Research

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5G is here, but where's the fibre?

Lack of financial bandwidth and need for massive fiberisation investment will drive telcos to hive off assets, share networks, or diversify to play the 5G game

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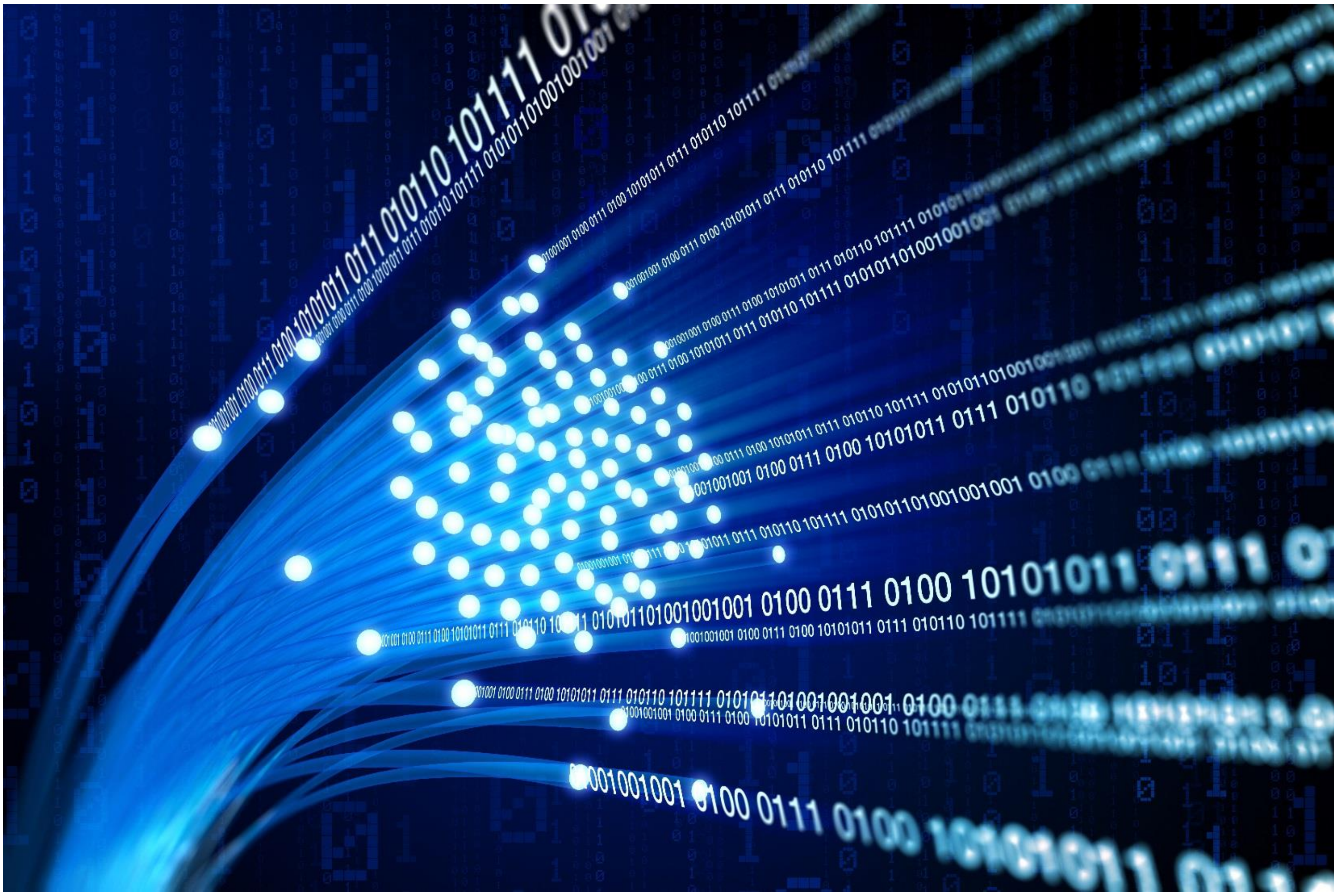

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If switching to 4G from 3G was all about rationalising capacity by Indian telecom operators, 5G's clarion call is fiberisation -- and more fiberisation. Investment in fiberised backhaul infra, which provides unlimited capacity and higher speeds, has to gain further traction, if 5G has to become reality.

But fiberisation is expensive; it comes on top of spectrum costs that are sky-high at current prices. To boot, telcos are saddled with a staggering debt of ~Rs 4.3 lakh crore as of March 2019. That is why India is set to witness some tectonic shifts in the fiberisation landscape and the birth of new business models among telcos and tower companies around the launch of 5G.

Consider this. 5G technology dictates fiberisation levels of over 70%, versus 25-30% levels at present. CRISIL estimates that if each player were to reach this level individually, Indian telcos may need investments of up to ~Rs 1 lakh crore only in laying fibre networks over the next 2-3 years. Higher land cost and right of way approvals make fiberisation cost per km as high as ~Rs 1 crore per km in metros.

Then, there is also the spectrum purchase costs in the upcoming auctions to shell out. Already, the reserve price recommended by the Telecom Regulatory Authority of India (TRAI) for 5G spectrum bands is much higher than in countries like the United Kingdom or South Korea. How much money there is for investment is crucially linked to price-setting at the auctions.

So what are the feasible options?

Players could restrict 5G launch in the initial years to metros and select circle 'A's that show high data consumption appetite. Or, they could evolve business models for sharing fibre infrastructure.

Newer models in the offing

Globally, various business models are in vogue to meet high bandwidth demand, such as hiving off of assets, diversification of businesses, and sharing them with the third parties.

Hiving off of fibre (and tower) assets into a separate entity is one of the prominent business models. It imparts flexibility to the hived off entity for providing services to third parties in the industry, and thus enables them to pursue topline growth opportunities. It also reduces capex requirements, deleverages the balance sheet, and leads to higher valuation of entities as cash flows get predictable. India, too, has learnt from global cases. For instance, telcos such as Bharti Airtel and Reliance Jio have hived off their tower (and fibre) businesses. Large incumbents are in talks to form a joint venture for sharing fibre and in order to reduce capex.

Diversification and infra sharing, a win-win

Towercos are also looking to diversify their business from being merely pure play tower service providers, to managed service providers and areas such as in-building solution (IBS) small cells, fibre backhaul, and others, given limited space for constructing additional towers in order to maintain top line.

Core revenue streams (tower rentals) of towercos have been hit by massive tenancies losses, led by recent structural changes in the telecom industry.

Deployment of fibre and small cells by towercos, and then leasing it to telcos, could be a win-win business case for both telcos and towercos. It would add to the topline of towercos and benefit telcos as their capital expenditure reduces significantly. Besides, sharing of existing fibre assets among telcos could also limit spends and avoid duplication of assets. Government entities and independent players may leverage on this model in the near future to make 5G a working reality by 2021.

Global cases

Hiving off assets

true

Telefónica

Hived off entities

Digital Telecommunications Infrastructure Fund
Lease tower and fibre assets to telcos

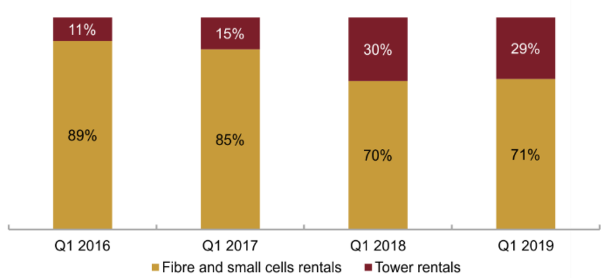
Telxius
Manage over ~65,000 km of international fibre cables and over 16,000 mobile towers

Diversification into other businesses

CROWN CASTLE

Has acquired over 8 regional fibre providers in a span of 4-5 years so as to expand its solutions

Crown Castle's diversified revenue proportion has doubled over the past two years



Source: Industry, company reports, CRISIL Research

Indian cases

Hiving off assets

airtel

Jio

Hived off entities

Telesonic Networks
Own Airtel's optical fibre business

Digital Fibre Infrastructure Trust and Tower Infrastructure trust
RJIL fibre and tower undertaking liabilities reduction of -Rs 1.07 trillion from RJIL

Sharing fibre assets

airtel + vodafone Idea

In talks to form a joint venture sharing fibre assets among themselves

Fibre assets of leading telcos

airtel	Idea	Jio
~2.5 lakh km	**~1.6 lakh km**	**~3+ lakh km**

Monetising government assets

BSNL
Connecting India faster

~ 8+ lakh RKm of optic fibre cable

~ 70K+ mobile towers

Considering monetisation of fibre assets through leasing
Source: Industry, company reports, CRISIL Research

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