Opening Remarks
Satellite and the Cloud
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Good day and welcome to the third configuration of the Satellite and the Cloud virtual conference, launched in early 2021 as a key component of the "Connected World Series" organised by us, c21-virtual, and held annually ever since. I say held annually, in actual fact, you could probably hold this conference once a week and still expect quite dramatic updates each time, such is the speed with which the cloud environment has developed and continues to develop, with game-changing aspects appearing almost daily.

So… cloud computing… to set some kind of context;

As early as the 1980s it was possible for organisations to connect their internal networks to external service providers and by the first decade of this century, cloud computing had begun to explode into what it is today… and it continues to evolve and expand. So, what is the Zeitgeist and what of the future?

Well, **hybrid and multi-cloud** deployments which give businesses the option to use multiple public and private clouds - offering greater flexibility, security, and sovereignty.

Edge Computing, the processing of data locally, offering lower latency, lesser connectivity disruption, enhanced security and generally, greater resilience across the board.

Data Storage Capacity continues to grow and as it does, so does its affordability… making it easier and more cost effective for businesses of all sizes to embrace cloud adoption.

Artificial Intelligence (AI), driving hugely advanced data management and analytics capabilities, recognising shapes, patterns and flows in data formations, making predictions and informing decision making, almost in real-time, and at the same time strengthening security with near-immediate threat and attack detection.

Software Defined Networks… where all networking aspects are confined to a single platform, vastly simplifying operational aspects and increasing orchestration and adaptability to an ever-evolving cloud landscape.

Increased and more muscular **regulation**, protecting user's rights and strengthening provider accountability, to mitigate data privacy and security concerns, which continue to grow with cloud dependence.

Business Continuity in the event of natural disasters – power outages etc. whereby business can access their data in the cloud and continue to function even in the most drastic of situations.
Kubernetes (K8s for short), an open-source container-orchestration tool designed by Google, used for bundling and managing clusters of containerized applications, the key benefits of which, according to IBM, are;

1. Container orchestration savings
2. Increased DevOps efficiency for microservices architecture
3. The deployment of complex workloads in multicloud
4. More portability with less chance of vendor lock-in
5. The automation of deployment and scalability
6. App stability and availability in a cloud environment

IoT, vast, unimaginable data volumes generated by billions of connected devices, machines and objects, can only be trafficked on robust cloud platforms enhanced by increasingly complex technology stacks.

Analysts are predicting that in the next few years, somewhere around 250 Zettabytes of Data, will be generated annually and these figures are constantly revised, and when they're revised, they're always revised up. To give that context - 250 Zettabytes is approximately a quarter of a Yottabyte, the highest measure of data volumes that we have… or at least it was until the General Conference on Weights and Measures (CGPM), voted to introduce the Ronnabyte (1027) and the Quettabyte (1030) – the exact capacity of which is impossible to comprehend through any rational means but significantly more than the Yottabyte. Bytes will be measured in the quadrillions using figures that have seven digits, followed by another 27 zeros after the first seven.

These are just some of the aspects growing in importance as the cloud conversation accelerates – we will be hearing about all of them and more today.