IP over Coax with Adapt-X

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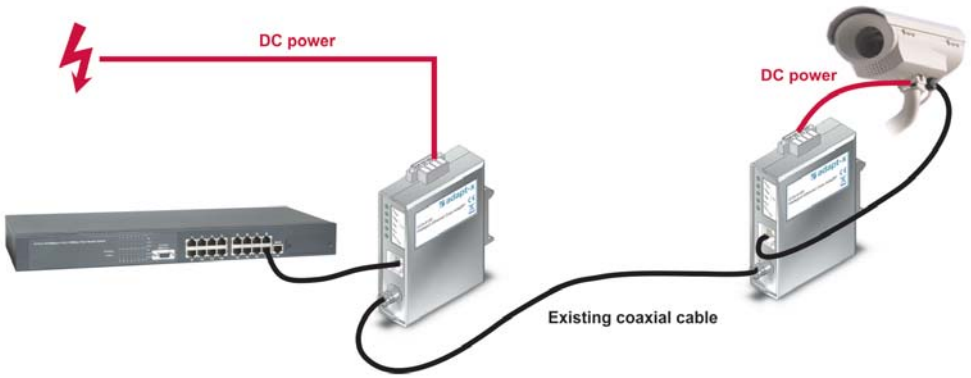
A revolutionary new approach to upgrading existing analogue coaxial cable networks to carry fast Ethernet and DC power without re-cabling.

technetix
empowering broadband networks

Adapt-X
from the Technetix Group

These products allow 100 Mbit/s wire speed Ethernet traffic, and DC power, to be carried over the existing analogue coaxial cable of distance up to 250 metres.

Application Diagram



Whenever a customer opts to upgrade his existing analogue installation to IP based usually he focuses on the cameras and data capture devices, leaving any consideration to the network cabling as a lesser item. The usual assumption is that the existing cabling will have to be replaced with either Cat5 or Fibre Optics. In a lot of cases this causes operational difficulties with camera locations and cable runs not always being the easiest to install. The location of the cameras can also sometimes be made difficult by the need to get mains power to them.

Now, however all of these problems have been solved with a new range of products, called Adapt-X, from the Technetix Group. These products allow 100 Mbit/s wire speed Ethernet traffic, and DC power, to be carried over the existing analogue coaxial cable of distance up to 250 metres. The first device in this range is known as an Intelligent Ethernet Coax Adapter, UCA-6120 and is part of a range of networking solutions developed by the Technetix Group.

As shown above the solution consists of a UCA-6120 placed at either end of the existing coaxial cable. At the central location the IP Ethernet traffic is fed into the UCA-6120 via an RJ45 connector, along with DC power from a mains adapter fed in via a screw terminal black, and a combined signal output is fed into the coaxial network via a BNC connector. At the remote location, an identical UCA-6120 is placed that is connected to the coaxial cable using the BNC connector and has an RJ45 connector which is linked to the IP input connector on the camera. The screw terminals can be used to extract DC power, sufficient to power the unit and an IP camera.

A significant advantage to this approach is that by powering the remote camera/device over the coaxial cable from the central end, the network will be protected from localised mains outages or cable damage as most central locations will have their power supplies backed by an Uninterruptible Power Supply, UPS. Of course the solution does not just apply to IP cameras, but to any IP enabled device, such as IP Intercoms, IP Telephony etc with multiple devices connected via an Ethernet switch. Installation time is less than 5 minutes per cable end and requires no specific tools or training, merely a screwdriver.
In addition to the single unit UCA-6120, Technetix are also developing a 19" rack mounted unit with 2 modules, supporting 4 Coaxial connections each. This unit will be of interest in central locations where a bank of multiple single units may not be desirable.

Technetix Group are a networking component design and manufacturing company with over 25 years of supplying specialised solutions to broadband and MSO operators across Europe.

Technetix Group are launching this new range at the IIPSEC show in January 2007.

The technology is known as cXcomm-100 and enables full speed Ethernet and DC power over existing coaxial cabling without software issues or setup.

For more information on this product, contact Madison Technologies on the details below.