

Home Domotica

Why should we want home domotica ?

Home domotica is the next step in the process of house automation. The success in this field mainly depends on the connectivity between all the different devices that can be used. For streaming devices there is still a challenge because they need high bandwidth low latency, low jitter and no packet loss. The situation for control devices however is reasonably under control as they are fault tolerant and only need low bandwidth.

Possibilities

A good example that demonstrates the possibilities of home automation in conjunction with IPTV is smart metering. With smart metering there could be several sensors detecting the consumed electricity, the hours of sun per day, the power generated by for example solar panels on the roof etc. Such gathered information visualised on the TV gives people insight to their power consumption and the amount of energy / money they could save. This way giving it a value to the consumer and making him or her aware.

Another example is the use of IP-camera's. These can be integrated into the IPTV solution. Once triggered, a camera can project a picture in picture on the TV screen of the image taken. For instance a picture showing who is at your front door. Or during the vacation period a stream can be sent to a central side, where security is offered as a service. At the same time, when somebody approaches the house a still image could be taken and stored on a NAS.



Protocols

The protocols to connect all control devices to each other and to the IPTV solution are already widely in the market available. Nowadays this is still mostly based on mobile (GPRS) networks, but it can easily be done over a VLAN based next generation network via ZigBee or Z-wave protocol. Z-wave has the potential to become a perfect solution in home automation, since it supports mesh technology by default. Lack of signal reach is thereby solved, since the message can hop from device to device to reach its destination. The platform itself is neutral for these technologies, it is just the carrier for the data.



Management

All implementations can be stand alones. But there is always a problem to reach and manage the control devices behind a NAT router. The solution can be offered by the service provider by means of a simple portal. The collected data and feed-back can then be visualised on the existing NWS IPTV platform. This is already suited for this kind of applications and every customer is known and authenticated as well.

The new way of television

Standards

The controlling feature in the network, can be the stand alone controller, that is managed by TR-069 from the central ACS (Auto-Configuration Server). Or it can be done by the residential gateway with a small protocol stack on top, and a USB controller attached to the gateway. In that case the management of the home network will be done by the residential gateway by using TR-069 protocol set, with some extensions to it.

Both ZigBee and Z-wave are standardised already, and easy to use in home automation. There is however a challenge in presenting the available information to the consumer. Here as well the NWS IPTV solution can play a key-role. We combine open standards in a strong solution to which any vendor can add products, thus creating competition, lower prices and cost-effective solution without lock-in.

New Web Services

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