



Executive Brief for Sharing Sites & Digital Content Providers

*Leveraging Hybrid P2P Technology to Enhance
the Customer Experience and Grow Profits*



Executive Summary

The Opportunity/Challenge

The revenue opportunities associated with sharing and viewing digital content over the internet are compelling. Equally significant are the challenges of managing consumers' rapidly growing demand for video, images, and other content—and the bandwidth and storage costs that accompany it.

The sharing technology employed by digital content sharing sites and content providers is a pivotal component of their offering and can have a great impact on both their bottom lines and their customers' experiences. Today there are two basic models for sharing digital content: uploading content to a central hosted site, and peer-to-peer (P2P) applications.

This Executive Brief compares and contrasts these two models and presents a hybrid solution that incorporates the strengths of each in an offering that can increase both profits and customer satisfaction.

How FlashPoint Can Help...

FlashPoint has developed a fresh approach to sharing digital content—one that enables sharing sites and providers to reduce costs while providing consumers with a better sharing experience.

Introducing KinectUs

Hybrid P2P Technology Platform & Associated IP

- Provides the speed and economy of P2P with the control and availability of centrally hosted solutions.
- Designed for transparent integration into a sharing site or provider's solution to enable a more efficient way of sharing content.
- Lowers infrastructure costs while offering a faster, more secure, and more satisfying user experience.
- Offered exclusively to select FlashPoint technology partners.

The KinectUs Advantage

KinectUs vs. Central Hosted

Many traditional digital content sharing tools have users upload and share their content from a centrally hosted site. This model poses several business challenges that KinectUs solves.

Central Hosted Challenges	The KinectUs Advantage
<p>Bandwidth Cost: With video sharing surging in popularity, sharing sites and providers are finding their expenses associated with bandwidth usage on the rise, with some companies seeing monthly expenses topping a million dollars.</p> <p>A contributing factor is that users often are not sure what content people will be interested in, so they upload it all, unnecessarily imposing additional bandwidth costs on the provider.</p>	<p>KinectUs can assist in lowering bandwidth in several ways.</p> <ul style="list-style-type: none"> • Users can easily enable sharing of specific content directly from their computer, with no upfront upload. Only the content that guests are interested in viewing is uploaded to the KinectUs Server. • Video content is divided into segments, and the server only uploads and caches portions of video that are actually being viewed. • Currently under development, an optional KinectUs module can securely negotiate a controlled direct peer-to-peer transfer of content between users, thus eliminating most bandwidth cost.
<p>Time to Upload Content: As higher resolution video and photo content becomes more common, consumers are becoming increasingly frustrated with how long it takes to upload their content to centrally hosted sharing sites.</p>	<p>Since KinectUs enables instant sharing of content directly from a user's computer, even the largest video files can be shared with guests with the click of a mouse. Though video will still take time to download, content can be streamed and viewed as the file continues to load.</p>
<p>The Growing Burden of Storage Cost: Users' content quickly becomes inactive—usually within the first 30 days of uploading—but sharing sites and providers continue to assume the burden and cost of managing hundreds of terabytes of files.</p>	<p>The hybrid KinectUs model minimizes storage requirements by identifying and removing inactive content from the central server. Once a user's content has been removed, it is still accessible from the user's computer via the KinectUs Client.</p>
<p>Image Quality: In order to minimize bandwidth and storage cost, as well as upload times, sites often employ compression technologies that degrade image quality and frustrate many users and guests as a result.</p>	<p>Because the users are sharing content directly from their computers, sharing sites and providers can present multiple options for guests, including the ability to initially view screen nail or compressed files, while still presenting easy access to full-size files.</p>

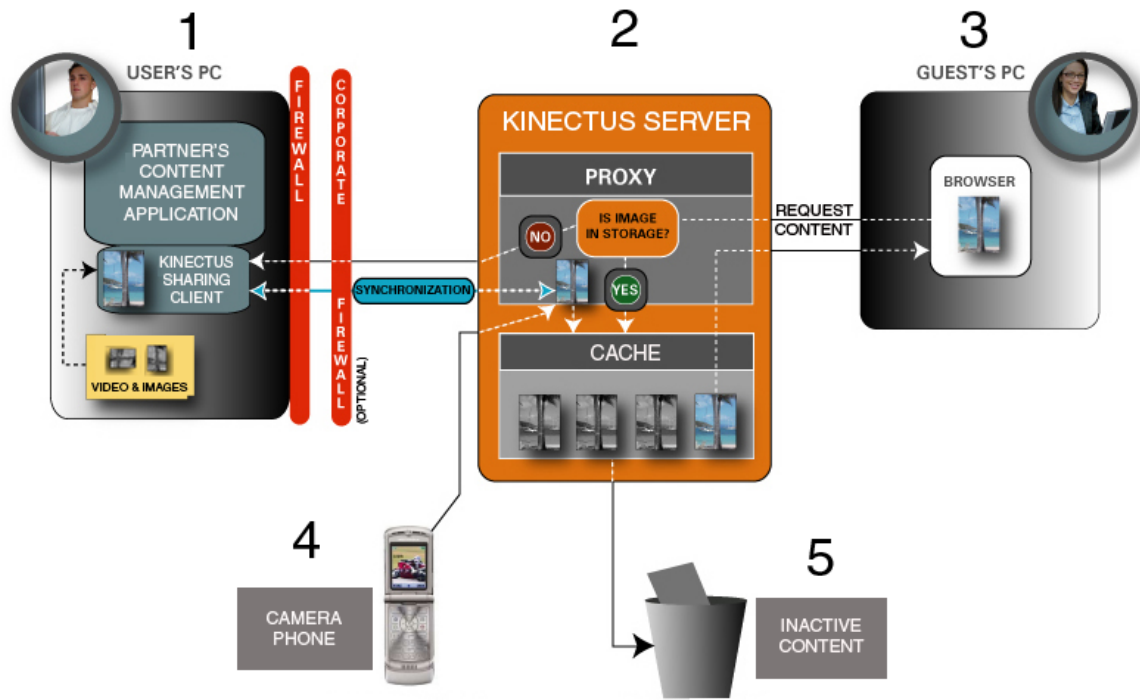
KinectUs vs. Traditional P2P

Traditional P2P applications pose their own unique risks and challenges to sharing sites and providers, as well as their customers—issues that KinectUs is uniquely qualified to address.

Traditional P2P Challenges	The KinectUs Advantage
<p>Security: Traditional P2P applications can raise concerns regarding security. Because of the interaction between peers, guests have direct access to the users' computers. In addition, downloaded content can contain viruses, malware, or spyware.</p>	<p>The KinectUs technology removes these security risks by incorporating a proxy server to manage all interactions between guests and users, thus eliminating a direct P2P connection. The proxy server also monitors the content to ensure that only legitimate files are being shared.</p>
<p>Configuration Issues: Some P2P products require users to configure their home network, set up a static IP address, and do port forwarding in order to work properly. A corporate firewall in front of the user compounds the challenges.</p>	<p>KinectUs' innovative client configuration and use of a proxy server eliminates the firewall difficulties of P2P applications. It requires no network setup—just install and go.</p>
<p>Performance: Traditional P2P applications can impact the performance of a user's computer. This can happen, for instance, if an application lacks throttling controls to manage multiple, simultaneous attempts by guests to access content.</p>	<p>KinectUs can address typical P2P performance issues in two ways:</p> <ol style="list-style-type: none"> 1. Because KinectUs is a hybrid solution, guests in many cases view content from the cache of the KinectUs Server, without touching the user's computer. 2. The KinectUs Server and Client have throttling controls so that requests to view content do not impact performance of the user's machine.
<p>The Computer Must Be Connected: With traditional P2P applications, if the user is not logged in or connected to the Internet, then guests cannot view the user's content.</p>	<p>The KinectUs Server's hybrid sharing model ensures that guests have access to a user's content, even when the user is not connected. Providers can determine if they want all content from a user's computer to be synchronized to the server. Alternatively, they can configure KinectUs so that only the content that has been previously requested and cached is available when the user is not connected. This approach provides significant savings for both bandwidth and storage.</p>

KinectUs Hybrid P2P Sharing Platform...

THE FUTURE OF CONNECTED CONTENT



Understanding the KinectUs Architecture

KinectUs is comprised of two key technology modules—the KinectUs Client and KinectUs Server—which interact with user and guest computers, firewalls, and remote devices, such as camera phones, as described below.

1. The KinectUs Client (User's PC)

- Invisibly integrated into the sharing site or provider's application that resides on the user's computer.
- The provider's application is the direct interface to the user for content management and manipulation, while the KinectUs Client manages the sharing of all resulting content in the background.
- Transparently converts a user's computer into a "digital content server," which facilitates the sharing of content directly from the computer.
- Manages security of the site's content. Users have the choice to make content public, private, or password protected.
- Establishes an outbound only connection through the user's firewall to the KinectUs Server.

2. The KinectUs Server

- Software module housed and managed by the sharing site or content provider.
- Manages all internet connections between the user's computer and guests wishing to view content.
- Manages a configurable central storage system (cache) that can house synchronized content from the user's computer, making content available even when the user is not connected to the internet.
- Controls a direct peer-to-peer connection (via an optional module currently under development) which can significantly reduce the bandwidth expenses of the content provider.

3. The Guest's Computer

- Requires no client software—the guest views all shared content on a standard web browser.

4. Reverse Synchronization of Remotely Uploaded Content

- Users can upload digital camera phone images to the KinectUs Server and have them transparently synchronized with their computers (this is especially valuable to companies interested in monetizing these images through home printing).

5. Inactive Content

- Rules can be established that remove inactive content from storage on the KinectUs Server, while keeping it available for viewing directly from the user's computer.

Partnership Opportunities

The KinectUs platform is offered exclusively to select sharing sites and digital content providers to deliver the speed and economics of P2P with the control and availability of centrally hosted solutions.

KinectUs has been in development for over three years and includes both technology and related IP licenses.

Companies looking for a competitive edge that delivers directly to the bottom line should contact FlashPoint to learn more about KinectUs and the advantages of partnering with FlashPoint.

Contact us at info@flashpoint.com.

About FlashPoint Technology

FlashPoint Technology, Inc. is a leading developer of advanced technology solutions and related intellectual property that is defining the convergence of the internet and digital content such as images, video, and music.

- Founded in 1996, FlashPoint is a profitable and well-funded private company.
- The company's founders have over a half century of combined experience in digital content research and development.
- Innovation drives the company's success. With over 80 issued U.S. patents and over 100 U.S. pending patents, FlashPoint is committed to providing its partners a competitive advantage through the development, management, and licensing of technology and intellectual property.



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