EKOPLC INTERNET SL
Cecilio Metelo 5
07003 Palma de Mallorca - Baleares
902 876 615 | info@ekoplc.net | www.ekoplc.net

The EkoPLC System

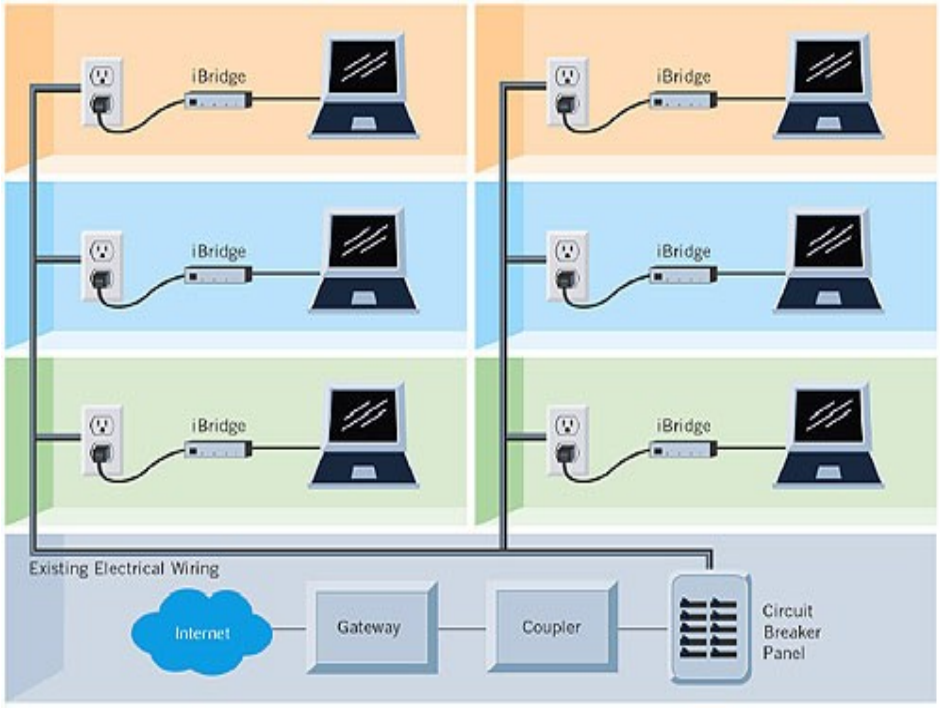
Frequently-Asked Questions - General

What is powerline communications (PLC) technology?

Powerline communications (PLC) technology refers to technology that enables data transmission and network communications using existing electrical wiring as the primary transfer medium. With PLC, network trafic can be sent and received through standard power outlets. Since PLC uses an existing power infrastructure, the basic network is already in place – a major benefit in situations where environmental issues, cost, security concerns, portability needs, and other requirements make traditional CAT 5 or wireless (802.11x) technology impractical or impossible.

What is broadband over powerline (BPL) technology?

BPL and in-building BPL are the two types of BPL technology. BPL typically refers to the tranmission of data over the outside utility power lines whereas in-building BPL uses PLC to network within a building.



How does EkoPLC's PLC technology work?

In general, the EkoPLC Gateway or EkoPLC eXtender converts an Ethernet signal into a PLC communication format and injects that into the electrical infrastructure of the building. The EkoPLC iBridge recovers the PLC signal and converts it back into standard Ethernet format for use in end-user devices.

Is EkoPLC's PLC technology safe?

Yes. The EkoPLC System is FCC Part 15 compliant, UL60950 listed and CE approved.

What is the EkoPLC System?

The EkoPLC System transforms a building's internal electrical wiring into an intelligent broadband networking platform that supports today's technologies and accommodates new technologies as they evolve, protecting your investment. The system is designed for deployment in challenging situations where traditional connectivity using hard-wired (CAT 5) or wireless LAN technology is not economically, environmentally or technically feasible.

How is EkoPLC's system different from HomePlug?

Home Plug is intended primarily for the single family residential market, while EkoPLC's System is intended for large installations or multi-building environments that require network management. Leveraging and improving upon the HomePlug 1.0 standard, EkoPLC's system is a robust, scalable networking solution that provides faster, more secure, and more stable data transmission than off-the-shelf solutions designed for the home market. In addition, the EkoPLC System is scalable to hundreds of users, more robust than commodity HomePlug products, and provides user management features unavailable in standard HomePlug products.

What advantages does EkoPLC have over HomePlug-based PLC solutions?

HomePlug 1.0 primarily targets the residential market where small, peer-to-peer networks are the norm. The EkoPLC System is intended for larger facility installations where performance, reliability, scalability, and security are critical. EkoPLC's system further improves upon the HomePlug 1.0 standard, incorporating modifications to meet the stringent demands of commercial market applications and the federal government.

What is the EkoPLC System?

include centralized management of data communications and network trafic through simple network management protocol (SNMP), command-line, and web-based interfaces (HomePlug PLC nodes communicate on an ad-hoc basis); improved security to restrict access by and between individual EkoPLC iBridges as determined by network security and data access policies; enhancements to improve performance and ensure the integrity of data
transmission over larger networks. With a broader operating reach, the EkoPLC system operates seamlessly in a broad expanse of facility configurations in the commercial and government sectors. EkoPLC's government solution implements 256-bit AES encryption and is FIPS 140-2 compliant, making it the only PLC offering on the market that meets the stringent security requirements for data transmission in U.S. government networks as set by National Institute of Standards and Technology (NIST) and the Department of Commerce. By law, U.S. government purchasing agents must prioritize acquisition of FIPS 140-2 compliant solutions over noncompliant technology. The financial community also
uses FIPS 140-2 as a benchmark for products handling monetary transactions. In addition, recognized quality
organizations such as the International Standardization Organization (ISO) and the American National Standards Institute (ANSI), have also adopted the standard.

Has EkoPLC's powerline communications (PLC) technology been proven?

Yes. The EkoPLC System currently provides high speed network connectivity to hotels, multidwelling units, schools, and government facilities around the world.

Can the EkoPLC System work with all types of broadband signals?

Yes. The EkoPLC System works with any type of broadband signal – regardless of the source or provider – including DSL, T1, E1, cable and satellite. A simple Ethernet connection is made between the building's broadband connection and the EkoPLC Gateway.

Can the EkoPLC System support other applications, in addition to broadband Internet and data access?

Yes. The EkoPLC System may be extended to include wireless Internet "hot spots" to specific common
areas within a building. Applications supported by the EkoPLC system include virtually anything that can be encapsulated into a TCP/IP packet. Examples of applications include local area networking, high-speed Internet connectivity, splash pages/disclaimers, closed circuit surveillance and security, elevator advertising, twoway video conferencing, VoIP telephony, point-of-sale systems, and energy and building management.

What are EkoPLC's cost advantages?

The EkoPLC System has many distinct cost advantages. Deployment can be completed in as little as a few hours, minimizing disruption and loss of business during the installation. The system is scalable, requiring only additional EkoPLC iBridges to add new users. The system can be moved or relocated with little or no cost.

How fiexible and portable is EkoPLC's system?

EkoPLC's system is extremely fiexible and portable. By installing EkoPLC Couplers and EkoPLC Gateways, a network backbone is created that is instantly ready for use and accessible via a facility's power outlets. The EkoPLC iBridge can be plugged into any available electrical socket, providing fast network access to users in any part of a building or facility wherever there is power. In the event that a building or location is decommissioned, virtually all of the network equipment can be recovered in a matter of a few hours – even in the largest facility. The hardware can then be quickly redeployed in a new location, providing investment protection. In temporary deployments, a complete LAN can be deployed as part of the electrical

Do I need to load software or modify my network settings to get connected to the Internet?

No. Since the EkoPLC iBridge provides a standard Ethernet port, there are no drivers or additional software to install; and, typically, computer settings do not need to be changed.

EKOPLC INTERNET SL
Cecilio Metelo 5
07003 Palma de Mallorca - Baleares
902 876 615 | info@ekoplc.net | www.ekoplc.net

Do I need to change my current settings or download software to use the EkoPLC System?

Not necessarily. The EkoPLC system is a transparent Ethernet-PLC bridge. If your laptop is configured to work properly on the network you are accessing, there is no difference between connecting via a EkoPLC iBridge or an RJ-45 wall jack. system using simple extension cords. The need to run dedicated network cables is eliminated, along with the potential operational security hazards that can result from the use of wireless technologies.

EkoPLC System Compared to Wired and Wireless Internet Solutions

	Wired	Wireless	EkoPLC System
Installation	Time-consuming, taking from 2 weeks to months to install cables; expensive; disruptive.	Time-consuming, disruptive. Must install wires to connect wireless access points to the network. Physical or environmental issues can limit effective deployment.	Simple - installed within hours/days with minimal equipment, with minimal new wiring and with minimal to disruption to building occupants. Low cost.
Cost	High initial costs to wire a building; minimal ongoing costs.	High initial costs, minimal ongoing costs. Can cost more than wired with the need to run cables and install additional wireless access points.	Low installation and operating costs.
Reliability	Extremely reliable.	Interference from various sources and types of construction reduce reliability.	Extremely reliable.
Performance	Throughput up to 100 Mbps.	Throughput up to 11 Mbps for 802.11b. Physical obstacles and distance significantly degrade performance.	Throughput up to 7 Mbps in the current product version. End user performance is dictated by the speed of the broadband connection.
Security	Physical security only.	Poor - fairly common for users to be able to access other users' networks and accounts.	Physical security. Secure 56-bit Data Encryption Standard (DES) and 256-bit Advanced Encryption Standard (AES) for government applications.
Mobility	Limited to area serviced by wall jacks.	Very good; signal may be compromised by dense walls or other materials.	Very good - Internet and data access at every electrical outlet.
EkoPLC Provides solution	NO	YES	YES

How easy is it to connect to the Internet with EkoPLC's System and how do you connect?

It is very simple to connect to the Internet. Since the EkoPLC iBridge provides a standard Ethernet port, there are no drivers to install and no configuration is needed. Simply,

1. Plug the EkoPLC iBridge into an electrical outlet;
2. Connect your computer to the Ethernet port on the EkoPLC iBridge; and
3. Turn on your PC.

Will my existing network settings be affected by EkoPLC's system administration software?

No. In the vast majority of cases, there is no need to change any system configuration either on the router or on individual computers.

Can I send and receive email with EkoPLC's System?

Yes. You can send and receive email. Any typical function that you would normally conduct via the Internet can be conducted when you are connected to the EkoPLC iBridge.

Can I connect to my company's network withEkoPLC's System?

Yes. EkoPLC's System is simply a transport medium on a network. The system does not affect virtual private network (VPN) performance. Subsequent connection to your company's network is a function dictated by your company's security policies.

Can EkoPLC's System be applied anywhere, such as in my own office, meeting rooms, offices and training rooms?

Yes. This technology can be applied anywhere there are electrical outlets. With EkoPLC's System, users can access the Internet from every electrical outlet in every room, including meeting rooms and public areas.

What software do I need to manage my EkoPLC system?

The EkoPLC system provides embedded management interfaces to configure and monitor network access and trafic Either a web browser or telnet client and administrative rights are required to centrally manage the EkoPLC system.

EKOPLC INTERNET SL
Cecilio Metelo 5
07003 Palma de Mallorca – Baleares – España
Teléfono: 902 876 615
E-mail: info@ekoplc.net
Sitio Web: http://www.ekoplc.net