EIS-S230

Data Service Server for Private Cloud Solution

Features

- Integrated hardware plus software for back-end data service and light private cloud
- Pre-configured system: Intel Xeon, Ubuntu OS with 32GB RAM/ 512GB mSATA SSD
- Open and Standard structure: kubernetes Built-in, Multiple DB Connections, On-demand Microservices
- Integrated IoT Software: Private Cloud Deployment, Platform Management, Application Integration
- Application integration: WISE-PaaS/DeviceOn, Grafana, Prometheus, Kubeapps, Kubernetes Dashboard
- Sustainable Management: Condition Monitor, Load Balance, Self-Healing
- WISE-PaaS/DeviceOn inside for IoT Device Operation Management

Introduction

For accelerating IoT application landing, Advantech provide Data Service Server EIS-S230 for our customer to build a stable and reliable back-end data service or light private cloud . EIS-S230 is a all-in-one solution for user.It builded in Intel Xeon or Core i7 CPU to offer extreme computing power for data service. Moreover, EIS-S230 is integrated Kubernates to support micro-service, and build-in complete back-end software components, includes RabbitMQ for IoT Hub, mongoDB and PostgreSQL for database, Grafana for data visualization and Prometheus for Back-end management. EIS-S230 also provide dynamically scale out function, user can extend the resources if necessary.It help customer create IoT applications more easily and flexibly. Speed up the time to market.

Software Stack

Platform Management

Database Management

- A powerful, open source object-relational database system.
- MongoDB is a document database, which means it stores data in JSON-like documents.

Backend Management

- Deployment, scaling, and management of containerized applications.
- Ceph stores data as objects within logical storage pools. The algorithm enables the Ceph Storage Cluster to scale, rebalance, and recover dynamically.

Message Broker

- Lightweight and easy to deploy on premises and in the cloud. It supports multiple messaging protocols

Operation Management

WISE-PaaS/ DeviceOn

Device Management

- Automatic device registration
- One-key to dashboard
- Device security

Monitoring & Control

- Real-time operations
- Power on/off
- Remote control

Update Management

- Batch provisioning
- Firmware updates
- Software updates

Applications Development

Data Visualization

- Grafana allows you to query, visualize, alert on and understand your metrics.
- Prometheus is an open-source software application used for event monitoring and alerting.

Applications Management

- Web-based UI for deploying and managing applications in Kubernetes clusters.
- Stateless, highly scalable server side application that stores and lets you distribute Docker images.
- A Chart Repository server written in Go. It provides an API for uploading charts.

Machine Learning

- Making deployments of machine learning (ML) workflows on Kubernetes Device Management

All product specifications are subject to change without notice.

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Server Function List

Manage & Monitor	Comprehensive management & monitoring Web console
High Availability	Supports highly available deployment
Scalability	Horizontal/Vertical scaling via clustering with server architecture and kubernetes' features
Lightweight and Easy to Deploy	Microservices architecture to deploy and run applications easily
Role-Based Access Control	Fine-grained authorization and authentication
Load Balancing	Balancing workload and network traffic
Health Check & Self-Heal	Check health status of services and heal them in need

**Support depends on device type, OS and account permission.

System Specifications

Model Name	**EIS-S230**
Processor	Intel® Xeon® E3-1275 V6 / 6th Gen. Core™ i7-6700 (Optional)
Storage	512GB mSATA SSD (OS) / Data storage (Optional)
RAM	32GB DDR4 ECC 2400MHz SO-DIMM
OS	Ubuntu 16.04
Others	PCIE x 2, TPM 2.0
Display	HDMI x 1, VGA x 1
I/O	USB 3.0 x 8, GBE LAN x 4, Serial port x 4
Power Input	9-36V DC-in (AT/ATX mode)
Dimension	156.5 x 205 x 230 mm (6.16" x 8.07" x 9.06")
Environment Temperature	0 ~ 40 °C

Ordering Information

Part Number	CPU	Memory	Storage	OS	Display	GbE	USB 3.0	Serial	Audio	Power Input	Expansion	Operating Temperature*
EIS-S230-U20S501	Intel® Xeon® E3-1275 V6	32GB	512GB SSD	Ubuntu	1 x VGA 1 x HDMI	4	8	4	LINE out	9-36V	2 x PCIE	0 ~ 40° C

* If industrial grade memory and SSD selected.

Packing List

Item	Description
1	EIS-S230
2	Data Service Server software packages
3	AC to DC power adapter, DC 24V 220W
4	Accessory Package

Optional Items

Part Number	Description
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
1700019146	3-pin power cord (CCC)
96ND1TB-ST-SG5KA	Seagate ST1000VT001 1TB HDD
96ND5TB-ST-SG5KG	Seagate ST5000LM000 5TB HDD
SQF-S25V4-1T-SBC	SQF 2.5" SSD 1TB SSD

* MUST select two pieces of HDD/SSD as data storage.