

## Axis network cameras on the Ostankino TV tower.

Axis network cameras provide a panoramic view of Moscow and video broadcasts of events held inside the complex.



**Organization:**  
MRC (Moscow Regional Center), branch of RTRN (Russian TV and Radio Network)

**Location:**  
Moscow, Russia

**Industry segment:**  
Telecommunications

**Application:**  
Video broadcast and guided tours

**Axis partner:**  
NNT-Telecom

### Mission

From the observation deck of the Ostankino TV tower, located 337 meters above the ground, one can get a panoramic view of the entire city on a sunny day. However, with the naked eye, it is difficult to make out smaller objects located significantly further away.

To attract interest in the TV tower, an initiative was approved to organize a video sightseeing tour from the tower's observation deck. The problem was significantly more complex than simply installing some cameras. It was necessary to develop an interactive video system integrated into the IP network of the TV tower which would allow the observation deck visitors to control the viewing cameras themselves.

One more problem was the need to stream live video broadcasts via the local network and the Internet, for various events inside the TV tower complex, such as conferences and briefings.

### Solution

The first acquisition was an Axis video encoder designed to stream video from the existing analog cameras to the local network for various events inside the Ostankino TV tower complex.

Since using video systems from different manufacturers would not have been the best solution, AXIS 214 PTZ Network Cameras were also installed inside the conference hall as well as on the observation deck of the TV tower, intended for use in organizing teleconferences with other global TV towers. An additional video encoder was also purchased to activate portable analog cameras during major events, presentations and teleconferences.

When the company management approved the decision to resume sightseeing activities, the question arose about the possibility of an interactive guided tour.

"I'd like to highlight the readiness of Axis Communications' experts to join us in solving any questions that arose. Initially, the software interface of the cameras didn't suit our needs. We expressed our requirements, and they were taken into account 100 percent. In conclusion, we received a unique and invaluable system for interactive tours from Moscow's panoramic observation deck."

Viktor Dmitrievich Grishin, Chief Technology Officer of the Ostankino TV tower.

For this purpose, three AXIS 213 PTZ Network Cameras were also installed on the TV tower's balconies: facing east, at a height of 150 meters, facing west, at a height of 253 meters, and facing south, at a height of 323 meters. The cameras are protected inside weatherproof housings and connected to a shared IP network. The camera images can be viewed via the internal IP network and three terminals (information kiosks) corresponding to each camera were installed on the observation deck for the visitors. The cameras are controlled by simply moving the hand over the touch-screen of the monitors.

The software initially had a wide range of functions which was excessive for general-purpose sightseeing. Axis Communications' experts, along with the Ostankino TV tower experts, therefore developed an intuitive Russian-language terminal interface to allow sightseers to control the cameras without the risk of interfering with the system settings. For the users' convenience, the camera interfaces were preloaded with several major tourist attractions, making it easy for sightseers to locate the monument and focus the camera on it quickly. To increase the system's appeal, the camera images are broadcast in still-picture mode to the Ostankino TV tower's official website.

## Result

"The system launch of the interactive panoramic video view of the city of Moscow was firstly intended to increase interest in touring the Ostankino TV tower. I must say that this task was accomplished successfully. Today, we receive requests to tour the observation deck of the Ostankino TV tower for one month ahead," said Viktor Dmitrievich Grishin, Chief Technology Officer of the Ostankino TV tower. This was also helped by broadcasting the camera images on the TV tower's official site, which, thanks to interactive tours, increased attendance figures several times over.

## About MRC

The RTRN Moscow Regional Center (MRC) branch of the Federal State Unitary Enterprise (FSUE) in Ostankino is the largest multidisciplinary communications enterprise, which owns powerful modern technical equipment. The MRC's experts use and service the city's cable television networks and a wide range of other municipal sites. The overall height of the MRC Ostankino TV tower is 540 meters, making it the highest free-standing building in Europe. The Ostankino TV tower has been the highest TV tower in the world for almost 10 years. It has no equal worldwide when it comes to cultural significance, technological functionality, radio/TV equipment and the rational usage of space and internal capacity in the building.

This grandiose structure has 45 floors and dozens of circular decks and balconies. The effective volume of the facilities located inside the lower conical base, concrete steel trunk and high-altitude rigging used to hold equipment and for other services, amounts to 70,000 cubic meters, while the effective area of all the facilities exceeds 15,000 square meters.

[www.tvtower.ru](http://www.tvtower.ru)

