VBrick MPEG Video Solutions

VBrick systems, inc.
www.VBrick.com

Building Vision Across Your Network
VBrick network appliances are low cost, high quality video and audio encoders/decoders. VBricks enable the transmission and delivery of DVD quality video and CD quality audio signals over standard switched Ethernet, ATM, T1/E1, xDSL, satellite, or microwave networks. VBricks are MPEG compliant, and support full motion, 30fps NTSC and 25fps PAL video and audio via standard composite, S-video, or SDI connectors. VBricks provide DVD quality video – while only using minimum network bandwidth.

VBrick Streaming Video
VBricks have been optimized to stream “real-time/full motion” video and audio over networks to PCs running StreamPlayer software or to other VBricks connected to TV monitors. Users can view, capture, and even edit video right at their desktop. VBricks support industry standard IP Multicast for streaming video to any number of PCs in a company, enterprise, school, hospital, etc. By using video compression “standards” such as MPEG-1 and MPEG-2, VBricks are compatible with various software viewing programs such as Microsoft Windows® Media Player and Cisco IP/TV.

VBrick Interactive Conferencing
VBricks are also available as full duplex codecs for interactive conferencing. The low latency design allows users to have a natural two-way conversation with DVD quality video and CD quality audio.

VBrick Easy to Use and Scalable
Enhancements such as an integral IR remote control allow users to view programs or set up video conferences over an IP network at the click of a button. VBricks can even be used as digital billboards for announcements - meeting agendas, important messages, etc. Any number of VBricks can be added to the network – the only limitation is bandwidth.

VBrick Compact and Reliable
VBricks can be placed anywhere because of their small size. Locations include mobile TV carts, outdoors for surveillance, or anywhere you can place a camera. Designed from the ground up for MPEG encoding and decoding, they do not suffer the reliability problems associated with PC-based systems.

VBrick Good Network Citizens
VBricks are also becoming so popular because they are network friendly. Other solutions on the market today are expensive and can congest networks. With VBricks, the IT manager can control the amount of bandwidth (1 –15 Mbps) used, and prioritize video and audio over other network traffic.
**VBrick Capabilities**

- Stream DVD quality video and audio from any source to PCs and TVs over your IP or ATM network
- Use StreamPlayer on desktops to view, record, or edit any MPEG video stream
- Provide instant video conferencing by using a remote control to connect any two VBricks
- Record video to a hard disk on VBSTAR and FTP to another VBSTAR or server at any location over any network
- Stream that same content at a lower rate over the Internet using VBXcoder
- Capture and view any MPEG video file with VBrick’s Video-on-Demand (VBVoD)
VBrick Corporate & Government Education/Training

Organizations need to deliver multimedia information to employees and students for educational purposes. Real-time video and audio can originate from various sources - video cameras, VCRs, DVDs, cable, etc. VBricks are ideal for compressing and formatting the content so that it can be streamed to any client attached to the network. Using IP Multicast the video and audio can be viewed on PCs or TV monitors. StreamPlayer, a desktop Windows® software program, allows users to view, capture, and edit the video streams. For security, each stream can be password protected to allow only authorized users to view or record it.

VBrick Remote Security and Process Monitoring

Corporations have invested in reliable high speed Ethernet networks for day-to-day computer communications. Now, with VBricks, these same networks can be used to enhance security systems as well as increase productivity on the factory floor.

By attaching a VBrick network appliance and standard video camera to their network, companies can distribute high quality full motion video anywhere on the network.

During off hours, VBCap™ can be used to transcode MPEG-1 video to JPEG images and allow monitoring over the Internet. If an assembly line goes down, engineers can quickly troubleshoot the problem from a remote location.
**VBrick Videoconferencing**

VBricks use a low delay encoding and decoding scheme to allow two-way interactive television over networks. Organizations with high speed networks such as switched Ethernet, ATM, or T1/E1 can utilize VBricks for high resolution, full motion (30fps NTSC/25fps PAL) videoconferencing.

The compact design and infrared remote control make it easy for users to set up conferences instantly. Non-participants can also view the conference from their PC by using the VBrick StreamPlayer software.

**VBrick Video Trunking & Transport**

Broadcasters or any company that needs to transport high quality video from one location to another can use VBricks. Analog video and audio is compressed using MPEG-1 (1-3 Mbps) or MPEG-2 (1-15 Mbps) and put into a form for transport (IP, ATM, or T1/E1). At the other end, VBrick decoders can transform the MPEG into NTSC or PAL video and audio.

Major benefits of using VBricks for this application are high reliability, ease of use, compact design, and low cost.
Network Applications - VBrick Encoders & Decoders provide the solution

**VBrick 1000, 2000, 3000** – MPEG-1 video encoders and decoders – accepts NTSC/PAL video and audio and delivers MPEG over Ethernet (IP), ATM, or T1/E1 networks. Video encoding rates from 1 to 3 Mbps provide full motion DVD quality on PCs or TVs. Available as encoder only, decoder only, or full duplex encoder/decoder.

**VBrick 4000, 5000, 6000** – MPEG-2 video encoders and decoders – accepts NTSC/PAL video and audio and delivers MPEG-2 over Ethernet (IP) or ATM networks. These VBricks provide DVD quality video to PCs or TVs for one-way streaming or two-way interactive. A modular design permits two encoders, two decoders, or an encoder and decoder in the same chassis.

**VBSTAR** has all of the features found in the VBrick 4000, 5000, and 6000 series, plus a hard drive that can store over 24 hours of MPEG video. This powerful unit can be used for applications requiring high quality video to be distributed over low speed networks.
Control, Schedule, Deliver, and Capture . . .
VBrick software is the solution!

VBrick software provides complete control of VBrick video & audio encoders and decoders. No matter what your application, VBrick software provides the solutions for your video networking challenges.

**VBrick StreamPlayer**
**Viewer Software**
VBrick StreamPlayer is a software desktop video client for Windows® that empowers desktop PCs to display & record live and stored DVD quality video and CD quality audio anywhere your network reaches.

**VBrick VBXcoder™**
**MPEG-to-Internet Transcoder**
VBXcoder™ is a real-time MPEG-1 and MPEG-2 to Internet video transcoding system. With VBXcoder, you can have DVD quality MPEG video in your private network, and stream that same live video over the Internet at a lower frame rate.

**VBrick VBVoD™**
VBrick’s VBVoD is a digital Video on Demand System that allows you to stream high-quality stored video and audio to any location on your network. VBrick offers a complete package that provides superior performance at an affordable price.

**VBrick VBScheduler™**
**Scheduling System**
VBScheduler™ is a simple yet powerful scheduling system for one-way or two-way video over IP networks. The system automatically configures any VBrick in a network to send or receive a unicast or multicast audio/video stream at a predetermined date and time.
**Streaming Distribution System - (SDS)**

VBrick's Streaming Distribution System can be customized to meet the needs of your organization. The system instantly streams live MPEG video from cameras or stored video from VCRs, DVDs or digital files. VBrick can assemble and configure the system to your specifications. Just connect the SDS to your Ethernet network and personnel, students or teachers can immediately view DVD quality video from any PC or TV monitor.

**VBrick Key Features:**
- Plug-and-play turnkey system for streaming DVD quality video to PCs and TVs
- Central management for administrators and distributed control for end-users
- Modular design allows SDS to scale as your needs grow
- High powered server provides web based SDS control and can also simultaneously be used as the VBVoD (Video-on-Demand server) or the VBXcoder (Video Internet Transcoder)

**VBrick Company Profile**

VBrick Systems, Inc. was founded in 1997, and is led by a veteran team of executives and engineers. VBrick develops, designs, manufacturers and supports MPEG hardware and software products that deliver real-time, DVD quality video and CD quality audio. VBrick redefines communications by enabling organizations to harness the untapped power of existing networks to make one and two-way video an essential part of their operations. The network video appliances are used by enterprises to deliver video for news and information distribution, security/surveillance, distance learning, training and video conferencing. Recognized for its role as an industry leader and technological innovator, VBrick has received numerous awards including being named to Red Herring's 2001 list of the Top 50 private companies most likely to change the world.

**VBrick Features**
- High Quality – Full Motion (30fps NTSC/25fps PAL) MPEG video
- Simple – Install your VBrick in minutes with just a few cables to connect and settings to choose
- Reliable – VBricks are network appliances not based on PC architecture
- Flexible – Video can be displayed on a regular TV monitor or Windows® PC
- Low cost – Deliver video at an affordable price

**VBrick Benefits**
- Inform employees – distribute real-time news to everyone in your company
- Train your staff – employees can watch educational programs right at their PC
- Reduce travel costs – use your IP network for multimedia conferencing
- Enhance security – less crime through high quality surveillance
- Educate students – increase school enrollments with high quality distance learning
- Increase productivity – reduce factory downtime by monitoring processes
- Transport video – distribute high quality video efficiently anywhere in the world

**Who uses VBricks?**
- Corporations
- Universities/K-12 School Systems
- Government/Military
- Municipalities – Civil & ITS
- Broadcasters
- Hospitals & Clinics
- Carriers/Content Providers