

Webinar follow up



# EDGE COMPUTE WEBINAR

Questions and answers from the edge compute with STL Partners and guest presenters, MobileEdgeX

Our edge specialists:

Dalia Adib, Senior Consultant  
[dalia.adib@stlpartners.com](mailto:dalia.adib@stlpartners.com)

Philip Laidler, Partner & Consulting Director  
[philip.laidler@stlpartners.com](mailto:philip.laidler@stlpartners.com)

DECEMBER 2018

# Attendees' questions from the session

Here are the questions that you submitted during the session and answers from our presenters.

Are most mobile operators implementing their own MEC solution, or looking to partner with cloud providers (AWS, Microsoft, etc) for MEC?

	<p>MEC as in “Multi-access Edge Computing” is a 3Gpp standard that defines edge computing resources at the edge of the mobile network e.g. eNodeB. There are many vendors specifically targeting this. From partnering with public cloud providers perspective then this is a question of how to integrate into existing developer workflows which we at MobicedgeX think is a valuable perspective to have. Developers should be able to adopt edge without additional developer/operational complexity.</p>
	<p>MEC is still at an early stage, and operators we have interacted with are taking slightly different approaches. However, given operators' skillsets in cloud and where they have ended up positioning themselves in the value chain, it is unlikely many will be developing their own (edge) cloud IaaS platform and will more likely partner with others at least for some components.</p> <p>We categorise telco strategies for MEC in our <a href="#">edge compute report</a>.</p>

As operators move to Cloud RAN, will the cell site still be capable of accessing packets (and therefore permit mobile edge computing)?

	<p>Cloud RAN needs to meet real time radio requirements and therefore should not effect the viability of edge computing. Also the main vendors of next generation RAN have adopted such technologies as Kubernetes, that should enable 3rd party containerised workloads to be orchestrated in a much more open familiar way than previous closed proprietary control approaches. The larger question of ensuring such infrastructure and capabilities are easy for a developer to access, across 1000's of locations is the problem that MobicedgeX is focusing upon, using a necessary intent based declarative approach</p>
---	--

Can you address where the cloud providers fit in this ecosystem relevant to the telcos? i.e. are they a threat (bypassing the telco) or an opportunity (partnering with the telco)?

	<p>Developers all develop using public cloud and associated develop workflows. Edge needs to integrate seamlessly into such working models to ensure developers can adopt easily. Public cloud is an asset in enabling rapid application development in the same way as telecom is an asset in distributing cloud closer to the end user as efficiently and effectively as possible</p>
	<p>Within MEC, it is difficult to bypass the telco, given they own the physical sites. There is mutual value for both telcos (either as connectivity providers, or cloud providers) and the established cloud players, therefore it should be seen as an opportunity. Even if a telco chooses not to provide MEC solutions per se, there is an interesting opportunity for networking. Today, with the cloud, you have around three flows: device-cloud, cloud-cloud, cloud-device. With the edge, this doubles, as data needs to travel device-edge, edge-edge, edge-cloud, etc.</p>

How does Akraino and Mobicloud fit together? Room for both?

	<p>Akraino focuses primarily on infrastructure virtualization. MobicloudX focuses on ensuring developers can monetize such infrastructure as easily as possible.</p>
---	--

How will security concerns be addressed at the edge?

	<p>Normal security best practices will be implemented. Radio base stations already are an edge implementation, albeit a dedicated one. Since the locations are in the public domain rather than behind secure centralized physical security then software integrity and chain of custody is standard practice. This is sorely missing today in IOT, or otherwise known as “internet of trash”. The opportunities for increased assurance and security is an opportunity for an industrialized edge approach.</p>
---	--

If you take the position from application developers, why would they move away from what they know: public cloud and application stores?

	<p>They should not. Edge computing should accelerate the ability for developers to work the way they are but have it seamlessly deployed to the edge to enable improved performance and new capabilities not possible in a centralized model</p>
	<p>The edge cloud will simply not take off if application developers are forced to move away from their native platforms. The edge will need to fit into existing developer platforms and processes.</p> <p>We discuss this challenge in more detail in <a href="#">one of our edge reports</a>:</p>

In the use cases poll earlier in the hour, IoT (sensors) use case was the top choice... How does a platform like MEX address the IoT use case?

	<p>MobiEdgeX addresses IOT use cases in the same way as others, by placing the backend workloads as closely to the sensors as possible. This enables a number of effects. A faster augmentation of control, coordinated across a fleet of sensors, faster interpretation of rich sensor feeds (e.g. video upload) and data reduction as it moves into central cloud.</p>
	<p>MEC in general will be key for IoT, particularly for security. For example, to prevent DDOS attacks, security applications can be deployed on the MEC, either to shut down IP flows from a particular end-point, or route traffic to distributed virtual servers/gateways.</p>

Is telco alignment across borders important, given that many device, vehicle and service providers will be international?

	<p>The important perspective is that of the developer and device maker where they do not want to have to understand telco boundaries but rather have that abstracted away, while they benefit from the upside of local governance and trust. We are moving from a global economy, not to a local economy which would be a step backwards, but to a distributed economy</p>
	<p>Yes, it will be important, mainly for MEC to scale. In general, application developers should not be disincentivised to use MEC, whether it be because they need to use separate developer platforms, or because they cannot scale</p>

	<p>their application across (telco) borders. However, there are applications which will inherently be more "local", e.g. industrial or enterprise applications.</p>
--	---

Is the open source available yet for developers?

	<p>To select customers, to focus on quality. If interested for access before generally released, please contact us at MobiledgeX</p>
---	--

Is there any proven case yet monetizing edge? If so what is the business model and who's paying?

	<p>There are two proven models. The first is performance driven. CDN is the first dedicated example of edge computing where dedicated resources and locations were created for the sole purpose of download scaling and acceleration. Edge computing is genericising edge for all models and enabling new experiences that are not possible today, e.g. those driven by real time AI/ML/robotics.</p>
	<p>There are many synonymous business models which offer a basis for monetising edge. CDN is one, but "edge compute" has existed before MEC. For example, there are proven models in IoT edge (applications running on gateways) and enterprise edge (enterprise CPE), as well as private/public cloud. These models will change as distributed cloud grows though.</p> <p>We discuss business models in detail in <a href="#">one of our reports on edge</a>.</p>

On the Compute offload piece, is that an IaaS hardware/software offering provided by MEX? Or is it more orchestrating edge applications across a telco's edge cloud + hyper cloud (whatever is appropriate)

	<p>From the MobiledgeX perspective it is the latter. MobiledgeX finds the most appropriate and proximate infrastructure given the needs of the developer, device maker that is our customer</p>
---	---

What are the initial use case(s) operators like DT are looking to explore with Edge Computing?

	<p>We will be releasing more information on this. We see 4 main drivers, in engineering terms - latency, high I/O, geo-spatial awareness and dynamic local interaction. We then apply these to different industries. The first one, and the one Jason mentioned in the webinar, is multiplayer gaming</p>
	<p>There are many drivers for edge use cases as mentioned in the webinar: latency, reducing backhaul, data security, mobility, flexibility/scalability, device economics. In terms of time to market, because it will take time to scale consumer applications (need for cross-operator orchestration), certain industry and enterprise use cases will be quickest to use edge. For example, this could be around campus applications, or applications that have a closed user group (on same mobile network).</p> <p>We discuss timeline around use cases in <a href="#">our edge vision report</a>.</p>

What are your thoughts on shared infrastructure for the edge to lower the cost per bit and enable Mobiledgex

	<p>Yes, this is already done in the industry with shared towers, shared access networks etc.</p>
---	--

What use cases before network slicing or pre 5G that are gaining traction?

	<p>As for question above.</p>
	<p>MEC does not require network slicing or 5G, one of the opportunities is that it can enable applications before 5G. It is difficult to say which are gaining traction in the market as few have been launched, (unless you consider CDN an edge use case). Gaming and edge analytics are showing promise.</p>

What does it physically look like? Is it servers in cabinets next to base stations? Or racks of kit within cable operator facilities? Or something on top of a pole?

	Physically it is whatever makes sense where the infrastructure is placed. From MobiEdgeX point of view, we just need access so we can profile, understand capabilities and then place appropriate workloads there, based on the developer requirements.
	Depends on demands of the use case (e.g. latency requirement) and the economics of deploying and maintaining the edge facilities from the operator's perspective. Worth noting that the reason ETSI changed the M in MEC from mobile to multi-access was to expand edge computing beyond mobile locations.

Which sector will be the first to benefit from MobileX?

	Harry Potter fans. The backend that powers the casting of spells in the same as is needed by autonomous cars, augmented learning, drones...
---	---



We encourage you to stay up to date with [MobiEdgeX](#) and other players in the edge field.



Not already signed up to our newsletter? You can [subscribe to get regular insight](#) and updates from us.

Sign up to more webinars or catch up on previous sessions on our [webinar page](#).

# PARTNERS



Research



Consulting



Events