



FIA On3 Player Digital Media Player and Library

Videos, Music, and Photos On Demand and as Simple to Play as 1, 2, On3



Research Shows that the Home Entertainment Network is Ready to Distribute Digital Media Throughout the Household

Over the past three years, the popularity of digitally formatted content, wider availability of broadband and increased interest in home networks have acted as a catalyst to usher in the digital media age. These leading indicators, coupled with the accelerated adoption of personal digital devices such as, MP3 players, digital cameras, PDAs, PCs, and wireless networking technology, have created an environment that's ready for the convergence of these products into a "Home Entertainment Network."

Market Trends and Supporting Research

According to Parks Research, the total cumulative addressable market (TAM) for home connectivity within the data and multimedia applications is expected to grow tremendously between 2003 and 2008. The total addressable market for all connectivity solutions, for both data and multimedia is expected to total more than 460 million nodes by the end of 2008. Recent studies by Parks look at interest in combined PC and Consumer Electronics (CE) applications.

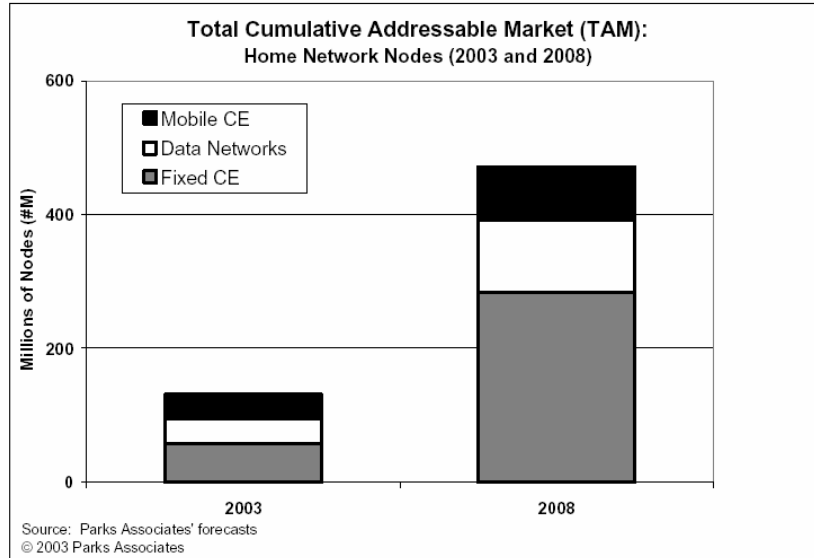


Figure 2: Total Cumulative TAM for Network Nodes: 2003 – 2008

More than 40 percent of U.S. Internet connected households have used the PC for traditional CE activities. For example, watching DVD movies on a PC, or storing MP3 files. Connecting PCs with TV and audio systems is of interest to several U.S. Internet household segments.

- The interest is higher than average among three segments identified by Parks: high entertainment (those with 42-inch or larger TVs, connected speakers and PVRs or DVDs), 18-34 year olds, or digital families.
- The interest in home servers by the high entertainment group is very high.
- Those 18-34 year olds and digital families show high interest in controlling their entertainment devices via the Internet. It's clear that the broadband trend, combined with the accelerated use of the PC as an entertainment device will drive the need for connections of that same PC towards the high quality A/V world.

Home Entertainment Network Growth Segments

There are several growth segments that contribute to development of a “home entertainment network” product, including:

- Growth of data networks
- Growth of multimedia networks (video streaming to multiple devices in the home and distributing music content from Internet)
- Content as a driver (Internet is the key distribution method)
- Network-capable CE platforms (These devices will range from high-end cable and satellite set-top boxes to Internet-connected media server that access, store, aggregate, and stream content such as music and video files to other devices in the home.
- Fixed CE platforms (digital TV/HDTV including LCD, home theater projectors, A/V receivers, speakers, game console, legacy device connectivity, etc.)
- Mobile CE platforms (digital video cameras, still cameras, portable gaming devices, smart displays, handheld MP3 players; and legacy device connectivity).

FIA On3 Digital Media Player and Library

Current Market Solutions

Media adapter/receiver solutions are currently available, with the most popular products made by the giant entertainment vendors, such as, Sony, Panasonic, Motorola, HP, Linksys, Gateway, and Rockford Corp.

FIA has developed a technology that provides simplicity to the user, with instant media playing capability, data sharing and storing in a portable compact design. You're your media library is set up, you can access your digital files fast and easy because the unit is always on, and you don't need a PC to play your files. Currently, no other vendor provides all these features in a single product:

The FIA On3 Digital Media Player and Library distributes video audio, and photo files from the PC or through broadband from the Internet, to your TV, stereo, or secondary PC. The product stores and shares data and media content among other home electronic appliances.

FIA On3 Product Highlights

- Unique, low-cost home network storage that outputs to TV, HDTV, stereo and multiple PCs
- Expands throughout the household from one to four rooms
- Instantaneous media playing capability with use of dual processing (network storage processor and media processor)
- Software maintains industry standards and shares all PC and Apple data

Supporting Software

The software on the FIA On3 is unique in that it supports media sharing and storage functions, and independently supports the dual processor hardware tasks. The following features are included:

- Easy to install user interface (in less than 5 minutes and 2 mouse clicks to setup)
- Instantaneous media processing with high performance dual RISC processors
- Instantaneous access to media using dedicated network interface channels for both processors
- Quality digital output
- Instantaneous access to media with software management that controls the digital content and operating environments independently
- Content security with quota limitations user privileges, and shared folder setups
- Optional Ethernet LAN or Wireless support with encryption on the Wireless LAN.

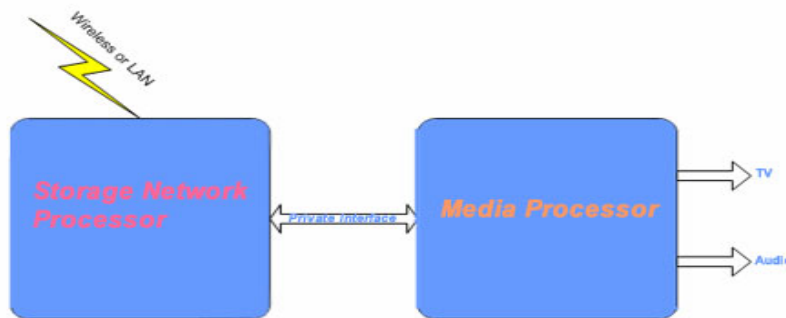


Figure 2: Basic Architecture Block Diagram

FIA On3 feature specifications include:

- Input media via Ethernet or integrated wireless (802.11b and 802.11g)
- 120GB internal storage for all digital content
- Share data to PC and TV/Audio device contents
- Network/Storage management software
- Ease of installation and use in 5 minutes and 2 mouse clicks
- Multiple OS Support (Windows and Apple)

FIA On3-xr feature specifications include:

- Graphics Media Processor
 - MPEG-4
- TV output (analog and digital)
 - S-Video Composite Video
- High Definition TV (HDTV)
- Sound Output with 5:1 Digital Stereo
 - Optical audio output support
- Infrared wireless remote control

The FIA On3 software management tool supports connections between the PC, stereo, and television appliances. The software allows users to consolidate, store, manage and share their videos, music, and digital pictures from a single unit. This is accomplished through wireless connection or through a home LAN (local area network). Families can enjoy their favorite collection of pictures, video, and music through a simple wireless infrared remote control.

Wireless Support

The FIA On3 platform is flexible in that it supports industry standard connectivity. It is also backward compatible. The motherboard contains a mini-PCI slot that supporting multiple connections, including an 802.11b, a/b, or a/b/g radio mini-PCI module. It is upgradeable to any other mini-PCI connectivity module. The newer standard 802.11a, or Wi-Fi5, supports 54mbit/s and increases bandwidth. The new standard 802.11g is also backward compatible with 802.11b. Note: Wi-Fi 802.11b is limited to 11mbit/sec.

Content Control and Easy Installation

The FIA On3 wireless home A/V platform includes interfaces for the wireless infrared remote control and wireless connections. It interacts with the network through a 'smart' wireless infrared remote control device. The FIA On3 is specifically designed to function with Philips' advanced multi-function remote, the Pronto and Streaming Internet Radio. The FIA On3 supports two-way infrared (IR) and supports full control on the Pronto's LCD screen. In the future, FIA will provide a solution for PDAs, such as the iPAQ, and the Palm Pilot.

In order for the various devices to 'talk' to each other, FIA has implemented Universal Plug and Play (UPnP™), a standard technology that is widely used throughout the PC and CE world.

FIA is an active member of the UPnP Forum, and maintains the most current specifications in its On3 appliance. UPnP's technology objective is to make home networking simple and affordable for consumers. The UPnP architecture offers pervasive peer-to-peer network connectivity of PCs of all form factors, intelligent appliances and wireless devices. UPnP architecture leverages TCP/IP and the Internet to enable seamless proximity networking in addition to control and data transfer among networked devices in the home, office and everywhere in between. UPnP technology can be supported on essentially any operating system and works with essentially any type of physical networking media – wired or wireless - providing maximum user and developer choice and great economics

Storing and sharing your picture library is as simple as 1, 2, On3.

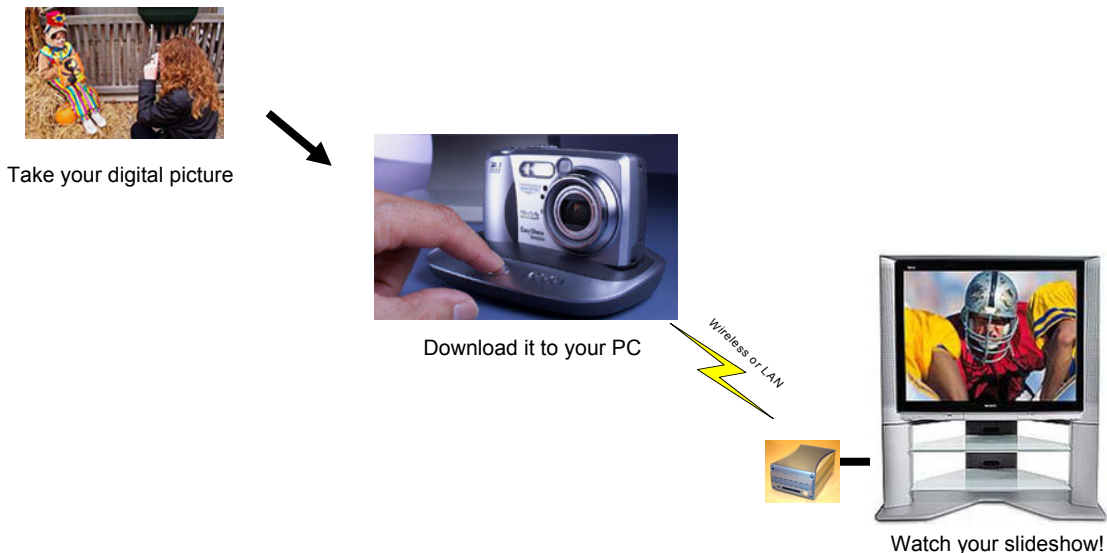


Figure 4: storing and sharing a family photo album

FIA POPdirector Media Management Software

- Easy to navigate through Infrared remote control
- Select the media you want to share and distribute it to the TV and/or Stereo



Figure 5: Media Management Software Displaying on the TV

FIA On3 Platform is Fully Upgradeable

The FIA On3 wireless home A/V platform is fully upgradeable through the Internet. Online firmware and software can download at the users convenience through the FIA On3.net website. Automatic upgrades of new software and future functionality enhancements are available, giving the OEMs the flexibility to stage certain software updates over a period of time, and provide users upgrades for a fee if they so desire. This process can be determined as the time of contract for both FIA and the OEM. In the future, the software download service will include value-added services, such as enhanced A/V content.

Target Customers

Targeted at families and/or consumers of electronic equipment, FIA will initially seek partnerships with Original Equipment Manufacturers (OEMs) that sell into households who have a broadband connection installed (supporting multiple PCs), with an 801.11b access point (Wi-Fi), or 10/100 Ethernet LAN for the home. The initial product capabilities support audio and still images, and streaming MPEG-1, MPEG-4 and DivX content. For example, the On3 media player can be used to watch a DivX video clip downloaded from the Internet on the TV.

As the "connected" home-user experience becomes mainstream, this provides a great opportunity for the industry. Currently, there are millions Wi-Fi home sites in the U.S., and this number is growing. It is FIA's intent is to support current and future wireless applications with the introduction of the FIA On3 home entertainment network. Since

wireless technology is relatively new, consumers will buy their CE solutions in bits and pieces, and as a result, the FIA On3 offers a solution that consolidates their CE products into a “total home entertainment network.”

Summary

PC OEMs understand the value of positioning their PC as the home’s digital hub. The FIA On3, built for home entertainment networking, is a perfect solution for PC OEMs looking for an opportunity to fill the gap between the PC and CE electronic devices in the household. FIA has created a unique product that provides the ability to share and store digital media among these devices and easy to use. Now everyone in the home can enjoy home network entertainment at once. At last!

FIA’s On3 Digital Media Player and Library is a full-featured integrated solution that supports network storage and media play activities. It is a low-cost, easy to use, upgradeable, and portable device that can be enjoyed by the entire household.

Similarly in the future, it is an interesting proposition for Multiple Service Operators (MSOs), cable companies, and Internet streaming content subscription service providers, because it allows the broadband end-user to enjoy their services not only on their PC, but also on any TV and hi-fi system in the home.