

Network Connections in the City

Intelligent Interface Boxes for Smart City Applications



More than half of the world's population lives in cities. These occupy 2% of the earth's surface and produce 80% of global greenhouse gas emissions. The resulting sociopolitical and ecological problems call for corresponding actions to make people's coexistence sustainable and efficient, thereby improving the overall quality of life. Intelligent networking plays a central role here, especially in the field of information and communication technologies when extracting and transmitting data flows.



The Synaps outdoor box shows its new look: Industrial Design, quality certified and space for multiple components



Customized Configuration: 8 port Slat Ethernet switch (IEEE 802.3bt), lightning protector, extreme cold component, converter 12V PoE, assembled and tested exactly as specified

In an urban ecosystem, a variety of network applications with different characteristics are in use, such as traffic surveillance cameras, traffic light systems, license plate recognition, digital scoreboards, CO₂ emission and noise sensors, or video and WLAN-controlled outdoor surveillance. They all require interfaces to connect the devices that are used and transfer their communication and data, to bundle sensor signals, to monitor and report the system status, and much more.

Inhouse Technology Development

How can all these different interfaces be networked in a simple way? The industrial outdoor interface boxes of the Synaps range offer a complete solution with an integrated switch that has been developed by Slat especially to meet the safety requirements of PoE devices in outdoor applications (cameras, antennas, free WLAN, traffic management, etc.). Up to eight objects with a total power from 50 W to 180 W can be connected to one box. The switch acts as a network interface. Recently, the Synaps PoE8 (180 W) box with a managed Layer 2 switch, eight PoE/PoE+/HiPoE ports (IEEE 802.3bt) and two SFP ports for connection to the fiber network was launched onto the market. Now devices such as PTZ cameras can be easily powered.

Electrical protection in the case of micro-interruption, lightning strike or network-related changes (e.g. use of renewable energies) is supplied by the



Synaps acts as an interface and provides a robust home for network interface technology with remote infrastructure

long-life lithium iron phosphate backup which is part of the Slat patented battery management system. In addition to the standard products, Slat now provides customized versions. The boxes are configured ex works according to the specific project requirements, equipped with pre-tested components (switch, power supply and backup, PoE injector, media converter, etc.) and the overall concept is CE-marked.

Well Thought Through to Facilitate the Work of Installers

The advantages for the installer are obvious because only one equipment order is required and no time is lost searching for components. There is also no need for time-consuming compatibility tests and box assembly. Maintenance-friendly details make the technician's work much easier with pre-drilled holes, mounting kit and the removable technology block, without having to take off the whole box or connected objects from the installation site. Remote monitoring helps time saving and eliminates unnecessary on-site maintenance trips, which can quickly add up in distance. By means of an integrated web server or SNMP, status messages can be retrieved from any location: current consumption, battery charge level, number of power failures, etc. An additional integrated DAM function (Device Activity Monitoring) controls the connected objects and performs an automatic restart if necessary (e.g. of a frozen camera).

Author
Frauke Petzold

CONTACT

Slat
Lyon, France
+33 478 66 63 60
www.slat.com
comm@slat.fr