

INDRA DEPLOYS AN ADVANCED COMMUNICATIONS NETWORK THAT IMPROVES CONTROL AND SECURITY IN THE TRAINS OF BUENOS AIRES FOR €18.9 MILLION

- **The company has implemented a digital radio communications system based on the Tetra standard, for the largest integrated network of the Argentinian rail, which connects the city of Buenos Aires with urban and suburban towns**
- **The new communications system will improve the control and coordination of transportation and is key for guaranteeing more efficient service and greater security for passengers**
- **This contract further strengthens Indra's position as one of the few companies worldwide capable of deploying advanced communications networks for large transportation infrastructures, like airports, railways and other public security networks**

Madrid, May 29, 2017.- Indra has installed and launched an advanced communications network to provide service for the largest integrated rail network in Argentina, which connects the city of Buenos Aires with urban and suburban towns in its metropolitan area. This project is the result of a contract for \$214 million (€18.9 million, according to the exchange rate when it was awarded in 2014) granted to Indra by the public rail operator Operadora Ferroviaria Sociedad del Estado.

Indra has implemented a digital communications system based on the Tetra standard that enables voice and data transmission using a digital, mobile radio network. The system is for the exclusive use of the Metropolitan Area of Buenos Aires (AMBA) rail network, one of the world's largest with over 200 stations. Specifically, it provides services for the Sarmiento, Mitre, San Martín, Belgrano Sur and Roca lines, with a total of 1.2 million passengers daily, over 250 stations connected to the network and more than 300 communicated trains.

This secure and robust system guarantees the availability of communications by facilitating the transfer of voice and data with neither losses nor delays, both for usual rail operations as well as during emergency situations, in which commercial systems may fail or become saturated. This way, the new communications system improves the control and coordination of transportation and is key to guaranteeing passengers the best service and greatest security.

The system also facilitates the permanent localization of vehicles and operators through georeferencing signals of the communication terminals with which they are fitted. This way, this technology allows for counting with an exact overview of available resources at any given time and place, and facilitates decision-making and suitable responses in the face of any incidents. Furthermore, thanks to a communication recording system, the Indra solution contributes to investigating what actually happened in the event of an accident, for example.

With this project, Indra reinforces its position as technology partner of the Buenos Aires Rail, for which it has also implemented its ticketing and access control technology. Also in Buenos Aires, Indra has participated in implementing the city's bus fare system, using the contactless SUBE card, and in converting the existing railway access control equipment (called turnstiles) to this payment system as well.

Communications, basic for transport

The installation of the Tetra communications network for the largest railway network in Argentina is another of many of Indra's projects worldwide for the deployment of communications networks for large transport, railroad, port or airport infrastructures. Indra is one of few companies on a global scale capable of

implementing complex network integration projects, in a sector in which communications play a key role in guaranteeing citizens better service and greater security.

Among other projects, in 2015 the Chilean railroad company, Grupo EFE, entrusted Indra the improvement of its virtual communications network, which includes the supply, installation, configuration, testing and maintenance of a multiservice IP/MPLS communications network for the Santiago-Concepción region, covering over 550 km of railways and their surroundings.

The company has fitted the airports of Madrid, Malaga, Kuwait and Oman with the Tetra communications.

Currently, Indra has various projects underway for implementing fixed and mobile communications in other railroad infrastructures, among which are worth highlighting the high-speed railway link between Mecca and Medina in Saudi Arabia.

Furthermore, the company is also experienced in deploying public security networks, like those already deployed in five states of Mexico, others for the Regional Government of Castile-La Mancha or for the Rivas-Vaciamadrid City Council for equipping emergency, firefighting and police services. It is also deploying a Tetra network for the police in the Brazilian state of Alagoas.

About Indra

Indra is one of the main global consulting and technology companies and the technology partner for core business operations of its clients businesses throughout the world. It offers a comprehensive range of proprietary solutions and cutting edge services with a high added value in technology, which adds to a unique culture that is reliable, flexible and adaptable to its client's needs. Indra is a world leader in the development of comprehensive technological solutions in fields such as Defense & Security, Transport & Traffic, Energy & Industry, Telecommunications & Media, Financial Services and Public Administrations & Healthcare. Through its Minsait unit, it provides a response to the challenges of digital transformation. In 2016 it reported revenues of €2,709m, had a workforce of 34,000 professionals, a local presence in 46 countries, and sales operations in more than 140 countries.