The tower industry in the



Northeast and Amazon regions of Brazil

Local telecom service provider Jtel introduce the logistical challenges of maintaining towers along the coastline and in the jungle



The Brazilian tower industry is not just about the major cities in the Southeast, where growth is driven by burgeoning demand for data capacity and there is an impending need for cell site densification driven by LTE. There is another market for towers and telecom services in the Northeast of the country and in the Brazilian jungle. While there are three cities populated by over 3mn in the Northeast, the jungle regions are characterised by some of the logistical complexities that readers might recognise from remote cell sites in Africa and Southeast Asia. To learn more, TowerXchange spoke to an exciting new telecom service provider which focuses on these regions - Jtel.

Keywords: Who's Who, Managed Services, O&M, Construction, Installation, Capacity Enhancements, Off-Grid, Logistics, Corrosion, Masts & Towers, Infrastructure Sharing, South America, Brazil, Jtel TowerXchange: Please introduce us to yourself, to Jtel and your role in the telecoms infrastructure ecosystem.

Frazao Gomes, Director, Jtel Telecom Services: I have an MBA and have been a telecoms executive for over 22 years. For 17 years I worked for a big services contractor completing projects for Brazil's leading carriers.

During this time I identified pent-up demand for a structured telecom services in the Northeast of Brazil. So we moved to the beautiful city of Fortaleza and two years ago we opened our own company, Jtel.

Jtel currently has ten clients, mostly bigger services contractors in Southeast who subcontract to Jtel to cover the Northeast. We're also starting to develop direct contracts from carriers. Jtel is a young company; last year we turned over US\$1mn. We have seven teams, with 21 technicians plus five staff personnel, so 26 in total. It's a very lean business, but we have a good database of telecom professionals to enable us to expand when needed.

Our goal is to secure long term maintenance contracts - so far we've completed about a hundred ad hoc engagements.

The scope of Jtel's projects to date has included power maintenance, installations, tower maintenance, and tower reinforcement for multiple tenants - we're expecting this service to grow as the tower sharing model becomes more widespread in Brazil.

Read this article to learn:

- Overcoming the challenges of oxidisation at coastal towers
- The need for local know-how and logistics expertise to service an estimated 10% of Brazil's towers that are in the jungle, many off-grid
- Why Brazil's telecom and tower industry is so fragmented
- Brazil's capacity for domestic production of towers and accessories

Jtel leverages project management tools and techniques to provide our customers with information as quickly as we can, so they can see how the project is progressing.

There are three large cities in Northeast Brazil; Fortaleza with 3.2mn population, plus 3mn each living in Salvador and Recife area.

TowerXchange: Tell us about the unique challenges of maintaining coastal towers in Northeastern Brazil.

Frazao Gomes, Director, Jtel Telecom Services: The Northeast coast of Brazil is very windy, and the sea is almost as salty as the Dead Sea. This means that corrosion is a problem, and within two years of the installation of a tower, you have to start checking joints for oxidisation. A lot of the older towers along the coast, towers that were installed before the privatisation of telecoms, have been undermaintained and require replacement or significant upgrade. Jtel has a specialised team to deal with oxidisation.

TowerXchange: I understand that Jtel has also recently opened an office to cover the Amazon area, please tell us about that.

Frazao Gomes, Director, Jtel Telecom Services: Again we felt there was lots of pent-up demand for telecom services along the Amazon, with few competitors for us in the region. Therefore Jtel has opened a small office at end of Amazon river, in a city called Belem. From that base we fulfil various contracts



for a carrier. We're being asked to provide similar services as in the Northeast - restoring towers, painting and sometimes removing towers.

While approximately 90% of Brazil's cell sites are in areas with well developed transport infrastructure and reliable power, around 10% are in the jungle where logistics can be much more challenging. Jtel has unique experience of helping our clients overcome these challenges and we have developed specialised personnel able to deliver logistics at a reasonable cost.

The Amazon region is used to depending on the river for everything, but logistics are not always as simple as hiring a boat to transport equipment. I recall one instance where we had an emergency call to remove a tower from a remote location. The call came during



a religious holiday, and all the boats had been hired for a parade! But we got the job done in a timely manner. In some locations we might have to fly in equipment if delivery needs to be expedited.

Grid power is not good in the Amazon region, so cell sites need generators and all kinds of specialist equipment to ensure uptime.

TowerXchange: Tell us about the structure of the telecoms supply chain in Brazil - why is it so fragmented and regionalised?

Frazao Gomes, Director, Jtel Telecom Services: A lot of telecom equipment and service suppliers come to Brazil with a one-size-fits-all approach, but the market is too fragmented for that to work.

This is due to the history of Brazilian telecoms; there used to be a separate telco in each state, subject to state regulations, so expertise and relationships developed in local areas.

TowerXchange: What impact has the entry of the independent towercos into Brazil had on your business?

Frazao Gomes, Director, Jtel Telecom Services: The acquisition of towers from carriers by independent towercos has been good news for us; we've received some interesting assignments to upgrade towers for multiple tenants. We're looking forward to working with the TowerXchange community to help Jtel identify potential towerco and solution provider partners. TowerXchange: Are tower structures and accessories generally manufactured locally or imported into Brazil?

Frazao Gomes, Director, Jtel Telecom Services:

Brazil has a very strong local steel market, so we produce the majority of our own towers and accessories. However, most of the good Brazilian tower manufacturers are based in the Southeast, which presents a logistical challenge to ship to the Northeast. However, I recently discovered a small tower manufacturer in our area.

TowerXchange: Does Jtel have any interest in markets beyond Brazil?

Frazao Gomes, Director, Jtel Telecom Services: I'm in the process of opening a commercial office in Florida, which will help deepen our relationships with the international towercos and investors.

We'd like to extend our growth and expand into other countries such as Colombia and the Guyanas.

We believe that Jtel can continue to learn at a fast pace and deliver cost effective services in high demand areas of Latin America.

There are around 15,000 towers in the Northeast and Amazon regions we serve, with a further 9,000 towers that need to be installed. Towercos and carriers need regional service providers like Jtel with local expertise, logistics and project management experience to provide high quality, cost effective services in these challenging regions

