VBrick

VBrick Reflector

Live Video Distribution

White Paper

A VBrick WM Appliance can receive a live video stream from another VBrick WM Appliance (Release 4 and above) or compatible source and redistribute it.

About Reflecting

The VBrick WM Reflecting feature is a VBrick WM Appliance "channel"[1] without an "encoder". Rather than the video coming from an encoder within the VBrick appliance itself, the video comes from a remote location via the IP network. The networking behaviors of the Reflector are identical to the networking behaviors of a VBrick WM "encoder", thus enabling a received stream to be redistributed ("Reflected") via the VBrick internal streaming server or via IP multicast server.

About VBrick Appliances

Reflecting live video streams is not a new idea, but doing it via a true appliance[2] is. VBrick appliances are extremely reliable, are immune to virus, worms, unpredictable automatic software updates, and are fully remote managed.

VBrick appliances can be dropped into most networks without the "drama" often associated with the installation of a conventional "server".

Configuring Receive

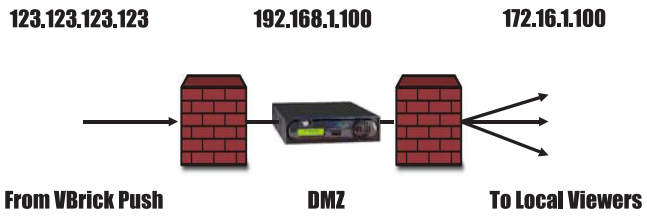
A VBrick Reflector is a "Publishing Point". To receive a stream that is pushed from a remote VBrick WM Appliance, the Reflector must be configured. The remote VBrick is simply set to push to the Reflector's IP address, Publishing Point name, and may use the optional username and password[3].

Receiving a Push

While the source VBrick encoder may be behind a firewall, this is not true of the Reflector. The encoder must be able to reach the Reflector, hence the Reflector must be:

1. On the same network as the encoder, or
2. On an "outside" IP address that can be reached by the encoder, or
3. Configured with a "NAT" to an outside IP address that is reachable by the encoder

In typical branch office applications, the reflector might be placed in the "DMZ" with the configured port number exposed to the "outside" network, and with the VBrick exposed to the "inside" network. For example, outside address 123.123.123.123 is translated to an inside address 192.168.1.100, and to a local inside address of 172.16.1.100.

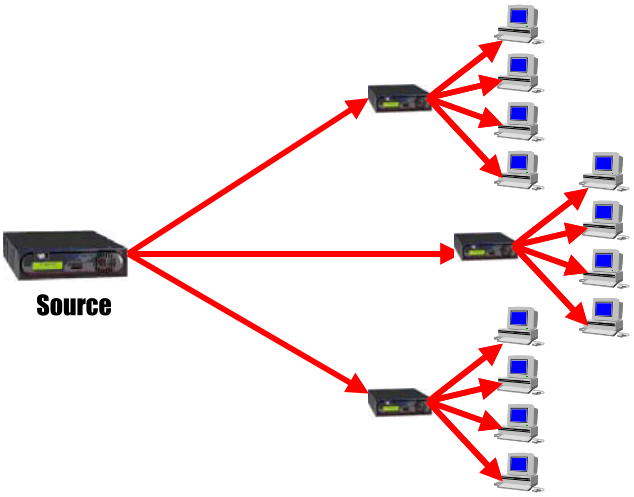


[1] A "channel" in a VBrick is a physical "slot".

[2] A VBrick is a fully embedded system, not a "PC" disguised as an appliance.

[3] Authentication can be enabled or disabled.

It is common to deploy VBrick Reflectors around a large campus network without ever going outside of the firewall. This is useful to minimize backbone network traffic when multicasting is not engaged. This is also useful when multicast is used and it is desired to have multiple groups by deploying VBrick Reflectors as "unicast to multicast converters".



Of course, many configurations are possible. The point is to make the VBrick WM Appliance reflector visible to the remote VBrick source and also visible to the local viewers.

Reflector Features

As explained earlier, the VBrick WM Reflector has all of the networking behaviors of a VBrick WM encoder. With the "push" being received, you may configure: DMZFrom VBrick PushTo Local Viewers123.123.123.123192.168.1.100172.16.1.100

- Server – Enables viewers to view the video directly from the integral streaming server via http, rtsp, etc.
- Multicast – Transmits the live WM video via IP multicast.
- Push – The received video stream may be "pushed" to up to 25 destinations. Source

In addition, comprehensive status is available for the Reflector.

While a VBrick WM Appliance may have one or two channels, reflecting is currently not available in dual-channel WM Appliances (the reflector uses the resources of "slot 2"). The Reflector feature is not available without a WM encoder in "slot 1", although the encoder can be disabled and not used.

About VBrick Systems, Inc.

VBrick is the leader in Enterprise IP Video solutions, with over 6,000 corporate, education and government customers and 60,000 installations worldwide. VBrick solutions work over standard IP networks and the Internet to deliver rich media communications that connect people everywhere – from employees and customers, to partners and shareholders. Our comprehensive product suite and end-to-end solutions are used in a wide range of live and on-demand applications including meeting and event broadcasts, distance learning, digital signage, TV distribution, video surveillance, and Web-based marketing campaigns. Headquartered in Wallingford, CT, VBrick's products and services are available through industry-leading value-added resellers.

For more information, visit www.vbrick.com

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