TWISE

Twise continues to grow as a start-up company with automation, unmanned, and remote technologies based on mobility, AI, and big data based on various sensors based on next-generation semiconductor based industrial intelligence and future manufacturing innovation ecosystem.

Index

Chapter. 01

Company Introduction

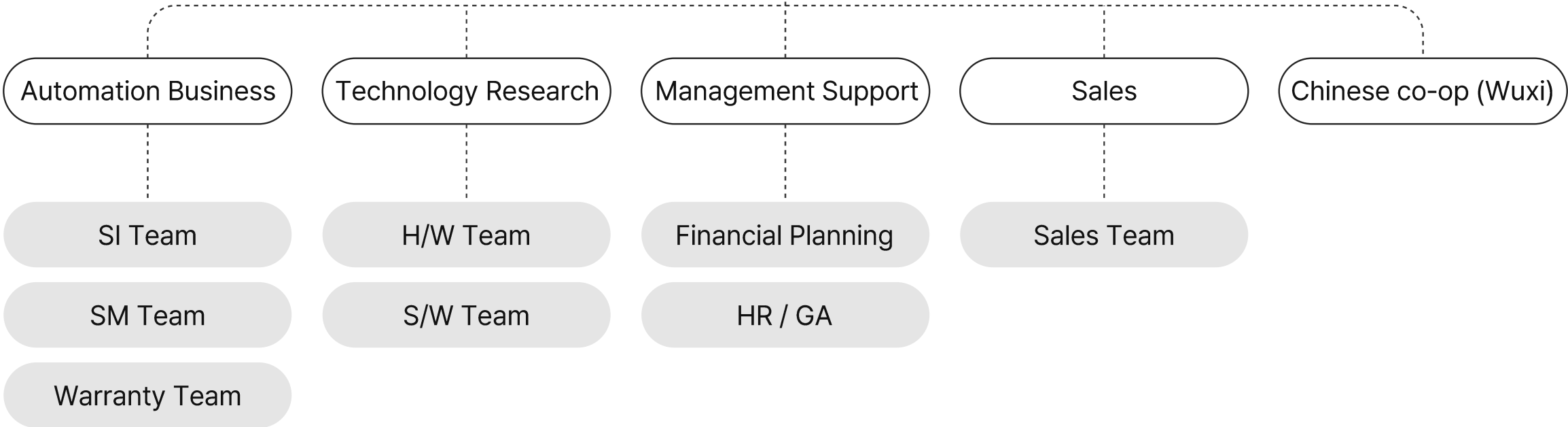• Company Overview • Organization Status • Missions and Visions • History

TWISE

Twise is a start-up enterprise that coincides with ICT(Information and Communications Technologies) based industry intellectualization and the fostering of an innovation ecosystem of future manufacture, owns automation/unmanned/remoting technology that uses mobility and AI big data based on various next-generation semiconductor-based sensors, and is continuing to grow.

- Company Name   Twise Co., Ltd
- CEO   David Jung
- Date of Establishment   2017. 10. 17
- Registration Number   316-81-27785
- Business Areas   Provision of equipment/factory automization solutions and services in the manufacturing field, supply of AI IoT Modules, etc.
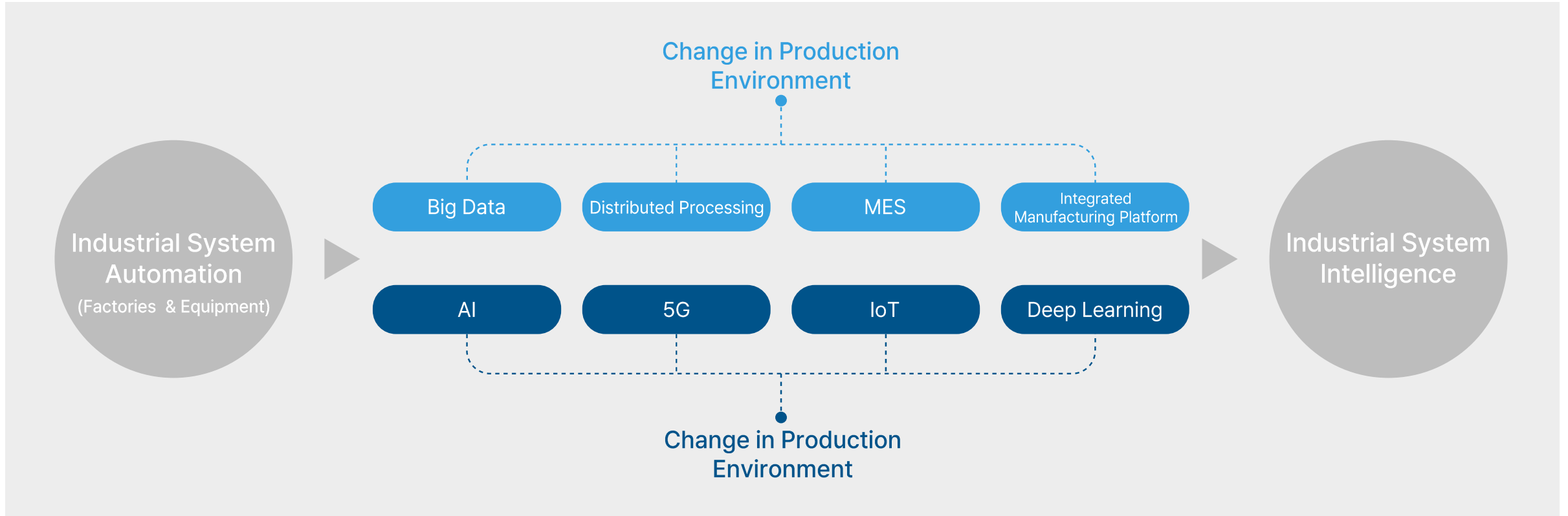- Location   102-708, 239, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do

TWISE

We possess labor force that can implement not only semiconductors but also smart factories of the general manufacturing industry through automation software solutions and combination with engineering service communication.

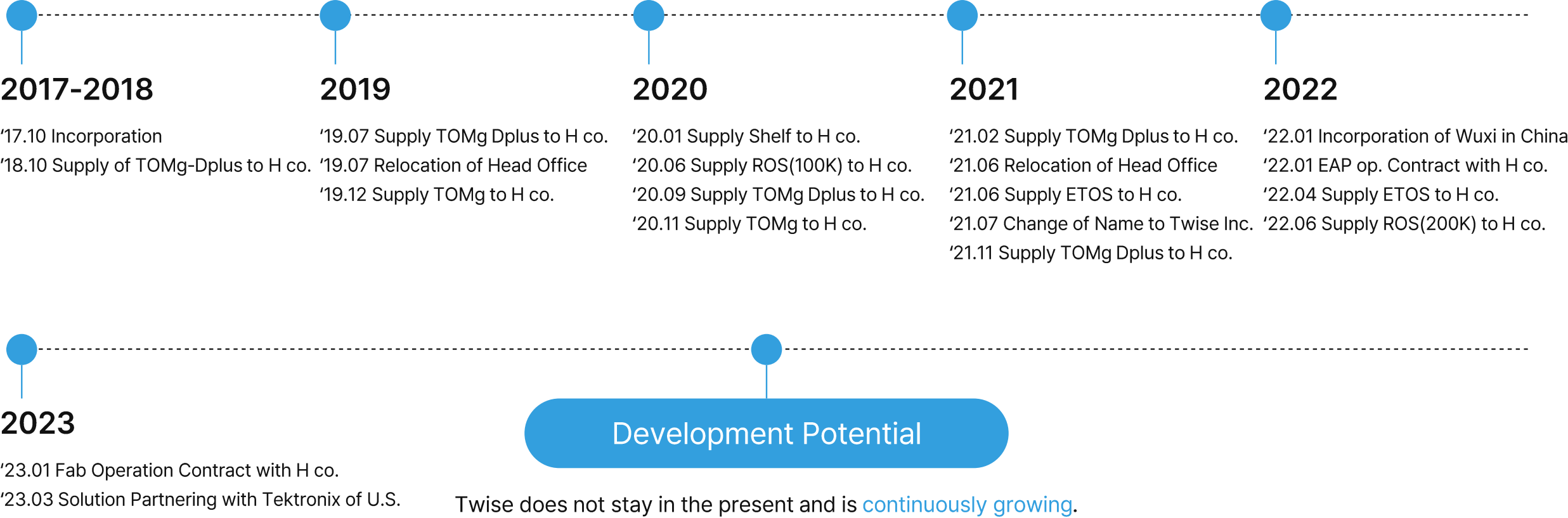| Automation Business	Technology Research	Management Support	Sales	Chinese co-op (Wuxi)
SI Team	H/W Team	Financial Planning	Sales Team	
SM Team	S/W Team	HR / GA		
Warranty Team				

Missions and Visions

We are engaged in building intelligence based industrial systems that are capable of the integrated management of production activities through the collection and management of all events and data that occur on production sites and efficiently managing all resources by analyzing/extracting all the accumulated data using Big Data as our main business.

Change in Production Environment

Industrial System Automation
(Factories & Equipment)

Big Data

Distributed Processing

MES

Integrated Manufacturing Platform

AI

5G

IoT

Deep Learning

Industrial System Intelligence

Change in Production Environment

2017-2018

'17.10 Incorporation
'18.10 Supply of TOMg-Dplus to H co.

2019

'19.07 Supply TOMg Dplus to H co.
'19.07 Relocation of Head Office
'19.12 Supply TOMg to H co.

2020

'20.01 Supply Shelf to H co.
'20.06 Supply ROS(100K) to H co.
'20.09 Supply TOMg Dplus to H co.
'20.11 Supply TOMg to H co.

2021

'21.02 Supply TOMg Dplus to H co.
'21.06 Relocation of Head Office
'21.06 Supply ETOS to H co.
'21.07 Change of Name to Twise Inc.
'21.11 Supply TOMg Dplus to H co.

2022

'22.01 Incorporation of Wuxi in China
'22.01 EAP op. Contract with H co.
'22.04 Supply ETOS to H co.
'22.06 Supply ROS(200K) to H co.

2023

'23.01 Fab Operation Contract with H co.
'23.03 Solution Partnering with Tektronix of U.S.

Development Potential

Twise does not stay in the present and is continuously growing.

Chapter. 02

Services and Products

• EAP • TOMg-Dplus • Non-SECS Converter • ROS Service • Tektronix Solution Partner • Business Areas

EAP

Our development personnel has been participating in many EAP(Equipment Application Program) solution building projects in the semiconductor field such as distribution automation, equipment automation, and system standardization since 2019.

'19

- SKH(Cheong-ju) Wafer Test(Mass Production) Distribution Automation Project
- SKH(Woosi) Wafer Test(Mass Production) System Standardization Project

'20

- SKH(Icheon) Wafer Test(Development) Equipment Automization Project
- SKH(Cheong-ju) Wafer Test(Development) Equipment Automization Project

'19~'23

- SKHYSI(Woosi) smart EAP(Equipment Application Program) Standardization Project Development/Management
- SKHYSI(Cheong-ju, Woosi) smart APC(Advance Process Control) Project Development/Management
- SKHY(Icheon) Multi-probe Tester Equipment Solution Development

EQP ← HSMS → Smart EAP ← TIB/RV → Smart MES / Smart FDC
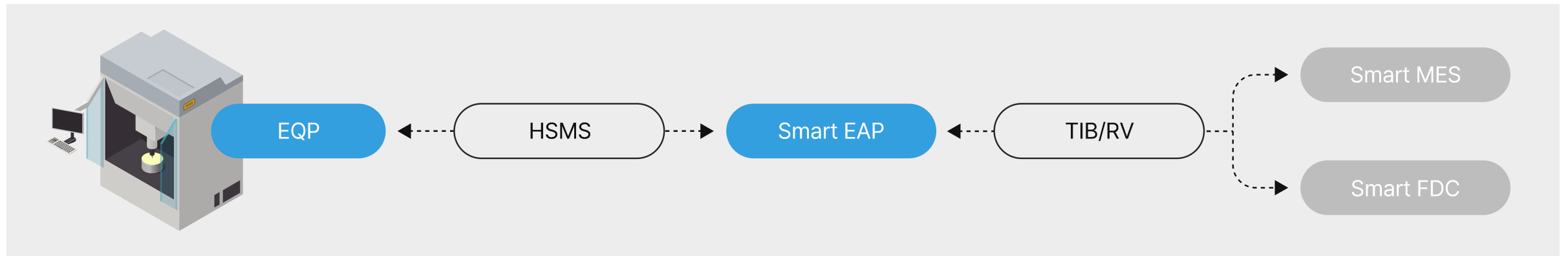
*HSMS: High Speed Message Service, *TIB/RV: TIBCO사에 개발한 소프트웨어 Rendezvous, *MES: Manufacturing Execution System, *FDC: Fault Detection and Classification

TOMg-Dplus

TOMg-Dplus(Non-SECS Data Gathering) is a solution for the Sensor Data collection of Chiller Equipment. It provides the role of collecting Analog Data received from the equipment, converting it into a SECS Message, and sending it to the parent system(smart EAP). It is currently installed and operating in the Wafer Test process.

Product Characteristics

- Real-time Collection of Sensor Data
- Support of SECS Messages
- Support of Analog Ports
- Used as Data in the Parent System(smart EES & smart EAP)

Chiller → Sensor Data → TOMg-Dplus → Gateway → Smart EAP

Probe → TOMg-Dplus → Gateway → Smart EES
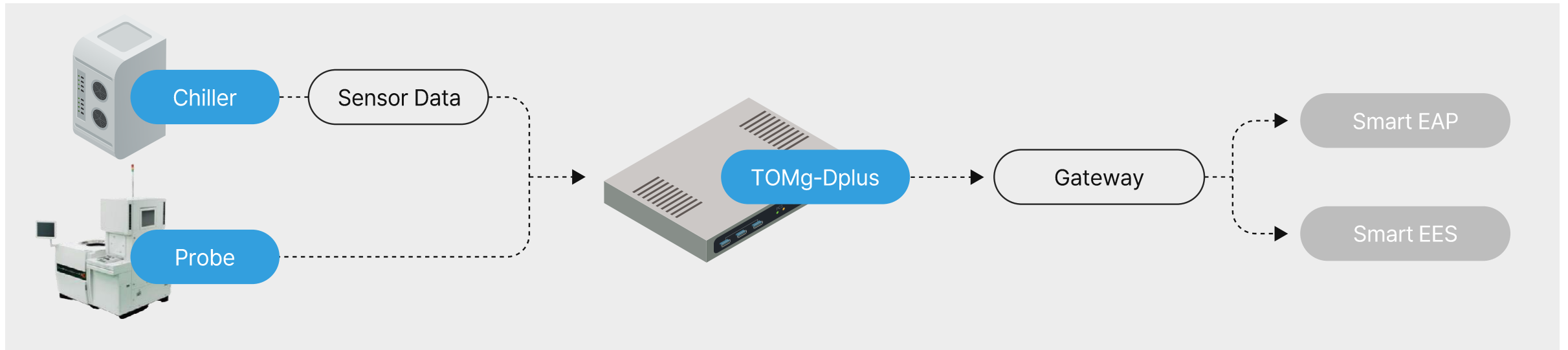
*EES: Energy Management and Control System

Non-SECS Converter

This is a solution that applies/supports the semiconductor standard protocol SEMI Standard to equipment that has restrictions in communicating with the parent system(EAP) so that it can communicate with the parent system. It provides the role of receiving the SECS I data of the main equipment and converting the communication protocol to HSMS and sending the collected data to the EAP through its own communication protocol with the RF Controller installed in the equipment.
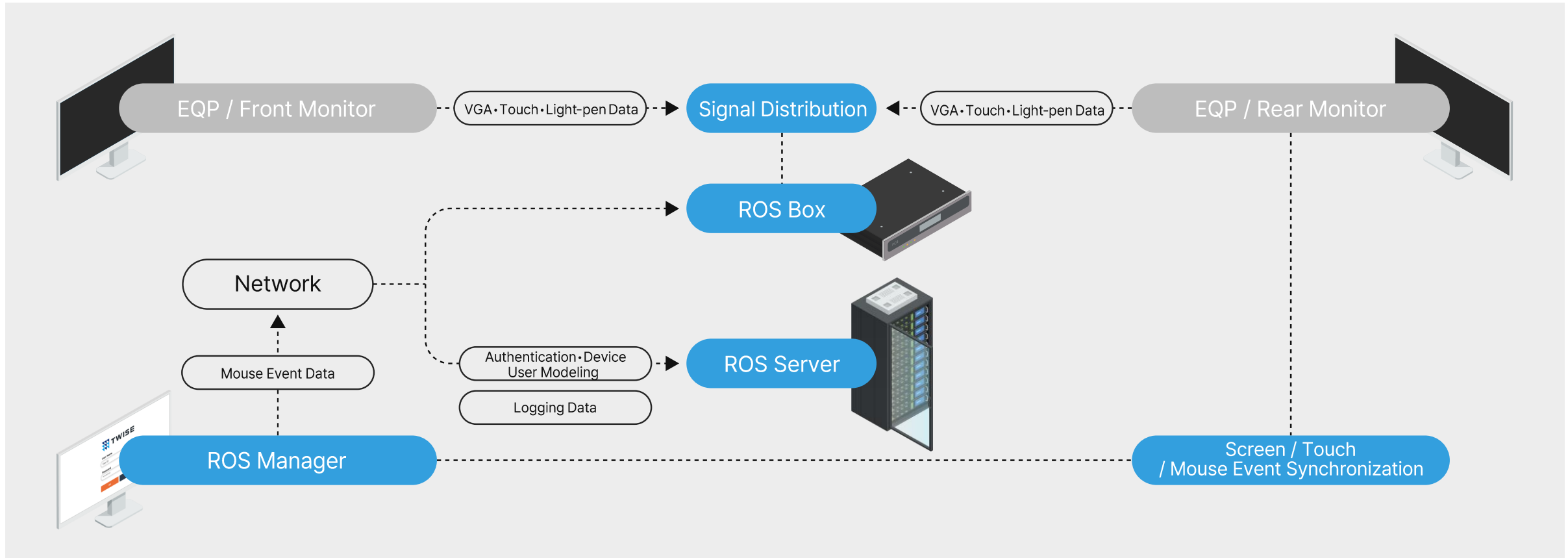
Product Characteristics

- Complete Support of SECS I, HSMS
- Supports Up to 8 Communication Channels
- Capable of supporting protocol that fits the specifications based on the manufacturing company of the equipment
- Used as Data in the Parent System(smart EAP)

EQP — SECS I — Non-SECS Converter — HSMS — EAP
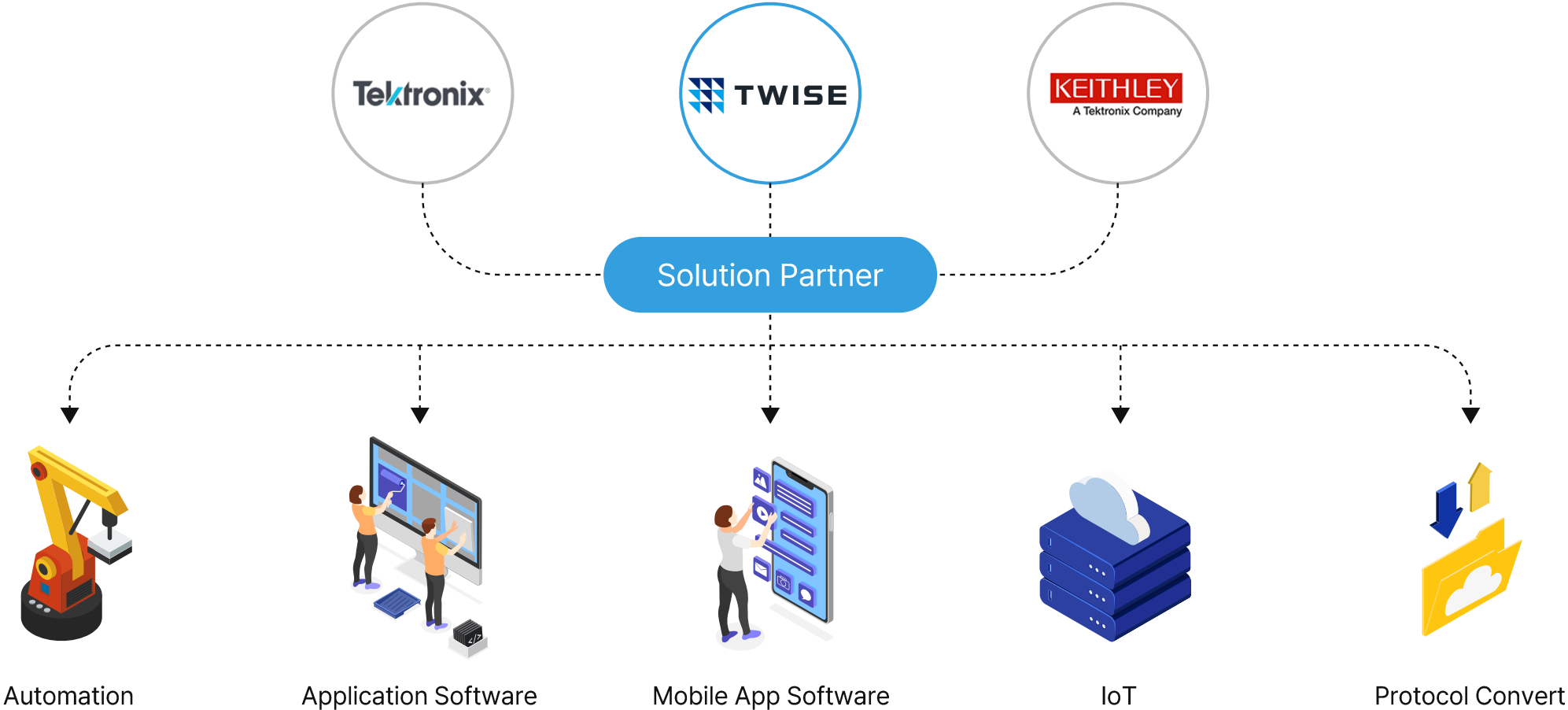
RF Controller — SERIAL
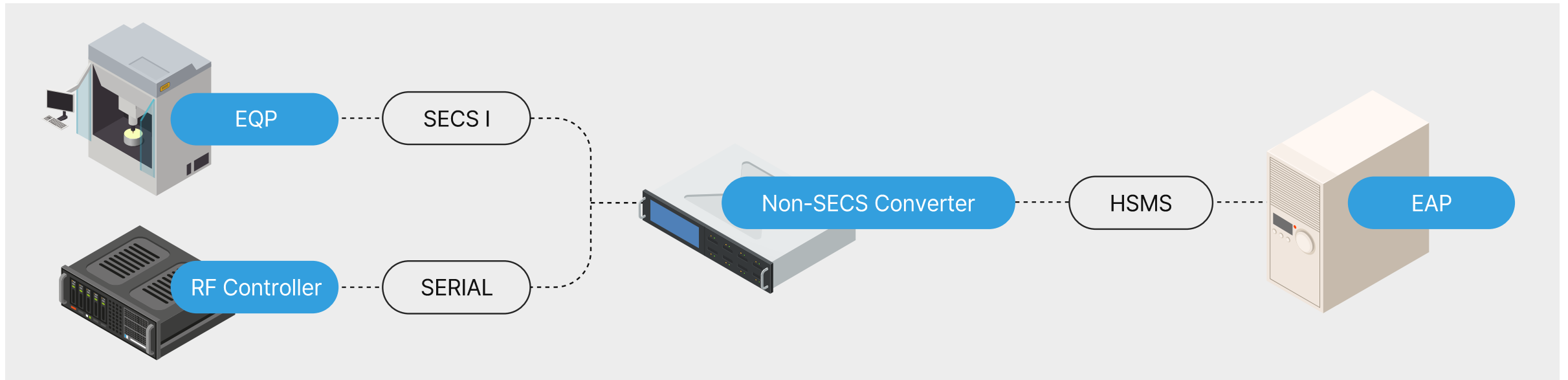
ROS Service

The ROS Service(Remote Operating System) makes remote access from the office to equipment that does not provide remote control possible by installing an ROS Box(H/W). As remote access is possible with the ROS Service, it is a solution that can be expected to reduce cost by improving working environment and increasing work efficiency.
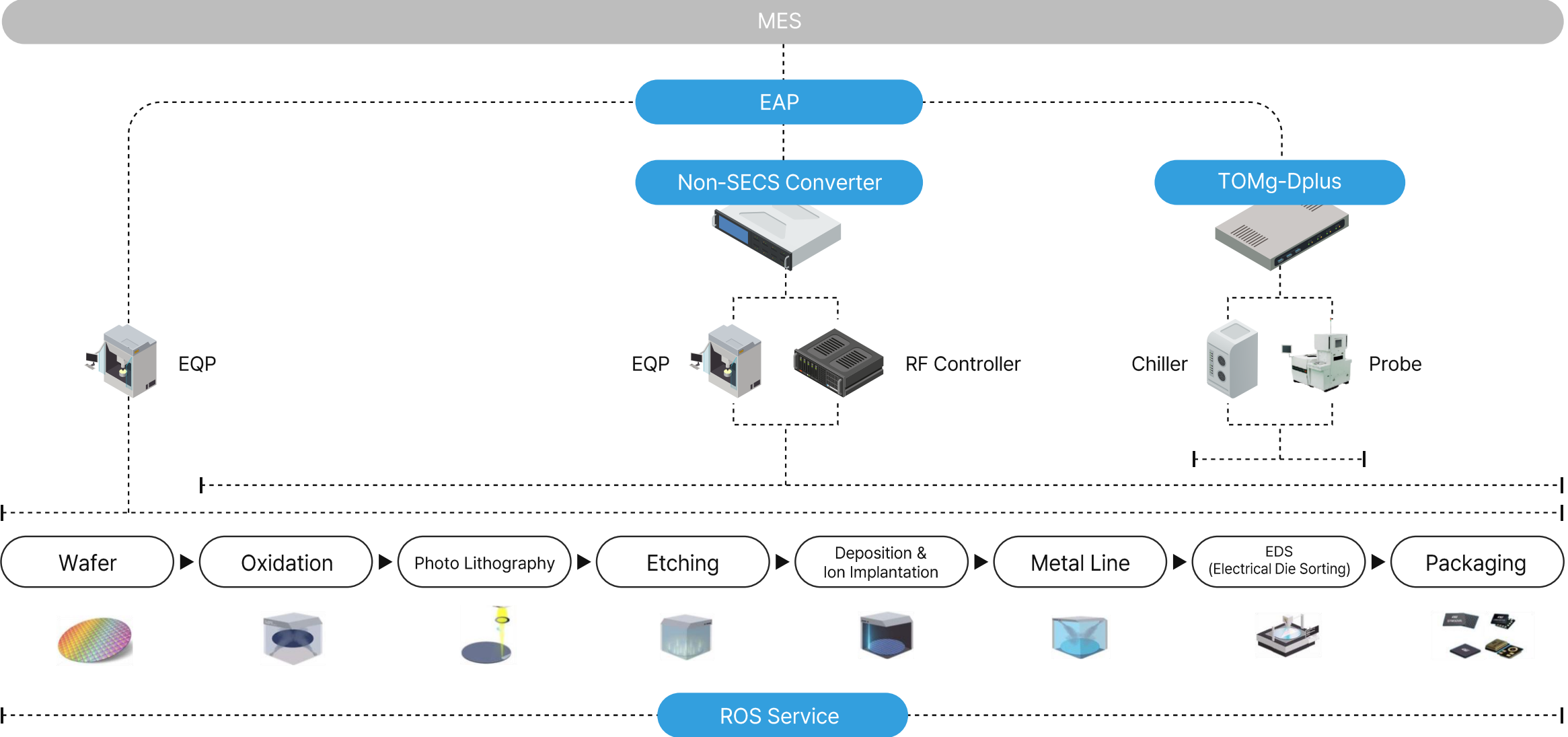

EQP / Front Monitor

VGA·Touch·Light-pen Data

Signal Distribution

VGA·Touch·Light-pen Data

EQP / Rear Monitor

ROS Box

Network

Mouse Event Data

Authentication·Device User Modeling

ROS Server

Logging Data

ROS Manager

Screen / Touch / Mouse Event Synchronization

Solution Partner

We solution partnered with universal measurement equipment company Tektronix to provide software solutions and system building services.

Tektronix

TWISE

KEITHLEY
A Tektronix Company

Solution Partner

Automation

Application Software

Mobile App Software

IoT

Protocol Convert

MES

EAP

Non-SECS Converter

TOMg-Dplus

EQP

EQP

RF Controller

Chiller

Probe

| Wafer | ▶ | Oxidation | ▶ | Photo Lithography | ▶ | Etching | ▶ | Deposition & Ion Implantation | ▶ | Metal Line | ▶ | EDS (Electrical Die Sorting) | ▶ | Packaging |

ROS Service

Chapter. 03

Warranty

• Warranty Activities • Warranty Policies

Warranty Activities

The technology research and warranty teams of Twise guarantee the quality of products following warranty policies through the strict management of products and ex post facto management processes.
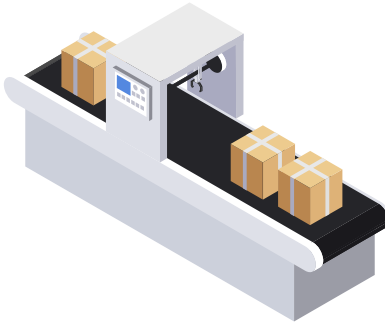
Quality Planning	Warranty Activities	Quality Verification	Processing Supply	After-sales management

|				
Quality Improvement	Establishing Warranty Plans	Securing Competitiveness in Quality		Accepting and Processing A/S
Maintenance of Quality Safety	Establishing Standards and Processes	Preemptive Prevention in Quality		Surveying Customer Satisfaction
Appliance of New Technology	Testing Products	Quality Leadership		Strengthening Connections with Customers

Warranty Policies

The warranty policies defined at our company are strictly managed and performed on all products of Twise.

Quality Planning

Hardware 1 Year
Software 1 Year
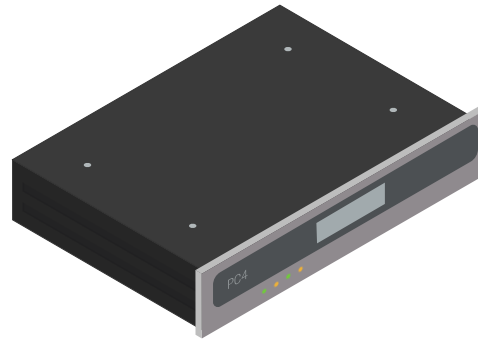
Guarantee of Hardware

1 Year Term of Guarantee

Excludes consumables such as DOM/RAM, HDD/SDD

Guarantee of Software

1 Year Term of Guarantee

Excludes items such as change in structure or addition of functions