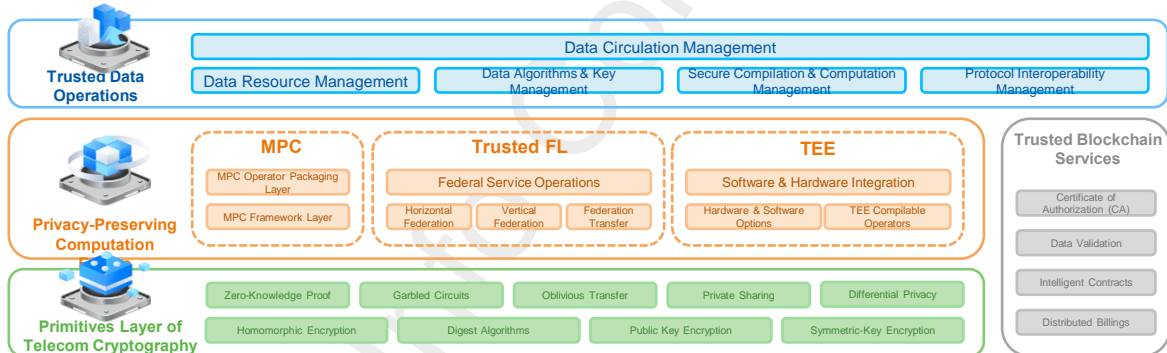


Product Overview

An integrated hardware and software device converging several privacy-preserving technologies and tools such as MPC, FL, TEE and blockchains, which can activate data element values.

Architecture

AISWare PEC can be applied in trusted data circulation scenarios for digital transformation and data value release. Relying on MPC,FL, blockchain and other technologies, it supports the construction of data circulation applications for various industries, such as telecoms, finance, government, transportation, and energy, and promotes the ecosystem formation of data circulation.



As a privacy-preserving computation all-in-one machine with hardware and software integration, AISWare PEC provides out-of-box scenario-based services; on the basis of the platform, it converges a variety of privacy-preserving technologies such as TEE and cryptographic primitive, and realizes highly efficient privacy-preserving data convergence and analysis through low-code technology for quick implementation in application scenarios.



Mini



Standard



Jumbo

Basic Configurations	Mini	Standard	Jumbo
16 Cores / 16G / 4T	24 Cores/48G(Extensible)/8T(Extensible)	32Cores/96G(Extensible)/16T(Extensible)	
NICs	2 * 1000Mbps	2 * 1000Mbps	2 * 10Gbps
PPUs	N/A	DCU(Optional)/GPU(Optional)/FPGA(Optional)	DCU(Standard)/GPU(Optional)/FPGA(Optional)
Sizes	2U Standard Rack	2U Standard Rack	2U Standard Rack



Unique Advantages

Intelligent DSSN One-Click Access

The first trusted terminal in the industry with one-click access to the operator's DSSN, which quickly connects to the massive data ecosystems and realizes trusted and compliant data delivery.

Open Interconnection Full-Stack Standard

The Platform is pre-built with the first interconnection API standard system "1+X" Architecture in the industry, which supports the visualization and plug-in configuration of heterogeneous operators.

Scene Templates Out-of-Box

Pre-built multi-domain industry model room services with enterprise risk control, precise marketing, customer churn and other applications to provide one-click deployment and out-of-box

Hardware & Software Integration for Acceleration

The hardware and software integration and collaborative computation to significantly improve the model training and cryptographic computation speed performance, with algorithm performance increased by 5-10 times.

Heterogeneous Operators Collaborative Computation

Multiple heterogeneous operators collaborate for more complex privacy-preserving computation tasks and computational efficiency and security enhancement.

All-in-One Delivery

Enable FL, MPC, TEE, and other privacy-preserving computation capabilities for trusted data circulation

Full-Process Security Guarantee

Provide multi-dimensional security guarantees for telecom, data, process, and algorithm; adopt frameworks and encryption algorithms under international privacy-preserving computation requirements.

Industry-Specific Technical Solutions

Integrate a variety of industry-specific technologies, especially in key industries such as logistics, finance, and government affairs, to strengthen the accuracy and effectiveness of industrial applications.

Application Scenarios

Finance



- Intelligent Credit Risk Control
- Precise Marketing for Customer Acquisition
- Existing Customer Activation

Government



- Population Mobility Analysis
- City Surveillance
- Anti-fraud

Education



- School & Enterprise Data Analysis
- Academic Data Modeling
- Capability Analysis

Medical



- Intelligent Data Center
- Precise Marketing
- Comprehensive Pathology Analysis

Internet



- Precise Enterprise Marketing
- Precise Advertising
- Targeted Product Relogin

Manufacture



- Digital Operation of Automobile Enterprises
- Intelligent Factory Marketing
- Digital Material Control

Certifications & Awards



A number of "Trusted Privacy-Preserving Computation Assessments" by the CAICT.



Lead the TMF Data Collaboration Working Group to promote the standard system establishment.



AsialInfo FL technology has been adopted by the international 3GPP standard.



Selected in Forrester's Typical Use Cases; Selected for Gartner Researches.

Use Cases



MPC project for an operator



A Provincial Data Exchange Platform



Precise MKTG for a financial institution



Repeat/exchange purchase scenario in an automobile enterprise

Effectively integrate the cross-industry data advantages of operators and automobile enterprises, and continuously conduct real-time model reasoning and prediction on the intention degree and automobile choice of customers in repeat/exchange purchase; based on the reasoning results of real samples, the model shows better prediction capability and operation capability.

30%

Voucher Collection Rate Increase

56%

Store Visit Rate Increase

68%

Percentage of Valid Leads Increase

20%

Marketing Labor Savings

10+

Industries Covered

1 Billion+

Training Samples

1,000+

Feature Dimensions