

gridNet Integrated Smart Solar Pole

Introduction

gridNet Integrated Solar Smart Pole solutions is widely used in cities, roadways, rural establishments, and park areas. This solution uses solar integrated designs to solve a series of problems such as “off grid” power requirements, “off grid” lighting and “off grid” transmission and networking capabilities. In addition, the system uses intelligent management methods such as remote network & power management to greatly reduce the site failure rate and O&M investment.

Smart Pole Features

Simple

- Solar Power Supply & Network integration designs
- Total “Off Grid” Solutions
- Project Design & Build
- Simplistic installation with reduced maintenance

Flexible

- 220VAC, 12Vdc, 24Vdc, 48Vdc, PoE multi-mode power supply output
- Ethernet, WiFi, 3G/4G/5G/LTE/ CCTV/Radio flexibly adapting to onsite fibre resources

Reliable

- IP55 protection
- Integrated 20KA surge protection

Intelligence

- Remote unified network management, network, and power supply management

Smart Pole Applications

- Remote Lighting Site
- Remote CCTV Video Surveillance Site
- Remote WiFi coverage site
- Remote 3G/4G/5G/LTE/Radio/LoRa repeater site
- Remote powering Traffic Lighting

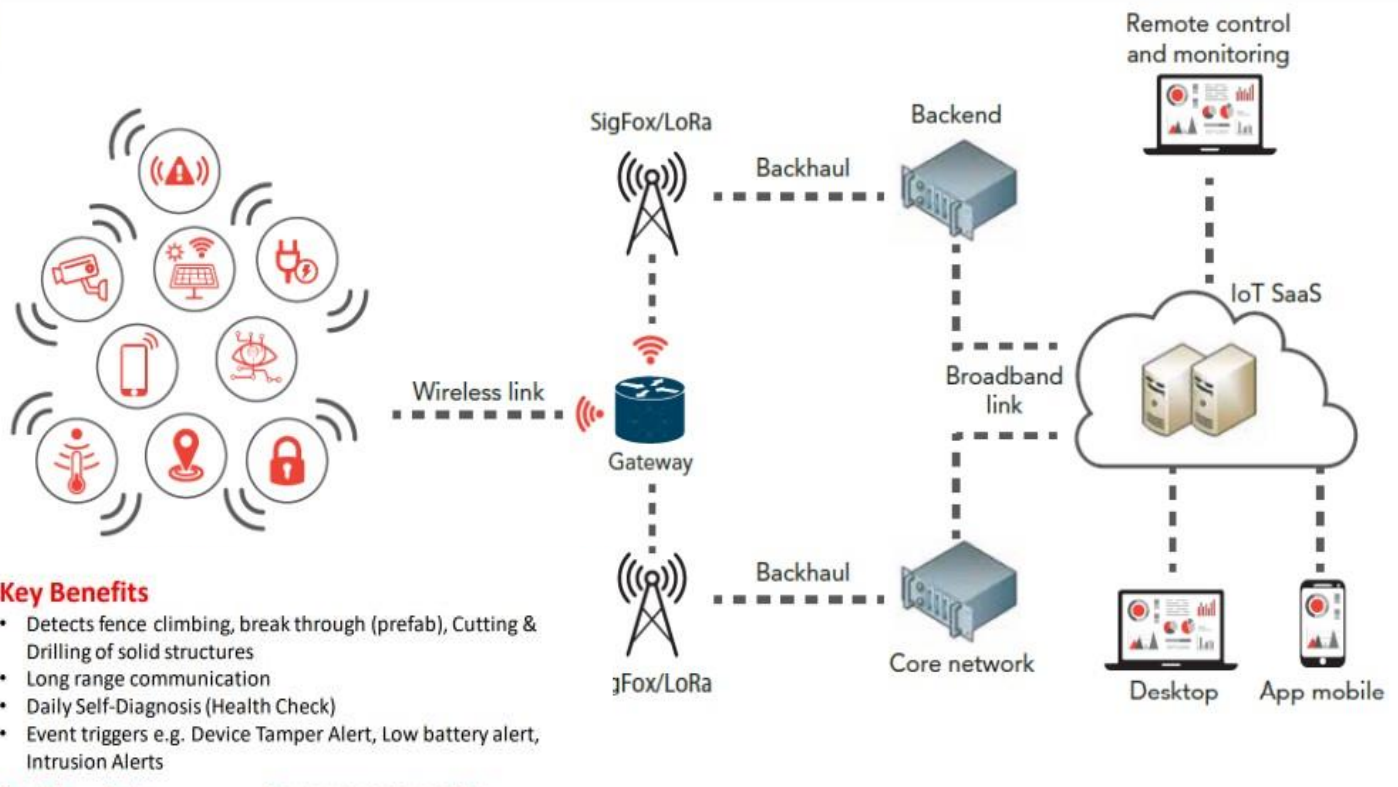
Typical "off grid" applications



gridNet Smart Solar Pole Design & Applications



Smart Pole Security applications



Smart Pole Specification

| Parameter Type | | Specifications |
|-----------------|-----------------|---|
| Street Pole | Grade | S355 Steel Pipe / Concrete |
| | Pole Design | Project Dependent |
| | Enclosure | Multi battery capability. IP and vandalism protection |
| | Pole Diameter | 152mm – 177mm typical |
| | Pole Weight | 313,2 kg typical |
| Function Module | Power Supply | 220VAC-12Vdc - 24Vdc - 48Vdc - PoE |
| | Battery | Lithium Ferro Phosphate / Lead Carbon |
| | POE | >95W ROH of POE, 10/100/1000 Base T LAN, 12KVA Surge |
| | Antenna | 3G/4G/5G/LTE/Lora /Radio- Optional |
| | Solar Panel | Monocrystalline 100W-540W |
| | Access Point | Ruckus – Cambium - Huawei (Optional) |
| | CCTV | Dahua - Hanwha – Axiz – Hikvision - Optional |
| | MPPT Controller | 12v,24V,48V,20A-60A, Bluetooth setup & Monitor |
| | Protection | IP55 |
| Management | CCTV | Management suite – Brand dependant |
| | WiFi - AP | Remote Network Management suite – Brand dependant |
| Security | IOT Sensor | All applications |
| | Network | IOT Wireless, LoRa, SigFox |

