

Vyvx[®] Satellite and Teleport Services

Powering next-generation video delivery

Great video doesn't always come from the studio or the stadium.

Capturing content from the real world and delivering it to your global audience takes a provider with the combination of technology and expertise that Lumen can deliver. Lumen[®] Vyvx[®] satellite and teleport services bring together our award-winning teleport, encoding, conversion and fiber services to meet your content delivery needs, and we provide it all at reasonable prices with availability that delivers a proven service experience.

Business solutions

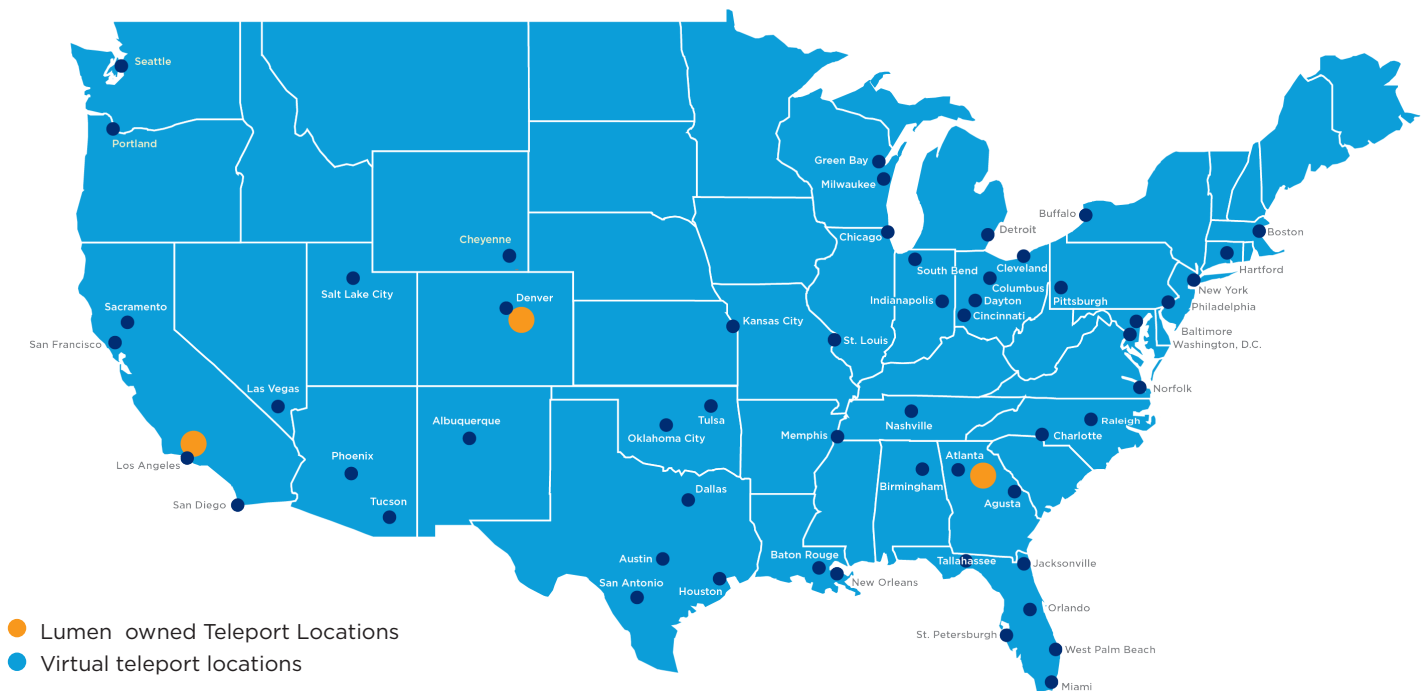
Monitoring and Support: Our state-of-the-art teleport control rooms and Network Operations Centers provide you with 24/7 redundant monitoring, support and broadcast expertise.

Simplicity: We utilize MPEG 2, MPEG 4, JPEG 2000 HD encoders and a number of other encoding profiles to support your High Definition delivery needs. Additionally, we offer high-definition conversion services at one competitive rate, keeping budgeting and booking simple and cost effective.

High Quality: We've upgraded our HD offerings to include MPEG 2, MPEG 4 HD encoding equipment along

with the ability to do a number of other encoding profiles as needed for your deployment. When you need high orders of modulation or have to get the most out of your bandwidth, we are ready with the service options you need.

Transponder Services: Our Satellite transponder Services can fulfill virtually any space segment needed via our alliances with major carriers. Our assets, resources and relationships enable us to help fulfill customized solutions. Lumen can fulfill all of your occasional and full-time transmission needs regardless of content. We can give the customer an exceptional experience bundling transponder and teleport services with our fiber-optic distribution.



European Teleport Locations:

Berlin, Germany
London, England

Latin American Teleport Locations:

Buenos Aires, Argentina
Sao Paulo, Brazil
Rio de Janeiro, Brazil
Caracas, Venezuela
Bogota, Columbia
Sabachoque, Columbia
Quinto, Ecuador
Lima, Peru

North America

Lumen® offers a full suite of teleport and satellite services through our North American locations in Los Angeles, Denver, and Atlanta. We combine data and video services to support your growing distribution requirements with regards to quality, efficiency and security.

Lumen® Vyvx® Solutions deliver events with mission-critical care. With a track record of quality built over 25 years, we've gained a proven position in domestic and global full-service video transmission solutions.

North American Location Detail

Video Services

- Occasional use and dedicated uplink, downlink, turnaround
- Terrestrial connectivity via Vyvx® Network to all Vyvx®-enabled locations
- Local loop connectivity
- Vyvx® Media Elements. Value added services, format conversions, record and playback, Dolby® manipulation and closed captioning.
- Analog and digital video support
- Dedicated and Occasional Use space segment
- MCPC Platform on G23 for uplink and space C-band, Ku-band
- Cisco®PowerVu®Encryption
- Encoding
- MPEG 2, MPEG 4, JPEG 2000 encoding and decoding
- Colocation
- Management of authorizations for Cisco PowerVu
- Book through our Vyvx® Solutions reservations desk

Content Delivery Network

- Content Aggregation
- Live Event Services
- Colocation and Managed Services
- Video and Audio: Conversions, encoding, recording and playback
- LCD Linear Channel Distribution

Los Angeles Teleport

- 22 Antennas (18 transmit, 4 receive)
- Infrastructure
 - Generator, UPS
 - 2,500 square feet available for colocation
 - Gateway to Lumen® worldwide network
- Specialties
 - Occasional video
 - Video and Audio: Conversions, encoding, recording and playback
 - APAC Gateway

Denver Teleport

- 17 Antennas (11 transmit, 6 receive)
- Infrastructure
 - Generator, UPS
 - 1,000 square feet available for colocation
 - Gateway to Lumen® worldwide network
- Specialties
 - Dedicated and Occasional video
 - Video and Audio: Conversions, encoding, recording and playback

Atlanta Teleport

- 32 Antennas (17 transmit, 15 receive)
- Infrastructure
 - Generator, UPS
 - 4000 square feet available for collocation
 - Gateway to Lumen® worldwide network
- Specialties
 - Dedicated and Occasional video
 - Video and Audio: Conversions, encoding, recording and playback
 - EMEA Gateway

Littleton, Colorado Teleport

- 20 Antennas (Receive)
- 2 steerable 4.5M downlink antenna's per Super Headend for acquisition and backup support
- Infrastructure
 - Redundant Generator, Redundant UPS
 - Redundant cooling
 - Colocation Available
 - Gateway to Lumen® worldwide network
 - DS-3, ASI, SDI, Ethernet and IP video
- Specialties
 - Downlink
 - Content Aggregation
 - Georedundant content aggregation and delivery
 - Video and Audio: Conversions, encoding, recording and playback

Columbia, Missouri Teleport

- 18 Antennas (Receive)
- 2 steerable 4.5M downlink antenna's per Super Headend for acquisition and backup support
- Infrastructure
 - Generator, UPS
 - Colocation Available
 - Gateway to Lumen® worldwide network
 - DS-3, ASI, SDI, Ethernet and IP video
- Specialties
 - Georedundant content aggregation and delivery
 - Video and Audio: Conversions, encoding, recording and playback

Latin America

The Latin America-based teleports provide connectivity to the Vyvx® network for distribution to all Vyvx®-enabled locations across the globe. Through our IP/TDMA platforms, extended IP connectivity can be delivered to geographically dispersed remote sites or customer branches. Each of these sites are equipped with homogenous and scalable communication capabilities, regardless of the distance and existence of terrestrial infrastructure.

We also offer:

- Managed private IP network with QoS handling capabilities can be provided
- IP/TDMA platforms directly attached to Lumen® MPLS terrestrial backbone providing a global reach

Latin America-based

Buenos Aires, Argentina

- Master Antennas
 - 2 x Vertex 11mts C-band
 - 1 x Nec11mts C-band
 - 1 x Andrew 9.1mts C-band
 - 1 x Vertex 9mts C-band
 - 2 x Vertex 6.1mts Ku-band
 - 2 x Andrew 4.6mts Ku-band
- Technologies
 - 3 x ISBN PES Hughes VSAT HUBs
 - 1 x 360 GilatVSAT IP HUB
 - 1 x SkyEdgeGilatVSAT IP HUB

Sao Paulo, Brazil

- Master Antennas
 - 2 x Brasilsat6mts C-band
 - 1 x Brasilsat6mts Ku-band
 - 1 x Andrew 7.3mts C-band
- Technologies
 - 1 x TES Hughes DamaHUB
 - 1 x Evolution iDirectVSAT IP HUB

Rio de Janeiro, Brazil

Antenna: 1 x Brasilsat 6mts C-Band

Caracas, Venezuela

- 1 x Scientific Atlanta 11mts C-band
- 1 x Andrew 4.6mts C-band
- 1 x Andrew 4.6mts Ku-band
- 1 x Andrew 7.6mts C-band
- 1 x Brasilsat6mts Ku-band
- Technologies
 - 1 x ISBN PES Hughes VSAT HUB
 - 1 x PowerVuSA/Cisco MCPC Broadcasting

Bogota, Colombia

- Antenna: 1 x Andrew 4.6mts Ku-band

Sabachoque, Colombia

- Master Antennas
 - 1 x Scientific Atlanta 11.3mts C-band
 - 1 x Scientific Atlanta 10mts C-band
 - 1 x Andrew 9.3mts C-band
 - 1 x Vertex 7.2mts Ku-band
 - 1 x Brasilsat6mts Ku-band
 - 1 x Andrew 4.5mts Ku-band
- Technologies
 - 2 x SkyStarAdvantage GilatVSAT HUBs
 - 1 x HN Hughes VSAT IP HUB
 - 1 x Evolution iDirectVSAT IP HUB

Quito, Ecuador

- Master Antennas
 - 1 x Vertex 7.2mts C-band
 - 1 x Satlink6.5mts C-band
 - 1 x Equatorial Tech. 4.5mts C-band
- Technologies
 - 1 x HX Hughes VSAT IP HUB
 - 1 x Evolution/Infinity iDirectVSAT IP HUB



The Lumen® Latin America Teleports specialize in voice and IP services along with Vyvx® broadcast delivery.



Europe

Lumen® proudly offers both video and data services from our European locations in London and Berlin. Video downlink services are available as well as connectivity to the Vyvx® Network for distribution to all Vyvx®-enabled locations globally. Our antenna infrastructure includes:

European Locations

London

- Master Antennas
- 3.6m C-Band
- 2.4m Hybrid

Berlin

- Master Antenna
- 1 x 4.5mts KU-band

Capturing content from the real world and delivering it to your audiences takes a provider with the combination of technology and expertise that Lumen can deliver.



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TECHNOLOGIES