Lynx TECHNOLOGY

TWONKY FOR ENHANCED BEAMING ON NETWORK CONNECTED CE DEVICES:

The World's Leading Solution to Enable Optimal Media Control and Play Back Capability on Your Device

Consumer media consumption habits have been changing rapidly since the days of the MP3 player, as media technologies continue to evolve at an impressive pace. With virtually every consumer electronic (CE) device now network connected and capable of playing media, most consumers today prefer to enjoy their media using their connected device rather than relying on physical media (CD, DVD, etc.).

This is why an impressive list of leading CE manufacturers chose to leverage the unsurpassed media connectivity capabilities and differentiation benefits that can be derived from Lynx Technology's [1] industry-leading Twonky™ technology.

Industry-leading Twonky technology **makes it easy for consumers to control and play media** on your device and to beam media to other CE devices

Consider the different ways Lynx Technology has worked with our customers to create more value and differentiation from alternatives in the market:

» **Twonky Client SDK** enables media playback and beaming for embedded player/renderer and control point devices such as media adapters and set-top boxes (STB).

» **Twonky Server** for sharing your content with other connected devices. The industry leading Twonky DLNA/UPnP Media Server is a popular media server for embedded NAS, router, STB, high performance video camera products, and many other types of connected media devices.

Our web user interface (UI) provides optimal capability for consumers to easily and reliably control and play back their media in a variety of ways using your CE device and to beam their media to other CE devices.

» **Twonky SDK for iOS/Android** is a mobile SDK for creating connected media applications, including a complete reference application (in source code), providing a media server, player/renderer, control point, and upload/download controller. We add optimal beaming capability through companion mobile apps, thus enhancing the value of your CE product and improving the consumer's experience.

» **Professional Services** is another area where CE companies have looked to us for product customizations, integration services and companion app development that will create valuable consumer use cases with their products.

The Challenge

These media consumption options and scenarios play a critical role when consumers today are deciding which CE device to purchase. When it comes to the ability to enjoy their vastly growing library of media, there is little debate that consumers have developed high expectations when it comes to the capabilities of their chosen digital devices.

Several years ago, Ernst & Young (E&Y) observed that while most CE companies understand the need to respond and adapt to the evolving use of technology by their customers and other key stakeholders, what they do not realize is how little time they have to address these changes. [2]

E&Y's statement remains as true today as ever. If anything, it gains more importance as new technologies and as more CE competitors enter the marketplace, competing for consumers' crucial spend on their connected media devices. It is an ongoing challenge for CE manufacturers to stay relevant—and profitable--in this continually evolving and demanding industry.

Today's consumers expect to be able to access their media in a variety of ways and to be able to watch/listen/manipulate their media on any CE device, from anywhere, and at any time. The combinations of what devices and services consumers expect to use for any activity seems nearly endless.

As a manufacturer of CE devices, there are two considerations that likely rise to the top as you consider features for upcoming products:

1) The balance between price and functionality

2) The need to be flexible and nimble in this continually evolving industry

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Balancing Cost and Capability

Let's face it, when buying a new electronic device we as consumers all want the best product — one with the latest high tech features and best reliability, and at an affordable price point. As a CE manufacturer, meeting these conflicting demands can be difficult and requires thoughtful consideration of the development costs, time to market, as well as overall customer satisfaction in the long run.

Functionality

You need your CE devices to have a foundation of connected media capabilities that you can rely on, in order to deliver the optimal experiences your customers have grown to expect from today's devices. This is where Twonky from Lynx Technology can help. Twonky offers a complete embedded solution for CE devices to serve, play, or control media, as well as a mobile SDK for building companion applications that work with your CE device. All of this enables you to provide a complete user experience for your customers.

Whether you're a manufacturer of NAS devices, routers, media adapters, set-top boxes, high performance cameras or other types of CE products, Twonky is the industry-leading choice by CE manufactures worldwide for creating media connectedness and providing your customers the ease of use and functionality they demand on all their CE devices.

With Twonky's unique "device adaptation" feature, included in both the Twonky Server and Client SDK as well as the Twonky SDK2, your products will work well with a wide variety of other connected-media devices including Apple TV, Roku, Chromecast, Amazon Fire TV as well as DLNA/UPnP devices such as smart TVs

and set-top box media players. Twonky software also provides a wide variety of runtime options for fine-tuning operation of the software on embedded platforms, providing the OEM with the flexibility necessary to work well with other software onboard the device.

Cost Efficiencies: Open Source or Twonky?

When deciding the best way to approach a connected-media solution for their CE devices, manufacturers often consider open-source alternatives. Although the open-source option may seem attractive from a cost-consideration perspective, designing in an open-source solution may not be your best, long-term option. On the surface, the cost benefit seems clear: open-source software is "free." However, when weighing the costs associated with integrating and maintaining your open-source solution, as well as costs in customer returns resulting from poor performance and lack of interoperability of your product, the cost benefits of this approach are not so clear. Compared to using a Twonky solution, the so-called "free" alternative can quickly become more costly overall, as well as damaging to your overall brand image.

In today's CE environment a product's reputation can be elevated or destroyed as a result of online customer reviews and product ratings readily available from online retailers and technology blogs. It is more important than ever to ensure your products are easy to use and perform reliably —your competition is just a click away. By partnering with Lynx Technology you're not only getting the best connected-media solution in the industry, but you are also leveraging the expertise and experience of the Twonky development team to help support you bring your product to its full potential, assisting you in fine-tuning your software for the best performance and overall user experience.

Accountability and Cost Control

Another consideration when relying on an open-source solution is the lack of outside support. If problems arise with an open-source solution resulting in a lower performance, substandard features, or overall software quality, there is no one to step in and fix them for you. You are on your own to sort through the issues and address any shortcomings with our own engineering resources. Contrast that scenario to a project where you instead choose Twonky and partner with Lynx Technology—not only is Twonky a more robust, reliable, and feature-rich solution, but you have our team by your side.

When an issue does arise, you have a full team of experts to work with you to pinpoint the issue and resolve it efficiently and expediently. Your risk is dramatically reduced. The resources at Lynx Technology are not only accountable, they're also the industry experts who created Twonky and are experienced at quickly diagnosing, troubleshooting, and addressing issues should they arise. Chances are high that you'll dramatically lower your overall costs, not only by providing a better product at launch, with more performance, but your customer support costs will also decrease since the Twonky experts will be on hand to maintain the software and quickly address any bug fixes needed. Your brand is strengthened and your customers remain happy.

Being a Nimble Company

As a CE manufacturer, you know that you need to stay relevant to stay in business, or you'll quickly become obsolete. With every change in this continually evolving market, there are new opportunities to create the next "must-have" product. When you partner with Lynx Technology by integrating Twonky in your CE devices, you'll have the ability and flexibility to not only respond to market changes, but help drive the new innovations for your products.

Because the Twonky development team works continually to support an ever-growing list of connected-media devices, you will be confident in knowing that your products will offer a best-in-class solution, interoperable with the latest devices on the market.

Shorter Time to Market

Your development schedules are tighter than ever and you can't risk delaying a new product or upgrade due to software integration issues or device certification delays. Lynx Technology offers Professional Services for a variety of needs including software integration, device certification (UPnP/DLNA) services, or expert help with the Twonky SDK for your application development.

Whether it's easing the burden of the DLNA/UPnP certification process, assisting with fine tuning for embedded performance, or speeding up the product development process, the Lynx team has deep and broad experience in all of these areas to help you get to market quicker, with the best use of the Twonky software. Lynx Technology offers several tiers of support services including remote as well as on-site support service options, all from a world-class team of support engineers who are experts in the setup and integration of Twonky software.

Summary

As you plan your product roadmap to develop new consumer devices that will include media storage, media control and play back, you should partner with the company that has the most experience and expertise with the world's leading Twonky technology. Contact us to unlock greater connected-media potential and performance in your digital products and services to keep your current valued consumers and attract more in the future.

To learn more and to speak with a Lynx Technology staff member in your region of the world, contact us at +1 855 LYNXTEC (+1 855 596 9832) or sales@lynxtechnology.com.

[1] Privately-held Lynx Technology recently acquired the European and North America operations of PacketVideo, which was founded in 1998. Included in this acquisition, PacketVideo granted Lynx Technology a worldwide, non-exclusive license for the Twonky software platform.

[2] "The Digitisation of Everything and How Organisations Must Adapt to Changing Consumer Behaviour", Ernst & Young report, page 4, 2011.