

POWERNET POWERFUL COMMUNICATION



MARINE NETWORKS



INTRODUCING POWERNET

POWERFUL COMMUNICATIONS



What is PowerNet

PowerNet is an enabling technology which provides Ethernet and internet protocol (IP) related digital solutions.

The PowerNet product suite which enables Ethernet solutions to be delivered over existing electrical and co-axial cabling, is unique and is based on a technological solution which is patented.



PowerNet has been working with a number of specialists and key partners developing solutions for the Marine environment. This has included installations on survey vessels and supply boats for a variety of applications.

As a result of these evaluations there is a growing demand for our solutions to cope with everyday and special situations that occur within all marine environments i.e. internet access, standard office applications, IPTV, and condition based monitoring systems.

Now that providing internet access into the marine environment has never been cheaper and stabilised TV systems are now affordable, it's now possible to distribute these services within vessels in a cost effective and painless manner without having to install specific network cabling.

HOW IT WORKS

POWERFUL COMMUNICATIONS

The PowerNet Gateway is coupled to the distribution board feeding the required location. The signal then propagates along the cables to the plug sockets on the ring main.

A secondary PowerNet device, a CPE, is used to take the propagated signals from the cable and convert them into an Ethernet output.

Any network device can now be connected via a simple CAT5 cable.

The whole installation is rapid, exceptionally cost effective and does not interfere with on board systems such as Dynamic positioning, GMDSS Equipment, Navigation aids etc.

The technology allows multiple locations onboard to be instantly IP accessible with the technology working on single, multiphase as well as floating neutral supplies in addition to co-axial cable systems.

Networks can be designed to cover the entire marine environment and can be administrated in various ways to ensure a secure and low management overhead network

With the entire vessel being digitally active multiple devices can be attached as and where required. This means that the network can be used for anything from CCTV, Broadband and IP TV distribution through to condition based monitoring systems as well as standard office applications.

Dirty earths do not affect the system—with built in intelligence the PowerNet system learns to best configuration to dynamically get around noise or other interference.



The network can be installed onboard vessels of any type to provide a “home from home” environment for internet services or VoIP directly into cabins.

The data network provides up to 200Mbps data rate providing an adequate bandwidth to the end user.

Each PowerNet Head end unit can communicate with up to 1024 MAC addresses and the system follows a spanning tree protocol meaning that large networks can be deployed.

The installation is rapid meaning ships do not have to wait until dry dock or extended port visits and the typical costs and problems associated with new cabling and network installations do not exist

POWERNET SOLVES YOUR PROBLEMS

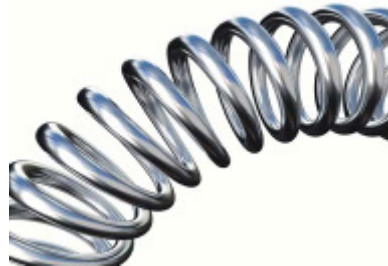
POWERFUL COMMUNICATIONS



PROBLEM : INSTALLING NEW CABLING ON A SHIP IS DISRUPTIVE AND MANPOWER INTENSIVE.

PowerNet Solutions can be deployed quickly and easily. Trained personnel are able to use inductive or capacitive coupling to create an internal network capable of providing up-to a 200Mbps LAN on single or three phase using the existing power network. This can then be used for any IP enabled system (Satellite Broadband, IPTV, CCTV, VoIP and WiFi as well standard office applications).

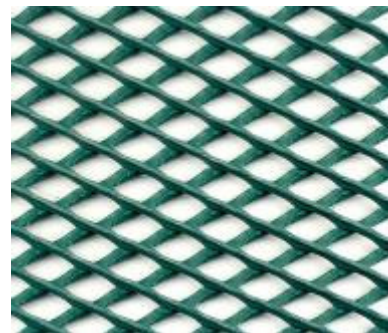
SOLUTION : RAPID DEPLOYMENT ON EXISTING CABLES REMOVING THE PROBLEMS, COST AND DISRUPTION ENCOUNTERED WITH INSTALLING NEW CABLING.



PROBLEM : I NEED A NETWORK THAT IS FLEXIBLE.

PowerNet products connect to any Ethernet enabled device. Unlike traditional Network cabling systems which require extensive planning and flood wiring to get network points where they are or maybe required, the PowerNet products provide a network connection anywhere there is a power outlet. This gives a tremendous flexibility with respect to locating IP devices to meet business needs.

SOLUTION : INSTALL A PROVEN TECHNOLOGY THAT OFFERS FULL FLEXIBILITY.



PROBLEM : WIRELESS NETWORKS DON'T WORK ONBOARD SHIPS .

The PowerNet solution can offer full onboard coverage utilising the network sat dormant onboard ships. This means steel deck and bulkheads together with transit glands no longer factor as a problem. In addition, the security risks traditionally associated with Wireless Networks do not exist with the PowerNet products.

SOLUTION : USE THE EXISTING CABLING TO PROVIDE A NETWORK WHEREVER YOU WANT IT.

POWERNET SOLVES YOUR PROBLEMS

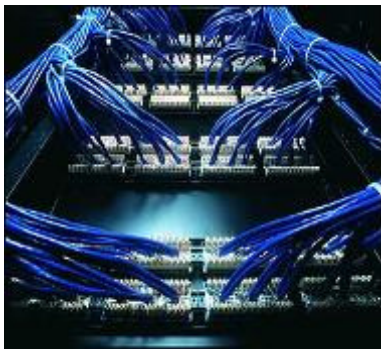
POWERFUL COMMUNICATIONS



PROBLEM : ANY SOLUTION MUST WORK IN ALL MARINE ELECTRICAL ENVIRONMENTS .

PowerNet recognise the prerequisites of testing in live environments have proven that the hardware, firmware and software is able to be secure and operate to the standards set by the marine industry. The PowerNet products do not interfere with any Radio equipment, Navigation aids, GMDSS equipment or Dynamic positioning systems found onboard ships.

SOLUTION : USE A SYSTEM THAT IS PROVEN TO INTEGRATE SEAMLESSELY INTO THE MODERN MARINE ENVIRONMENT.



PROBLEM : WE WANT TO PROVIDE BROADBAND ACCESS OR TV SERVICES TO VARIOUS LOCATIONS WITHOUT THE PROBLEMS ASSOCIATED WITH INSTALLING ADDITIONAL CABLING.

The PowerNet solution enables you to offer Ethernet connectivity across large areas in location, no matter how inhospitable, at the flick of a switch. This then enables any IP based services such as broadband or IPTV to be delivered to where it is required.

SOLUTION : DIGITISE THE EXISTING ELECTRICAL INFRASTRUCTURE TO PROVIDE ETHERNET CONNECTIVITY WHATEVER THE ARCHITECTURE AND RETAIN THE FLEXIBILITY TO MOVE AND ADD NETWORK POINTS WITHOUT ADDING MORE CABLING.



PROBLEM : CABLING A SHIP IS COSTLY IN TERMS OF MANPOWER AND DISRUPTION TO NORMAL OPERATIONS.

Shipping is a very competitive marketplace and its often not possible to take a ship off charter to install additional cabling to take advantage of satellite broadband and IPTV services. In addition, any investment in more cabling is then locked into the vessel..

SOLUTION : POWERNET DEPLOYMENT IS RAPID AND CAN BE COMPLETED IN A MATTER OF HOURS MEANING NETWORKS CAN BE FITTED WHILST SHIP TURN AROUND IN PORT. DUE TO ITS UNIQUE NATURE THE POWERNET SYSTEMS CAN BE EASILY REMOVED AND RELOCATED ONTO OTHER VESSELS THUS PROTECTING THE ORIGINAL INVESTMENT.

WHAT TO DO NEXT

SPEAK TO YOUR POWERNET REPRESENTATIVE

POWERFUL COMMUNICATIONS

Focused IT Solutions Ltd
Oil States Buildings
Blackness Road, Altens
Aberdeen, AB12 3LH

t: +44 (0)1224 870070

m: +44 (0)7803 969797

w: www.focuseditsolutions.co.uk

e: enquiries@focuseditsolutions.co.uk

