

# Shared Resources

Infrastructure providers comment on the dynamics of sharing

With the growing importance of infrastructure sharing, the market for standalone infrastructure providers has grown significantly. These entities have become prominent players in the telecom scenario. Leading infrastructure providers discuss the benefits of infrastructure sharing and the future landscape of the industry...

## What are the different infrastructure sharing business models that a company can opt for?

### Amit Ganani

Cellular operators can opt for one of two basic models:

- Non cherry-picking model: This involves outsourcing the entire rollout and management of an operator's passive infrastructure to an independent tower management company. Such a model allows operators to convert 100 per cent of their capex into opex, thereby reducing the business risk involved in setting up and maintaining such a substantial non-core cost centre as well as allowing them to focus better on their most important core activity – adding and maintaining subscribers.
- Cherry-picking model: This business model involves combining outsourcing with one's own build-up. Under such a model, an operator can outsource its passive infrastructure to an independent tower management company only in areas where the sharing potential is high. A combination of selective areas with the use of independent third-party infrastructure providers expedites the sharing

level one can achieve in certain clusters.

### Arun Kapur

In the past, telecom infrastructure was merely a support system for mobile service providers in India. However, it has now become the most critical element for providing cost-effective services. To reach out to the projected 500 million subscribers by 2010, India not only requires an additional 350,000 to 400,000 towers, but also enabling infrastructure such as spectrum, backhaul and cross-connectivity. At the current price level and with the increasing demand for mobile connections, mobile operators need to quickly expand their network in a cost-effective manner. Infrastructure sharing is the only way to stay competitive in the current business environment.

Globally there are two types of infrastructure sharing – passive infrastructure sharing (tower, shelter, diesel generators, etc.) and active infrastructure sharing (base transceiver stations, microwave radio equipment, switches, antennae, transceivers, etc.). In India, however, only passive infrastructure sharing is allowed by law, for now.

Mobile virtual network operator (MVNO) is yet another business model prevalent in many developed countries such as those in Europe. An MVNO is a mobile operator that does not own its own spectrum and usually does not have its own network infrastructure. Instead, MVNOs have business arrangements with traditional mobile operators to buy minutes of use for sale to their own customers.

### Ajay Madan

The passive infrastructure sharing business model is as below:

The infrastructure provider builds and operates the sites and offers sharing space to telecom operators as a service. The infrastructure provider is responsible for passive infrastructure at the site such as tower shelter, diesel generator sets, air-conditioners, power supply, site operation, and maintenance and security.

The infrastructure provider puts in the entire site capex (of about Rs 3 million) and also spends on maintaining the site. It is thus, a full-service model and all that the telecom operator needs to do is to get its own active equipment to the site. The infrastructure provider offers



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benefits to each telecom service operator in terms of the monthly fees paid to it and the latter bears a loss till such time as the site gets shared by more than two operators. Thus, the telecom operator sees benefits in terms of cash flow savings and profit after tax (PAT) improvements. The infrastructure provider gets the benefit of long-term cash flows provided it can get enough sharing at the sites.

Similar to passive infrastructure sharing, infrastructure providers can also offer active infrastructure sharing if permitted by the Government. This involves the sharing of "active" components such as base transceiver station (BTS) equipment, antenna systems and microwave backhaul.

Infrastructure providers such as Essar Telecom Infrastructure are exploring other related services targeted at operators. These include:

- In-building solution (IBS): IBS is used for providing better coverage to customers inside large premises such as malls, office complexes, hotels, hospitals, etc. It is again offered to multiple operators on a shared basis. Essar Telecom Infrastructure is actively pursuing this opportunity.
- Radio frequency planning and optimisation services: The infrastructure provider does all the radio frequency (RF)-related planning, survey and spectrum efficiency enhancement work to deliver better value to operators.
- Operations and maintenance (O&M) services: The IP can take up the O&M of existing operator-owned sites in its area of operations.

### Prakash Ranjalkar

A cellsite (or tower site) is made up of two parts, namely, passive infrastructure and active infrastructure. Passive infrastructure comprises a steel tower to host the BTS, shelter (BTS room), power supply, diesel generator set for power supply backup, air-conditioner, security cabin and fence. The infrastructure sharing models are as follows:

**Passive infrastructure sharing:** Around 60 to 65 per cent of the capex for setting up a cellsite is spent on passive infrastructure. In this case, the operators buy space

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**Amit Ganani**

on the tower erected to host their active equipment. In order to use the space, the operator has to pay a monthly rental. The tower company or the service provider, which, in turn, owns the site, maintains and ensures that the operator's network runs smoothly.

**Active infrastructure sharing:** Active infrastructure sharing can broadly be defined as the sharing of the active elements of the network amongst service providers. This is a complex process and needs a thorough understanding among the service providers. Though active infrastructure sharing is beneficial for service providers since it considerably reduces the cost and time taken to roll out networks by service providers, the issues involved are more complex as compared to passive infrastructure sharing.

In India, following a directive issued by the Telecom Regulatory Authority of India, passive infrastructure sharing has commenced recently. However, active infrastructure sharing will still take time to be implemented.

### A.K. Sharma

Several business models are being explored in India. They include:

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- Infrastructure sharing among operators on a reciprocal basis.
- Operators pooling in their existing sites as well as sites planned for the future.
- Sharing through tower management companies on the basis of anchor-tenant or add-on tenant relationships.
- Sharing via the Universal Service Obligation (USO) Fund tender.
- Building potential sites and offering them to prospective operators.

**What cost savings can an operator expect from infrastructure sharing and under what areas of the balance sheet? Can you provide some instances?**

### Amit Ganani

Approximately 50 to 60 per cent of industry capex today is spent on passive infrastructure which can be saved by effective sharing. Equally important are savings on opex, which can also be significantly reduced (by as much as 40 to 50 per cent) through efficient tower sharing, including a substantial reduction in the usage of such scarce resources as diesel fuel and electricity. Tower outsourcing is a cash-flow-efficient way for operators to maintain an asset-light business model, enabling them to focus maximum attention on their core business and yielding an improved EBITDA line.

### Arun Kapur

The key element of any telecom infrastructure is its passive infrastructure such as towers, shelters, batteries, diesel generators, civil and electrical systems. In India, the passive component typically constitutes around 40 per cent of the total capital cost and the active component around 60 per cent. However, given the recent rise in property, steel and cement prices, the capital cost of passive infrastructure is going up, while that of active infrastructure is coming down.

If planned at the time of site rollout, with a small incremental cost, the tower can be designed for sharing among two or three other operators. Sharing of passive telecom infrastructure helps operators to significantly reduce the cost of ownership and the cost of operations.

Infrastructure sharing will completely take away capital costs and convert them to operational costs. With a large reduc-



tion in capex, operators will have lower debt and interest costs.

### Ajay Madan

- **Cash flow savings:** The operator does not incur any capex outflow which is around Rs 3 million per site. Thus, for 10,000 sites (that a medium-sized operator may build in a year), the capex cash outflow is about Rs 30 billion. The operator saves such a large cash outflow by sharing sites with infrastructure providers. These savings can be used by the operator to grow business at a much faster pace and spend on customer-centric operations such as sales, marketing, branding and customer services.
- **PAT benefit due to sharing discounts on monthly fees:** The operator pays a fixed monthly fee to the infrastructure provider, including the capex recovery and O&M payments. The infrastructure provider typically gives sharing discounts to the operators (even with only one operator at the site), thus incurring a loss till such time as the site gets more than two sharing operators. This reflects in a direct benefit on the PAT levels for operators as they save on capex, interest costs and depreciation.
- **Management bandwidth savings:** As the operators need to spend time on customer management, branding and network management, outsourcing passive infrastructure frees up significant management bandwidth to focus on the core tasks for operators.

### Prakash Ranjalkar

Infrastructure sharing enables the operator to save the capex related to the deployment of passive infrastructure. It

also helps service providers to offload the tower assets in the balance sheet.

In fact, in the UK and the US, it has been widely observed that telecom operators have sold off their tower assets to independent tower companies so that they can raise quick funds and focus on their core business of providing telecommunication services.

In India, the capex investment of operators is about Rs 2.8-Rs 3.2 million for every ground-based tower site and Rs 1.5-Rs 1.8 million per rooftop-based tower site. Operators will also witness a reduction in O&M expenses, though it may be slightly offset by lease rentals.

### A.K. Sharma

Cost savings of 15 to 30 per cent can be expected by each operator while sharing a tower site. The impact areas on the balance sheet are capex, O&M expenditure and opex. Operators have selectively used sites on a reciprocal basis, thereby reducing expenses on the above heads. Instead of individual shelters, common equipment shelters have been built to reduce capex and optimise power and A/C capacity. Through the USO Fund, operators do not have to pay rentals for the first five years.

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**Ajay Madan**

Opex is shared between three operators and subsidy is provided according to the terms of the tender.

Over 8,000 sites will soon be shared under the USO Fund, providing a unique model of infrastructure sharing as operators and infrastructure providers offer sites to other operators. Bharat Sanchar Nigam Limited (BSNL) will provide sites to other operators as well as use sites from other operators and infrastructure providers, thus providing fair and equitable opportunities to all.

**With both a large number of telecom companies and infrastructure sharing vendors expected to enter the telecom segment in the near future, how do you see the competitive landscape of the sector shaping up?**

### Amit Ganani

Business trends in India have always shown the emergence of immediate competition whenever new business sectors have arisen. What we are currently witnessing with the influx of telecom operators and infrastructure sharing vendors is no different. The real question is, what factors will determine the sustainability and survival of any one player? In the long run, consolidation is likely to occur and only companies with solid financial platforms and outstanding service performances will emerge as long-term players.

### Arun Kapur

Many of the existing telecom companies have already hived off their tower portfolios. However, at present it seems that many of them are keen only to unlock their hidden values. Many operators such as Reliance and Airtel have already hived

off their tower portfolios into separate infrastructure companies. Even though their business model is not clear at the moment, it seems that they are interested in unlocking value by freeing their passive infrastructure.

Currently, there are many smaller tower companies operating in the tower rental space. However, seeing the industry trend and past experience in the telecom sector, many of these smaller players may soon get consolidated into a few major players. The scale of rollout and the capex requirement (over 300,000 towers in the next three to four years) for this massive network are very significant and there is enough room for five to six major players.

### **Ajay Madan**

As with any sunrise industry, the infrastructure sharing industry will attract several new companies – operator-backed infrastructure providers, independent infrastructure providers and infrastructure providers floated by financial investors. We believe there will be consolidation in the infrastructure provider industry in the near future with serious companies such as Essar Telecom Infrastructure leading the consolidation efforts.

### **Prakash Ranjalkar**

With the entry of different players, the competition has definitely increased. But we feel that given the huge potential, there is enough space for everyone. With a tele-density of around 22 per cent and an additional tower requirement of around 200,000, demanding a capex of approximately \$30 billion, India is yet to experience full growth in the business.

Hence, though the number of players is increasing, there is enough room for all to operate, given the high growth the sector is likely to witness. Moreover, with the entry of new operators and with licences to be issued – including the impending 3G licence – the market size has also increased. We also expect some consolidation to take place among the smaller and boutique tower companies.

### **A.K. Sharma**

Tower sharing has become a reality and the business will continue to grow.

**“The main factors on which shared infrastructure providers compete are presence in various locations, engineering skills of the company and the range of O&M services offered.”**

### **Prakash Ranjalkar**

Initially, the captive tower management companies of the operators will be able to contain others. However, after enhancing their valuations, these companies would be at par with others who would have better marketing and management competencies and access to cheaper finance.

**What are the main factors based on which shared infrastructure providers compete in order to gain business?**

### **Amit Ganani**

There are several key drivers enabling infrastructure providers to differentiate themselves from the pack and ensure their position as market leaders. On the operational side, the factors to consider are rollout capabilities (quality and timeline), service level performance and the ability to attract sharing. Equally important is a tower company's ability to raise capital. A solid financial platform combined with highly professional operational expertise is what ultimately provides the required comfort needed for any operator to engage with an independent third-party infrastructure provider.

### **Arun Kapur**

Operators are mainly looking for cost-

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effective, high quality telecom tower sites that can be made available in the shortest possible time. They are equally concerned about the reliability of the network (uptime) and the operating cost of the infrastructure.

Most tower rental companies are now focusing on optimising the cost of infrastructure as well as that of operations by introducing innovative technologies. Operators are very keen to reduce operating costs, which would significantly reduce the effective cost on the subscribers' end.

### **Ajay Madan**

Infrastructure providers focus on the following key factors:

- Timely delivery of sites after initial orders from operators.
- Quality of site – Infrastructure providers focus on innovation and standardisation of materials used.
- Professionally managed O&M.
- Quality of relationship between the operator and infrastructure provider.
- Quality of response and time taken for various factors such as fault escalation and billing issues.

### **Prakash Ranjalkar**

The main factors on which shared infrastructure providers compete (in order of importance) are the following:

- Presence in various locations (or the tower portfolio), thereby providing faster coverage to operators in all those areas where they want to establish a presence.
- The engineering skills the company carries, which would have a bearing on the efficiency and running of the structure.
- The range of O&M services they offer to operators.
- The pricing of the rentals that the operator pays for the services.
- Energy management solutions that lead to better connectivity, and savings in costs of approximately 20-22 per cent.

### **A.K. Sharma**

The key factors are time to roll out, flexibility of commercial terms on the basis of contractual longevity, operational efficiency, pan-Indian presence and the number of sites. ▲