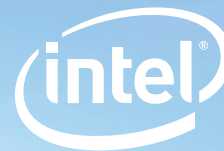


PRODUCT BRIEF

Intel® IoT Technology
Smart Buildings



Intel® Building Management Platform

Speed up development and deployment of smart building management solutions.

Pre-integrated, commercial-grade platform accelerates time-to-revenue for manageable smart building solutions.

Overview

Intel® Building Management Platform (Intel® BMP) integrated with CANDI PowerTools* includes platform security and manageability that make it easy to create smart building management solutions for small and mid-size buildings. Designed for solution provider personnel from software developers, system integrators, and system installers, Intel BMP helps accelerate time-to-revenue by lowering integration and deployment costs. This is done by giving solution providers a pre-integrated, commercial-grade, secure embedded Linux* offering from Wind River; IoT middleware that handles connections and data access from things; cloud-based device provisioning from CANDI Controls; and cybersecurity essentials from Intel® Security.

Intel BMP connects to disparate building equipment and devices that use a variety of protocols and sends their data to cloud-based services and applications for business intelligence (BI), analytics, dashboards, and other applications. These connections can be made to air handling units, chillers, thermostats, electrical meters, lighting control, and video cameras using standard protocols such as BACnet*, ZigBee*, Insteon*, Z-Wave*, IP, and more.¹

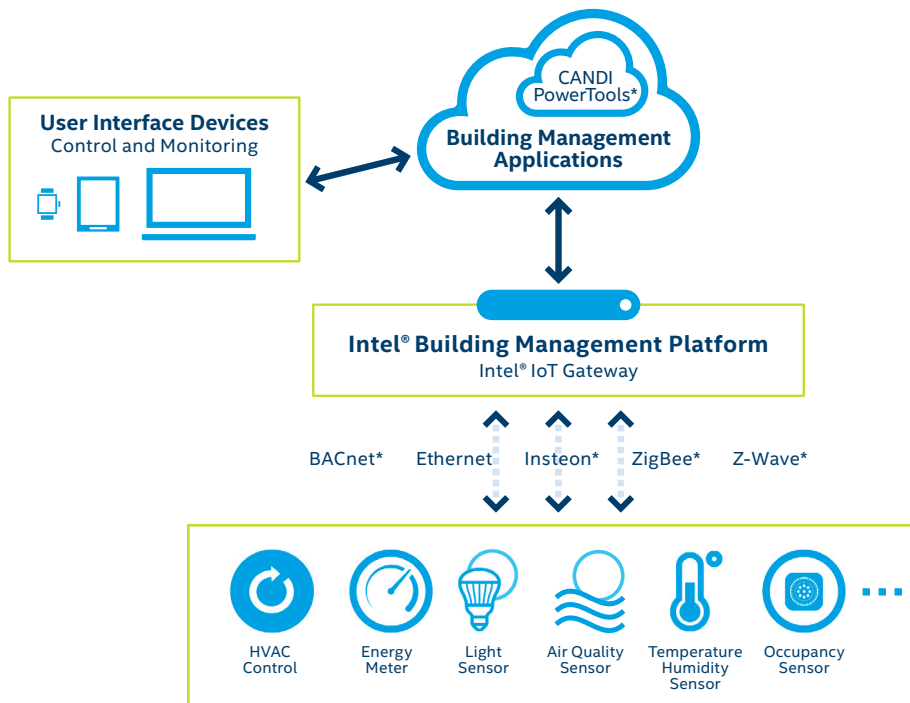


Figure 1. A solution using Intel® Building Management Platform

Easy Access to Building Data and Things

For system installers of Intel BMP-based gateways: Intel BMP pre-integrates CANDI PowerTools, which provides a cloud-based, drag-and-drop user interface that allows solution installers to quickly discover and provision devices for data acquisition using a wide range of open standards-based protocols that talk to the disparate systems and sensors in the building.

Over-the-Air Updates

For personnel maintaining the deployed solution: The platform communicates with a cloud service used to remotely maintain the software with over-the-air updates of protocol drivers, critical security patches, etc.

Cybersecurity Protection

For facilities managers: Solutions based on Intel BMP provide peace of mind as it is hardened and protected using McAfee® Embedded Control software to enforce system integrity and help in preventing known and unknown threats and attacks.

Flexibility and Choice

Over time, Intel BMP will enable a broad choice of ecosystems that will provide:

- A variety of IoT gateways supporting a range of cost points, performance, and features
- A choice of software and cloud applications for building management
- Various devices and sensors using standard protocols

Use Cases for Intel Building Management Platform

Intel BMP interfaces with a wide range of smart building touchpoints (Figure 2) to reduce the effort for developers of building management applications, such as:

- Building energy monitoring and analytics
- Remote monitoring of assets such as space utilization and equipment usage
- Data insights across disparate building systems used to optimize building operations
- Future applications that have the need for building data insights to deliver smart building experiences for building managers and their occupants

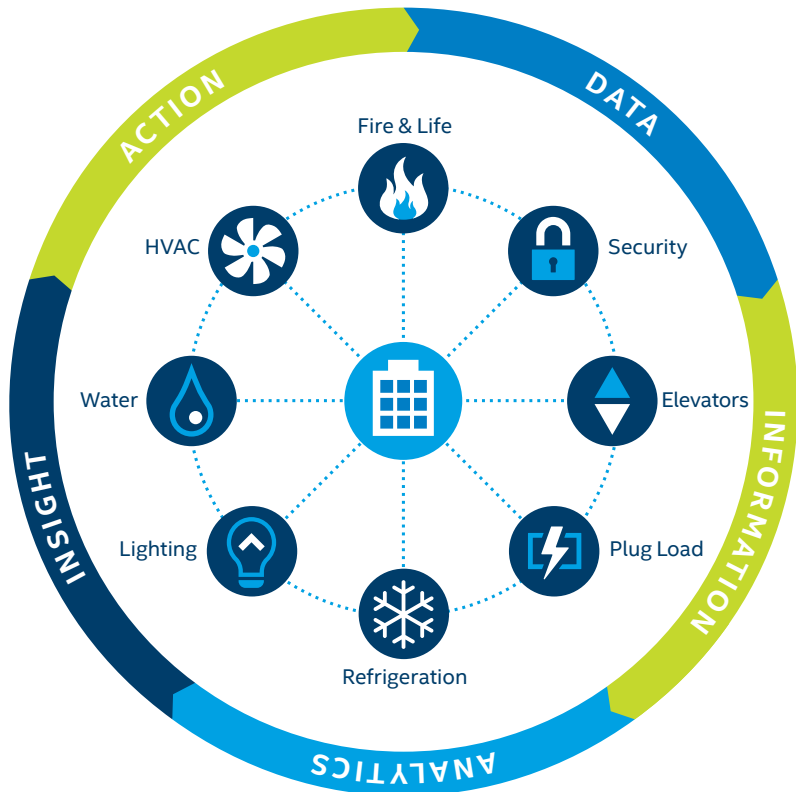


Figure 2. Smart building management touchpoints

FEATURE AND FUNCTIONALITY DETAILS

CATEGORY	DESCRIPTION
Data Discovery and Commissioning (CANDI PowerTools*)	Connect, discover, and provision "things" and data. <ul style="list-style-type: none"> Includes built-in discovery tools and a drag-and-drop interface for installers to quickly find and provision devices. Recognizes and unifies hundreds of legacy systems and best-in-class IoT-generation devices across many protocols and proprietary APIs. BACnet*, ZigBee*, Insteon*, Z-Wave*, and many Wi-Fi and Ethernet-based standards. Supports remote management features such as uptime monitoring, alerts, data usage metering, ecosystem reporting, and remote tunneling. Provides a cloud service to remotely provision, manage, and control a large number of gateways and on-site devices.
Built-in Security (McAfee® Embedded Control)	Add security to your solution with preconfigured security essentials. <ul style="list-style-type: none"> Allows only signed Intel® Building Management Platform software to run on the gateway during the boot sequence. Prevents unauthorized software from running on the gateway. Encrypts data transfers to the cloud. Accesses the gateway remotely when addressing new security threats.
Out-of-the-Box Software Appliance	Reduce your development time by eliminating the need to work with low-level software components. <ul style="list-style-type: none"> Eases your deployment with pre-integrated and optimized Linux* from Wind River, and a set of middleware that runs on qualified gateways.
Over-the-Air Software Updates	Keep gateway software up to date. <ul style="list-style-type: none"> Supports remote, over-the-air updates of new device drivers, security fixes, and application software.
Enabling Tools (CANDI Unity*)	Manage secure data flows to and from third-party applications and services via a RESTful API. <ul style="list-style-type: none"> Provides publish/subscribe services and industry-leading IoT data ingestion hubs, such as Microsoft Azure* IoT Hub. Enables system integrators and solution providers to easily consume data and return actionable information to the edge for operations and control, using easy-to-integrate APIs, software development kit (SDK), and solution provider training in the areas of building analytics, optimization, and control.

For More Information

To learn more about Intel BMP, visit intel.com/bmp.

To learn more about CANDI PowerTools, visit candicontrols.com.



Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at intel.com/bmp.

1. Additional protocols will supported in the future.

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