



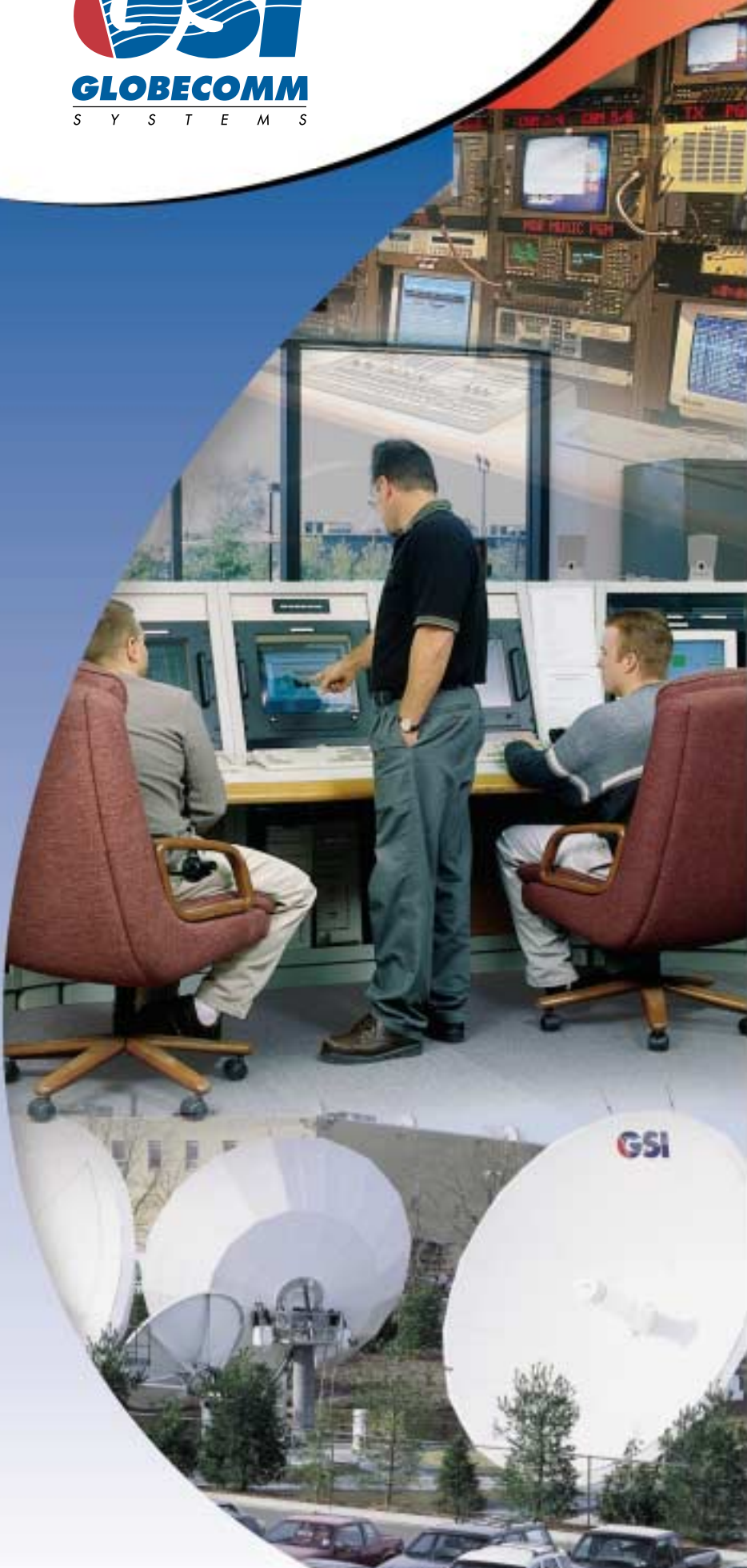
SKYBORNESM

Satellite Broadcast and Content Delivery Networks

SkyBorneSM networks enable you to outsource your technology requirements to better meet a broad range of strategic communications needs, from business television and training, to in-store digital signage, music and messaging, to video broadcast services. For channel or DTH providers, SkyBorne is the ideal video distribution platform for reaching cable headends or end-users.

Designed to be the most powerful, flexible video, audio and data networking solution for organizations with few or many geographically dispersed locations, SkyBorne leverages the benefits of satellite technology to provide rapidly deployable, highly reliable, easily scalable networks unhampered by bandwidth limitations.

With SkyBorne, Globecomm Systems offers complete solutions, including equipment and installation, content development services, uplink teleports, satellite capacity, and 24/7 service and support. SkyBorne networks incorporate equipment from today's leading technology vendors, so the custom solution we provide for you will integrate the ideal components to meet your specific requirements for performance and cost.





MORE EFFECTIVE, MORE EFFICIENT COMMUNICATIONS

SkyBorne satellite networks give you unsurpassed control over your enterprise-wide communications, while enabling you to leverage the significant advantages of satellite technology. SkyBorne is your ideal network solution for instantly and easily providing both high-impact live broadcast presentations and centrally distributed, locally stored content to each of your many locations.

- **Bypass bandwidth limitations** of dial-up connections and alleviate the congestion on your existing Wide Area Network (WAN) by broadcasting live video and quickly transmitting huge files at any time via your SkyBorne satellite network.
- **Take centralized control** of communications from your headquarters as never before. Upload content, update or replace any or all archived content at any or all locations, and broadcast or deliver files to specific locations as you choose.

- **Protect your communications** during broadcast and while stored, as SkyBorne's encryption and authorization controls prevent receipt and/or access by anyone other than your designated authorized users.
- **Enhance your existing WAN** rather than replace it. SkyBorne is based on IP standard protocols, and can interface seamlessly and serve as an overlay feeder network for your existing content delivery network.
- **Expand quickly and economically,** anywhere and at any time, as SkyBorne utilizes readily installed high-performance, cost-effective antennas, integrated receivers, and output devices, to create highly scalable networks.



Live broadcast, content delivery, or both: Choose the ideal technology for your specific requirements.

Live Broadcast Services

For high-impact video communications, SkyBorne enables you to transmit live programming directly from a studio or from the field, as well as send pre-recorded video, audio, or data directly to your facilities' television monitors or desktop PCs.

Through our program content integration and scheduling capabilities, SkyBorne's live broadcast service makes it easy for you to provide seamless, complete broadcast programming. We can receive your pre-recorded content on beta tape or any digital storage medium, and receive your live video feeds through nationwide video networks,

Reliable File Transfer ensures the availability and integrity of your content.

Reliable File Transfer (RFT) is the means for ensuring that all of your content distributed through the SkyBorne network is delivered accurately and completely to each of your locations. SkyBorne offers multiple RFT options to meet your requirements, whether you implement a receive-only network (no return channels) or a two-way network (return channels from each location). RFT software is preloaded into all SkyBorne receivers.

For receive-only networks, SkyBorne offers *Statistical Rebroadcast RFT* to send all packages multiple times to help ensure complete delivery. Each local SkyBorne receiver scans all rebroadcasts for any information missed from the first broadcast and draws any relevant

information from the rebroadcasts to perfect the original broadcast message.

In two-way SkyBorne networks (in which the return paths are provided through dial-up, Internet connectivity, or satellite return channels), *On-Demand Rebroadcast RFT* is offered to ensure receipt of each content package. As each site receives a package from the satellite, it either sends an acknowledgement that the entire package was received, or it sends information on the specific pieces that were not. The *On-Demand Rebroadcast* server then rebroadcasts only the specific information missed at any sites. Transmitting only missed information minimizes bandwidth use and lowers delivery costs.



via a terrestrial IP network, or by satellite uplink. We then integrate your content according to your predetermined schedule and broadcast your programming live for direct real-time playout at your remote locations.

Content Delivery Services

SkyBorne's content delivery service (store and forward) gives you the power to broadcast video, audio, and data files from your headquarters a single time, and have them stored locally at each of your remote sites for playback at any time – enabling you to provide consistent 24/7 broadcasting at all of your locations *without paying for continuous bandwidth*.

SkyBorne scheduling software gives you complete control over when files are broadcast from your network hub to your remote locations, as well as the ability to create complete customized playlists to determine when files are played at each site. In addition to allowing you to provide your content whenever it's needed, this enables you to send your files during off-peak hours for additional bandwidth cost savings.

To enable this content delivery service, SkyBorne networks feature powerful Integrated Receiver/Decoders (IRDs). Just one low-cost, highly customizable IRD at each of your remote locations provides ample storage for video, audio, and data files. Each unit can be designed with all multiple audio or video outputs, and can also feed an unlimited number of additional media players or computers throughout the site.

SkyBorne content delivery networks can function as stand-alone networks with integrated local storage within each IRD, or can serve as a feeder network that seamlessly interfaces with an existing terrestrial content delivery network.

Your powerful, flexible solution for a wide range of applications.

Enhanced Business Television (EBTV)

Present business-critical information, announcements, and events in a dynamic, engaging way (live or recorded video broadcasts), while giving your employees flexible access to the timely, relevant information they need to perform at the highest level. Eliminate downtime by enabling employees to schedule their viewing or learning around their workload.

Training Networks

Create a more skilled workforce and accelerate training by providing interactive "face-to-face" learning from headquarters to all locations, without incurring travel costs. Local storage of training materials allows on-demand learning and "just-in-time" training for immediate application of learned skills, while eliminating printing and shipping costs of traditional distance learning materials.

Digital Signage

Reach consumers in-store with relevant, dynamic messages to promote your brand and increase sales. Customize your messages by individual screen, department, location, region, day-part, season, or any other way, so that the message delivered is most relevant for the target audience. Advertising sales on your network generate additional revenue for your business.

Music & Messages

Provide the right "sound track" to motivate sales and heighten employee productivity. All-digital audio programming can be tailored to any demographic, and be scheduled for different times of day or year, and for different locations or regions. Seamlessly integrate ads and promotions into the music mix, for in-store and on-hold branding.

Video Broadcast Services

If you're a television channel or DTH provider, we'll broadcast your signal to local cable headends or direct to end-users, while you focus on content development and marketing. From ad insertion, scheduling, channel "building" and handling the entire broadcast chain, SkyBorne can get you on the air quickly, reliably and economically.

SKYBORNESM

SkyBorne: Your complete end-to-end solution

Small dish antennas/receivers

To provide you with the most cost-effective and customized solution, SkyBorne networks utilize low-cost, high-performance antennas at your remote locations, and incorporate equipment from leading manufacturers to provide a full range of proven video only, audio only, IP receiver routers, and media receivers with the storage capability and on-board processing to handle multiple types of content.

Content development services

From creation to post-production in our professional studio and AVID-equipped editing facilities, we can assist you in generating professional quality content.

Satellite uplink capabilities

SkyBorne network's shared uplink teleports support both broadcast and two-way communications services, and offer maximum on-demand bandwidth for video broadcasts and large file deliveries. If required, Globecomm can design, build, and operate a private uplink facility for your organization.

Satellite capacity

Globecomm maintains the industry's most comprehensive space segment options for your SkyBorne network, with ready access to ample worldwide capacity. This ensures sufficient bandwidth whenever you require, and the desired coverage for your user community.

Global network operations center

SkyBorne provides remote monitoring and diagnostic tools for your entire network from Globecomm's world-class network operations center (NOC) in New York. Staffed 24/7 with satellite, broadcast and IP engineers, the SkyBorne NOC provides first-level application support and troubleshooting.

Installation, field services and help desk support

Our nationwide team of certified installers are expertly trained to ensure installations at all of your sites are done properly, on-time and on-budget. If on-site assistance is required, our network of local field technicians provides quick-response service to any of your sites.

Financing options

SkyBorne offers flexible payment plans and financing options to best meet the needs of your organization.

www.globecommsystems.com

Globecomm Systems: Your Partner for Successful Networks.

One of the world's leading providers of satellite-based and terrestrial infrastructure and service solutions, Globecomm Systems (NASDAQ: GCOM) is uniquely able to meet virtually any organization's need to distribute multimedia information, whether to a few or to thousands of locations, anywhere in the world. SkyBorne networks combine our world-class expertise in satellite communications, Internet Protocol (IP), communications networks, and information technology.

As a provider of end-to-end solutions, Globecomm offers you the convenience of "one stop shopping," and the assurance of partnering with a responsive, highly competent single point of contact and accountability for your custom-engineered SkyBorne network solution.

ISO9002 Certified

Globecomm Systems Inc.
45 Oser Avenue,
Hauppauge, NY 11788-3816 USA
TEL: +1 631 231-9800
skyborne@globecommsystems.com

U.K. TEL: +44 191 258 9000
Hong Kong TEL: +852 2838 8199

©2003 Globecomm Systems inc.
Specifications subject to change without notice.

