

# Altán Redes Quality of Service

México, September 2023



# Altán provides important benefits to the Mexican telecommunication market through the development and commercialization of the Shared Network



## Altán Redes

### About us

- Altán is a Mexican company responsible for designing, developing, operating and marketing the **Shared Network**

### Our objective

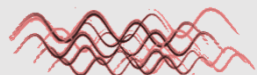
- **To cover 92.2% of the Mexican population,** to contribute to the connectivity, and to promote open market and competition

### About the Project

- **Shared Network** is a public policy created from the Constitutional Reform on telecommunications to achieve broadband connectivity in the country
- **Wholesale broadband network** provides services to MVNOs and operators of telecommunication networks
- To ensure effective and shared access to **modern technology in 4.5G-LTE**

## Altán is a Public and Private Partnership (PPP)

***Altán has contract with the Government which establishes terms and conditions under which Altán must design, install, deploy, operate and maintain the Shared Network***



**Spectrum**



**Fiber**

**Government**



**COMUNICACIONES**

SECRETARÍA DE INFRAESTRUCTURA, COMUNICACIONES Y TRANSPORTES



PROMTEL

**CFE**

**telecomm.**

**Altán has a concession of 20+20 years**

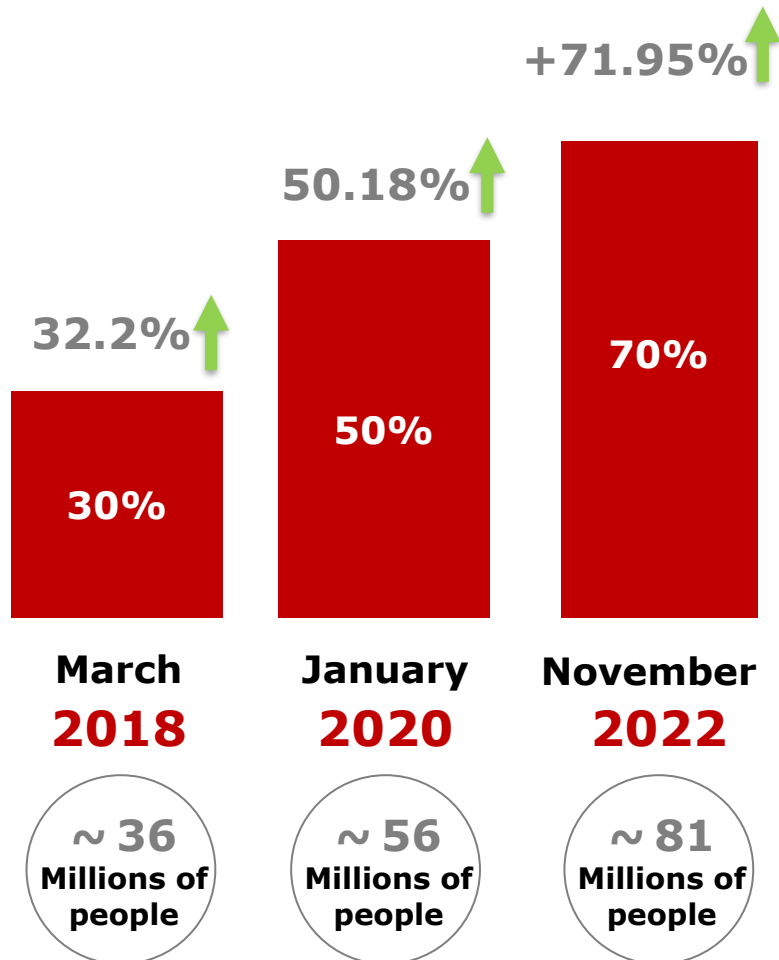
**Altán has the right of use 90MHz in the 700 MHz band for wholesale shared network**

**ALTAN  
REDES**

**Altán has the right to use a pair of fiber optic filaments**

# Altán already has national coverage (Shared Network converge + National Roaming)

## Population coverage milestones<sup>1</sup>



## Benefits for the market

- **Elevate connectivity**
- Reduction of the digital divide
- Network sharing
- Coverage of the population through a 4.5G LTE network
- Better user experience in mobile services
- **Promotion of competition**
- Lowering barriers to offer entry for new competitors
- Participation of existing companies in new markets
- Creation of new products, services and offer's improvement

### Service's terms:

- |             |               |                      |
|-------------|---------------|----------------------|
| ✓ Neutral   | ✓ Transparent | ✓ Non-discriminatory |
| ✓ Universal | ✓ Wholesale   | ✓ Quality            |

<sup>1</sup> Total population covered based on the 2010 INEGI census



## Regulatory obligations

- Provide an uplink data transfer rate of at least one (1) Mbps in urban and rural locations, as well as a downlink data transfer rate of at least four (4) Mbps in urban and rural locations, all by Edge of coverage during Network Peak Time.
- Comply with mobile network quality guidelines over 4G Networks (published in the Official Journal on January 16, 2023).



## Quality of Service

- 4/1 Mbps is included in the reference offer.
- The IFT parameter of measurement: voice service (VoLTE), short message service (SMS) and data transfer service in Shared Network coverage.

## The IFT had made measurements on July 2023 for two MVNOs of Altán

### Voice Service



Results of quality parameters for voice service				
Mobile Service Provider	Sanctionable parameters		Informative parameters	
	Proportion of failed call attempts Index $\leq 3\%$	Proportion of interrupted calls Index $\leq 2\%$	Voice quality (MOS)	Average call set-up time(s)
MVNO 1	0.000	0.086	4.9	3.503
MVNO 2	0.000	0.087	4.9	3.486

### Short Message Service



Results of quality parameters for short message service			
Mobile Service Provider	Sanctionable parameters	Informative parameters	
	Proportion of failed short messages Index $\leq 2\%$	Short message delivery time	Short message integrity
MVNO 1	0	1.239	100%
MVNO 2	0	1.218	100%



## Data Transfer Service

Results of the quality parameters for the Data Transfer service in LTE					
Mobile Service Provider	Informative parameters				
	Proportion of failed FTP session attempts (%)	Average download data transmission rate (Mbps)	Average upload data transmission rate (Mbps)	Average latency (ms)	Proportion of lost packets (%)
MVNO 1	0	19.4356	27.0116	82.799	0.133
MVNO 2	0	16.8272	23.3682	84.061	0.136





**ALTÁN**  
R E D E S

 **Altán**  
La red de todos

