

Seven things  
I know about...

# ENABLING NEW 5G BUSINESS MODELS TO SUCCEED



**Richard Piasentin, Chief Strategy and Marketing Officer, Accedian, on the role that automation and analytics will play in making 5G pay.**

## 1 5G IS A GAME CHANGER FOR MOBILE OPERATOR REVENUE STREAMS

5G is the first wide area wireless network technology that can operate at the latency, speed and capacity of human senses. A sliceable RAN and core network, allied to cloud compute that is sited as close as possible to users and enterprises, changes the nature of the user experiences that can be delivered.

It will be a foundational technology on top of which enterprises can build use cases and applications to create new services for their end customers – all with Quality of Service (QoS) performance guarantees. This will create new partnerships between network operators and industry verticals, and with that comes a shift in as well brand new, business models.

## 2 MOBILE BROADBAND AND FIXED WIRELESS WILL COME FIRST, BUT THE FIRST “VERTICAL” APPLICATIONS WILL CHANGE THE GAME.

Most operators are starting with existing services of enhanced mobile broadband and fixed wireless broadband. There is notable activity as well in cloud-based gaming and low latency gaming, with companies like Hatch present at 5G launches.

Simultaneously, operators are preparing their operations and infrastructure for more advanced enterprise services based on network slicing. The 5G architecture enables automation and efficiency, and will have the biggest impacts on use cases and verticals with a mobility element to their business, for example logistics, farming, transport, automated and connected vehicles, as well as industrial automation.

An example is transport safety and the monitoring of bridge or road infrastructure, where a combination of drones, high quality video, and other 5G capabilities can reduce the costs of manual inspection significantly. Looking ahead to the future, autonomous vehicles could require remote driver or intervention services. This will be an area of significant revenue.

## 3 FLEXIBLE IT AND PERFORMANCE ASSURANCE WILL UNDERPIN THESE NEW BUSINESS MODELS

There will be a wide range of different go-to-market partners and business models - selling with and selling through partners in wholesale models.

This broadens the market opportunity for operators but it also means that flexibility and robustness in IT (OSS/BSS) and network management systems will be essential. For example charging systems must be capable of charging customers in many different ways - by QoS, by slice, by usage - and all in real time.

The same goes for network performance management systems and KPIs. These have to be more flexible, granular, precise, dynamic and transparent to customers, with real-time reporting and analytics, especially in enterprise services involving multiple partners. These systems have to be deployed as part of the service chain automatically.

Performance requirements for many of these business-critical enterprise 5G use cases are so tight that the underlying infrastructure has to be looked at in a level of detail and granularity that was never needed before.

## 4 MANAGING THIS ENVIRONMENT IS ALL ABOUT AUTOMATION AND SPEED

With 5G service assurance and performance management for business-critical enterprise services, it's all about automation and quickly interpreting data using analytics and AI to help make the 'right' decisions' at the 'right time'.

That's why getting data collection and AI algorithms finely tuned is so important. You can't afford AI bias in automated processes when timescales to launch services are really tight or where the services are mission critical. In these circumstances assurance is vital.

With the commitment to mission critical services, new performance management needs are created. Streaming video doesn't really need advanced performance management currently, but slow performance when a remote driver is helping a stranded client isn't going to fly.

## 5 OPERATORS BADLY NEED NEW ANALYTICS-BASED MONITORING SOFTWARE

With the move to software-defined networks and cloud-native network functions, there is a pressing need for new analytics-based monitoring software that can provide multilayer insight on service availability and performance—in real time and in context.

A key challenge is having control and visibility of service performance, in real time, in order to inform policy changes as networks scale out and back based on application and traffic demands. Machine learning and AI analyse events across all network layers up to the application layers and provide insight on key events to the orchestration layer, which can take action for self-healing and closed loop automation.

## 6 BEYOND THE CLOUD, NETWORKING IS ITS OWN CHALLENGE

People often think that the hyper scale providers set the bar for performance and complexity. But the software that manages the wavelengths and bits of high performance networks are several orders of magnitude more complex and high performance than many web services. The companies that understand the service efficiency of cloud native applications and at the same time think for example in terms of an optical network ring switch time, or a 300 kph handover are the companies that will succeed.

A performance management system that can monitor KPIs at the service and Quality of Experience level rather than just network health monitoring will be essential, and it must be flexible enough to do this at the network slice level as well as monitoring the service experience for each customer.

## 7 IT'S HAPPENING NOW – AND YOU CAN BE PART OF IT

Accedian's Skylight solution is part of the new wave of intelligent performance monitoring tools that look at data in every layer to get the full picture of service performance and customer experience, as well as supporting real-time IT and network operations. Skylight control agents are micro services that reside within network slices, adapt to the use case and monitor the quality and KPIs. These network and service intelligence feeds back into Orchestrators and IT systems

Bouygues Telecom, a mobile operator with over 20 million customers, deployed Skylight analytics to gain a deep, real-time understanding of network, application and service behavior. Now Bouygues is preparing to automate performance management in order to meet more stringent SLAs for new 5G business-critical services. ●

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