

# 2022-01-11 - Anuket: Hybrid Multi-Cloud Infrastructure

## Topic Leader(s)

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- [Pankaj Goyal](#)
- [John Hartley](#)

## Topic Overview

60m

Present current state of modelling Hybrid Multi-Cloud Infrastructure in Anuket Lakelse specifications in view of evolving telecommunications industry, and lead an open discussion on the topics requiring attention in future Anuket releases.

## Slides & Recording

Live Interaction Session

[LFN-DDTF-2022-01-11-Anuket-Multicloud.pptx](#)

Session Recording:

[Hybrid\\_multi-cloud.mp4](#)

## Agenda

Hybrid Multi-Cloud Infrastructure

- Current industry challenges around Hybrid Multi-Cloud for telco operators and technology suppliers
- Current Anuket Lakelse model of Hybrid Multi-Cloud Infrastructure - Actors and Interactions, Security, Automation
- Discuss topics needed further development in Anuket model of Hybrid Multi-Cloud

## Minutes

Other Observations

- [Beth Cohen](#) The hyperscalers are not very friendly about their customers who want to use multiple cloud vendors. That is where the Telcos can really shine. I think that the hyperscalers do NOT want to become regulated entities – so they will shy away from anything that might possibly make them a "utility".
- [Bob Monkman](#) Besides offering protection from lock-in, are there other benefits for the customer to have multi cloud service? Some environments may be better for different use cases. Also the geo example Pankaj raises seems sensible
- [Beth Cohen](#) Many are using it so they can pick best of breed capabilities. Also geographic diversity. HA reasons also.
- [John Hartley](#) Edge is commonly a different platform from the core, so there is a built in motivation to support multi-cloud.
- Hyperscalers do not have the experience of delivering services over a WAN environment.
- Telcos do not have experience on offering cloud? Agree - Disagree? Some of the Telco's attempted to compete with the hyperscalers a few years ago. I think for the most part telcos have gotten out of the business. (Verizon/Terremark)
- NOTE: Key issue is deliberate diversity (lack of harmonization) and hence need for operators to manage this.
- the new sandbox LFN project, EMCO, should be able to provide capabilities in this area in conjunction with Anuket
- XGVELA is focussing on Telco PaaS assuming that Anuket will specify general PaaS services (LB, DB, DNS, etc.)

Other Use Cases

- Special purpose clouds such as Game clouds?
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Operator Story: Other Viewpoints

- Should Anuket focus on supporting the telco use of multi-clouds for their own use?
- Support for telco customers to allow them to connect to multi-clouds.
- NOTE: Specific regulatory needs such as: Lawful Intercept (voice) and IP source/dest logging are generic (and not contained to particular local regulation)
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What are the Key Industry Drivers?

- Telcos and customers want to remain flexible and use the hyperscalers and their own private clouds as it fits the use cases best.
- would there be use-specific clouds? such as a "Game Cloud"? Other areas?
  - what would the reqts for such use-specific clouds be?
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What are the Challenges for Telcos and HCOs?

- Working together when they have two very different motivations and business drivers
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What should Anuket Focus on? Specify?

- [Ulrich Kleber](#)What do we expect from multi-cloud? Management, Interactions to be considered, etc.?
- [Karine Sevilla](#) Anuket should differentiate 2 use cases: multi cloud to offer services to customers and multi cloud to host telco internal services
- [Gergely Csatari](#)HCOs will not standardize and so Vendors have to step into the breach. What role does Anuket play?
- [Bob Monkman](#) Anuket could be specifying requirements in multi cloud management, it would seem.
- [John Hartley](#)Market will not deliver a "single pane of glass".
- [Karine Sevilla](#)Anuket can provide requirements for a "single pane of glass", and also for operations and assurance
- [Pankaj Goyal](#)Resource level abstractions and generic operations on them.
- [Beth Cohen](#)Anuket can provide the requirements for the tools to support multi-cloud environments
  - requirements can be used for assurance programs
  - Some of the AI work can automate some of these requirements
- Hybrid includes private/on-prem cloud and public clouds working in tandem/co-operatively
- Are there a set (small) of PaaS services that should be included in Anuket reqts? What services? What should be specified about these services? Features, interactions, management, control, ...?
- [Karine Sevilla](#)Anuket can develop on security requirements and generic regulatory requirements

## Action Items

