



What factors will make deploying edge cheaper and easier?

The technology has been proven but scaling edge solutions remains difficult. What initiatives are currently helping to seed the demand for edge, and what can be done in the future to accelerate demand?

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Edge computing holds great promise for transforming a multitude of industries. Yet to date, a lot of edge computing deployments are still in PoC stage. While the technology has been proven, there are

a number of hurdles for the industry to address before edge becomes easier to scale. Ultimately, edge deployments will have to become cheaper and easier before they can become mainstream. This article explores what has been done to date to seed the market for edge, as well as the steps that the industry can take to make edge computing cheaper and easier, enabling it to scale.

Making edge cheaper and easier: Discounts for early adopters

To date, we have seen a number of telcos offering incentives and discounts to help encourage the market for edge, with the aim to attract developers and end customers. For example, Vodafone's [Edge Innovation Programme](#) provides developers with access to training sessions as part of its 'Edge Programme Learning Path' as well as trial access to MEC to enable potential customers to test their use cases. They also provide discounts to developers to encourage them to use their edge computing offerings and encourage the market to grow.

Vodafone are not the only operator providing developer discounts to help seed the market. Cox Communications also provides a similar service to enable developers to leverage its stack in the creation of edge computing applications.

However, offering discounted access to edge is not a sustainable growth strategy. Further reaching initiatives can allow the market for edge to grow at scale. We explore some of these initiatives below.

Making edge cheaper and easier: Providing commercial clarity

While PoCs have proven the viability of edge computing as a technology, clarity on the commercial model for edge must be provided before it can scale. STL Partners has written previously on the potential [pricing models for edge](#), although the popularity of these various pricing strategies remains largely unproven.

Enterprises seeking to deploy cloud computing solutions can access cloud calculators, to help build the business case including projected costs and ROI. Yet the same does not exist for edge. Without this transparency, it is difficult for enterprises to understand the scale of anticipated investment and associated ROI. The easier these calculations become for customers, the faster they can build the business case for edge and the more demand can be accelerated.

Making edge cheaper and easier: Driving greater standardisation

One of the issues with edge computing is the lack of standardisation across different edges and different edge providers. For example, developers creating applications on AWS' edge stack may struggle to make their applications work across different hyperscaler edges. However, having one platform that could be used to access disparate edges would resolve this issue.

In a hyperscaler dominated edge world, one way that this could work is for end users or application developers to login to a single platform that can push the application to all edge platforms, regardless of provider, in a consistent manner. Today, AWS has some partnerships which is helping to drive a level of standardisation. However, there is a long way still to go in order to achieve the number of partnerships and the level of interworking that would be required to realise this vision.

Making edge cheaper and easier: Federated edge

Federated edge would leverage intercarrier settlement to enable edge applications to work across different markets and geographies. Like the carrier agreements that exist to enable consumers to use their data and minutes abroad, federated edge would rely on operators making agreements to settle the cost of workloads crossing national boundaries.

Telefonica and Singtel have already carried out trials. Their agreement uses a portal to push the edge workload to the other operator and settle the cost in the background without disrupting the user experience. To enable federated edge to work at scale, having a consistent portal with standardised APIs would allow different edge workloads to plug into the same portal. Furthermore, developers could work to a single API that enables their applications to work in a standardised way across different global markets.

Making edge cheaper and easier: Optimising the hardware requirements

While greater standardisation and federation of the edge can enable the network edge to scale, there are a number of initiatives that can enable on premise edge solutions to scale.

Currently, hyperscalers are seeking to address on premise edge by shrinking their infrastructure stacks to suit the requirements of smaller companies. However, this can be challenging as AWS' Outpost deployments have significant requirements which are akin to data centre environments in terms of space, ventilation and cooling. This makes the infrastructure unsuitable for many of the enterprise sites that might be interested in leveraging edge. Retail stores, for example, might have limited space to support such large infrastructure requirements and may not be able to make large capex investments or to run the infrastructure on an ongoing basis.

Figure 1: On-premise edge offerings by hyperscalers require significant investment by enterprises

Requirement for edge deployment	AWS Outpost	Microsoft Azure Stack Edge
Two network switches	✓ Needs installation by expert	✓
Independent backup 5G WAN	✓ Needs installation by expert	✓ Needs installation by expert
Provision for cooling	✓ Needs installation by expert	
Universal power supply	✓ Needs installation by expert	✓
Secure cabinet		✓ Needs installation by expert

Smaller companies like **Acromove** are looking to disrupt the market and make on-premise edge cheaper. These companies are not focused on shrinking their large footprint into something that it suitable for smaller enterprises, instead they are focused on building edge solutions from scratch. The more plug and play on premise edge deployments become, the easier they are to scale. Lower form factors and lower capex requirements are key.

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