

The Global Market for Connected and Smart CE Devices

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Executive Summary

In 2011, the global market for household consumer electronics (CE) continued its rapid shift toward “connected” devices—defined as devices that have the ability to connect directly to the Internet or to a home network and can deliver IP-based video content for viewing either on the device itself or on a separate screen. In-Stat forecasts that the connected device installed base will grow from XX million total units in 2011 to XX billion total units in 2016, driven primarily by the success of digital TVs (DTVs), satellite STBs, video game consoles and Blu-ray disc players and recorders. For the time being, connected device shipments and installed base will be the best indicator to understand how quickly the digital home is changing over the next decade.

Other regional geographic factors will play a role in shaping the market for connected and smart CE devices. In fact, the main drivers behind, and indicators for, connected and smart device adoption are broadband penetration and home network penetration of regional households.

HIGHLIGHTS

- The installed base of connected devices will grow from XX million units in 2011 to XX billion in 2016.
- The installed base of smart devices will grow from XX million units in 2011 to XX million in 2016.
- Digital TVs, satellite STBs, video game consoles, and Blu-ray disc players and recorders will lead in shipments and installed base.

Figure 1. Worldwide Installed Base of Connected and Smart Devices, 2011-2016

XX

As a subset of connected devices, the installed base for smart consumer electronics devices will grow from XX million units in 2011 (predominantly consisting of video game consoles) to XX million units by 2016. Smart devices are defined as any device that integrates an IP connection or integrated digital modem with a customizable user interface (through the remote control) and end-user controlled experience. It also possesses the ability to search and discover content beyond the “walled-garden” content offered by a particular service provider (who may or may not have some control over the digital media device) or device manufacturer (in the case of companies like Sony that also own digital media content), and the ability to customize and upgrade applications from the Web.

The adoption of connected devices will be led by the deployment of digital TVs (DTVs) and video game consoles, and followed by direct broadcast satellite set top boxes (STBs). These three devices will make up an average of XX% of the installed base of smart devices between 2011 and 2016. Beyond these three device categories, Blu-ray players and recorders (BRDs) and IP STBs are the other two devices that gain relevant market share over the forecast period. The main reason for this growth is that vendors of these particular products have already started incorporating connected device features into

their devices. Due to these “connected” features, these same vendors have started building “smart” capability into their devices, most of which will become available in 2012. Incorporating these smart features into CE devices will change the landscape of the household CE market in a way that will improve their own market share and revenue opportunities.

In this report on the worldwide market for connected and smart devices, In-Stat analyzes several key issues:

- There are a number of factors that enable and encourage consumers not only to buy smart and connected devices, but also to use them. In this report, In-Stat provides a comprehensive analysis of regional demographics (i.e., population, households and average number of people per household) and regional technology adoption trends (including broadband, pay-TV, teledensity, and home networking adoption) that will define the addressable market for connected and smart devices. In particular, fixed wireless broadband, fiber-to-the-home (FTTH), and WLAN technologies are rapidly expanding the addressable markets for these devices.
- There are three main device groups, which will continue to build the base of connected and smart devices in the home, namely pay-TV STBs, standalone digital media devices, and computing devices. By definition, In-Stat believes that computing devices have always been smart, and therefore have established the consumer behaviors that now make it possible for STBs and standalone media device vendors to incorporate smart features into their equipment. Therefore, although computers and other computing technology (e.g., network-attached storage), will be taken into consideration in this report, the analysis will predominantly focus on STB and standalone media devices in the home.
- The growing possibilities associated with connected and smart devices is aggravating an old industry wound between pay-TV service providers and CE manufacturers, as well as creating a new one. Connected and smart devices are disrupting the long-standing business model of pay-TV service providers who control the user experience, and therefore the recurring revenue opportunity, through STBs. Now that other standalone media devices in the home have connected and/or smart capabilities (as well as storage in some cases), which can be used as a substitute for certain STB functions, there is now a clear and present threat to the pay-TV business model. In addition, the new connected and smart device opportunity has created a new battlefield between DTV and other standalone device vendors about where the intelligence to access Web-based media content in the home should reside—in the output device (i.e., the TV screen) or the input device (i.e., non-TV media devices).
- Developments in STB and standalone media devices are continuing to blur the lines between traditional consumer electronic devices and computing devices. As a result, two separate networks which have traditionally existed in the home (i.e., the home digital media network and the computing network) now have new opportunities to integrate due to the shared use of broadband, home networking and access to Web-based media content. As this transition continues, it will afford computing devices more opportunities to interact with the digital media network in the home, which will afford peripheral product markets, like network-attached storage, opportunities to gain share in the digital home networking environment.

Report Summary

This report includes a comprehensive analysis of the market for connected and smart CE devices in the home, including set top boxes, personal video recorders, Blu-ray players and recorders, digital TVs, video game consoles, and streaming media players. It provides a five-year market forecast for device shipments, connected and smart device shipments, and the connected and smart device installed base for six geographic regions: North America, Caribbean and Latin America, Western Europe, Eastern Europe, Middle East and Africa, and Asia Pacific.

In Addition, the Report Provides:

- A definition for connected and smart devices and segments the market into three different distinctive groups: STBs, media devices, and computing devices. It also provides a brief discussion of the main trends in each of these segments and sub-segments that affects its competitive positioning in the smart connected device market.
- Global demographics for six geographic regions, including population, households, and average number of people per household.
- Forecasts for multiple communications technologies in the home by technology and region, including broadband, pay-TV, and home networking.
- The addressable market for connected and smart devices.
- A discussion of the key battlefronts, which belie inherent tensions between different industries competing in the connected and smart device market, including pay-TV STBs vs. CE vendors, non-TV CE vendors vs. TV vendors, CE vendors vs. computing vendors, and the home digital media network vs. the home computing network.
- It provides shipment and installed base forecasts for consumer computing and network-attached storage devices for the home.
- It establishes the key conditions that will affect the growth of the market with respect to consumer adoption and usage.

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Methodology

This research report aggregates numerous top-line CE device, broadband, pay-TV, and home networking forecasts from In-Stat reports published throughout 2011. The brief market descriptions for each of the CE device categories are summaries of previously published reports.

For “connected” devices, In-Stat calculated the number of devices that were both network-enabled and Web-enabled. Network-enabled shipment forecasts were based on previously published research and analysis that determined the percent of each group of devices that had either Wi-Fi and/or Ethernet capability. Web-enabled shipment forecasts were calculated based on vendor interviews, conducted during 2011, along with expert analyst opinions. Regional shipment breakdowns were calculated using previously published regional splits.

Additional data was acquired from primary and secondary sources, including vendor websites, government data, industry journals, newsletters, blogs, and message boards. These sources include, but are not limited to: International Monetary Fund; World Economic Outlook Database, September 2011; and ITU World Telecommunications/ICT Indicators 2009 Database.

The aggregation of connected and smart CE device shipments, and the calculation of a global base forecast, offers a unique bottom-up view of the emerging global smart connected CE device market. The research was not designed to offer a detailed examination of specific market segments.

Related In-Stat Reports

- #IN1104965ME *Global Blu-ray and DVD Players and Recorders*
<http://www.instat.com/abstract.asp?id=99&SKU=IN1104965ME>
- #IN1104886RC *Streaming Media Players: Here Today, Gone Tomorrow?*
<http://www.instat.com/abstract.asp?id=99&SKU=IN1104886RC>
- #IN1004672MBS *World Connecting at Broadband Speeds, More Mobile in 2010*
<http://www.instat.com/abstract.asp?id=99&SKU=IN1004672MBS>
- #IN0804088RC *Global Networked Media Clients & Servers 2009 Update: Clients Growing but Struggling*
<http://www.instat.com/abstract.asp?id=99&SKU=IN0804088RC>
- #IN1004518RC *Global Web-Enabled Consumer Device Market Set to Explode*
<http://www.instat.com/abstract.asp?id=99&SKU=IN1004518RC>
- #IN1004651RC *The Global Market for Web-Enabled "Smart" CE Devices*
<http://www.instat.com/abstract.asp?id=99&SKU=IN1004651RC>
- #IN1104882RC *Worldwide Consumer Network-Attached Storage: Low Penetration, High Growth*
<http://www.instat.com/abstract.asp?id=99&SKU=IN1104882RC>
- #IN1104946MBI *US Broadcast Storage: Enabling the Digital Media Workflow*
<http://www.instat.com/abstract.asp?id=642&SKU=IN1104946MBI>
- #IN1104991PTSD *Pay-TV Subscribers Database, Q3'11 Results*
<http://www.instat.com/abstract.asp?id=640&SKU=IN1104991PTSD>
- #IN1205147ID *Computing Devices, Q1'12 Forecast*
<http://www.instat.com/abstract.asp?id=649&SKU=IN1205147ID>