DeviceOn

IoT Device Operation Management Software

DeviceOn

Features

- Micro-service design, which supports cloud and on-premise deployment
- Secure and zero-touch device onboarding at scale.
- Device real-time HW/SW status monitoring and management with notification.
- Device remote diagnostic to save time and money.
- Container management to deploy, monitor and manage Edge AI
- Device firmware/software update over-the-air (OTA)
- Visualized operations and maintenance with dashboard.
- Whitelist system protection (powered by **McAfee™**)
- Remote system backup and one-click recovery (powered by **Acronis**)

Introduction

As many IoT deployment consist of hundreds of thousands devices and spread over multiple sites, it is essential to track, monitor, and manage connected industrial IoT devices. You need to ensure your devices work properly and securely after they have been deployed without physical site visits. You also need to secure access to your device, monitor, detect, manage, and take time-critical action remotely.

DeviceOn makes it easy to onboard, visualize, operate, and manage your industrial IoT devices. With DeviceOn easy-to-use interface, you can monitor device health, real-time actions to power on/off, troubleshoot problems, and send software and firmware updates over-the-air (OTA) on-site and remotely at scale.

Feature Details

Device Management

Monitor remote device status, including device temperature, internet connection, CPU temperature, fan speed, voltage, SW process, CPU/memory usage. System will detect device HW capability and display items can be monitored.

Container Management

Set up, deploy, monitor, and manage each container on different devices. For device managers, it can create, manage and set the health of containers within minutes, and provide a variety of container restart strategies. Through the dashboard, you can quickly understand the running status of the container in the managed device. In addition, for container developers, the Azure Container Repository is supported as a public cloud solution, and private cloud uses Harbor as a container repository.

Power Management

Set the power on/off schedule for remotely located devices; the schedule can be set on daily, weekly, monthly or yearly basis.

Protection

DeviceOn system protection is powered by **McAfee™**, providing white list protection against unauthorized application execution, and also sending warnings of any unauthorized activities.

Backup & Recovery

DeviceOn system recovery is powered by **Acronis**, providing hot backup and scheduled backup, and also one-click recovery.

Automated Alert Notification

Create alert and real-time actions based on device threshold rule and predictive analytics, prompt notifications will be sent to administrators (Email, SMS, Line, WeChat, WhatApp).

Data Visualization

Built-In Dashboard supports multiple type of data source, ex: websocket and http stream, to feed in customized widgets, including online map, gauge, sparkline, progress bar, HTML, picture, indicator, to present live and statistical device data on dashboard.

Software Development Kit (SDK)

Provide RESTful API Web Service which allows cross-platform integration of device management functions, open WISE Agent framework which allows customized plugins to collect and process customer device data not defined by default for more flexible device connectivity, UI Extension Framework which allows customized application page can be embedded into management console to streamline the field application.

Software Specifications and Versions:

- **Max. Device Connections:** 1000 (Standalone), Unlimited (Cloud deployment)
- **Max. Message Handling:** 3000m/s, < 1KB, Unlimited (Cloud deployment)

	Free Bundle	Perpetual License
Deployment	Advantech Hosted Service 6 Months Trial	Standalone installation Azure IoT PaaS, VM **Kubernetes (Contact us)**
Zero-touch Onboarding	✓	
Role-Based Access Control	✓	
Device & Device Group Management	✓	
Device Threshold Detection (Rule-based Engine)	N/A	✓
Notification & Alert Service (Mail, SMS, LINE, WeChat, WhatsApp)	N/A	✓
Device Real-time & Historical Data Monitoring	Real-time Data	✓
Container management and operations	N/A	✓
*OTA, Software, Firmware Provisioning	N/A	✓ (BIOS Update for Advantech HW)
*Power Control	✓	✓ (Advantech HW)
Terminal, Screenshot, Remote Desktop	✓	
**Backup/Recovery, Protection	N/A	✓ (Windows, Ubuntu)
Remote troubleshoot	✓	✓
Device Data with Zero-Downtime	N/A	✓
Operation Management (Batch Control & Statistical Analysis)	N/A	✓
**Audio Volume Control	✓ (Win)	
*Hardware Watchdog Monitoring	✓ (Advantech HW)	
*Brightness & Backlight Control	✓ (Advantech HW)	
*Hardware Status Monitoring	✓ (Advantech HW)	
**USB Drive Block	✓ (Win 10)	
**Keyboard Lock & Filter	✓ (Win 10)	
**Touch Screen & Gesture Lock	✓ (Win 10)	
**Windows Notification Block	✓ (Win 10)	
**UWF Protection	✓ (Win 10)	

*HW status includes CPU/System temperature, fan speed, voltage, CPU/memory usage, system information, HDD monitoring, depending on HW capability.
**Support depends on device type, OS and account permission.

Minimum Requirements

Web browser that supports HTML5+CSS3+Javascript

- Microsoft Edge
- Google Chrome : 9.0+
- Firefox: 15.0+
- Safari: 5.1+

Note:

Cookies must be enabled; Accept Cookies per session must be enabled (Accept all Cookies or only accept Cookies from this server)

Browser must support HTTPS (SSL)

Server (Standalone Installation):

Hardware Minimum Requirement:

- Intel Core i5 2.3 Ghz CPU or above
- 8 GB RAM
- 25 GB root partition for the system
- 100 GB data storage partition for documents and indexing

Operation System:

- Windows Server 2012/2012 R2 64-bit (Recommended and fully tested)
- Windows Server 2016/2019 Standard 64-bit (Recommended and fully tested)

Agent:

Hardware:

- Advantech HW with SUSI driver 3.02/4.0, which is required for HWM (Hardware Monitoring Management) function to work normally.

Operation System:

- Windows 11 Enterprise/Professional 64-bit
- Windows 10 Enterprise 2016 LTSB/LTSC 64-bit
- Windows 10 Enterprise/Professional (1809) 64-bit
- Windows 8/8.1 64-bit
- Windows 7 SP1 32-bit/64-bit
- Ubuntu 20.04/22.04 x86
- CentOS 7/7.5/7.7/8.0/8.2 x86
- Android 6.0/8.0 RISC
- Yocto

Order Information

Free Bundle License (fully bundled with Advantech platforms)*

*Please confirm with your Advantech contact for availability.

Perpetual License:

*Go to DeviceOn Technical Documentation to download/install DeviceOn Server and Agent program.

* A license file is required to activate DeviceOn Server, please contact your Advantech sales representative or purchase online from WISE-Marketplace.

- 32WSWPDO0001A1 (1 devices)
- 32WSWPDO0010A1 (10 devices)
- 32WSWPDO00100A1 (100 devices)
- 32WSWPDO00500A1 (500 devices)