

# Telecommunications Data Analytics

## 7 out of the top 10 operators run Vertica

### Are you prepared for 5G?

5G is transforming the telecommunications industry. Operators know it's more than just a next-generation network: 5G will deliver faster speeds, increased bandwidth, and lower latency. It will allow solutions like the Internet of Things (IoT) to drive to new heights by delivering a more reliable IoT environment.

But with all its promise, comes challenges. Analysts project there will be 55 billion connected devices by 2025. With a lot more data traveling across networks, it's also more data for operators to store, manage and analyze in a timely manner. Keeping costs low, meeting regulatory requirements, and keeping up with demands for analytics requires careful planning.

### Cost Management

User behavior is changing. Low cost-per-bit services like voice calls are declining, while high cost-per-bit services like video streaming are dominating. At the same time, data revenues are not consumption-based. The pressure is on for operators to manage costs while delivering superior Quality of Service.



[Read: China Telecom supports better decision making with up to 50x faster reporting and 50% lower TCO](#)

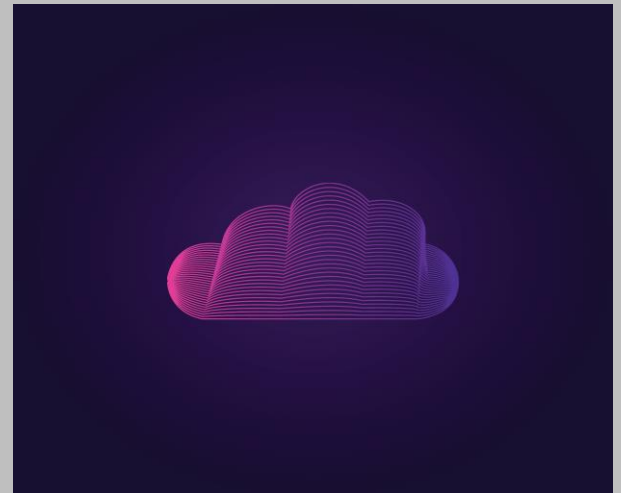


## The Expansion of Data

90% of new data will be semi-structured and unstructured data that will reside in HDFS or in object storage like S3. Operators will need to leverage all of their data for analytics, regardless of where it resides. A single central repository is not always realistic, but giving data analytics access to all who need it is essential.

## Embracing Cloud

For many reasons, telecom operators have been slow to embrace cloud. However the public clouds enable many of the features operators need to be flexible and adaptive to their customers' needs. The future for most companies will certainly be multi-cloud and hybrid, and operators should make infrastructure and application decisions with interoperability in mind.



## Vertica delivers critical analytic capabilities for operators in the 5G era



Extreme Scale and Performance

Analyze massive volumes of data in tight SLAs with no limits in terms of scale or concurrent users



Unified Analytics

Leverage structured data from the data warehouse and semi-structured data from the data lake for enhanced BI/reporting and enriched predictive models



## In-Database Machine Learning

Accelerate time-to-market and produce more accurate predictive models using all of your data.



## Multi-Cloud and Hybrid Cloud

Bring analytics to your data wherever it resides: in your on-premises data center and in any of the public clouds.

# High-Value Analytic Use Cases for Operators

## Customer Behavior

Customer churn is the single greatest cause of revenue erosion for operators. It costs far more to acquire new customers than retain existing ones. With the growth of data, telecom operators know more than they ever have about their customers and their behavior, and they can use that data to identify customers who are at risk of churning. Customer retention can have a significant impact on an operator's bottom line.

[Webcast Replay: Learn how unified analytics can help reduce churn.](#)

## Network Performance

Improvements in Network Function Virtualization, such as 5G Network Slicing, have transformed the way operators manage traffic on their networks. However, traditional monitoring solutions can't keep up with the speed and agility that a dynamic 5G network demands. To ensure an optimal Quality of Service, operators should implement near-real-time analytic solutions and leverage predictive models to proactively identify and respond to network issues.

[Read: Anritsu leverages Vertica for its Service Assurance software.](#)

# United Group uses Vertica Machine Learning for Addressable Advertising

IPTV is seeing increased adoption by consumers, and increased spending by advertisers, many of whom would not buy traditional television ads. Operators have an opportunity to leverage customer data to generate revenue from ad inventory.

United Group uses Vertica to combine 50+ customer and device attributes to serve a personalized block of ads based on a customer's interest, and make near real-time decisions on how to fill that ad block.

[Read the United Group Case Study.](#)

The image shows the cover of a case study document titled "United Group". At the top, it features logos for MICRO FOCUS, VERTICA, and poslovna inteligencija. The main title is "United Group" with a subtitle: "Vertica's cost-effective scalability and performance delivers superior customer experience in competitive Telco industry." Below the title, there is a photo of a man in a suit talking on a mobile phone. The document includes sections like "Who is United Group?", "Fast Company and Data Growth Calls for Enterprise-Level Data Analytics", and a quote from Anđelija Đendić, CIO of United Group. It also lists "At a Glance" with categories like Industry, Location, and Challenges.

## Vertica powers the most popular Telecom ISVs

Leading telecom ISVs embed Vertica for analytics because it delivers the scale, performance, and predictive capabilities operators demand. These are just a sample of Vertica partners serving telecom operators today.

### Network Monitoring & Service Assurance

Anritsu NETSCOUT

NOKIA sysmech

SANDVINE RADCOM

### Customer Experience

affirmed<sup>®</sup> EMPIRIX

### Test & Measurement

spirent<sup>™</sup>  
Promise. Assured.

### NetOps & AIOps

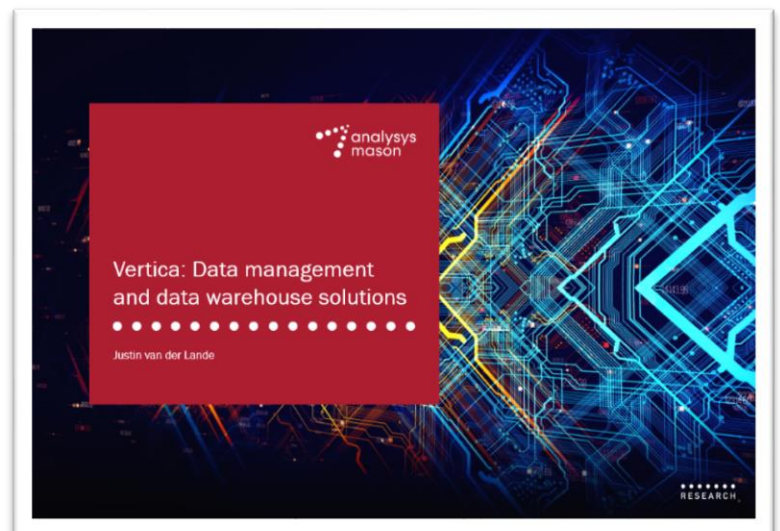
MICRO FOCUS<sup>®</sup>



## Analysys Mason Evaluates Vertica as an Analytics Solution for Operators

In its analysis of Vertica, Analysys Mason identifies performance, unified analytics, and flexible deployment options including multi-cloud and hybrid cloud as key strengths for telecommunications operators.

“Vertica provides a high-performance data warehouse solution that is able to scale to support analysis of complete big data stores found at operators.”



[Get the full report here](#)

### Featured Resources

- [GSMA Intelligence Whitepaper](#)
- [SysMech Case Study](#)
- [Anritsu ML Video](#)
- [United Group Webcast](#)
- [Elisa BrightTalk Webcast](#)

