

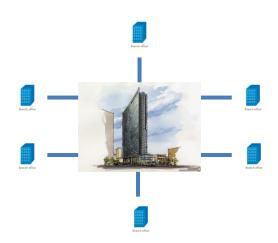
## **Application Note**

## **StreamPump®**

Live and on-demand video is essential for modern corporations, but supporting corporate branch offices with video has been a problem. Branch offices are commonly tied to the corporate network via private lines or VPNs where all traffic to and from the branch passes to the headquarters location. These private star topologies allow the corporate IT staff to control and secure the network.

With millions of dollars of credit card and inventory transactions on the network, the branch office is often forbidden from getting local Internet access which ensures such transactions remain private and secure.

With a video distribution system at the headquarters location, authorized viewers at branch offices can tune in to any live broadcast and select video-on-demand content, just like the headquarters staff. But branch offices are served with lower speed Wide Area Network (WAN) connections while the headquarters staff is able to use their blazingly-fast Local Area Network (LAN) connection. It is not uncommon for the WAN



connection to the branch offices to be T1-class, giving only 1.5 Mbps of service. While this may be perfectly adequate for one branch office viewer, it is not enough for several viewers, and worse, the bandwidth use could impact mission-critical traffic.

## **Intelligent Branch Offices**

With a simple StreamPump box located at each branch office, viewers automatically and transparently receive their content from the StreamPump in the office rather than using the WAN. A live video stream is pulled to the branch only when there is one or more viewers, and only one stream traverses the WAN regardless of how many branch office viewers there are.

Video-on-Demand content is automatically cached at the branch office in several ways. First, when content is published on the headquarters server it can automatically propagate to the branch offices during specified hours (for example, at night). This approach ensures that any content viewed in the branch office is delivered from that branch office. Second, the StreamPump provides an *intelligent caching* option. With Intelligent Caching, a branch office viewer views the content from headquarters normally. StreamPump notices that a viewer had requested content that it does not already have cached, and it automatically downloads that specific content to make it available for the next viewer. Thus, intelligent caching helps to ensure popular content is cached, even if it has not been added to a channel.

## **More Than Desktops**

StreamPump delivers live and VoD content to viewers on their desktops, on mobile devices and tablets, and supports Digital Signage displays. With StreamPump deployed at branch offices, you can centrally control and manage signage, and avoid constant WAN bandwidth usage.