

## Brazil's Most Challenging Repacking Project Comes In Ahead of Schedule with Help from RFS

Radio Frequency Systems (RFS) partnered with EAD, the organization responsible for migrating analog TV signals to digital in Brazil, to play a key role in the success of the largest and most challenging project in the Brazilian repacking program: The Sumaré Tower project, which provides Digital TV services to over 20 million people.

### The Challenges

Located in the central Sao Paulo area, the Sumaré Tower is always surrounded by people. And the logistics to store and handle heavy materials around the tower are difficult. RFS Sales and Services Director LATAM, Renato França, provides an example: "To get a reel that weighs 3 tons (3.3 U.S. tons) and is 4 meters (13 ft) high to the installation location, we had to coordinate in advance with local authorities and deployment teams, and we needed support from phone and energy companies as there were public cables along the path."

In addition, four broadcasters were transmitting high-power television channels at 15,000 watts and each broadcasters' system had to be relocated to enable release of the 700 MHz band to mobile operators in São Paulo. One of the main challenges was to relocate these systems with no impact to the broadcasters' regular daily TV transmissions.

### The Project

To expedite release of the 700 MHz radio frequency spectrum so that LTE700 operation could begin, a temporary system was implemented to give broadcasters a backup antenna until the new one was installed. In addition, a channel combiner in the technical room provided the flexibility needed during the transition phase, which was successfully completed one month ahead of schedule.

The most complex stage of the project was removal of the previous infrastructure, including a 14-ton (15.4 U.S. ton), 30-meter (98 ft) high antenna from the top of the 150-meter (492 ft) high tower. The tower-top site also had to be prepped for the new systems that would be installed.

Before these tasks could be executed, a support structure had to be built around the tower to ensure safety. In addition, structural calculations were completed to ensure there would be no damage to the tower and that the tower could support the operation.



The Sumaré is a 160 meters high tower located in the heart of São Paulo, Brazil with over 20 million people in its metropolitan area.



## Case Study

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#### The Result

The Sumaré Tower project was completed in just 8 months, well ahead of the 12 to 13 months it was expected to take. According to EAD Technical Director, Gunnar Bedicks, the accelerated timeline was possible thanks to accurate timelines, including forecasts and contingencies, and the commitment of all teams involved.

More than 50 RFS representatives worked with the EAD engineering team on the Sumaré Project. "Completing the project on time and ensuring worker safety were our top priorities, so we hired a workplace safety team that was directly involved in the activities," says França.

In addition to manufacturing the products required for the project, RFS:

- Managed national and international logistics
- Performed the structural calculations for the tower
- Removed the legacy systems
- Relocated and tested the new systems
- Managed the environmental aspects of the project, including disposal of all equipment removed from the site



On-time delivery was a key component for a successful project.

We achieved an amazing result in terms of planning, execution and customer satisfaction due to a strongly committed and synchronized team. ”

– Renato França, Sales and Services Director, RFS LATAM

#### Sumaré Skyline



#### ABOUT RFS

Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna and tower systems, as well as active and passive RF conditioning modules, providing total-package solutions for outdoor and indoor wireless infrastructure. RFS serves OEMs, distributors, system integrators, operators and installers. Its customers currently include the four largest wireless carriers, the majority of tier 2 and 3 wireless carriers in North America and many of the top wireless and microwave OEMs worldwide.

For more than 70 years, RFS has provided its customers with world-class service that is backed by a global presence of nine manufacturing facilities worldwide and sales and technical support centers in 23 countries. RFS offers advanced engineering capabilities, superior field support, and expert technical assistance and training to provide scalable, flexible, future-proof and lightweight end-to-end solutions optimized across the entire RF chain. As an ISO-compliant organization, RFS solutions offer proven longevity, premium performance and unrivalled quality.