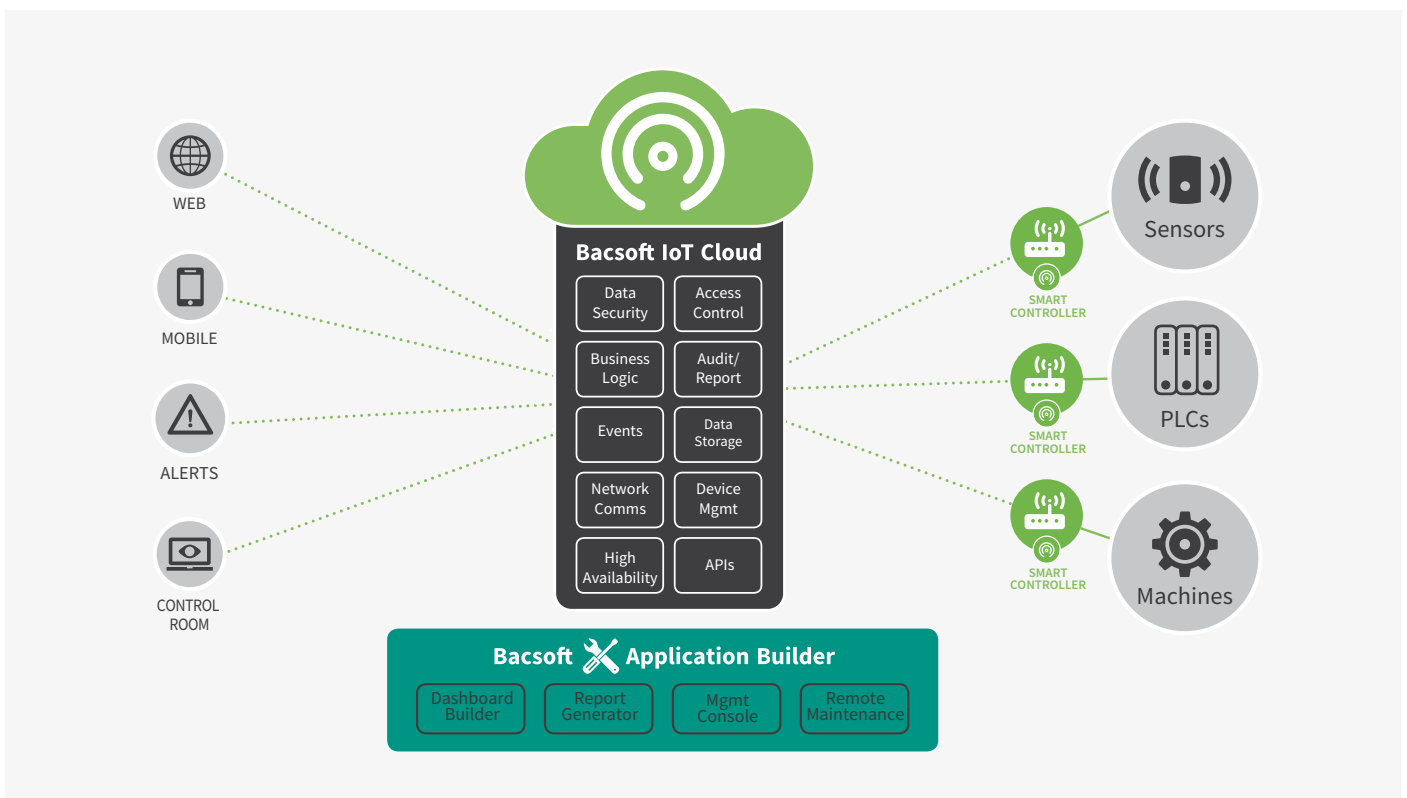


BACSOFT B-CONNECT M SMART COMMUNICATIONS CONTROLLER

BACSOFT IOT PLATFORM

The Bacsoft platform is an end-to-end solution for building and managing advanced IoT and M2M applications. Using Bacsoft, companies can rapidly connect their legacy infrastructure to the Industrial Internet and build applications to remotely monitor and control their operations.

Bacsoft reduces the complexity of IoT projects with a combination of robust and reliable remote connectivity, simple and rapid application development, and scalable cloud services. The platform features:



M2M COMMUNICATIONS:

Bacsoft 3G+ Smart Communications Controllers offer built-in support for a wide variety of devices, interfaces and protocols. Designed to operate reliably under all kinds of conditions, the 3G+ Smart Communications Controller is cost-effective and easy to deploy.

IOT CLOUD:

The Bacsoft IoT Cloud handles all aspects of communications, application execution, data storage, security and auditing. It easily scales to support thousands of connected devices.

APPLICATION BUILDER:

Rapid development tools enable integrators and IT organizations to easily build tailored IoT applications without coding and deploy them for mobile, web and control rooms.

BACSOFT M SMART COMMUNICATIONS CONTROLLER: ETHERNET AND 3.5 G CONNECTIVITY FOR LEGACY NETWORKS

The Bacsoft M Smart Communications Controller provides Ethernet connectivity as well as bi-directional cellular communications over 3.5G networks. This compact, yet highly versatile controller provides reliable M2M communications at any site and under all conditions.

Each device manages the connectivity to the server and can adapt to field conditions by initiating communications, performing self-recovery and more. A hardware-based external watchdog ensures that the communications software is running properly at all times, and, in case of an error, reboots the controller.

Bacsoft secures M2M communications with optional SSL 3.0 encryption, along with the option to install private, self-signed certificates. To further increase security and eliminate the need for a fixed IP address, the controller identifies and verifies the server during each connection.

The M Smart Communications Controller can be used to manage virtually any device. It includes built-in support for Modbus and Melsec and is easily adapted to work with any proprietary protocol, binary or ASCII. Where appropriate, one controller can manage a series of devices through a serial RS485 interface, simplifying deployment and eliminating multiple SIM cards.

FEATURES

Plug & Play Connectivity (easy setup, all wireless)

Always On - refresh rate of data read and data write is around 1 seconds both ways

Includes external hardware watchdog for fail-safe operation

Very Low Data Usage (a few megabytes per whole month 24/7 connectivity)

Various Analog and Digital Interfaces:
2 Digital Inputs
2 Hardware Counter

2 * RS232 + 1 RS485
1 Ethernet RJ45

Logging Capabilities

Debug and setup using standard SMS messages

OTAP (Over the Air Provisioning) support for software updates

Optional SSL Version 3 with embedded server certificate for secure applications

Option to open a raw tunnel directly to remote equipment

APPLICATIONS

INDUSTRY APPLICATIONS



Multi PLC Control
All Types of Sensors Readings
(Analog/Digital/ASCII/Binary)

ENVIRONMENTAL APPLICATIONS



Temperature, Humidity, CO2 (etc) Monitoring
Forest Fire Detection
Meteorology Station and Monitoring
Early Earthquake Detection
Snow Level Monitoring
Air Pollution
More

SMART CITY APPLICATIONS



Parking Control
Smart Lighting
Traffic Control
Waste Control
More

METERING APPLICATIONS



Tank Level (Oil/Gas/Fuel)
Silos Material Measurement
Electric/Water Meter Reading

WATER APPLICATIONS



Remote Control of Valves
Leak Detection
Valve Control
Water Meters (Pulses, Binary, ASCII)
Water Leakage
River Height and Flood Alerting
Swimming Pool Monitoring

AGRICULTURE APPLICATIONS



Green Houses
All Type of Irrigations Controllers
Low-Energy Sensors (Tensitometers etc)
Hen House / Cowshed Control

SECURITY APPLICATIONS



Transformer Theft Alarm
All Types of Security Sensors (Entry, Step-on etc)
Access Control

GSM SPECIFICATIONS

| | |
|------------|---------------------------|
| Bands | GSM 850/900/1800/1900 MHz |
| Data Class | HSPA |

SYSTEM SPECIFICATIONS

POWER REQUIREMENTS

| | |
|----------------------|-----------|
| Supply Voltage Range | 12-24 VDC |
|----------------------|-----------|

CURRENT CONSUMPTION

| | |
|-------------------|------------------------|
| GSM/GPRS Mode | 170 mA (Avg) at 12 VDC |
| Momentáneo máximo | 250 mA (Avg) at 12 VDC |

MEMORY CHARACTERISTICS

| | |
|----------------------|--|
| Type | Read Write |
| Max Storage Capacity | Up to 90000 Measurements (in offmode) |

ENVIRONMENTS

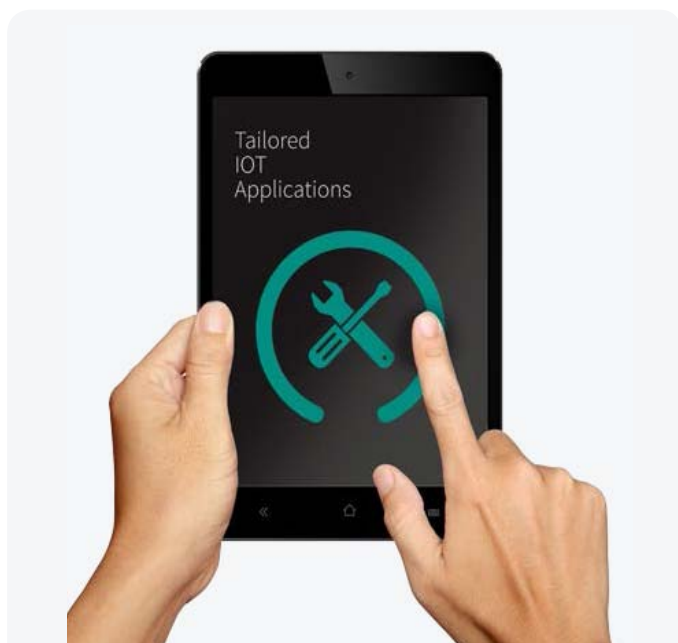
| | |
|-----------------------|---------------|
| Operating Temperature | -20°C to 70°C |
| Automatic Turn Off | 80 °C |
| Storage Temperature | 35 °C + 75 °C |
| Operating Humidity | 5% to 95% |

DIMENSIONS/WEIGHT

| | |
|------------|----------|
| Dimensions | 70x86x58 |
| Weight | g150 |

WIRELESS MODULE

Gemalto EHS6



INTERFACES

| | |
|---|----------------------------|
| 2 Digital Inputs (2 Hardsare Counters) | Dry contact |
| 2 Serial RS-232 1 Serial RS-485 | Full Duplex Half Duplex |
| SIM card socket | Push type |
| Antenna connector | Regular/full size SMA Male |
| Plug in Power Supply | Terminal Block |
| Plug in Backup Battery /Auxiliary Input | Terminal Block |
| LED Indications | RX/TX , System Status |

ADVANCED TECHNICAL INFORMATION

DIGITAL INPUT CHANNEL SPECIFICATION

| | |
|-------------------------|---------------|
| Input Range - On | 3 - 30V ("1") |
| Input Range - Off | 0 - 1V ("0") |
| Input Resistance | 280Kohm |
| Over Voltage Protection | 50V |

Digital inputs can be configured to act as digital counter for use with sensors that generate pulses