



Exterity Technology Partner

Do you want to stream TV and video to handheld devices?

Wowza Media Server®

Exterity and Wowza® are technology partners and work in conjunction to deliver IPTV content to handheld devices.

Wowza Media Server supports streaming for Apple iOS devices (iPhone®/iPad®), Adobe Flash®, Microsoft Silverlight®, Apple QuickTime players, Android™, Blackberry® and other 3GPP smartphones and tablets, as well as IPTV/OTT set-tops and living room game consoles.

With Exterity and Wowza you can deliver TV and Video content to any digital screen.



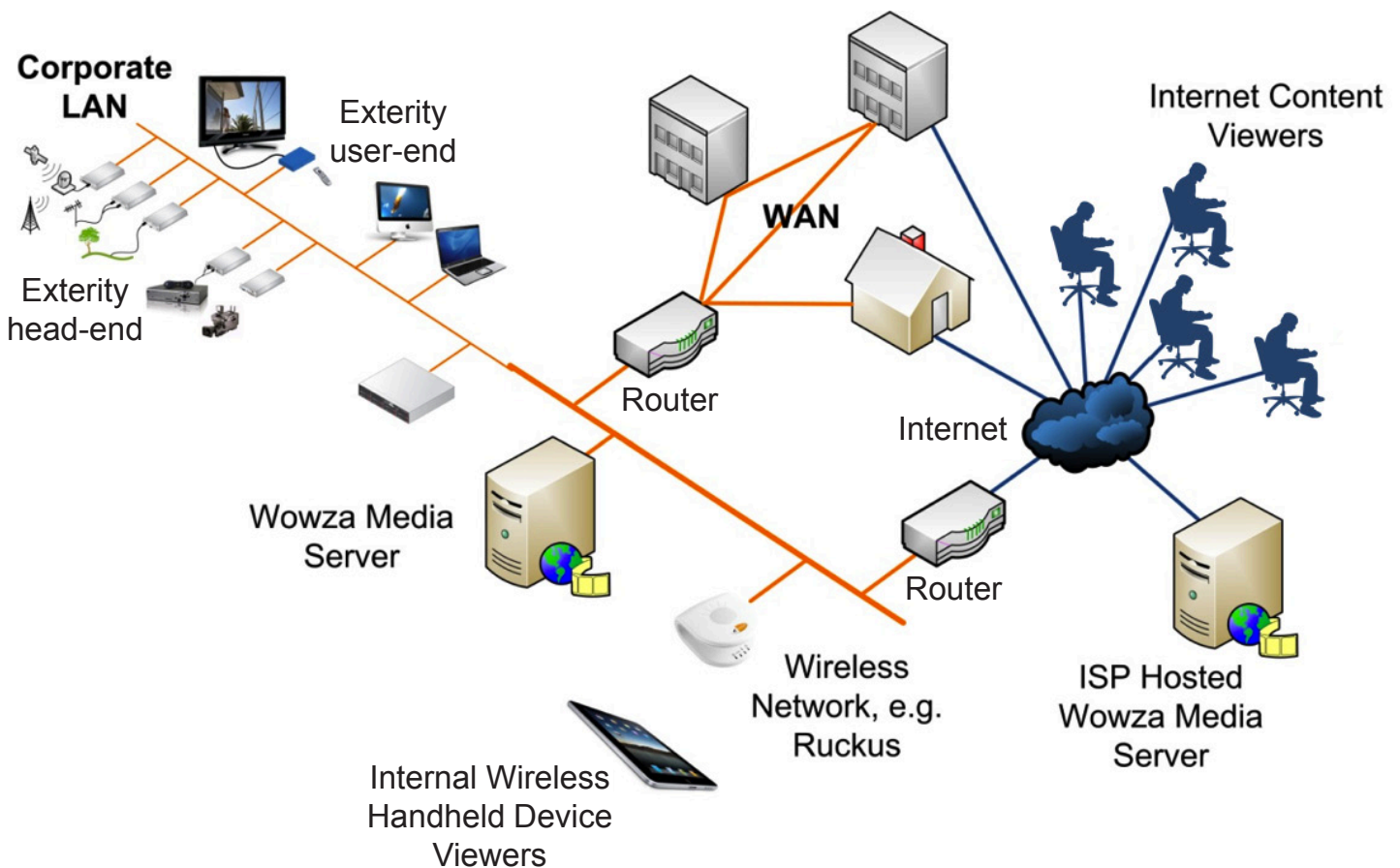
Exterity and Wowza

The core Exterity IPTV system provides live TV and video capture and streaming in the highest quality over the corporate LAN where bandwidth is not a constraint. Where streams are required for use on handheld devices, across the internet, or at remote locations across the corporate WAN, a Wowza server can be used to present the content as required by these applications.

As well as providing support for Flash, HLS (Apple) and Silverlight (Microsoft) streaming, the Wowza server also has optional transcoding and transrating capabilities that allow it to reduce bandwidth and resolutions to fit the requirements of specific streaming applications. The Wowza Media Server 3 makes hard to implement features such as adaptive bitrate (ABR) streaming simple.

Corporate Network Applications

- Distribute live video streams to wireless handheld devices: Staff can monitor news feeds or company meetings on iOS/Android tablets/phones from any location around a facility.
- Distribute live video streams at a reduced bitrate to remote offices/teleworkers over a corporate WAN: Remote staff can connect to company meetings, training or live TV.
- Deliver live video streams from the corporate network to internet connected viewers: Remote staff not connected to the WAN or to enable shareholders access to regular outbound investor communications.



Handheld device over LAN

To view an H.264 stream from the core Exterity IPTV system on a handheld device such as an iPad (assuming the Wowza server will do no transcoding). The Exterity AvediaStream H.264 encoders can be configured to prepare the stream in an appropriate resolution and bandwidth before being presented to the Wowza server.

The decision on bitrate and resolution will depend on the optimal resolution for the target handheld device and the bandwidth availability on the handheld device network link.

Once configured, the Wowza server will read in the source video stream and repackage the H.264 video content for delivery to Flash, HLS and Silverlight devices.

The end-user simply needs to browse to the stream and view it in the web browser of their device. Companies can create their own portal pages for the handheld devices and offer a "click to view" interface.

Handheld device over WAN

As well as streaming to handheld devices on the corporate wireless network, streams can be made available across the corporate WAN to remote office locations and teleworkers.

Staff can simply access and view video content on their desktop PCs through their web browsers, or can use their handheld devices.

If insufficient bandwidth is available across the corporate WAN to support the number of staff and locations viewing the content, the content could be directed to an externally hosted Wowza server, reducing the delivery bandwidth from the corporate network to the bandwidth of a single stream, with the hosted service now providing the bandwidth for the onward deliver of the content. This could be the internet or a private data centre/cloud.

Handheld device over Internet

Where an organisation has a requirement to deliver a small number of simultaneous streams out to external parties over the internet, it is practical to use a Wowza server located on the corporate network.

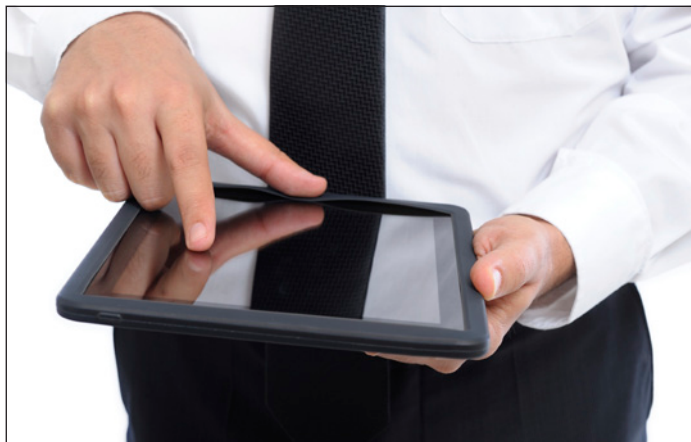
(The limitation on this approach will be the bandwidth available to support the required number of simultaneous streams). Presenting the streams to the internet for remote access is a network routing issue that will be the responsibility of the corporate IT administrator.

If there is not enough bandwidth available to support required streams onto the internet, an alternative is to stream one copy of each of the required channels to an externally hosted Wowza server. This will reduce the required corporate internet bandwidth to the bandwidth of one instance of each channel.

The ISP hosted Wowza server can then scale delivery of the content through its large internet bandwidth capacity. This approach can also be used to deliver to remote locations and teleworkers if the corporate WAN bandwidth is insufficient to support streaming demand.

Device Type	Optimum Resolutions
iPad	1024 x 768
Up to iPhone 3GS	480 x 320
iPhone 4 onwards	960 x 640
7" Android tablet	800 x 480 / 1024 x 600
10" Android tablet	1024 x 600 / 1280 x 800
Android smartphone	480 x 320 / 800 x 480
Blackberry	480 x 320 / 800 x 480





Transcoding

Wowza Media Server provides an optional transcoding capability which can convert a source stream into a range of different resolutions and bitrates in order to simultaneously support optimal delivery to a range of devices and locations.

This capability is able to convert MPEG-2 streams into H.264 for delivery to handheld devices. A live news channel might be received by an Exterity TVgateway and delivered onto the corporate LAN for displays and desktops.

The Wowza server can be configured with optional Transcoder AddOn to receive this source stream and convert it into multiple H.264 streams, optimised for adaptive bitrate (ABR) delivery to iPhones and iPads.

The transcoding is done live and in real-time. Once converted, the streams can be delivered out to any number of devices up to the capacity of the server.

It should be noted that transcoding is a compute intensive task and there will be practical limits to the transcode capacity of a server based on its performance.

Wireless security

Within an organisations facility, it is advisable that handheld devices are connected to the corporate wireless network. This gives a combination of security, as the network will be protected, avoids potentially significant costs from handheld wireless services, and wireless coverage and availability can be managed and optimised by corporate IT staff.

A robust high performance wireless network is required if significant demands are made for handheld content.

Pricing

With Wowza Media Server® software there are a variety of licensing options that make it easy and affordable to put the industry's leading media server to work for you. Whether you choose the Wowza Daily, Monthly or Perpetual edition licensing, no one else can match the rock-solid dependability, powerful functionality and exceptional value of Wowza's any-screen streaming software. For pricing structure visit <http://www.wowza.com/pricing.html> or email your questions to sales@wowza.com.

Quotations/Purchasing

Any reseller interested in Wowza Media Server should contact sales@wowza.com to get a quote and place orders. Any reseller interested in Exterity IPTV solution should contact info@exterity.com.

Support

Support for Exterity solutions is done through our international team of experts. Contact support@exterity.com. Wowza provide extensive online support resources including documentation and tutorials covering common system configurations.

CONTACT DETAILS WOWZA
sales@wowza.com

CONTACT DETAILS EXTERITY
info@exterity.com
+44 1383 828 265