

The edge cloud market is still open for new operator entrants

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The edge cloud market is still immature but is attracting considerable investment from non-operator competitors (such as public cloud and hardware providers) and operators that want to play a role in this space must consider their role or risk being shut out if they wait longer. Analysys Mason's recently published *Edge strategy case studies: operators' progress report* examines the strategic approaches that ten leading operators are taking to building edge cloud propositions. By assessing the execution and vision of these ten leading operators, we found that there are two main strategies that new-entrant operators can take to edge computing: a committed investment model and a lighter, lower-cost tactical model.

Most operators are only active in a few parts of the edge value chain, with only a minority of players covering its whole extent

We found that even in our select group of ten operators with leading edge strategies, progress towards building a multi-edge proposition¹ is slow. This is perhaps not surprising given limited customer demand and the current economic headwinds. Operators are currently only investing significantly in private industrial edge² and metro edge propositions.³ The operators that we interviewed are not interested in the interconnect edge⁴ because they have not historically been successful in the content delivery network (CDN) market, and the industrial public edge will remain nascent until the digital transformation of industrial systems, and their migration to public cloud, happens.

Only one of the operators that we profiled, Telefónica, has an edge proposition that spans private and public industrial and public metro edge locations. Two operators that we profiled are content to limit their edge proposition to a single edge market, the private industrial edge. Operators are also limiting their presence across the edge value chain. The edge value chain consists of hardware, infrastructure-as-a-service (IaaS) and platform-as-a-service (PaaS) solutions, applications and professional services and only two operators have a presence across all five layers. Even operators that have made significant investments in the edge have, in some cases, outsourced large parts of the value chain by partnering with public cloud providers (PCPs) and essentially relegating themselves to network and co-location providers.

The market is therefore immature and open to new operator entrants. What approach – or approaches - should they take to maximise the investments that they make? Operators interested in investing in the edge should examine the strategies of the ten operators that we profiled [in our report](#) to gain insights and to identify best

¹ For an overview of Analysys Mason's definitions of edge, see [The edge: what it is and what it means](#).

² Industrial edge is deployed on-premises or close-to-premises in a factory, port, smart city or hospital. It can be either private or public.

³ Metro edge is deployed from infrastructure embedded deep in an operator's network, but in an aggregation point or exchange (central office) rather than in close proximity to the customer's premises.

⁴ Interconnect edges are cloud platforms and data centres that support aggregation/peering points and are located in the public edge.

practices. The benchmarking exercise that we conducted as part of this report revealed that operators can be categorised as multi-edge visionaries, tactical edge builders, single edge builders and cautious edge developers.

- **Multi-edge visionaries** have a clearly defined strategy and commitment to edge compute and have made strong investments in industrial and metro edge propositions over the past 4 years.
- **Tactical edge builders** have also invested in private industrial and metro edge but are waiting on customer demand to make further investments.
- **Single edge builders** are focusing on one type of edge only, mainly the private industrial edge, which they integrate with adjacent services (for example, private wireless services).
- **Cautious edge developers** are also focussing on one type of edge only, and our building out on a case-by-case basis where they see customer demand.

Operators can choose between two approaches to edge

There are two strategies that new entrant operators can take to the edge: a committed investment model and a lighter, lower-cost tactical model.

The committed investment model

The operators that made large, committed investments across multiple edges supported by multiple vendors ranked highest in terms of vision execution and edge revenue. Level of commitment and level of success are correlated and this – the committed investment approach – is the most obvious strategy that a new entrant can take.

In our benchmarking model, operators that relied on a single PCP for industrial private and metro edge scored lower in terms of vision and execution than operators that partnered with multiple vendors and PCPs. Tactical edge builders typically took this approach, but multi-visionary operators took a broader strategy, forging partnerships with multiple cloud providers and vendors in different parts of the edge value chain. The breadth of approach to edge computing taken by multi-edge visionaries also correlated with higher edge revenue in our benchmark survey. This is perhaps not surprising because the vendors and PCPs in question can cater to different verticals and markets, and the more vendor/PCP partnerships there are, the broader the prospect base will be. A VMware-based metro edge node would have more appeal for those wanting to deploy more traditional enterprise applications at the edge, whereas an AWS Wavelength metro edge will appeal more to start-ups and developers wishing to code to network APIs.

Multi-edge visionaries have also built up systems integration capabilities in areas such as industrial automation and logistics to accelerate traction. Rather than hand off more complex integration work, they try as much as possible to use internal capabilities. This in-sourcing will be important at the edge as IT/OT convergence is emerging as a leading use case. IT/OT convergence is the process by which a proprietary integrated system that has been built using specialised hardware and software is disaggregated so that the software can run on a commodity environment, and projects in this area will involve the integration of devices and legacy proprietary hardware such as programmable logic controllers (industrial computers adapted for the assembly line). Operators that want to move into the multi-edge visionary category should look to build these capabilities, and our interviews with operators showed that several of them are already in the process of building up software development and integration teams.

The low-cost tactical approach

The heavy investment needed for a multi-edge, multi-vendor strategy as laid out above will not be attractive to all operators. This is especially the case in view of today's limited demand for edge compute and the current economic climate facing operators. Operators in this category could consider a more-tactical approach, making a start with co-location and partnerships and building up to multi-edge services. Alternatively, they could start with private industrial edge and then move into public metro edge and de-risk the investment through a partnership with a public cloud vendor.

Operators will need to formulate their edge strategy or risk being shut out of the market

Whether operators take the fully committed approach or the more tactical approach, they should act now. Even if operators are taking a cautious approach to edge, the market is attracting considerable investment from non-operator competitors. For example, AWS plans to deploy hundreds of metro edge nodes (Amazon Local Zones) and at the private industrial edge, there is fierce competition from Amazon too, as well as other PCPs and hardware providers such as Dell, HPE, Lenovo and Nokia. To date, it has been possible for operators to adopt a wait-and-see approach to edge, but they risk being shut out of the market if they wait any longer.