Eutelsat enables Machine-to-Machine (M2M) and connected services with its ‘SmartLNB’, an innovative cost-effective solution for low-throughput applications via satellite.

**KEY FEATURES**

→ Provides a valuable satellite link for Machine-to-Machine and Internet of Things (up to 160 Kbps/terminal).

→ Low cost equipment for low data rate consumption.

→ Based on open standards (IP, UDP, TCP, DHCP, ...) for straightforward integration and operation.

→ Use of multiple frequency bands (Ku, Ka) for global coverage.

→ Highly efficient transmission protocol suitable for millions of connected objects.

We are now in the era of Internet of Things (IoT) and intelligent connected objects. With its unique new satellite technology, Eutelsat meets the requirements of billions of such objects in terms of low data rate consumption and profitability.

Designed by Eutelsat, ‘SmartLNB’ is a next-generation electronic feed with an embedded DVB demodulator and an IP transmitter. ‘SmartLNB’ enables a variety of low-throughput applications that can be deployed via satellite with high efficiency and effectiveness.

Applications in which very small volumes of data are collected from, or exchanged with, remote devices are numerous and continuously increasing. They range from industrial M2M, such as metering and remote monitoring for Power Plants and Oil & Gas pipelines, to new IoT applications for the Environment and Smart Cities, such as public lighting monitoring and air pollution alerts.

In addition to satellites’ traditional advantages of ubiquitous, secure and resilient communications, Eutelsat now offers the cost-effectiveness required by most operators of such sectors, both in terms of equipment costs and optimisation of the satellite capacity.

For consumer oriented IoT applications, ‘SmartLNB’ can take advantage of being combined with satellite TV broadcast reception. This enables broadcasters and platform operators to expand their offers with in-home and interactive applications on a single user infrastructure, including audience measurement, home automation, security and e-health.

‘SmartLNB’ is available now, with on-going mass-market production.
‘SmartLNB’ provides a bidirectional narrowband channel on top of normal Direct-To-Home (DTH) reception in Ku-band. The return link can be in Ka-band, or Ku-band, depending on the model.

A typical installation for Internet of Things (IoT) services is composed of:
- Satellite dish
- ‘SmartLNB’ feed with Ethernet output

For in-home installations, an existing satellite dish and coaxial cable for Direct-To-Home (DTH) TV can be reused, adding an Indoor-Unit (IDU) that splits the video signal to the legacy TV/set-top box (STB) and the IP signal to the local network. For greenfield installations, or for applications not based on DTH, an Ethernet connection between the antenna and the IDU is also possible.

The interactive STB/IDU makes use of standard protocols (IP, UDP, TCP, DHCP, …) and is thus compatible with any standard user equipment.

‘SmartLNB’ is optimised for bursts and message-type traffic on the return link; the transmission protocol provides modulation and asynchronous access scheme with very high spectrum efficiency.

Operators may serve a wide population of terminals with cost-effective satellite bandwidth. The solution is available throughout Eutelsat’s worldwide satellite footprints.