An IoT platform that lets you take full advantage of Azure



Introduction Materials

2018 / 12 / 17



Microsoft Partner



会社概要



Company Name AzurePower Inc.

Representative Director Shimpei Hashiguchi

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Capital 332.5 million yen

Thing by industry Microsoft Azure-specific cloud integration business

Cloud-Leveraging IoT platform services Cloud-Leveraging LMS service offerings





Microsoft

Add new power to the cloud https://azurepower.co.jp

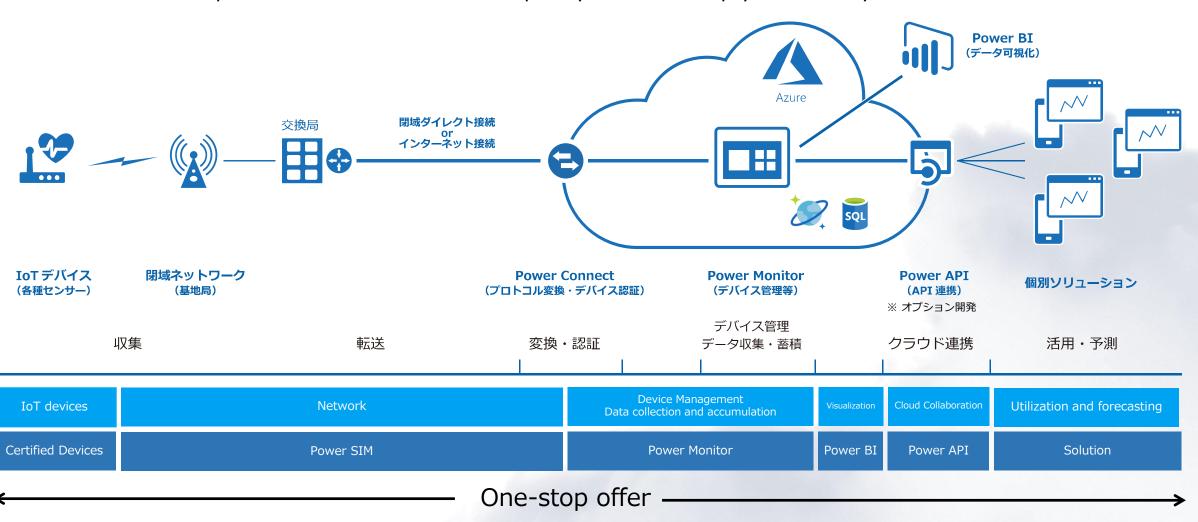
Introducing the Power IoT Platform



Power IoT Platform Service Lineup



The Power IoT platform delivers IoT results quickly. We will help you realize your business innovation.



Service lineup (Certified devices)





▼ BLE Gateway



Power SIM Support.
Closed SIM without internet access
Sensor information to Azure.

- -Ultra light and low price
- -BLE gateway with built-in SIM slot

Was

- -Bluetooth Smart 4.1 対応(30M range in open space)
- -built-in PCB antenna (bundled product)

AC Adapter/USB-MICROUSB Cable/Fixed folder

▼ EasyupLink



Communication with a wide variety of sensors and ble,A repeater that transmits that data over an LTE line.
The GPS function also enables the acquisition of moving information.

- -Easy installation and stable operation
- -Supports GPS tracking applications

Specifications

- -Size: 70.5 mm x 70.5 mm x 21mm
- -Weight: 60g
- -Input power: DC5V Micro USB Connector
- -Use temperature: -20°C~ 60 °C
- -GPS: QZSS compatible

Was

- -Bluetooth 4.0 Compliant -Bluetooth antenna: Built-in
- (LTE)
- -Line: DoCoMo LTE only (MVNO compatible)
- -compatible bands: Docomo 2.1 GHz and 800MHz
- -LTE antenna: Built-in -SIM card: Nanosim

サービスラインナップ(認定デバイス)



Power Monitor

可視化

Power BI

クラウド連携

Power API

活用・予測



▼ ble Beacon Magnet Sensor



By utilizing the function that can detect the magnetic force, Real-time detection of door opening and closing is possible.

* Built-in Hole IC sensor

Specifications

- -Size: 58mmx40mmx9mm
- -Weight: 21g (including batteries)
- -Specification Battery: CR2032 x 2
- Battery life: 2.5 years (default setting)
- -Operating temperature and humidity:-20 °c ~ 60 °c/0 ~ 95% RH
- -compatible with Bluetooth Smart 4.1
- -Transmit output: + 4DBM (default setting)
- -ble signal transmission interval: every 10 seconds (or the moment the sensor state changes)
- -Magnetic Sensitivity: Hole IC (Magnet sensitivity: BOP = 1.8 Mt Typ.)
- -Authentication: Telec/FCC/CE

▼ ble beacon temperature and humidity sensor

▼ ble Beacon Infrared sensor





Specifications

- -Size: 55mmx45mmx5mm
- -Weight: 21g (including batteries)
- -Specification Battery: CR2032 x 2
- -Battery life: 1.8 years (default setting)
- -Operating temperature and humidity:-20 °c ~ 60 °c/0 ~ 95% RH
- -compatible with Bluetooth Smart 4.1
- -Transmit output: + 4DBM (default setting)
- -ble signal transmission interval: every 10 seconds (or the moment the sensor state changes)
- -Sensing Distance: 5m
- -Detection angle: Vertical 22 °/Horizontal 38 °
- -Detection zone: 24 bottles

-Authentication: Telec





3.5m 5m

▼ Air MENTOR PRO (Pneumatic environment monitor)



Can measure temperature and humidity in real time

Specifications

- -Size: 58mmx40mmx9mm
- -Weight: 21g (including batteries)
- -Specification Battery: CR2032 x 2
- -Battery life: 1.4 years (default setting)
- -Operating temperature and humidity:-20 °c ~ 60 °c/0 ~ 95%

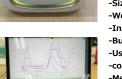
compatible with Bluetooth Smart 4.1

- -Transmit output: + 4DBM (default setting)
- -ble signal transmission interval: every 5 seconds
- -Temperature measurement range:-10 to 85 °c (max: ± 0.4 °c)
- -Humidity Measurement range: 0 to 80% (max: ± 3% RH)

80%100%(max:±4.5%RH)

-Authentication: Telec/FCC/CE





To measure the component values in six types of air in one unit

It is possible to

* object to be measured:

PM2.5/PM10/CO2/temperature/humidity/TC

Specifications

- -Size: 106mmx11mmx445mm
- -Weight: 210g
- -Input power: Micro USB 5v-1.0a
- -Built-in battery: Li-ion 3.7 v 1500mah
- -Use temperature: 5°C~ 40 °C
- -compatible with Bluetooth Smart 4.0
- -Measurement range of measuring object:

PM 2.5/PM10:0-300 µg/m²

CO2: 400-2000 PPM Temperature:-20-80 ℃

Humidity: 0-100% TVOC: 125-3500 PPB

-Authentication: Telec/FCC/CE

▼ ble Beacon Mat Sensor



Sensor

By detecting the weight of a thing, people stay Visualizing time and congestion conditions possible

Specifications

- -Size: 420mmx420mmx5mm
- -Specification Battery: CR2032 x 2
- -Battery life: 2 years (default setting)
- -Water Resistant: waterproof (IP6)
- -Material: PVC
- -Operating temperature and humidity:-10 °c to 50 °c/0 to 95% RH
- -compatible with Bluetooth Smart 4.1
- -Transmit output: + 4DBM (default setting)
- -ble signal transmission interval: every 10 seconds (or the moment
- the sensor state changes)
- -Working Load: 10 ~ 15kg/30 φ

-Authentication: Telec

MAT sensor only Low profile beacon

▼ Environment Sensor Bag type



Equipped with six sensors, radio functions and batteries in one unit

 Measuring object: temperature, humidity, illuminance, atmospheric pressure, noise, UV Index

-size: Approx. 46 × width approx. 39 × thickness approx. 15mm -Weight: 16g

-Specification Battery: DC3V (lithium battery cr2032 × 1)

-Battery life: About 6 months (measurement interval 5

minutes/Once a day connection)

-Operating Temperature: temperature: -10 ~ 60 °c/Humidity: 30 ~

-Bluetooth® low energy

-Detectable Range:

Temperature:-10-60 ℃ Humidity: 30-85%RH

Illumination: 10-2000 Ix UV Index: 0-11

Atmospheric pressure: 700-1, 100HPA

Noise: 37-89db

Service lineup (Certified devices)



トワーク デバ データ

デバイス管理 データ収集・蓄積 可視化

Power BI

クラウド連携

Power API

活用・予測

Azure & TINJARC & SIOT J T Platform

▼ GPS Tracker (Android-based)

Android™搭載! スマートフォン技術を応用し、

万能性と拡張性を兼ね備えた高精度な IoT ソリューション 「Acty シリーズ」



GPS Tracker

GPS、Wi-Fi及び3G/LTE通信を使用して位置情報をトラッキングし、サーバーに送信します。端末の設定は、個別にパソコンからアクセスするほか、サーバーからのプロビジョニング機能で一括更新することも可能です。

IoTゲートウェイ

Beaconデバイスやセンサーの情報を収集して、サーバーに送信します。

Beaconは発信と受信の両方に対応、一般のBluetoothデバイスとの双方向通信も可能です。

※GPSトラッカーやIoTゲートウェイとしてご利用いただく際に必要なアプリやクラウドサービスは含まれておりません。



標準仕様で IPX3 の防水と-20~70℃の使用環境に対応。

「Acty シリーズ」は単体で IPX3 の防水性能を持ちます。また外部ラバーカバーとの組合せでさらに強度な防水防塵仕様を満たします。 防水+パッテリー駆動が可能で、背面には壁掛け用の穴*を設計していますので、場所や対象物を選ばず幅広い用途でご利用いただけます。 −20 ~70℃の使用温度をサポートしますので、車載や過酷な使用環境でのご利用も可能です。 ※Acty-G1 のみ



大容量リチウムポリマーバッテリーを搭載可能。

3,800mAh の大容量で最大6ヶ月※のバッテリー駆動が可能です。

※Acty-G1でタイマーで1日に2回だけ定時起動し、その時点の位置情報をGPS測位し携帯無線通信でアップロードした場合です。 Acty-G2のパッテリー容量は1,900mAh、稼動時間はG1の大凡半分となります。

電源には取り替えが可能なリチウムポリマーバッテリーの搭載が可能です。測位間隔の調整が可能で、細かくリアルタイムに位置情報を検出する場合は測位間隔を短く、バッテリー駆動時間を長く運用する場合は測位間隔を長く設定するなど、アプリ側において適切な動作設定をすることによって、バッテリーを効率よく使用することができます。また常設の場合には AC 給電での運用が可能です。

▼ GPS Tracker



Use Example >

"Trucks, bicycles and other vehicles"

"Security transportation such as cash transportation"

"Cargo trolley", "pallet"

"Construction machinery", "container"

Refrigerated and frozen goods transportation

"Drug transportation", "rental goods management"

"Wheelchairs", "watching over children", etc.

Location tracking, temperature, acceleration, GPS, base station positioning sensor built-in

No battery charge for up to 6 months

Closed Sim



Service lineup (Certified devices)





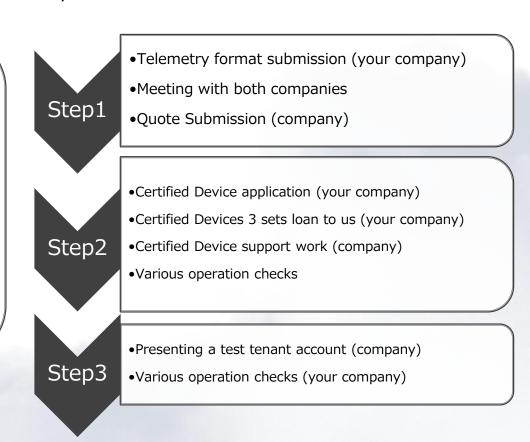
Device tethering Service

If your device is used by the Power IoT Platform, the "Device tethering service" Allows you to connect your device to the cloud in the shortest 10 business days.

Device tethering Service Contents

- 1. Authentication compliant MAC authentication, SIM authentication
- 2. Protocol Conversion Proprietary Protocol

 → AMQP Conversion
- 3. Power BI Collaborative API development
- 4. Power API Development
- 5. PIP Market Registration
- 6. Various operation checks
- * A separate cost is required for the management of the device.
- X Depending on the model, it may take more than 10 business days.
- * Depending on the model, there is a case that can not be connected.



Service lineup (Power SIM)





デバイス管理 データ収集・蓄

Power Monitor

可視化

Power BI

クラウド連携

Power API

活用・予測



Closed version



Power SIM for IoT

Fixed capacity No Limit 128kbps

It is a closed connection plan that can be used without the capacity limit with a fixed monthly fee.

Communication Speed 128kbps plan. No Maximum transfer amount



Power SIM for IoT

Fixed capacity No Limit 256kbps

It is a closed connection plan that can be used without the capacity limit with a fixed monthly fee.

Communication Speed 256kbps plan. No Maximum transfer amount



Power SIM for IoT 10MB

LTE high-speed communications up to 10MB per month are available. Speed limit up to 128kbps after 10MB exceeded.

Maximum transfer amount per month 100MB



Power SIM for IoT

10GB

LTE high-speed communication up to 10GB per month is available. Speed limit up to 128kbps after 10GB exceeded.

Total usage for the last three days exceeded 1GB The communication speed is limited to 128kbps.

Maximum transfer rate 15GB/month

Internet version



Power SIM for IoT

Fixed capacity No Limit 128kbps

It is a plan that can be used without the capacity limit with a fixed monthly charge.

Communication Speed 128kbps plan. No Maximum transfer amount



Power SIM for IoT

Fixed capacity No Limit 256kbps

This is an Internet connection plan that can be used without the capacity limit with a fixed monthly charge.

Communication Speed 256kbps plan.

No Maximum transfer amount



Power SIM for IoT 10MB

LTE high-speed communications up to 10MB per month

possible.

Speed limit up to 128kbps after 10MB exceeded.

Maximum transfer amount per month 100MB



Power SIM for IoT

10GB

LTE high-speed communication up to 10GB per month is available. Speed limit up to 128kbps after 10GB exceeded.

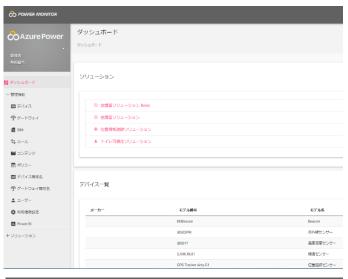
Total usage for the last three days exceeded 1GB Also limit the communication speed up to 128kbps We will

Maximum transfer rate 15GB/month

Service lineup (Power Monitor)





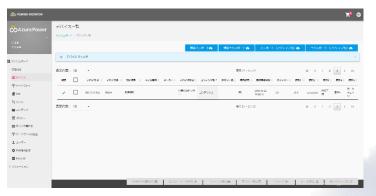


Power Monitor Top Page

Manage devices, gateways, and Sims.

Adding or removing Administrato rs

You can manage identities. Selec t the report format to change to the report screen.



Device List Screen

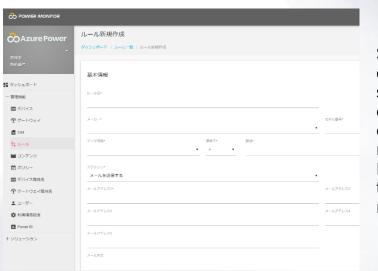
You can search for devices instantly from the information that is registered in the detailed information.
Select the device
You can work with data in Power bi.



Device details

The device's location, health, and state management.

Example) You can arbitrarily regist er the firmware version, memory, processor, SIM number, IP addres s, location information, synchroniz ation interval, and 10 other attribute information.



Rule setting screen

Set the threshold in advance as a rule. The alert mail is sent when the data exceeding the threshold is detected from the sensor information.

Example) detect the inclina tion and impact and send a n alert email.

Service lineup (Power BI)

 IOTデバイス
 ネットワーク
 デバイス管理 データ収集・蓄積
 可視化
 クラウド連携
 活用・予測

 認定デバイス
 Power SIM
 Power Monitor
 Power BI
 Power API
 ソリューション



Web version and desktop version

With non-coding, you can create a variety of graphs and charts, not to mention bar charts, line charts, pie charts, tree maps, waterfall graphs, maps, scatter plots (bubbles), gauges, You can easily create Funnel (funnel), compound graph (2y axis), area graph, Matrix (crosstab table), etc.



^{*} Power BI is a product of Microsoft company.

Mobile support

The reports you create are also compatible with mobile devices, so you can see them from your phone or tablet (iPhone, IPad, Android device, etc.). The Power BI site is drawn in HTML5, so if you have a typical Web browser, you can view the report, and you can edit the report from a mobile device, not just a reference.



Service lineup (Power API)





* Option Development (PAID)

You can obtain the history information of the installed sensor with the API.

The information that can be retrieved by the API is the same as power monitor, and is intended to be used to create a display method other than that which can be checked by Power monitor and to aggregate in-house.

Information and sensor types can be obtained below. (sequentially corresponding to the Certified device extension)

No	Sensor information	API Name	Description
1	Temperature information	GetTemperature	Get a history of temperature information for each device
2	Humidity information	GetHumidity	Get a history of humidity information per device
3	Location information	GetLocation	Get a history of location information for each device
4	Terminal list	GetSensorList	Get the gateways and sensor information included in the contract

API Acquisition Methods Send to API information

Contract Key: Identification key assigned to each contract -terminal key: Identification key assigned to each terminal Date of acquisition: Target start date-target End date

Receive information from API

Sensor information

^{*} Send and receive in JSON format

サービスラインナップ(ソリューション)

可視化

Power BI

クラウド連携

Power API



■ 位置情報追跡ソリューション

・ GPS・温度管理付き 位置情報よりデバイスを特定しセンサー情報を取得



位置情報追跡ソリューション操作画面



時系列での移動状況確認

■ 会議室活用ソリューション

・ Office365 上の会議室予約と、センサー情報から取得 した実際の利用状況を比較し、会議室の利用状況を視える化。 会議室の活用を支援するソリューション。



会議室空き状況確認画面



■ センサーマップ(2018年10月31日リリース)

センサーの位置・ステータス(状態)が直感的に視える

自由に設定できるマップ上に、センサーデバイスを自由にマッピングすることができます。



トイレ IoT(リリース予定)

トイレの利用状況と空き状況を視える化



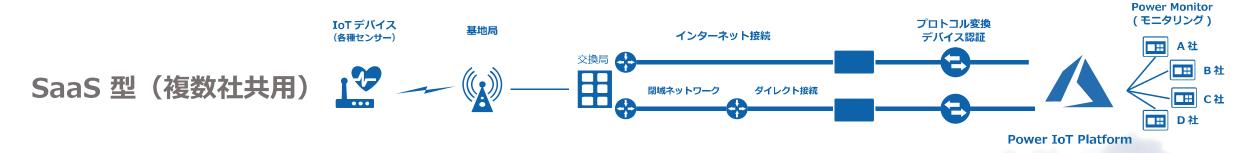
トイレ個室利用状況確認画面



サイネージ表示画面

Appendix: SaaS型・専有型について





特徴:低コストで使える統一プラットフォーム

(クラウド IoT サービス / インターネット・閉域ネットワーク) を提供



専有型 (一社専用)

特徴:柔軟なカスタマイズに対応

(クラウド IoT サービス / 閉域ネットワーク) を提供

Power IoT Platform

こまやかさと柔軟さでお客様の Azure 活用に寄り添います



For inquiries and consultations regarding our services, please email below

sales@azurepower.jp

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