

## **SCTE 2002 Cable-Tec Expo June 4-7, 2002**

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### **CREATING THE NETWORKED HOME**

The migration from analogue to digital is more than just about operators increasing capacity; it's about deploying a platform and an end-to-end infrastructure that will provide more than just Pay TV.

Operators around the world are already doing this and are providing enhanced and non-traditional services using their digital platforms; this is being done for three reasons:

- 1) To increase the Average Revenue Per User (ARPU) by providing these new additional services.
- 2) To provide greater differentiation from the competition, and maximize the inherent strengths of their platform.
- 3) To provide a one-stop shop to the consumers for all their information, communication and entertainment needs.

The types of services that are being deployed include those that contend for the TV screen such as e-mail, Internet access, home shopping and banking as well as those that sit outside of the set-top box (STB) such as high-speed data (HSD), access to PCs, telephony and home security.

The success of these interactive services will not just be based upon high access speeds or advanced technologies, but on how the services are packaged and presented to the consumer and how easy they are to use.

With the integration of cable modems into the STB, we have the ability to provide more compelling interactive applications – this is what we call Phase 2 of the set-top box evolution. With this integration we will see the set-top box, which is commonly being referred to as the Home Gateway, become one of the key channels in which consumers will access the Internet, e-mail, iTV and other services. Additionally these Home Gateways will enable content to be delivered to other devices around the home. To illustrate this we need to look no further than those

operators that are rolling out cable modem-based Home Gateways in the UK. These not only provide large levels of interactivity to the TV, but also broadband connectivity to PCs.

In order to provide the final phase of the evolution of the Home Gateway, we need to provide this broadband connectivity to numerous devices throughout the home. To achieve this we will ultimately start to see home networking technology integrated into the Home Gateway. However at this time we see external modules being developed that connect to the Home Gateway allowing operators to target the right customers and consequently manage their Consumer Premise Costs more effectively.

One approach is to use a gateway device that is designed to connect to any cable modem-based Set-Top Box (STB) through an Ethernet connection, which can provide wireless or existing wire connectivity around the home. To achieve this, the gateway would use wireless technology or existing in-home wiring such as power line or telephone cabling.

The first service that will be addressed by such technology will be Internet access to PCs and laptops. From this we will see progression into other Internet appliances such as radios, web tablets, game consoles and security systems.

Looking further out we will also see additional services being developed such as home monitoring, home diagnostics, meter readings and white goods management. Ultimately we will see networking technologies evolve and resolve issues such as latency, QoS and security, enabling distribution of wireless video throughout the home. This means a consumer will be able to hang a Plasma Screen TV on the bedroom ceiling and only have to worry about a power connection.

So coming back to today, what are the key criteria for successful home networks solutions?

- Cost – operators are willing to invest in future technology, but not if it makes the deployment of services today financially unattractive.
- Standards Based – at the end of the day superior technology is not always the winner, you only need to look back at the Betamax – VHS wars. There is a need to ensure the use of mass market technology.
- Security – for two reasons, first to prevent your neighbor from ‘latching-on’ to your broadband connection, but also to ensure that the operator is able to control (and potentially charge) for devices that connect.
- Customer Installable – in order to minimize costs, operators are also looking at reducing the install costs, as these can be hidden equipment costs. Products that are customer installable will help reduce the cost burden and empower the consumer.
- Quality of Service (QoS) - so that the underlying networking technology is suitable for the services that are being deployed, for issues such as interference and latency.
- Coverage – a product that is being targeted as a home networking solution should provide coverage throughout the house.

- Solution for Today – to be able to support services for today while also providing an infrastructure for future services.
- No New Wires – for the same reasons as having a product that is ‘customer installable,’ to reduce operational costs to the operator. Additionally there is also the customer convenience of not having the home re-wired, which will reduce customer resistance.

In conclusion, the set-top box of today is already providing more than just Pay TV services and is ideally positioned to become the Gateway to and from the Home. The next phase of the battle for the consumer has begun, with new competitive platforms waiting in the wings.