

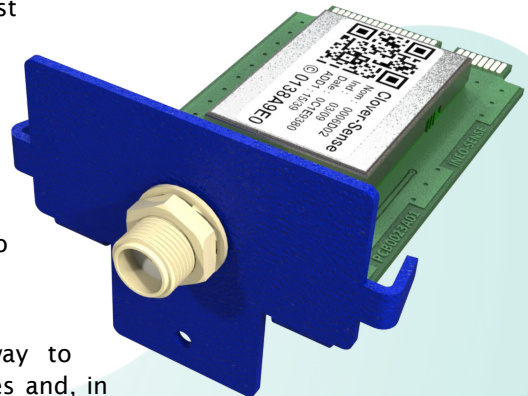
INS-mCard

Combine LoraWAN and Clover-Net in a single Gateway

MultiConnect® Conduit™ is the industry's most configurable, manageable, and scalable LoRa gateway for industrial IoT applications supporting thousands of LoRaWAN devices.

This Gateway offers 2 slots at rear to extend the communication capabilities. One of the slots typically hosts a Multitech® LoRaWAN™ mCard™, and the second one is then used to connect an INS-mCard Clover-Net designed by Ineo-Sense.

This configuration allows the same Gateway to collect thousands of LoRaWAN enabled devices and, in the same time, benefits Clover-Net advantages for Clover-Net capable devices, like immediate device access, Ultra-Low-Power 2-way communication, on-demand inventories, multicast and even Fast broadcasted collection by cadenced answers (up to 3 devices per second).



Plug-&-Play

Easily upgrade your Multitech® Conduit™ by plugging the INS-mCard Clover-Net and loading the Ineo-Sense package. This does not alter the existing Multitech features and configuration tools that allow to build efficient solutions in a few clicks.

Clover-Net communications handling are strictly the same as for INS-Gate, based on MQTT protocol for a maximum of flexibility.

Clover-Net add-ons

This configuration completes the solution services by offering all Clover-Net advantages like Ultra-Low-Power 2-way communications, On-the-Fly Inventories, device OTA firmware update, automatic time synchronization, Clover-Net Auto-answer, data buffering (no data loss), immediate device access, fast data collection and more.

*Exemple of usage
with Multitech
Conduit gateway*



An hybrid network without compromise

Manage more than 2,500 LoRaWAN devices collection in addition to Clover-Net added-values in the same time.

Clover-Net management does not affect the LoRaWAN features delivered by the gateway.

Reap benefit from the unequalled Ineo-Sense devices and keep your architecture opened to any third-party devices to match perfectly the needs.

Extended connectivity

This flexible platform offers many connectivity options like Ethernet, Wifi or even 3G/4G to the cloud.

These channels can be used to transmit data of both LoRaWAN and Clover-Net devices in different ways:

- LoraWAN packet forwarder to a distant Network Server
- LoRaWAN embedded Network Server and direct Application Server connection or MQTT transport
- Clover-Net device data through MQTT or TCP

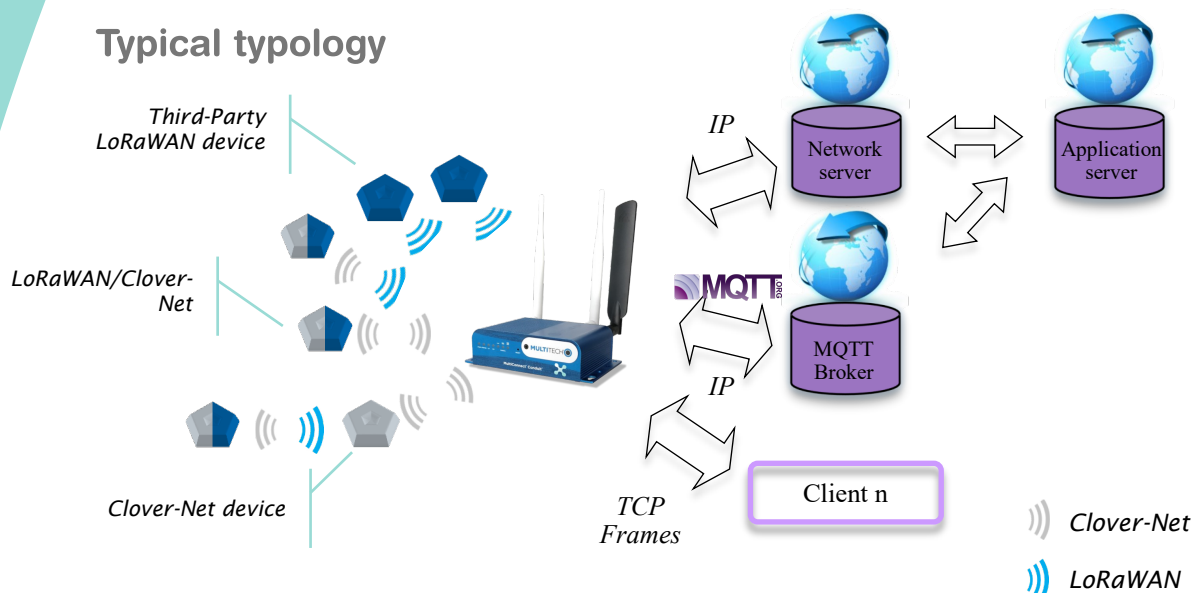
Main characteristics

- Play-and-Play Gateway upgrade
- Full compability with Multitech Conduit gateway
- Save Multitech configuration tools usage
- Combine LoRaWAN and Clover without any limitation
- Benefit from Conduit connectivity options

Clover-Net added values

- immediate device access
- Ultra-Low-Power 2-way communication
- On-demand inventories
- Fast broadcasted collection by cadenced answers (up to 3 devices per second)

Typical typology



As Ineo-Sense devices distributor and Multitech expert, get in touch with DataPrint for building your solution.

Web site: <http://www.dataprint.fr>

Contact: Loïc KERVENEC lkervene@dataprint.fr

Order references

Order #	Description
INS-MCA-MU-4XX-001	mCard, version 433MHz
INS-MCA-MU-X8X-001	mCard, version 868MHz
INS-MCA-MU-XX9-001	mCard, version 915MHz

Antenna not included



Clover-Net generic features

- Transmission range up to 5,000m line of sight, up 500m indoor.
- Real-time 2-way communications: Scheduled transmission, automatic alarms and on-demand reading.
- Robust against physical and electronic interferences.
- Fast event reactivity, huge coexistence ability.
- Low cost for mass deployment
- Auto RTC propagation
- Native triband compatibility (433, 868 and 915Mhz)
- CE & EN 300-220 & FCC 15-247 compliant
- Uses Multi-channel frequencies to avoid collision.
- Dedicated alarm frequency channel.
- Data Encryption by AES 128 with dynamic key mixt
- Includes Full networks services (Broadcast, Repeater, Mesh, ...)

Ineo-sense

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