



工业互联网产业联盟
Alliance of Industrial Internet

工业数据采集产业研究报告

工业互联网产业联盟

2018年7月



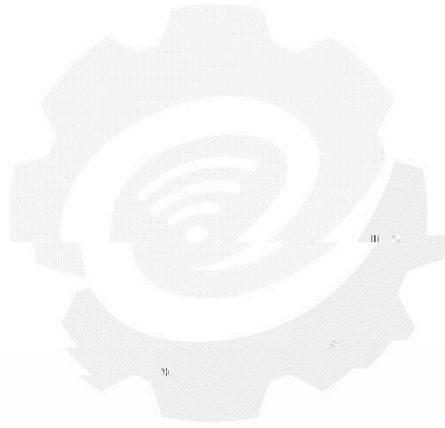
工业互联网产业联盟

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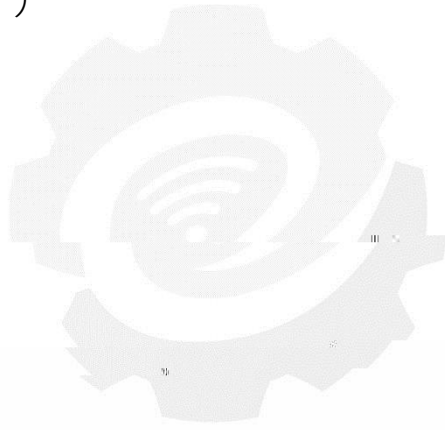
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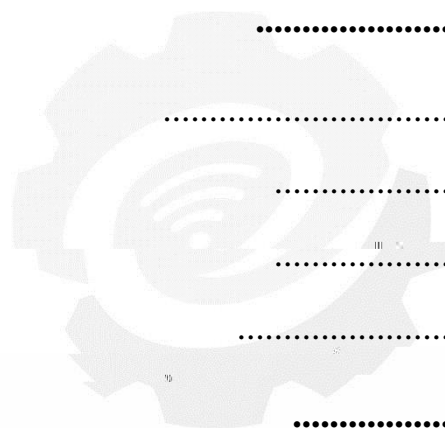
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MES ERP

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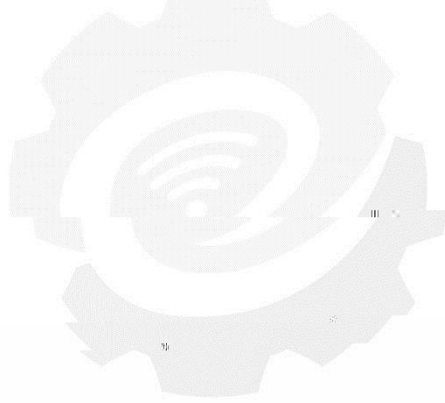


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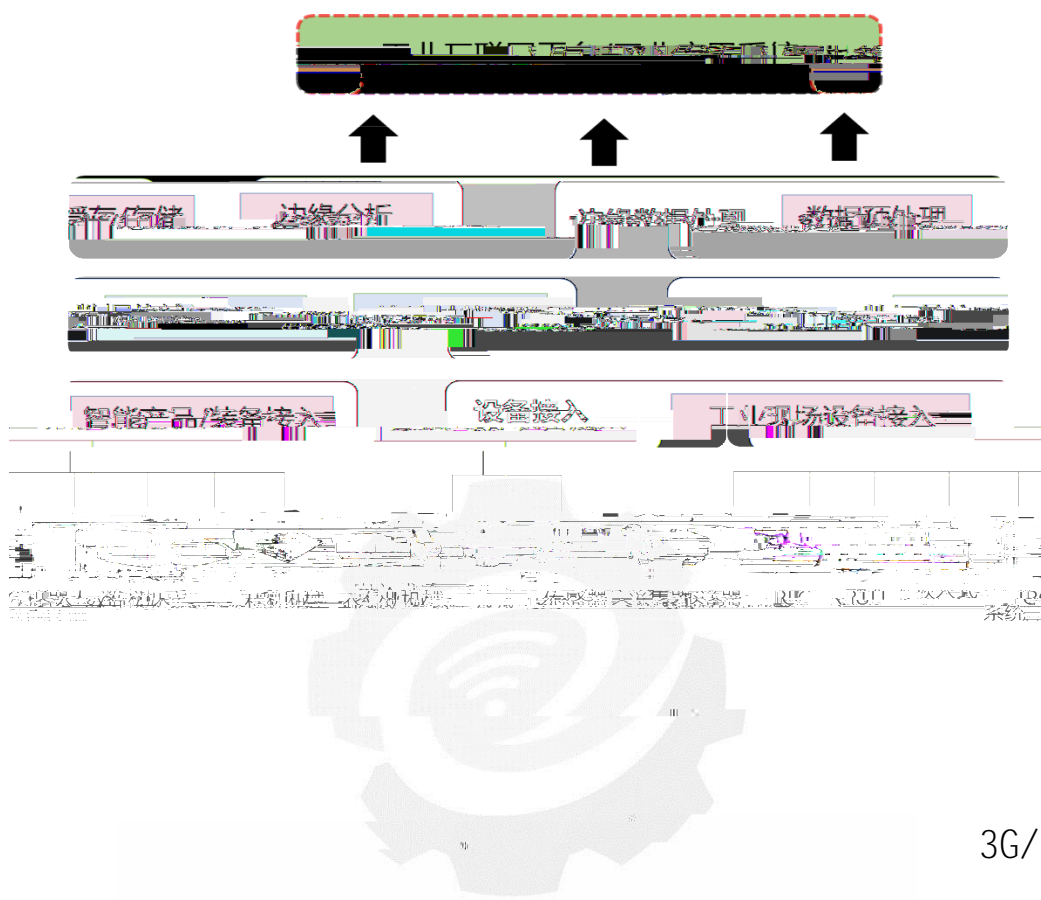
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3G/4G NB



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3G/4G

NB-IoT

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Modbus CAN Profi net

HTTP MQTT

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TSN

SDN NFV WLAN NB-IoT 5G

2.



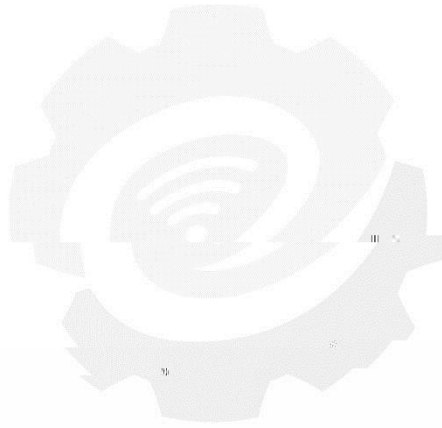
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Profibus Modbus

CAN LonWorks HART Profinet EthernetIP Modbus/TCP

EtherCAT

TSN



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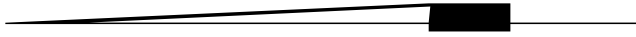
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2 RTU/PLC/DCS/IPC/

3 / /

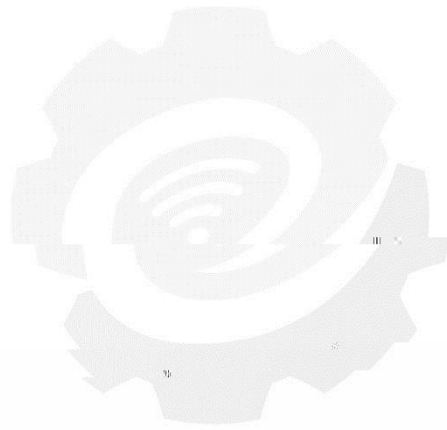
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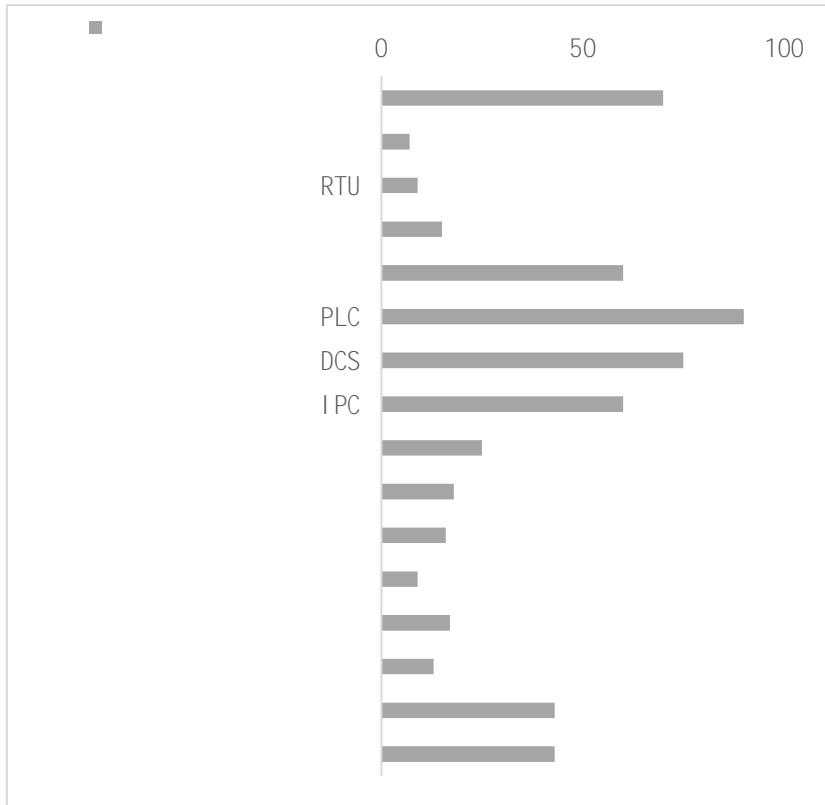


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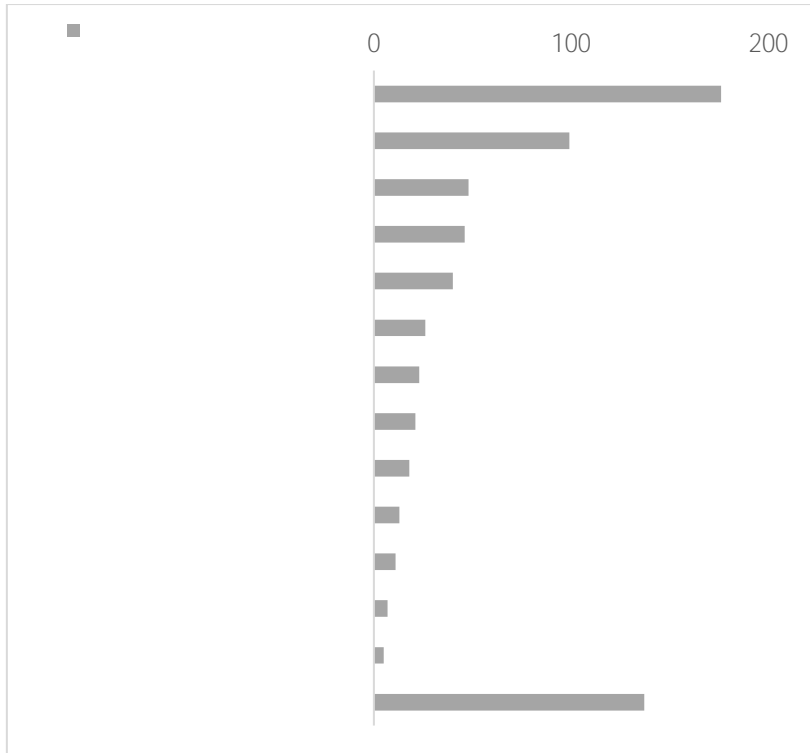
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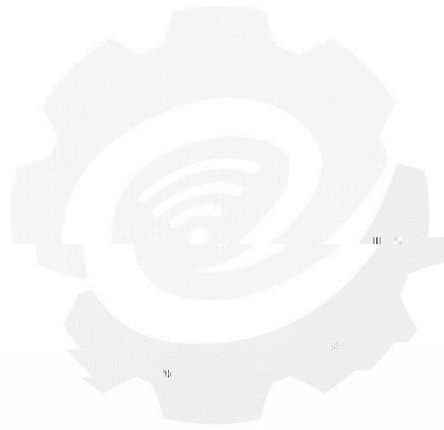
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Profibus Modbus CAN

LonWorks HART Profinet EthernetIP



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TSN NB-IoT 4G/5G

TSN

RFID Zigbee

WiFi

AGV

WIA-PA/FA

WirelessHART ISA100.11a

4G/5G

NB-IoT

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Profibus CAN

LonWorks HART Modbus

OLT

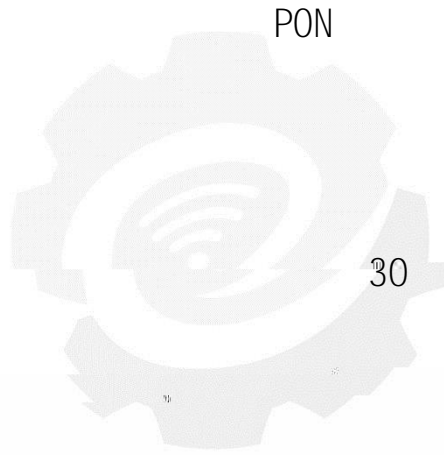
PON

ONU

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4. TSN

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IEEE

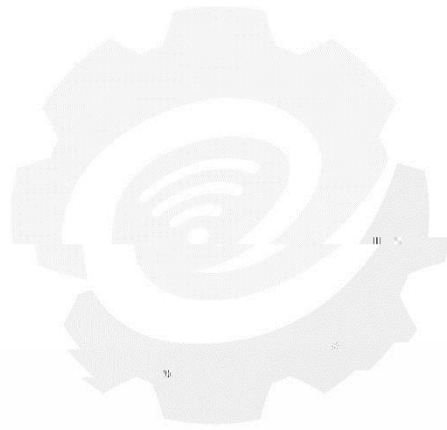
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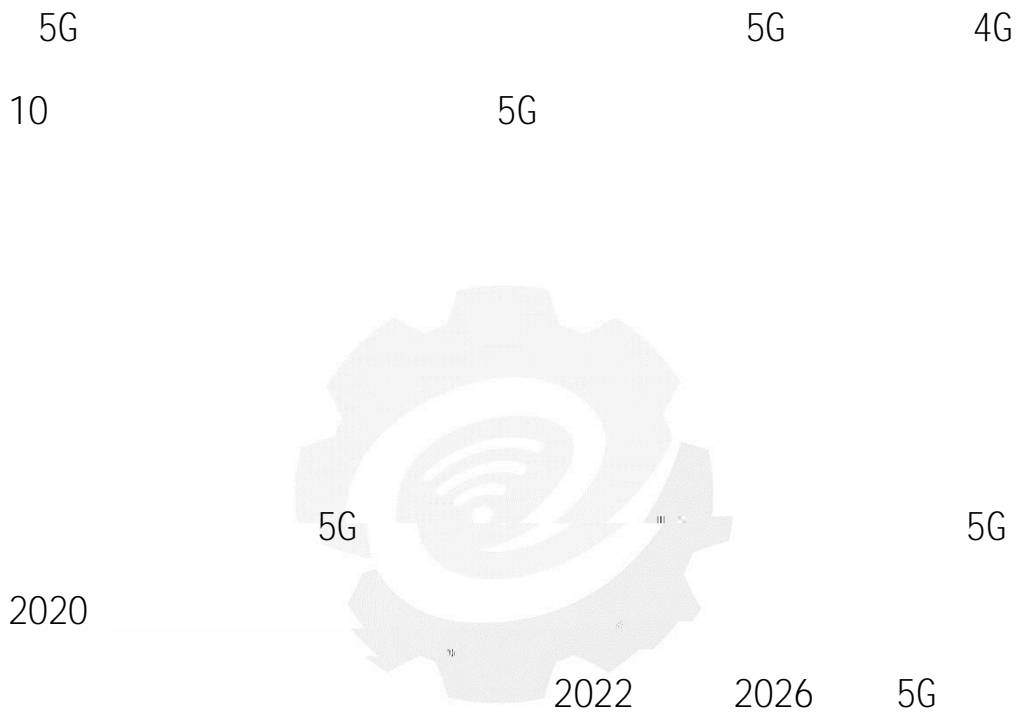
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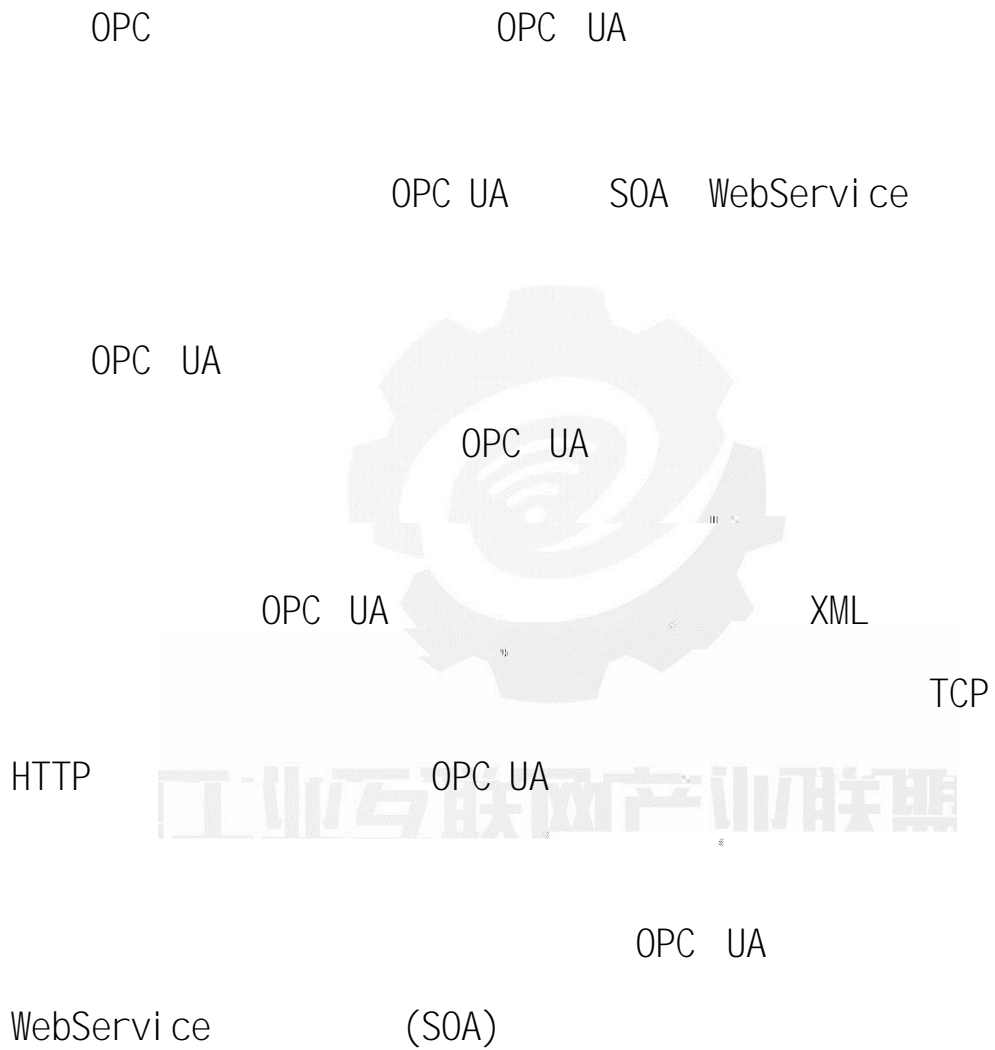
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Wi Fi Zigbee WirelessHART



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OPC UA

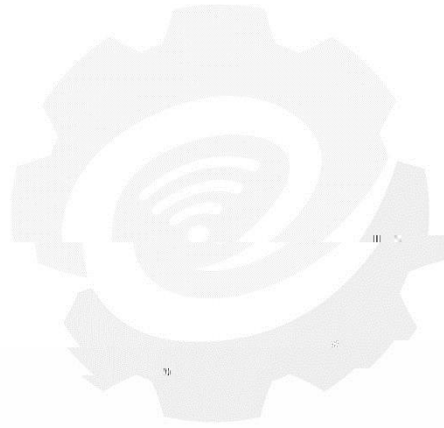
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RFID

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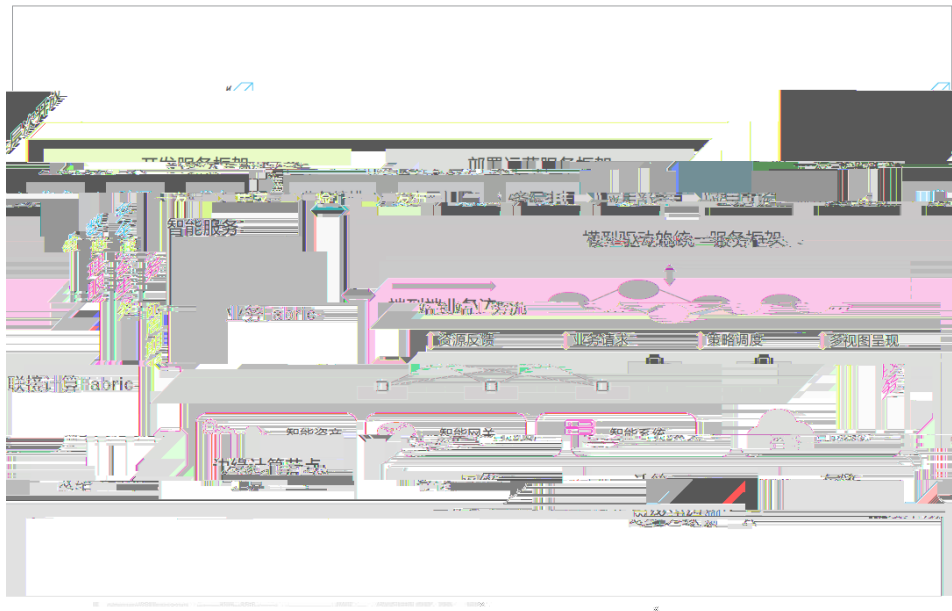
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Fabric

CCF (Connectivity and Computing Fabric)

OICT

ECN(Edge Computing Node)



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Artificial Intelligence AI



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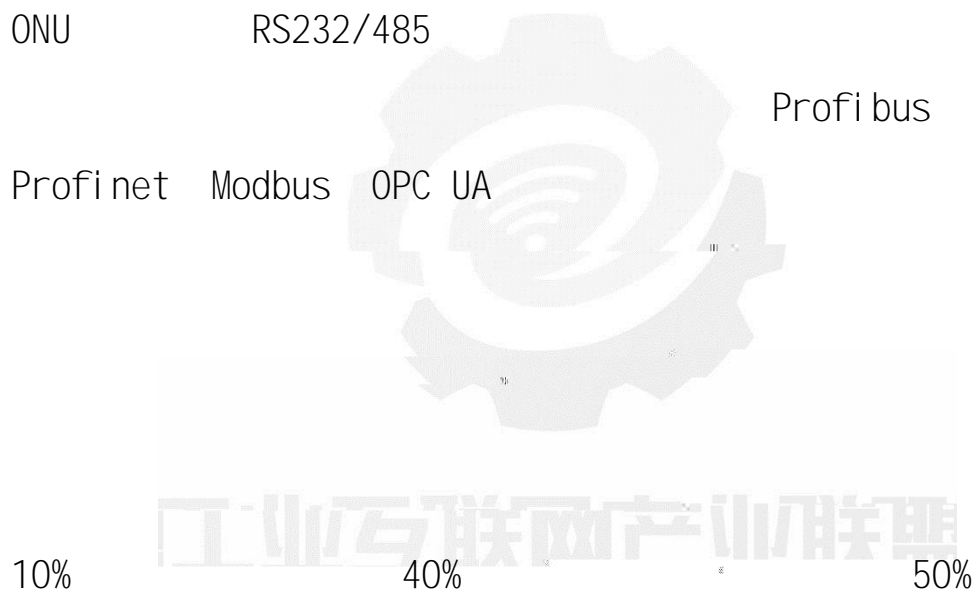


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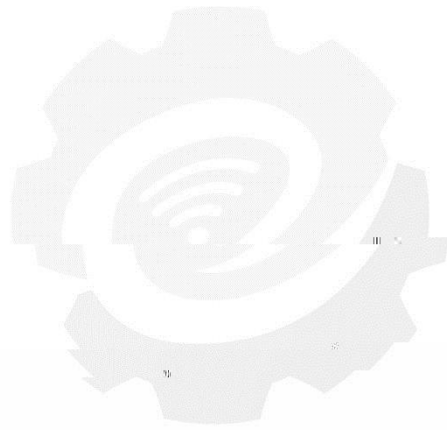


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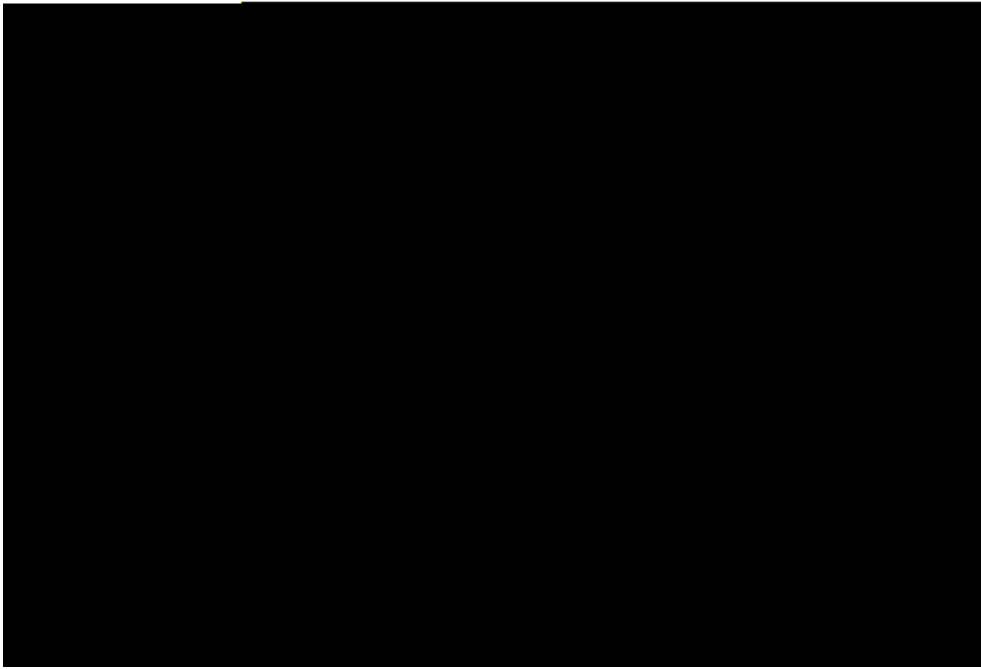


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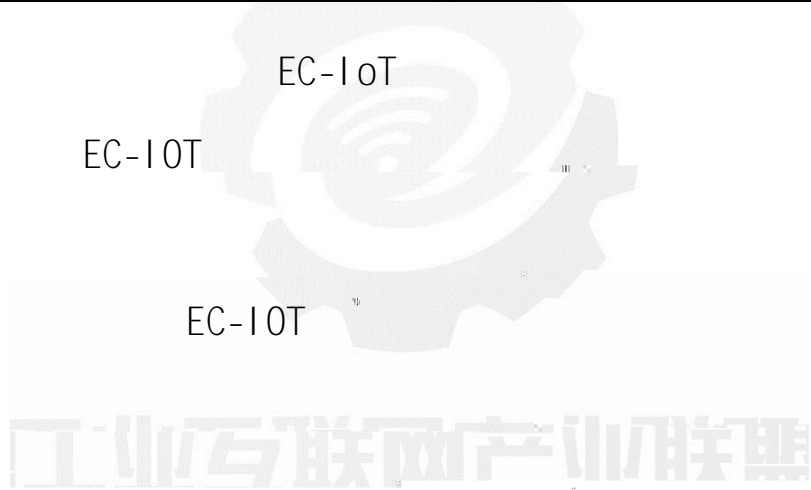
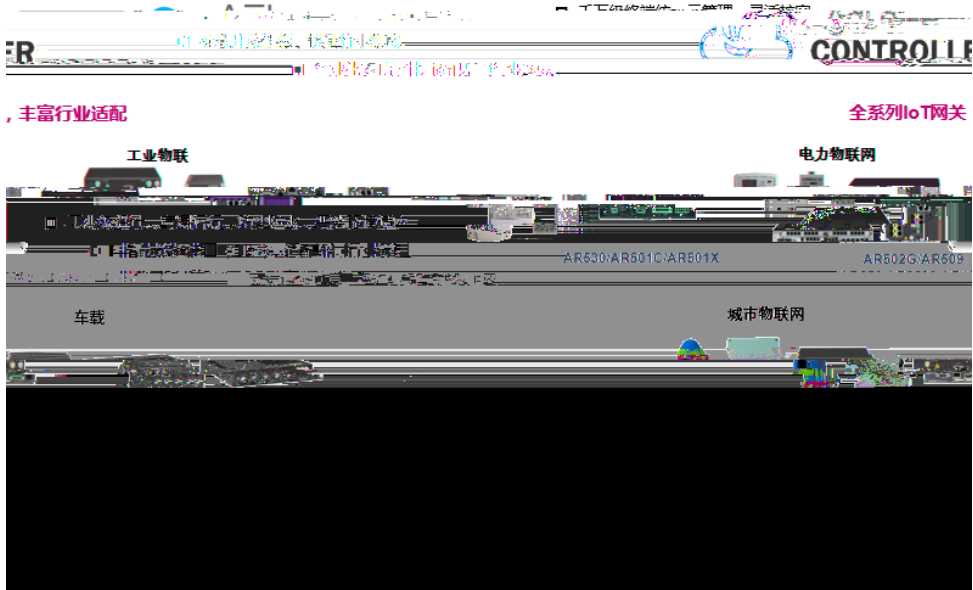


AR

API /eSDK

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EC-IoT 产品全家福



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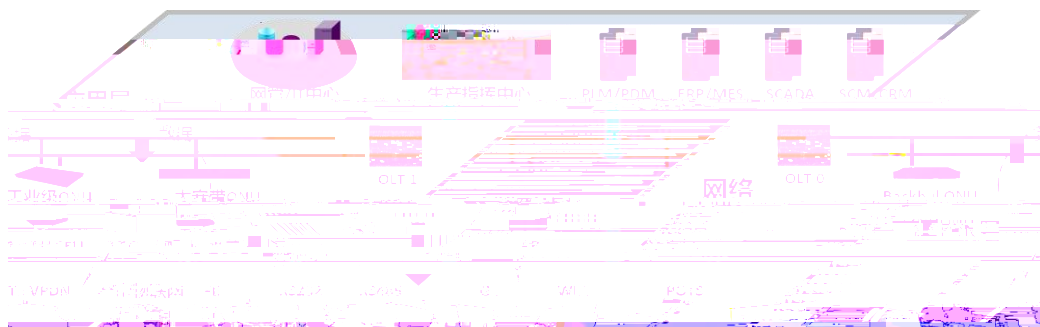
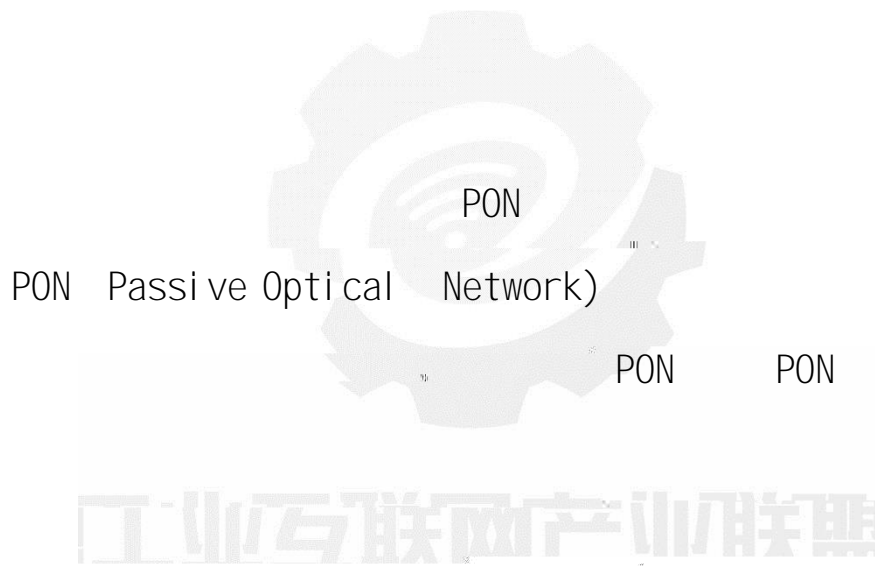
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2G/3G/4G/5G

IMS

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PON

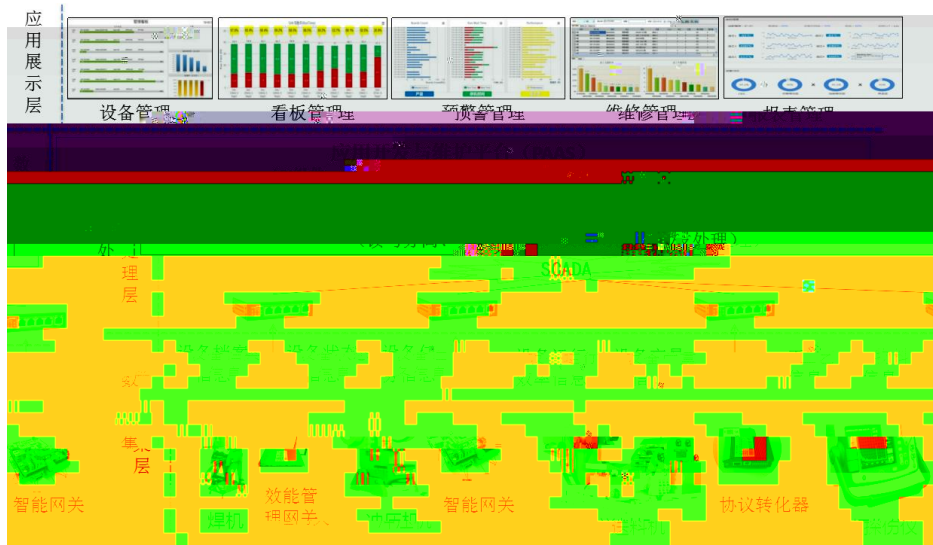
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MES



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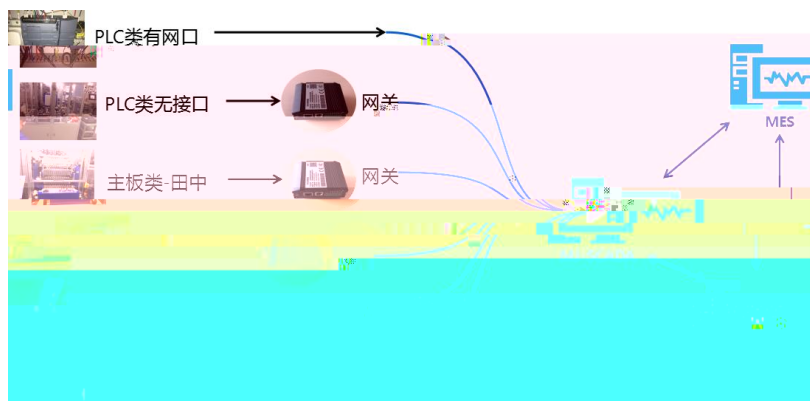
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SCADA

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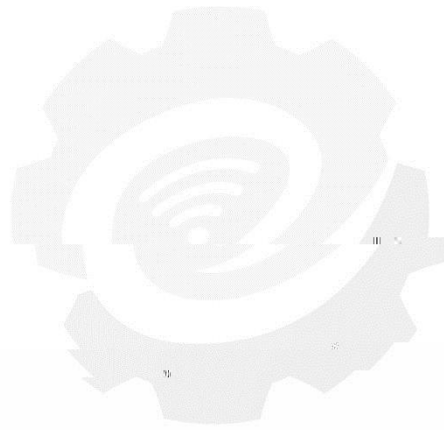


Modbus RTU MQTT MC Hostlink Modbus TCP
PPI Profinet 485BD

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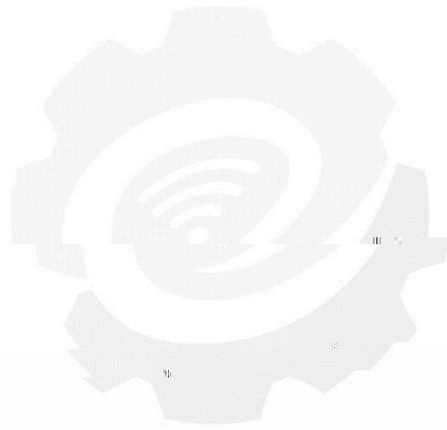


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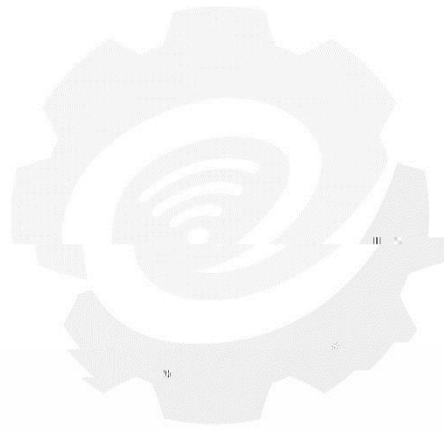


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Hi aCloud/Hi aCube/Hi aEdge - - "

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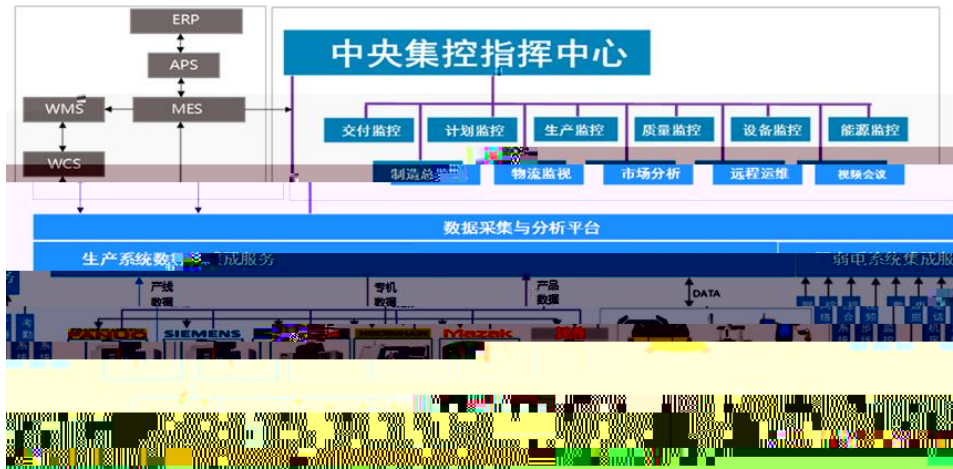


Hi aCube

Hi aCube

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2.



Hi aCube

Profi net Profi bus-DP Modbus

TCP/RTU SNMP OPC/OPC UA RESTful

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Hi aCube

MES WMS ERP

OPC UA RESTful

Hi aCube

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Honeywell Niagara Framework



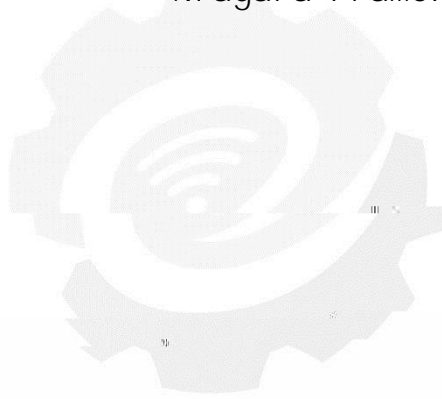
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Niagara Framework

EMS

NiagaraFramework



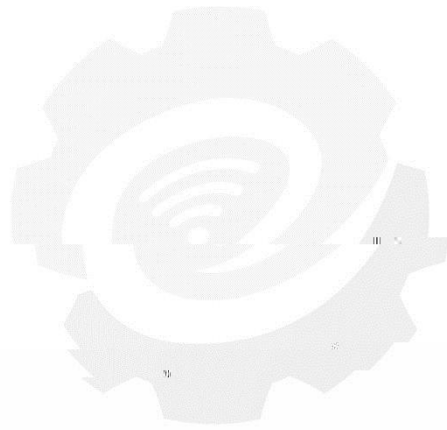
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modbus-RTU modbus-TCP

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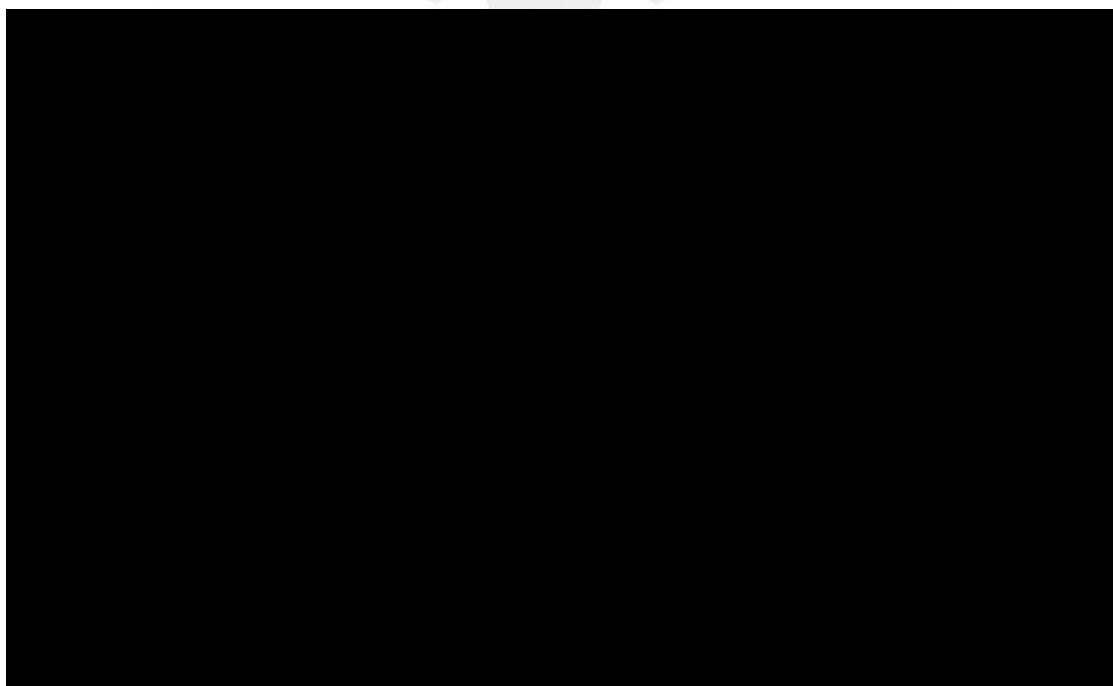
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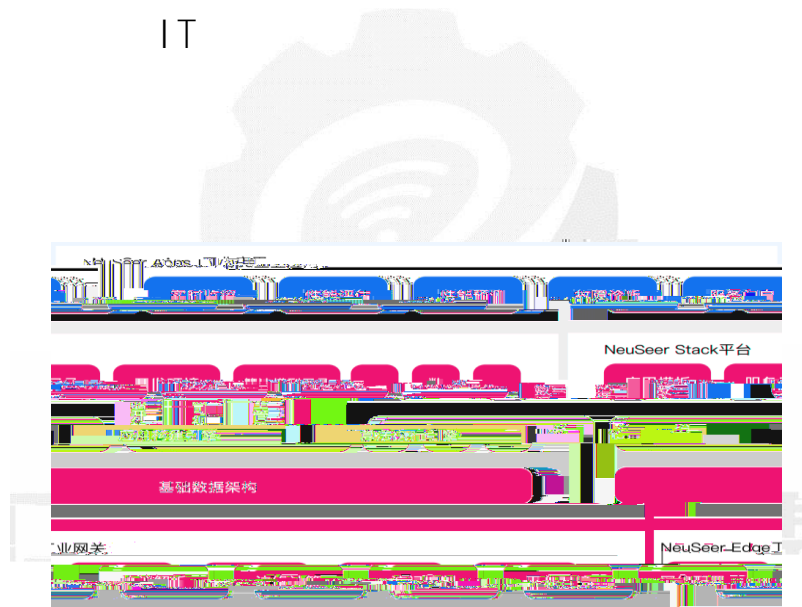


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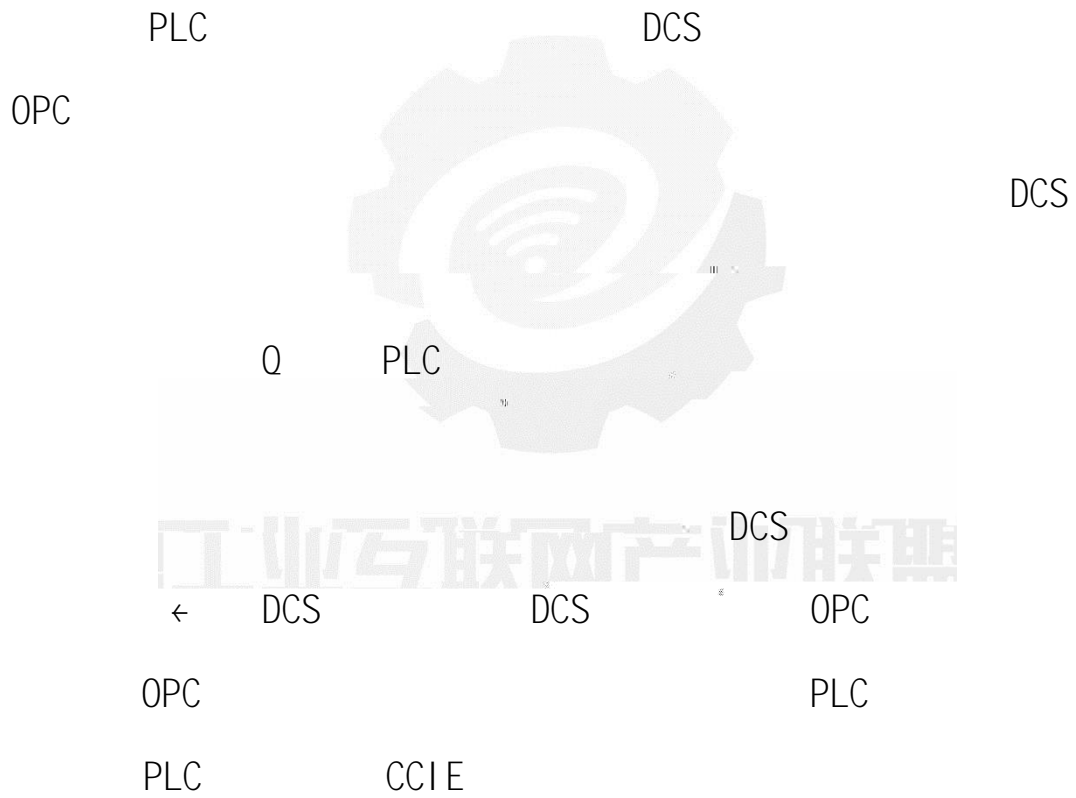
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PLC DCS

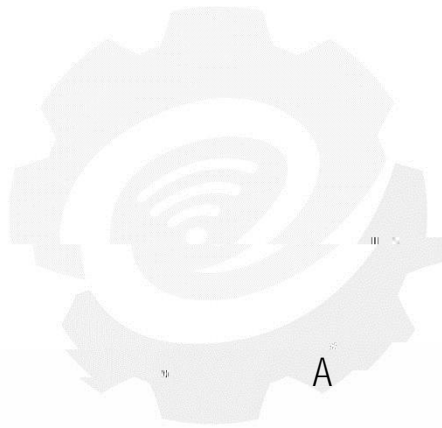
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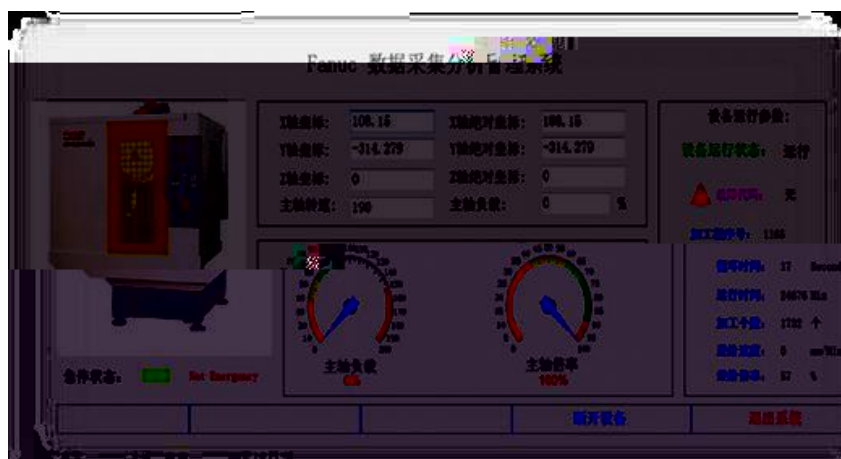
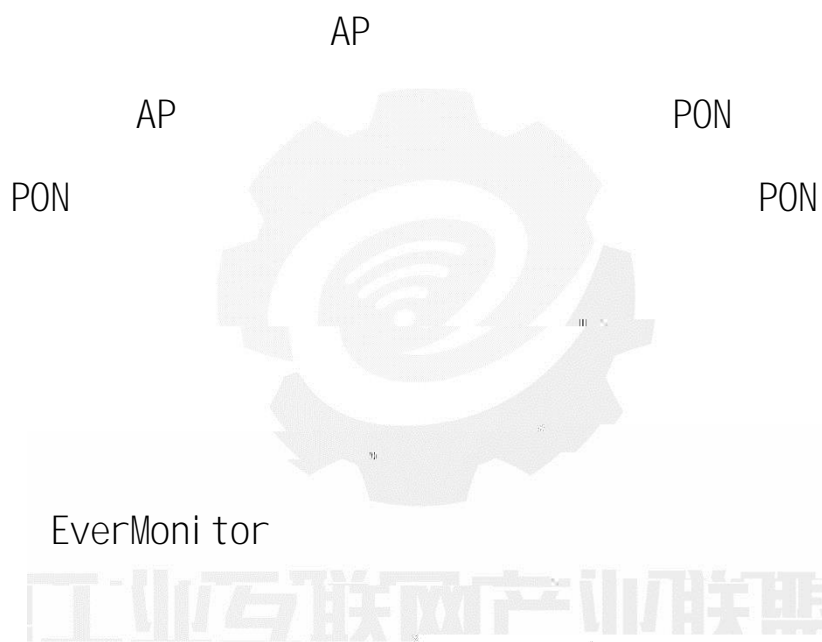
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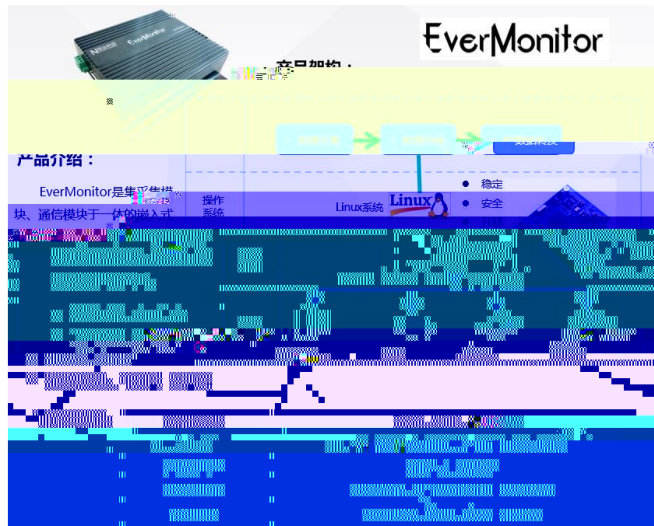
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EverMonitor

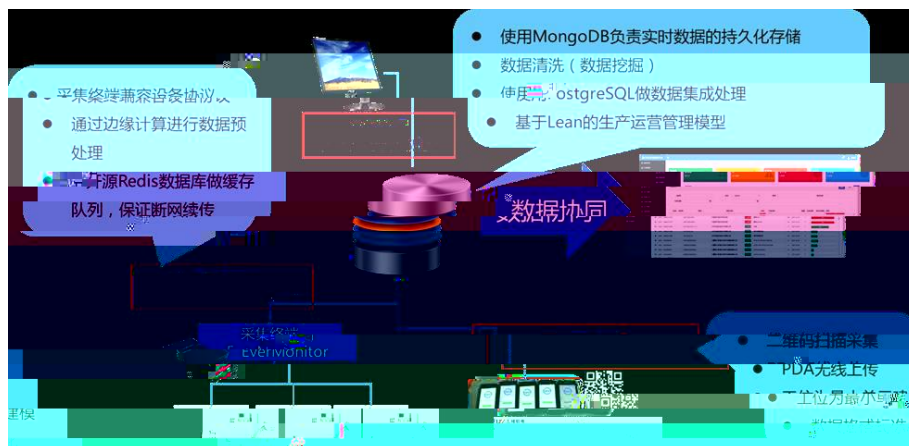
Arm-Linux

ModBus OPC CAN Profi bus



2.

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Modbus

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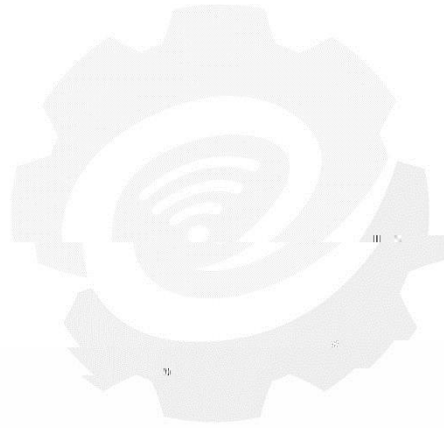
1.	5G		the 5th generation of communication technology
2.	CAN		Controller Area Network
3.	CC-Link		Control&Communication Link
4.	DCS		



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23.	OPC	OLE	OLE for Process Control
24.	OPC UA	OPC	OPC Unified Architecture
25.	ORS		Object Identifier Resolution System
26.	PaaS		Platform as a Service
27.	PLC		Programmable Logic Controller
28.	Profibus		Process Field Bus
29.	Profinet	Profibus	Profinet
30.	RFID		Radio Frequency Identification
31.	SaaS		Software as a Service

32. SCADA



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- [16] NIST Current Standards Landscape for Smart Manufacturing Systems 2016.1
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- [23] ,2015,31(2)
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- [26] IPC 2017.5
- [27] 2017.5
- [28] 2017.7



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