

DeviceOn / BI



Features

- Hierarchical organization management
- Device connection and virtual twin object management
- Events and alarm notifications
- Customized notification content
- Includes patrol inspection
- Open API plugin for data exchange
- Advantech sensing modules and platform devices remote management
- Automated archiving and reports

Introduction

Advantech DeviceOn/BI is an open cloud-based industrial IoT platform, providing device management for Advantech sensing modules and platforms. In addition, DeviceOn/BI is suitable for real-time monitoring and optimized operations management designed to provide smart asset management that helps businesses make a successful digital transformation. Business models are changing rapidly, and in order to differentiate from others, digital transformation with IoT is a major task for businesses. Backed by analyzed data and innovative technology, businesses are able to get clearer insights and make better strategic decisions. Getting devices connected to a cloud platform is the first stage of data acquisition.

For most businesses, analyzing and managing that data will be the next. To achieve these goals, DeviceOn/BI service facilitates deployment that allows businesses to easily and directly access data dashboards without any coding.

Feature Highlights

Hierarchical organization management

Each organization has their own operation and management aspects. Different roles can be assigned to different groups with respective privileges depending on the tasks, enhancing management as well as security.

Device connection and virtual twin object management

Data from various edge devices and groups form a virtual twin object in all sorts of customized forms. This turns data into readable information by which each management object can easily create a visualization dashboard with easier identification of equipment or facility. The user just has to associate the respective parameters from the virtual object to the dashboard panel and it is done. The calculated, sorted, and categorized virtual object data effectively reduces the time for further data analysis in future use.

Simple dashboard wizard

The user friendly interface in the dashboard wizard is a full "zero-coding" interface where the user just has to drag and drop the panels to be used and then select the parameter to be displayed on the dashboard, minimizing the learning curve.

Events and alarm notification

For each different event, different event alarm groups can be created, where they can be sent to different user groups defined based on a user job or role. The notification function supports e-mail, LINE, and WeChat.

Customized notification content

Whenever an alarm is triggered, the respective information, text, or action plans can be edited within one notification message. The content is a full free format where relative information can be forwarded in a single text as long as the information is disclosed to the authenticated organization group. The preview function allows the author to verify and check critical information, which is delivered without actually sending an alarm.

Patrol Inspection

The Patrol Inspection function is a full independent system that can be associated to an event or alarm of the object parameter in the organization. The triggered information will be a new unassigned task in the Patrol Inspection system.

Open API plugin data exchange

Data is scattered in various locations and may need to be exchanged. Regardless of complicated coding and integration, the API plugin feature allows users to forward or retrieve data from third party systems. For example, information like temperature or rain forecasts for public servers, or inference data from AI servers. This massively shortens the effort required for system integration as well as securing data confidentiality.

Advantech products management

Hardware products such as ADAM, WISE, or platform PCs are easily managed with basic functions like batch firmware updates and remote installation. The real-time status of devices are also monitored for engineering configuration.

Automated archiving and reports

Virtual equipment object data can be pre-calculated and archived in DeviceOn/BI. History data can be retrieved in no time as well as reports, which can be generated to the dashboard without impacting system performance.

Data Application Diagram

Dashboard templates

Featured with commonly used dashboard panels that allow users to create a customized dashboard by simply associating object parameters.

Domain object profiles

The system integrators can save virtual object to profiles to minimize the setup time upon next domain site construction.



Domain calculations

Customized formula or calculations can be edited in DeviceOn/BI or on separated servers. By means of API plugins, data can be exchanged.

DeviceOn/BI platform

The fundamental platform where data is gathered, stored, and exchanged to provide full domain integration scalability.

Software Specifications

System Platform	Operating system	Linux Ubuntu 18.04
	Platform base	WISE-PaaS/IoTSuite package
	Licensing	Licensed with hardware model
	Pure SW licensing	One-time private cloud license (HW not included, please contact representative)
Management Functions	Role management	Administrator / Engineer / Operator / Viewer
	Account management	Uses WISE-PaaS SSO
	Organization hierarchy	Yes
	Support languages	English / Trad. Chinese / Simp. Chinese / Japanese
Connectivity	Connection	MQTT - Encrypted WISE-PaaS MQTT format
	WebAccess/SCADA	Supported
	WISE-EdgeLink	Supported
	ADAM, WISE devices	Supported
	UNO, TPC PCs	Supported
Applications	Virtual twin objects	Customer dynamically defined
	Dashboard wizard	Yes
	Event rules	Supports range, complex, alarm code formats
	Notification content	Customized content and multiple variables
	Notification media	E-mail, LINE, WeChat
	Data exchange	API
	Data forwarding	API, MSSQL, MQTT
Data archiving	Automated archiving	
Patrol Inspection	Yes (Refer to Patrol Inspection data sheet)	
Templates	Dahboard templates	Yes
	Virtual object profiles	Can be saved and extended according to scenario
	Command center menu management	Supports two vertical and one horizontal command center configuration

Security

- All software bundled within has been scanned without issue by Nessus, a product of Tenable.

ENV-46A-AP01 Hardware Specification

- Platform** SKY-7221 High performance server
- CPU** XEON 2.2G 14M Silver 4210
- Memory** 32GB
- Storage** OS: 256GB x 4
Application: 4TB x 4
- Size** 990 x 620 x 260 (L x W x H in mm) (2U)

*For alternative HW server models, please contact sales representative.

Ordering Information

- ENV-46A-AP01 Based on WISE-PaaS/IoTSuite with DeviceOn/BI and Patrol Inspection systems
- WISE-Parkeplace
 - 9803EE31000 Public cloud monthly subscription operated by Advantech.
 - 9802EECS010 Customized and consulting pure SW licensing, please contact sales representative.

Upgrade and Maintenance

- 1st year free. For maintenance packages after one year, please contact with account representatives. (For subscription plan refer to online user agreement.)

Prerequisites & Remarks

- For public Internet access, customers have to apply for an IP (Internet protocol) and company domain. Mobile apps should use VPN services if connecting to a private network.
- ENV-46A-AP01 with hardware requires 6 x IP addresses that can be accessed through the Internet. In an enclosed private network, 6 x IP address will be required for LAN access.