# Analytics-as-a-Service:
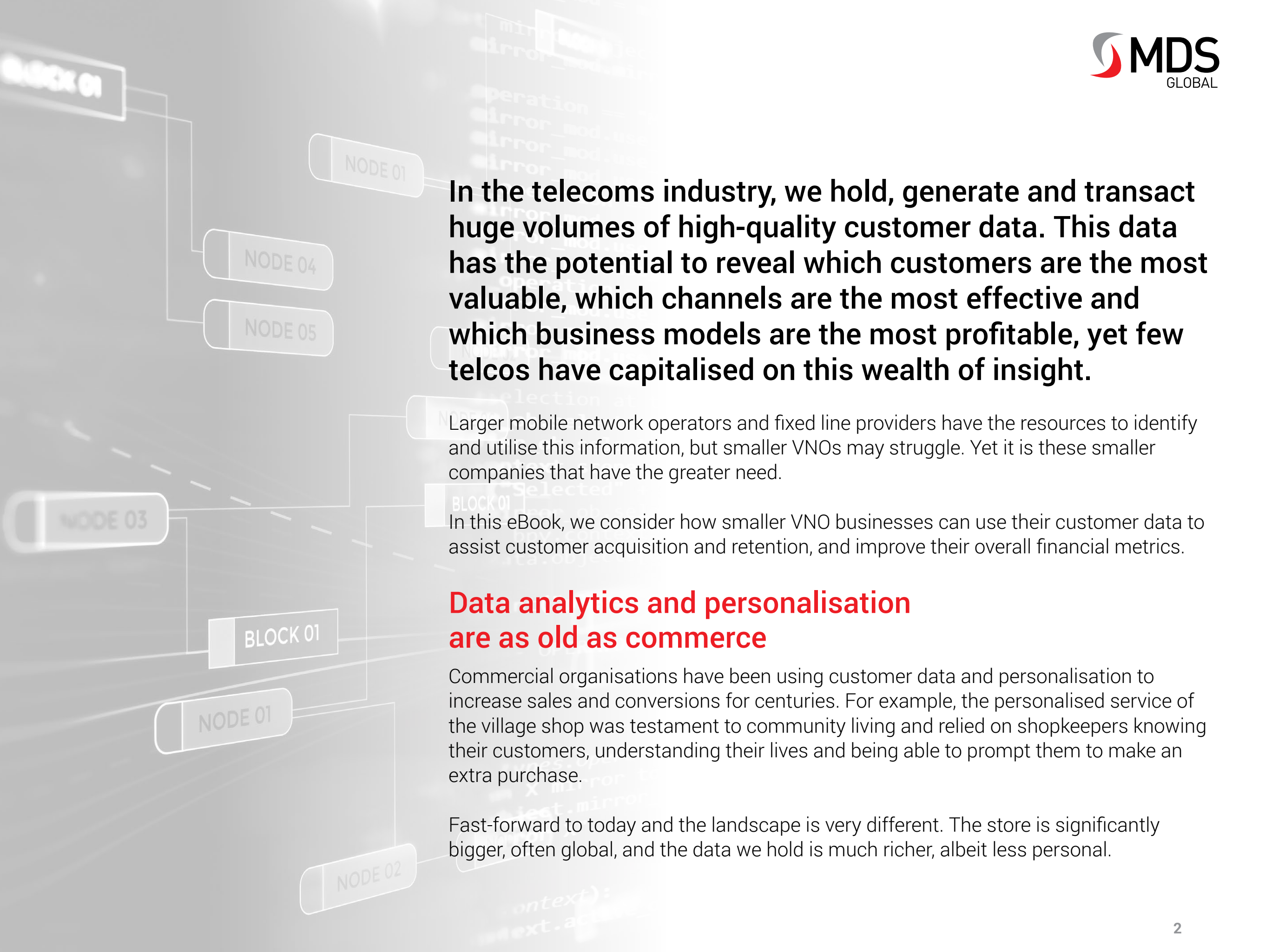Turning data into insight and sales

In the telecoms industry, we hold, generate and transact huge volumes of high-quality customer data. This data has the potential to reveal which customers are the most valuable, which channels are the most effective and which business models are the most profitable, yet few telcos have capitalised on this wealth of insight.

Larger mobile network operators and fixed line providers have the resources to identify and utilise this information, but smaller VNOs may struggle. Yet it is these smaller companies that have the greater need.

In this eBook, we consider how smaller VNO businesses can use their customer data to assist customer acquisition and retention, and improve their overall financial metrics.

## Data analytics and personalisation are as old as commerce

Commercial organisations have been using customer data and personalisation to increase sales and conversions for centuries. For example, the personalised service of the village shop was testament to community living and relied on shopkeepers knowing their customers, understanding their lives and being able to prompt them to make an extra purchase.

Fast-forward to today and the landscape is very different. The store is significantly bigger, often global, and the data we hold is much richer, albeit less personal.

But the aims of businesses today are the same as those of the village shop: they want to use the information they have about their customers to offer a more personalised shopping experience, choosing the ideal time to offer relevant, meaningful and appealing products and promotions.

In the mobile world, the best-known examples of this are Orange Wednesdays and the O2 Priority scheme.

Orange UK was a mobile network operator that launched in 2003. Under its Orange Wednesdays scheme, Orange offered its customers two-for-one cinema tickets on Wednesdays. To take advantage of this offer, customers had to send a text message to Orange, and Orange would send them a code to use when purchasing their tickets. In 2010, Orange UK merged with Deutsche Telekom's T-Mobile UK to form EE, who later ended the Orange Wednesdays scheme in December 2014.

O2 Priority is a scheme open exclusively to O2 customers, enabling them to take advantage of a range of offers, from high street brands to tickets and experiences. Customers are also able to access Priority tickets to gigs and events across the UK, up to 48 hours before general sale. To access these offers, customers have to download the Priority app.

Orange Wednesdays was a success because it genuinely rewarded loyalty, and it is because of this same reason that O2 Priority continues to be successful. O2 customers are envied by customers stuck in contracts with other operators, and some people bought and used Orange pre-pay phones and SIM cards, in addition to their existing contracts, so that they could access the free cinema tickets. These schemes grew brand awareness and enabled Orange and O2 to successfully reach and convert prospective customers.

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O2 Priority's continuing success comes down to data: O2 identifies which bands or shows are most likely to appeal to each of its segments, then lines up advanced tickets and offers them to that segment, before the general public can even get a look in.

Of course, understanding what customers want is only one piece of the puzzle; automating the use of the data and defining customer journeys is where the insight comes alive to drive revenue and profit. Automation can identify the behaviours and customer attributes that precede a successful conversion, as well as the customers who demonstrate these attributes so that they can be targeted for the offer.

Ultimately, global businesses are seeking to replicate the personalised service and targeted marketing delivered by the village shop, but with a far greater level of sophistication and automation, and with an ever-increasing data set.

Whilst the above examples of personalisation and analytics are from large operators, there is no reason why a VNO can't replicate the same success. But it can only happen with the right ingredients, and much of that starts with the data itself.

## Too much information

IBM estimate that 2.5m terabytes of data is generated every single day[1], and that figure is set to grow.

For many industries, the vast quantity of data produced is difficult to sort and understand, and much of the data itself may be of no real value. However, businesses try to use this data to predict a customer's spending habits. Large retailers with a varied product offering may try to predict a customer's propensity to buy anything from a huge range of items, from avocados to car insurance to prescription medicines. In the mobile world, however, there are fewer transaction

**2.5m TERABYTES**

1  '2.5 quintillion bytes of data created every day. How does CPG and Retail manage it?', IBM, https://www.ibm.com/blogs/insights-on-business/consumer-products/2-5-quintillion-bytes-of-data-created-every-day-how-does-cpg-retail-manage-it/

possibilities, so operators only need to predict the likelihood of, for example, a customer making international calls or using a particular volume of data.

Another advantage of the mobile world is the fact that the customer relationship is longer and better informed. We talk less about basket size and more about customer lifetime value (CLV) and monthly revenue per user. We have a connectivity relationship with customers, which is at the heart of their interactions with friends, how they do business, how they entertain themselves and how they shop. All this data is an enormous asset and, if used correctly, can help you to pinpoint the services you should optimise, develop or launch, and the type of customer you should target.

## Identifying valuable data

Nineteenth century Philadelphia retailer John Wanamaker purportedly said, **'Half the money I spend on advertising is wasted; the trouble is I don't know which half.'**

The same can be said for customer data. Within the vast amounts of data your customers generate and you collect, there will be some that is extremely valuable and that has the potential to revolutionise your business. It can answer the questions of which channels work hard for you, which are under-used and unnecessary, which need improvement, and which must be preserved at all cost.

However, the answers to these questions are likely to be hidden amongst many distracting pieces of data that are of no value. Substantial amounts of data are generated each second as consumers move around the millions of cell sites across the world. Every event a customer undertakes generates a data record - who was called, the location of the caller, the device they used, the duration of the call, and so on.

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Overlay this data with other existing data - the customer's name and address, where they bought the device, how long they have been a customer, if they are still in contract, their revenue, their cost to serve - and you will have a rich set of data to manipulate.

But you need someone to interpret it.

Large mobile network operators and fixed line providers have the resources to identify and use this information, but smaller VNOs may struggle. The irony is that these smaller companies probably have the greater need. Furthermore, it is these smaller operators who will use the insights to drive changes in their businesses to form disruptive new 'un-carrier' approaches that will drive innovation in the market. (Read more in our **'Un-Carrier Approach'** eBook.)

Now, let's look at some specific use cases where a VNO with access to the right tools can use their existing data to drive improved business performance and a better customer experience.

## Find the 50% of marketing that is working

It's often worth looking at what is working first, before finding new avenues to explore. You can then refine your campaigns see how much of a difference each adjustment makes to the bottom line.

One area to consider is the channels that you are using. In the mobile industry, penetration levels are well above 100%, so there is a huge reliance on certain channels to deliver new customers, and these customers are likely to be switching from another operator.

"By reviewing different cohorts of customers, based on the channels used and the offers bought, you can optimise the commission that you pay to each channel, and ensure that you deploy the most effective offer for each channel to win the customers you need."

The channels that you use will vary depending on your proposition, but are likely to include direct retail, indirect retail, online affiliates, including comparison websites, telesales and possibly even face-to-face sales agents targeting customers on the high street. Each of these sales channels will be financially induced to deliver volumes, and the measure of success will be linked to the volume of acquisitions achieved. But there can be an enormous variance in the quality of customers that an individual channel can deliver.

By reviewing different cohorts of customers, based on the channels used and the offers bought, you can optimise the commission that you pay to each channel, and ensure that you deploy the most effective offer for each channel to win the customers you need. You could even consider withdrawing from some channels entirely.

In 2013, Three UK took the bold move to withdraw from indirect retail channels, initially pulling out of Phones 4U, and then Carphone Warehouse. The move was attributed to the cost of acquiring new customers through those third-party channels. At the time, the indirect retail channel had a significant hold on contract handset sales, with over 40% of all acquisitions coming via indirect channels. We can only assume that Three reviewed their cost of acquisition and customer lifetime value data and concluded that it would be better to acquire customers through cheaper or higher quality channels.

## Increasing the value of existing customers

As a subscription-based business, most VNOs are looking to stretch customers' ARPU and CLV by cross-selling additional services, or delivering propositions that better fit their customers' needs. The sole aim is to stop customers from re-entering the market and looking at competitors' offers. Again, having a good grasp of the data ensures that this is done more effectively.

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Imagine a scenario where a customer has been with a VNO for several months and has demonstrated a stable usage profile for data. They may do some streaming, but are well within their bundle, allowing for a healthy margin through breakage. Targeting this type of customer with a communication to increase their data bundle is unlikely to be effective as they don't need any more data.

However, you can test the hypothesis that this customer will deliver a greater ARPU if you give them a reason to use more data, such as by giving them access to Netflix. They will find your brand more relevant and will be encouraged to take a larger data bundle that includes a subscription to a Netflix.

Using your data analytics, you can now learn a lot about this cohort of customers. Firstly, look at who has taken advantage of the offer and their unique data attributes. It could be that it is customers who use data at a certain time of day, or those with a handset with a bigger screen, who have the greatest potential for buying more data.

Secondly, you can measure the change in CLV for the customers who took the offer versus a clean control group of customers who had the same attributes, but were not targeted. The ideal result would be for the customers who took the offer to spend more and stay longer because of the value they derive from the offer.

Finally, you can review all the data about customers who took the offer and stayed longer, and feed it into a predictive model that identifies similar customers. You can then send this offer to similar customers automatically, at the optimal time, and improve the take-up rate. As well as the obvious margin uplift, you will also be able to negotiate volume discounts with the content provider.

# Managing revenue leakage and fraud

Our examples so far have focused on increasing sales and revenues, but analytics can also give you a better understanding of your cost base and help you to manage revenue leakage and fraud.

Telecoms is a complex industry with hundreds or even thousands of different charging cases that need to be considered when building propositions - how much should you charge for certain calls, what increments do you bill in, and which call types should be included in your bundles?

Large MNOs have entire teams dedicated to monitoring and assuring revenues, ensuring that the, sometimes monthly, changes to interconnect charges have been correctly factored into bundles and call costs, and that all points of revenue leakage have been identified, understood and properly mitigated.

However, VNOs might not be able to dedicate whole teams, or even a whole person, to doing this, but they can still use analytics to manage their costs. There are three main areas for which VNOs should consider using analytics:

1. Identifying any significant changes in the velocity of call types -  often an indication that fraudsters have identified a weakness

2. Identifying call types where retail margin falls below an acceptable level

3. Identifying the most prevalent call types, such as international or special numbers, where wholesale pricing can change long after retail pricing has been set.

Taking a data-driven approach can save you money, improve profits and, most importantly, deliver a better overall customer experience.

# Making expertise affordable

At MDS Global, we understand that skill is a huge part of bringing a data-driven approach to fruition. That's why we developed our **VNOnDemand Analytics** tool; a suite of simple-to-use and simple-to-operate data dashboards that allow users to make the best-informed business decisions. VNOnDemand Analytics provides cost-effective access to five critical analytics applications, covering over 70 use cases, including the three described above, to help you to steer your business towards better profitability. It is cloud-based and offered via a simple subscription model.

**VNOnDemand Analytics** draws on our experience of working with our customer data for over 20 years, and our in-depth understanding of the big questions to which our customers need answers.

| Business Question | VNOnDemand Analytics Insight & Capabilities | Business Benefit |
|---|---|---|
| How are my services being used? | **Usage** Product, Services | Know which service propositions to optimise |
| Where am I making or losing revenue & profit? | **Profitability** Revenue, Margin & Costs | Know targets for investment and costs during negotiation |
| From where and how are sales happening? | **Sales** Channels & Activations | Know where sales channels need improvements |
| What type of customers and experience do I provide? | **Customer** Experience, Insight & Retention | Know where to target retention programs |
| Where am I leaking revenue and resources? | **Assurance** Revenue, Fraud & Abuse | Know which business processes need to improve |

These five application areas can be customised to meet your specific needs, and our team of in-house experts are on standby to help you understand the 'so what?' that data can throw up, evaluate the options and identify the right approach to accelerating business strategy.

So, if your business needs a new approach to data, please **contact us** for a demonstration.

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