Invest Implications: Market Trends: How TSPs Are Preparing 5G Solutions With Cloud Edge Providers

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A host of actors are competing to be lead players for the telco edge. Notable large CSPs are now deferring to the public cloud providers to save the upfront capital expenditure. CSPs need to recognize the risk of being relegated to a role of simply owning spectrum and data center real estate.

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Market Trends: How TSPs Are Preparing 5G Solutions With Cloud Edge Providers

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Investment Implications

- The arrival of 5G and edge computing is opening up opportunities for communications service providers (CSPs) to support new use cases. A host of actors are competing to be lead players for the telco CSP edge. CSPs are the default lead players, as they operate the critical infrastructure, but so can others, such as public cloud providers.

- The outcome is not clear, because the ecosystem is still forming. While there has been a lot of talk about edge computing and its promise, the opportunity is not well-quantified, making it hard to assess the viability for investment.
The issue for CSPs will be the growth in high-bandwidth applications or low-latency applications, such as video analytics, virtual reality, real-time drone control and monitoring, and very-high-bandwidth devices.

Despite the certain growth of edge data and the imperative of growing the edge infrastructure and its usage, there is an ongoing, and much disputed, question of who is best placed to own and operate this edge.

The market seems to be moving in the direction of CSPs partnering with Amazon Web Services (AWS), Google Cloud and Microsoft Azure. This may seem to indicate that notable large CSPs are, in effect, basically now deferring to the public cloud providers’ distributed data centers (DCs) within their networks to save the upfront capital expenditure.

However, such an outsourcing model presents a risk to changing the relationship between CSPs and cloud providers. In fact, the cloud providers will now be able to provision content from those distributed DCs and capture most of the value with enterprises. And, even later on, cloud providers may be able to offer their own variants of private networks, for example, by partnering with network specialists and low-cost small cell vendors for 4G or 5G on Citizens Broadband Radio Service.

Some announcements between CSP/technology service provider and cloud providers:

- AT&T/Microsoft
- BT/Google
- Nokia/Microsoft
- Verizon/AWS
- Vodafone/AWS

One of the key drivers of CSPs striking deals with individual cloud providers is to save time and integration overhead when having to deal with multiple vendors.

What to Watch For

By inviting cloud providers to run infrastructure inside the operating company’s perimeter, CSPs need to be mindful of the risk of vendor lock-in and the maintenance/operating expenditure cost issue. They also need to recognize the risk of being relegated to a role of simply owning spectrum and DC real estate.

Operators that keep ownership of edge infrastructure within their own network would have a better chance at keeping more control of edge play. For example, via strategic play for operating...
companies, they could own the locations and hardware stack (that is, platform), retaining subscription/mobile edge connectivity.

- Trying to build a portfolio of edge services and products is very expensive and risky for a CSP. For some CSPs trying to create a competitive advantage, edge capability may not make sense, and the logical decision is allowing the hyperscale providers to own the edge as well. It may be more sensible to outsource the risk and accept that the edge will be owned by cloud providers such as AWS and Microsoft Azure.

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- Ignition Guide to Creating a Control Framework for the Public Cloud
- Use Threat Modeling to Teach Secure Design (ADP)
- Launch an API-First Secure Development Strategy (Bolt*)
- A Comprehensive Security Strategy for IaaS and PaaS