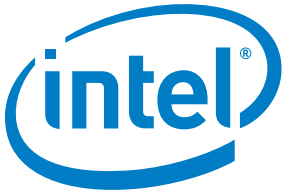

Intel® Building Management Platform (Intel® BMP) V1.0 General Availability

Release Notes

16 December 2016

Order number: 335025-003US

Software Version History/Revision History

These are the main releases of Intel® Building Management Platform (Intel® BMP):

Date	Revision	Description
3 October 2016	1.0	Initial release

Document Revision History

Date	Revision	Description
16 December 2016	003	Removed “Internet of Things Group” from the title page.
17 November 2016	002	Updated the product name.
3 October 2016	001	Initial release

Intended Audience

This document is intended for Intel® BMP customers, such as solution providers.

Customer Support

For technical support, including answers to questions not addressed in this product, see the FAQs and other support information at: www.intel.com/bmp.

To submit an issue, go to Intel® Premier Support: https://premiersupport.intel.com.

NOTE: If your distributor provides technical support for this product, please contact them for support rather than Intel.

Contents

1 Introduction

Intel® Building Management Platform (Intel® BMP) provides a secure, easy way of connecting data from devices in buildings to cloud-based building management applications, for use in monitoring and control of energy, HVAC, occupancy, lighting, and more. These end devices can be air handling units, chillers, thermostats, meters, lighting controls, switches, and sensors. This document provides system requirements, issues and limitations, and legal information.

To learn more about this product, see:

- New features listed in the New in this Release section below.
- Reference documentation listed in the Related Documentation section below.

2 New in This Release

New Features

Intel® BMP is a software platform. Intel® BMP customers are solution vendors that provide end-to-end solutions to end customers, such as a facilities manager of a building. The first version of Intel® BMP includes Wind River* Linux*, McAfee* Embedded Control, and CANDI Controls* middleware, IoT Server*. IoT Server is software that provides discovery, provisioning, and management capability for devices on networks accessible from the Intel® BMP based gateway, and forwards normalized data between networked devices and cloud-based services. IoT Server includes features such as the following:

- Works with Wind River Linux, McAfee Security, and other software on the gateway to integrate with onboard communications, security, web services, and other I/O features.
- Uses on-board networking to connect automatically and periodically via secure LAN-to-WAN networks to a Network Operations Cloud (NOC).
- Receives remote software updates from the NOC.
- Receives configuration files (users, sites, permissions, devices, data selections) from the NOC.
- Uploads data acquired from connected devices to the NOC.
- Forwards remote commands and settings to connected devices from the NOC, CANDI's PowerTools* application, and third-party software via an API.
- Supports remote device discovery, testing, and alerts on behalf of the NOC.
- Supports secure remote access via the API over the wide area network (WAN), brokered by the NOC.
- Functions independently when a WAN connection to the NOC is interrupted.

3 Known Issues

Issue	Description
1	For the XBee-Z14-CE1P-A USB Adapter, ZB PRO S2B (which controls only XBee* devices), the adapter firmware must be updated for it to work with the CANDI Cloud. To check and upgrade the firmware on a Windows* machine: 1. If you don't already have a driver for FTDI, download the FTDI USB/Serial driver from http://www.ftdichip.com/Drivers/VCP.htm. This driver allows Windows to recognize the FTDI chip on the dongle. 2. Download and install the XCTU utility from www.digi.com. 3. Open your device manager and view the available COM ports. 4. Plug in your XBee dongle. You should see an additional port appear. 5. In XCTU, select that port and discover your device. 6. If it shows “ZigBee Coordinator API” for the Function set, the XBee device is ready for use on a gateway. 7. If it does not show “ZigBee Coordinator API,” it must be reflashed: a. Click **Update**. b. Choose the default model (left - XBP24BZ7), and the highest firmware (right - 21A7 at this time) and then “ZigBee Coordinator API” (middle) from the popup list. c. Click **Update**. Now the XBee device is ready for use on a gateway.
2	It is possible to log in to the gateway (using an attached keyboard and VGA monitor) to configure certain network parameters. At the login prompt, the username is “candi” and the password is “candi.” For security purposes, it is strongly suggested that when this configuration is done (or even if it is not) that you change the password from “candi” to a complex password of your choosing. After configuring the gateway with a static IP address, you may be unable to revert back to the DHCP setting.
3	It is possible to perform “Over The Air” (OTA) updates of the Intel BMP software on the gateway, controlled by CANDI from the CANDI Cloud. This feature enables fixes and enhancements to be remotely installed on a gateway. However, it is not possible to update the Wind River Linux software, including security patches. This feature will be made available in a future release.
4	When a device, particularly a controller (such as ZigBee*, Z-Wave*, or ControlByWeb*), is removed from an Intel BMP site, it is recommended that the gateway be rebooted to completely remove the device from the system.
5	It is recommended that only one ControlByWeb device be connected to a gateway at a time.

Issue	Description
6	In some cases, the gateway might have trouble joining with some Z-Wave based GE Jasco* switches/dimmers.
7	When using PowerTools to observe a video camera feed from a camera connected to the gateway, behavior is sometimes erratic with respect to controlling the camera position, and the video image might be suboptimal due to delays in cloud response.

4 Related Documentation

Technical documentation for Intel® BMP is online at www.intel.com/bmp.

5 Where to Find the Release

For information about where to buy Intel® BMP based gateways, see www.intel.com/bmp.

6 Release Content

This release includes the Intel® BMP software platform image named intel_bmp_lockdown_1.3.6-2.16.0.img.

The Intel® BMP versioning scheme follows “Intel® BMP Lockdown MajorVersion.MinorVersion (CandiWindRiver).BugFix”

intel_bmp_lockdown_1.3.6-2.16.0.img

where 1 is the major number, 3.6-2 is the CANDI IoT Server version, 16 is the Wind River RCPL number, and 0 indicates the initial release.

7 Hardware and Software Compatibility

The Intel® BMP software is compatible with Advantech* UTX-3115 hardware.

BIOS/Firmware Version

Advantech UTX-3115 is compatible with the following Advantech BIOS version:

- Advantech Part Number: 1420040121
- Advantech Version Number: E2.01

Supported Languages

The Intel® BMP cloud software supports English.

8 Test Results

The following devices are validated on the Intel® BMP software platform:

Make	MFG	Model	Name	Description	Protocol
Aprilaire*		8800	Touchscreen Communicating Thermostat	Touchscreen Smart Thermostat	Serial/RS-232
CANDI Controls*	NA	NA	BACnet* Chiller	Generic BACnet Device	BACnet/IP
CANDI Controls	NA	NA	BACnet Air Handling Unit	Generic BACnet Device	BACnet/IP
CANDI Controls	NA	NA	BACnet Remote Terminal Unit	Generic BACnet Device	BACnet/IP
CANDI Controls	NA	NA	BACnet Variable Air Volume Unit	Generic BACnet Device	BACnet/IP
CANDI Controls	NA	NA	BACnet Hydraulic Power Unit	Generic BACnet Device	BACnet/IP
CANDI Controls	NA	NA	CANDI Virtual Meter	Virtualized Power Data Feed	Virtual
ControlByWeb*	Xytronix*	X-310	CBW X-310 I-O Controller	Data Acquisition and Relay Controller Module	IP
ControlByWeb	Xytronix	X-DAQ-5i	CBW Five-Input Module	Data Acquisition Module	IP
ControlByWeb	Xytronix	X-WR-4R	CBW WebRelay-Quad	Relay Controller Module	IP
Digi*		XA-Z14-CE1P-A	XBee* PRO S2B	USB ZigBee* XBee Network Coordinator	ZigBee-XBee
eGauge*		EG3000	Power and Energy Meter Bridge	Network-Enabled Power Meter	IP
GE*	Jasco*	ZW4101	Appliance Switch Module	Plug-In Smart Switch	Z-Wave*
GE	Jasco	ZW3101	Lamp Dimmer Module	Plug-In Smart Dimmer	Z-Wave
Honeywell*		TH8320ZW1000	VisionPRO Z-Wave Thermostat	Touchscreen Smart Thermostat	Z-Wave
Panasonic*		WV-ST162	i-Pro Pan-Tilt HD Network Camera	Network-Enabled Camera	IP
Proliphix*		IMT550W	Internet-Managed Energy Controller	Touchscreen Smart Thermostat	IP

Make	MFG	Model	Name	Description	Protocol
RCS Technology*		PMC40ZW	40A Switch and Power Meter	Wired Metering and Switch Module	Z-Wave*
RCS Technology		TZB45U	XBee Communicating Thermostat	Smart Thermostat	ZigBee-XBee
Smartenit*		2011A - HAN	USB-CID	USB ZigBee HA Network Coordinator	ZigBee-HAN
Smartenit		5010Q	ZBM Plug 15	Plug-In Metering and Switch Module	ZigBee-HAN
Insteon*	Smartlabs*	2242-222	Hub	Insteon-to-IP Bridge	Insteon
Insteon	Smartlabs	2457D2	LampLinc*	Plug-In Smart Dimmer	Insteon
Insteon	Smartlabs	2477D	SwitchLinc* Dimmer	In-Wall Smart Dimmer	Insteon
Insteon	Smartlabs	2477S	SwitchLinc On/Off Switch	In-Wall Smart Switch	Insteon
Insteon	Smartlabs	2635-222	On/Off Module	Plug-In Smart Switch	Insteon
Trane*	RCS*	TZ45	Z-Wave Communicating Thermostat	Smart Thermostat	Z-Wave
Trane	RCS	XR524 (XR624)	Home Intelligence Thermostat (Nexia*)	Touchscreen Smart Thermostat	Z-Wave
Z^3 Controls*		NetMeter-3P-600	Z3 NetMeter 3-Phase	High-Load 3-Phase Smart Power Meter	IP
Aeotec*	Aeon Labs*	ZW090	Z-Stick Gen5	USB Z-Wave Network Controller	Z-Wave
Aeotec	Aeon Labs	ZW-100A	MultiSensor 6	Motion, Temperature, Light, Humidity, Vibration, and UV Sensor	Z-Wave

9 Acronyms and Terms

The following acronyms and terms are used in this document (arranged in alphabetic order):

Acronym/Term	Description
API	Application Programming Interface
DHCP	Dynamic Host Configuration Protocol
I/O	Input/Output
Intel® BMP	Intel® Building Management Platform
IoT	Internet of Things
IP	Internet Protocol
LAN	Local Area Network
NOC	Network Operations Cloud
OTA	Over The Air
RCPL	Rolling Cumulative Patch Layer
VGA	Video Graphics Array
WAN	Wide Area Network

10 Legal Information

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