

#### Requirements:

- Direct line-of-sight communications link of at least 15km
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- Bandwidth – up to 200 Mb/s, low latency for live video streaming
- Ability to work at sub-zero temperatures – potentially in excess of -30C in winter months

#### Challenges:

- The monastery is located in a remote area, some distance (at least 15km) from the nearest populated areas and major communications hub
- Difficult climatic conditions – especially in winter

#### Solution:

- InfiLINK 2x2 Point-to-Point, Direct Line of Sight broadband wireless system

#### Benefits:

- Increased throughput and possibility of future expansion of the communication channel
- Provision of low-latency, low-loss communications channels suitable for the transmission of audio and video content
- Reduced operating and deployment costs

### Using Wireless Broadband and the Internet to reach the technology generation congregation

Encouraging and reaching your congregation in this modern era is always a difficult proposition for any religious organisation. However, today's modern technology and communications era can offer new opportunities to reach an ever-diversifying audience or members of a community who may find it difficult to attend church services in person.

The Abode "MONSEGUR" "Orthodox Church of the Theotokos", located in the Dmitrovsky district of Moscow, Russia, has embraced today's online technology advances by innovatively broadcasting their daily religious services and seminars for their congregation members through the world wide web – and have actually done so for at least the past six years. Over time, they have built a strong internet following, and typically attract over 500 members daily to participate in their church service broadcasts and remote seminars.



The broadcasts have become so popular that the church has even diversified and expanded their range of broadcasted services, and now provides content to their audience through media such as web radio and cached video content in addition to live-streaming video.

With this increased use of live, online media naturally comes the need for increased storage, improved bandwidth, multi-cast streaming capability and higher-quality communications equipment that can support the uninterrupted streaming of live video and radio content. This improved quality and throughput requirement becomes even more critical for the Abode "MONSEGUR" monastery, since it lies in a remote area of the Dmitrovsky district, some distance from any populated area, without direct adjacent access to any communications infrastructure.

With these challenges in mind, Abode "MONSEGUR" turned to InfiNet to help them achieve their objectives of broadcasting high quality video and media to their audience. The brief was not easy: it would require a direct communications link from the monastery to the main infrastructure hub – at least 15km distant - that could broadcast video and content with a throughput of at least 200 Mb/s, whilst operating in the harsh climate that the region is known for in the winter months.

Rather than take the more expensive and cumbersome approach of laying a direct copper or fibre link across the 15km stretch, InfiNet Wireless proposed a wireless alternative using their InfiLink 2x2 point-to-point wireless broadband system to the monastery. This would save both time and cost in terms of deployment, whilst still operating with minimal intervention at the bandwidth and speeds required over the distance. Furthermore, increasing the throughput of the link over time would be a simple matter of equipping additional wireless link capacity – a relative simple upgrade compared to laying additional physical cabling as the bandwidth requirement increases over time.

Six years on, and the InfiLink 2x2 broadband wireless link is still operational, reliable and coping with the increased demand over this time for the broadcast of ever-more bandwidth-hungry high quality video and media services. The wireless link has easily been able to cope with the harsh climatic challenges – not only those of extreme temperatures, but also problems that the severe weather creates for wireless line-of-sight systems such as signal dispersion or interference from heavy snowstorms and freezing fog – and through sun, rain, wind and snow, the Abode “MONSEGUR” has been able to provide comfort and support to its widespread congregation, wherever they may be.

