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Deal or No Deal: How the Sprint – T-Mobile Saga Will Impact Rural America

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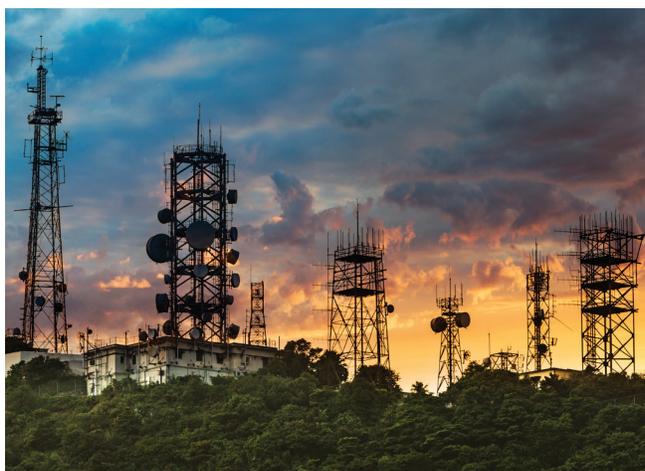
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Key Points:

- The fate of the Sprint – T-Mobile merger is currently in the hands of a district court judge.
- Those opposed to the merger believe it will negatively impact rural operators’ revenue among other factors.
- However, if T-Mobile follows through on its plan to expand cell phone coverage in rural America, the merger could provide some wholesale/enterprise opportunities for rural telecom operators.
- If the judge blocks the deal, it will be business as usual for the foreseeable future, but future M&A for Sprint and its ability to survive on its own do create uncertainties for rural America.
- There is a lot to weigh in the potential merger, but T-Mobile’s lack of roaming agreements with rural operators is a legitimate concern for those opposed to the merger.

Introduction

As Sprint and T-Mobile forge ahead with their merger, a number of states are standing in the way citing anti-trust concerns, among other factors. This has put the deal in jeopardy and its future is in the hands of a district court judge. Either side – the companies or the state attorneys general – could appeal the judge’s decision. As the industry waits to see how the situation unfolds, we’ve looked at how the merger could impact rural operators and rural residents, and what to expect if the deal is not approved. There is a lot to weigh here, and arguments against the merger – from a rural perspective – definitely have merit. Here is our take.



Scenario One: Sprint – T-Mobile merge

T-Mobile's commitment to rural America

In its merger filings, T-Mobile agreed to provide 5G coverage to 85% of rural Americans within three years of the merger and 90% within six years. Failure to meet these coverage commitments will result in FCC fines of up to \$2 billion.

To meet these commitments, T-Mobile has agreed to invest up to \$40 billion in its network within the first three years after the deal closes. And while this sounds like a significant amount of capital, we note that as independent companies, T-Mobile has talked about spending \$25.9 billion to deploy 5G services through 2022, while Sprint is planning to spend \$26 billion over the same timeframe.

This lower aggregate spend could be a small bright spot for rural operators.

Clearly the reduced spend is driven, in part, by network synergies as running one network is cheaper than two. But the lower spend could also mean that T-Mobile is less likely to overbuild rural markets (that is, build coverage in a market where the incumbent

has already built a network) and instead partner with existing operators to expand their coverage. A strategic partnership would require less capital versus an overbuild strategy.

These partnerships could include tower leases, backhaul, local turf vendor support, or a network surrogate strategy where the rural operator builds its network to support T-Mobile's spectrum and specifications.

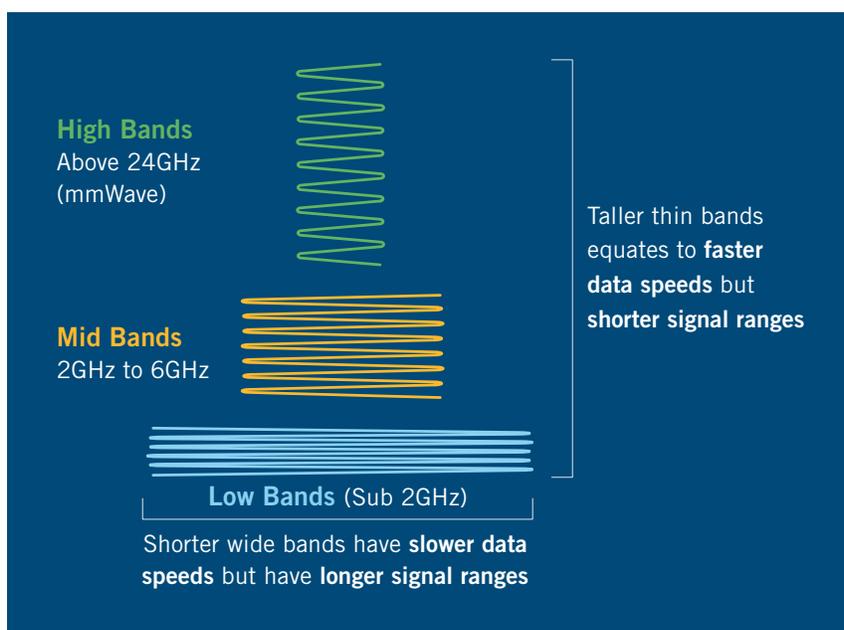
Another twist of the proposed merger is the opportunity for rural operators to work with Dish Networks. To address anti-trust related concerns, T-Mobile and Sprint have agreed to sell 14 MHz of 800 MHz spectrum and Sprint's prepaid wireless business to Dish Networks for \$5 billion. T-Mobile is also giving Dish access to its network via a seven-year wholesale agreement. These assets will enable Dish to become a nationwide wireless operator and is intended to ensure there is sufficient competition in the market. Therefore, given that Dish Networks lacks any company-owned wireless infrastructure in rural America, it will likely enter into tower lease, fiber backhaul, roaming agreements, etc., with rural operators.

Bridging the digital divide?

All of these coverage commitments sound great on paper, but to what extent will they make a meaningful impact on the digital divide? The short answer is it remains to be seen. It largely depends on the spectrum T-Mobile uses in rural America, and how densely deployed access points are in these markets.

Achieving fixed-line-equivalent connection speeds over a wireless network requires high-band spectrum. High-band spectrum is able to carry more data at faster speeds compared to low-band spectrum. The problem with high-band spectrum is that the signals do not travel very far – think 1,000 feet. The short signal ranges and extensive fiber needed to connect wireless towers are particularly problematic for rural deployments. But the

EXHIBIT 1: Properties of Low-, Mid-, and High-Band Spectrum



Source: CoBank

and the fact that more spectrum equals higher throughput levels, it's conceivable that T-Mobile could offer even faster speeds with its mid-band 2.5GHz spectrum.

While all this sounds great in theory, it's important to understand that coverage does not always equal quality/speed.

For example, T-Mobile can say it is going to cover 90% of rural American with 5G within six years after the deal closes. However, if T-Mobile uses its 600MHz spectrum with a small number of cell sites to meet the aforementioned 5G coverage requirements, the upside to its data speeds will be limited. And if history is an indicator, this is exactly what T-Mobile will do.

new T-Mobile will have something that AT&T and Verizon do not: lots of mid-band spectrum in the 2.5GHz band (*Exhibit 1*). And it's this mid-band spectrum that will enable T-Mobile to offer compelling data speeds in urban markets, as well as some suburbs and small cities considered "densely populated" rural markets.

For example, according to the regional cable provider Midco (known as Midcontinent Communications until 2016), with 40MHz of 2.5GHz (mid-band) spectrum it would be able to offer speeds up to:

- 230/25Mbps about 4 miles away from the access point,
- 100/20Mbps about 8 miles away; and
- 25/3Mbps about 18 miles away.

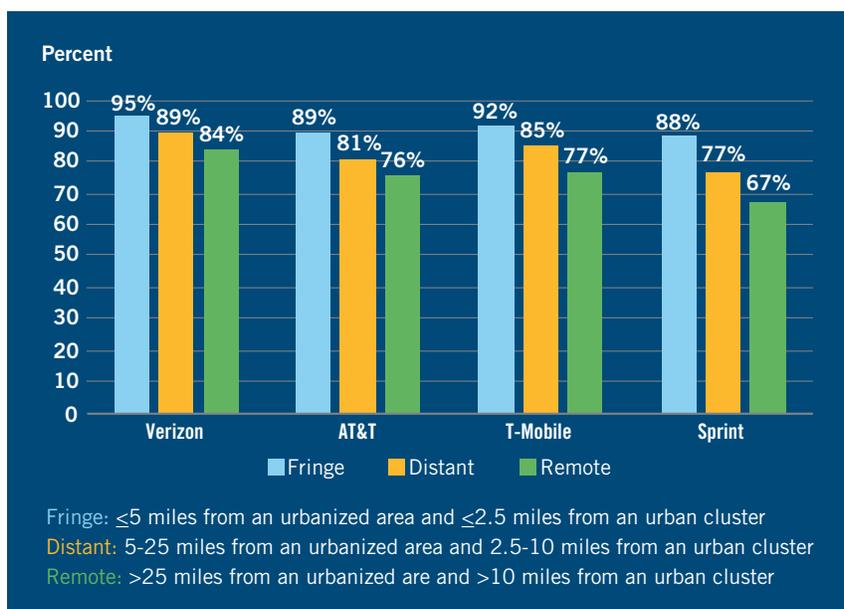
After the merger, the new T-Mobile will have approximately 150 MHz of 2.5GHz spectrum, which is significantly more than the scenario outlined by Midco. Therefore, given these extensive spectrum holdings,

Rural headwinds

The merger does create some serious concerns for rural America – chiefly, roaming revenue and roaming coverage. According to the Rural Wireless Association, Sprint has been an important roaming partner for many rural operators as they fill Sprint's coverage gaps. These roaming relationships serve two important purposes: 1) they represent, in some cases, a significant source of revenue for rural wireless operators, and 2) give rural wireless customers access to Sprint's network in urban and suburban markets. T-Mobile's roaming strategy has not been as aggressive as Sprint's.

Since T-Mobile's current management team will be leading the new T-Mobile, the concern for rural operators is that T-Mobile will abandon Sprint's roaming strategy. This could result in rural wireless operators taking a significant revenue hit, with some of their customers' coverage in urban and suburban markets potentially impacted.

EXHIBIT 2: U.S. Rural 4G Availability



Source: Opensignal

Data collection period: March 16-June 13, 2019

We note that even with more rural roaming agreements, Sprint's rural coverage is inferior to T-Mobile's, according to an analysis from Opensignal (*Exhibit 2*). Therefore, rural operators' roaming concerns are justified as T-Mobile appears to have more company-owned rural infrastructure compared to Sprint, and therefore has less need to partner with local operators for coverage.

Scenario Two: The deal gets blocked

If Sprint and T-Mobile are unable to merge, the impact on rural America will be driven by which path Sprint takes next. For example, given the cable operators' recent foray into wireless, they might be interested in acquiring Sprint. If this were to happen, it's likely Sprint's existing roaming agreements would remain in place as the cable operators do not own any 3G/4G wireless infrastructure in rural America. Also, given the amount of capital needed to upgrade Sprint's network (around \$26 billion according to Sprint) and Sprint's heavy debt load, it stands to reason that a cable acquirer would leverage existing third-party relationships in rural America to reduce the capital spend in those markets.

Unless Sprint takes part in a new merger, it could eventually file for bankruptcy based on the dire picture that management is painting for regulators. It claims that as an independent company, it will not survive.

Sprint could be overselling this narrative to get the merger approved, but there is no denying that the company has been struggling for years and has significantly underinvested in its network as a result. A bankruptcy filing would create some uncertainty regarding Sprint's future, which could negatively impact its roaming relationships with rural operators.

Ultimately, we doubt Sprint would file for bankruptcy given the deep pockets

of its majority owner, Softbank. However, some parts of the network could be rationalized which may present opportunities for rural operators to buy neglected rural infrastructure equipment from Sprint. It's not uncommon for operators to limit their investments in fully depreciated rural infrastructure. Sprint could look to sell some of this equipment as a part of a turnaround strategy.

Conclusion

There are numerous outcomes at play here depending on the how the courts rule, among other factors, and it is therefore difficult to predict with a high degree of confidence how this saga will impact rural America. For example, if T-Mobile's coverage commitments are taken at face value, then those living in rural America should see improved wireless coverage after the merger. We also believe that the merger could bring new revenue opportunities to rural operators in the form of tower leases, fiber backhaul, etc. However, there is risk that the merger will negatively impact rural operators' roaming revenue, which is something they can ill afford given the health of their operations (many rely on government support, have thin margins, etc.).

If the deal is blocked, there shouldn't be an immediate impact on rural America – it should be business as usual until another major deal is announced. The cable operators are logical buyers of telecom assets and if Sprint is acquired by the group, then rural operators and their customers may be insulated from any major business or coverage risks. ■

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