

A hand is shown in silhouette, placing a purple gear into a cluster of various other gears. The gears are in shades of teal, blue, purple, orange, and yellow, arranged in a roughly circular pattern. The background is white.

# TAKING MEDIATION TO OSS SPACE

Smart Data Management is set to empower the next generation of OSS Applications

## Why Mediation?

The historical perception of mediation as only a first step in the billing process is now badly outdated. In fact, Billing Mediation is just one of many Use Cases a modern data management engine is capable of executing. Compounding the mistaken impression of mediation further, many carriers rely on data management engines that aren't modern to begin with and thus they have little first-hand knowledge of what they could be achieving.

It is accurate to claim that pre-processing usage records prior to rating and billing was the Use Case for which most of today's mediation systems were initially developed, but while some mediation products have since remained tied strictly to this functional area (generally those offered by vendors for whom mediation is only a limited, best-of-suite, component), modern mediation systems offered by expert or specialist vendors have not. For them, the Use Cases that mediation can and does address continues to expand.

That this is true should seem obvious even though that is not always the case. Mediation, after all, has no causal relationship with billing – the two do not have to be related. In fact, mediation products would be able to solve carrier problems and deliver value without addressing billing mediation at all. Rather, mediation involves the collection, aggregation, de-duplication, correlation, quality assurance, and other aspects of managing data. This is done in an “agnostic” way; in a modern product, the data can be collected from any source, used for any purpose, and downstreamed to any number of end-applications. However, not all “modern products” can handle these functions seamlessly and share outputs across different data types (batch & real-time.) Additionally, not all mediation solutions can cope with the exponentially increasing growing source data volumes required to create the right value from “mediated” data.

This being so, best-of-breed Mediation products exist in a state of almost constant evolution in functional terms. Because almost by definition they are capable of doing more than they are required to do at any given time, new Use Cases (or products) are constantly being added.

This may happen when or because a mediation vendor pursues an opportunity to broaden the Use Cases it addresses. It may also happen when a CSP chooses to re-configure its existing mediation product because it realizes that mediation is the best tool to use to solve a particular problem it faces.



## Why OSS Mediation?

Presently, perhaps the most important of the new Use Cases being addressed by mediation relates to data that can be collected from the CSP's Operational Support Systems infrastructure. This relatively new area of OSS Mediation is set to become highly significant in 2015 and beyond. Already, the leading analyst firm, Heavy Reading, has discussed it, noting:

**“the future-proof nature of the mediation layer...functionality that will be critical to the evolution of an operator's business and SDN/ NFV-enabled infrastructure.”**

Why is it the case that OSS Mediation is becoming a mission critical component in the CSP's IT infrastructure? Because it puts the gold mine of managing network quality and in turn

gaining improved control over the customer experience within reach of the CSP in a fast and cost-effective way, often leveraging an asset that is already in place.

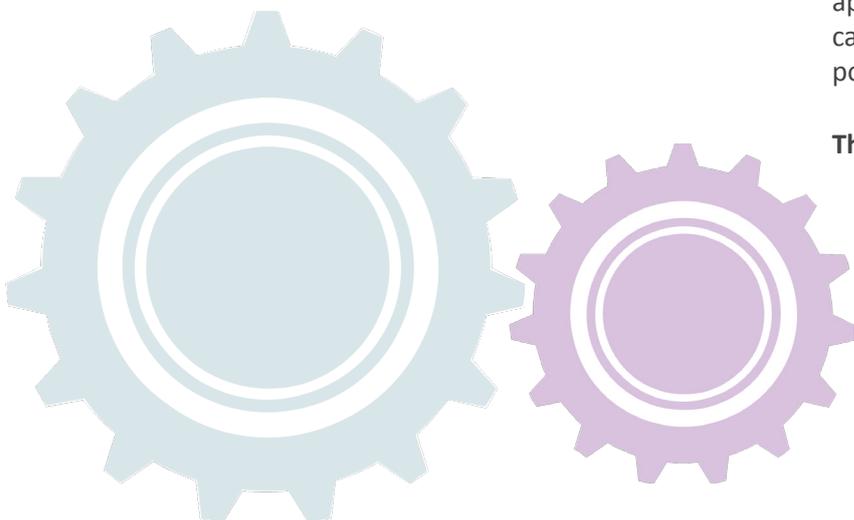
OSS Mediation is the foundation for accessing the sort of insights into customer behavior that are necessary to power the reinvention of an operators marketing strategy. This happens through the marriage of a golden combination of network data that traditionally remained siloed in the OSS space (for instance, in the form of probe & call trace data) and usage data that traditionally belonged in the BSS sphere such as charging records that mediation is uniquely positioned to broker. It also includes data related to PCC (Policy & Charging Control) domain such as network/service delivery parameters as well as data in the CRM domain such as that related to products and customer information.

## What Does OSS Mediation Do?

OSS Mediation powers the transformation of data from multiple sources, turning Big Data into Smart Data.

While any application developer at an operator site can bring in hordes of Data Scientists who are expert in building the perfect query to the CSPs Big Data storage facility, if all the data is being queried is not adequately and logically structured in the first place, little will be gained. The fact is, CSPs can develop and deploy the smartest apps imaginable and maintain massive storage capacities too. If the underlying data quality is poor, “Big Data” will not deliver.

**This is where OSS Mediation comes into play.**



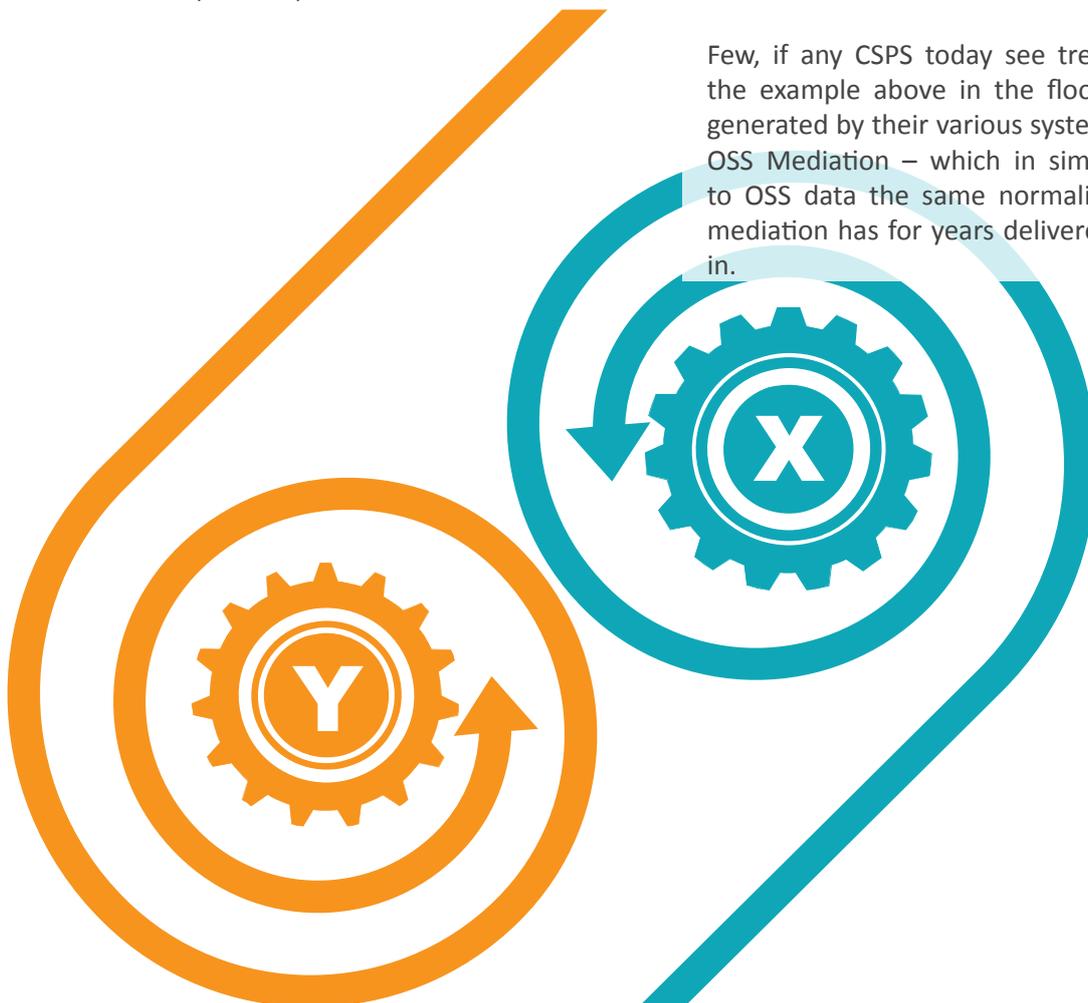
While the role of BSS Mediation is as the normalization layer that hides network complexity from the downstream BSS the same journey for OSS has not been taken yet. The traditional siloes remain entrenched. Probe data sits in one system where it is stored reactively and often waits for a 2nd line support engineer to query it. This happens only when (after) the CUSTOMER has discovered he is experiencing a network quality issue.

Performance Measurement data meanwhile sits in another system, waiting for a network planning engineer to look at a report saying which cell was congested, and when. That engineer would likely know about the technical problem but not about how it affected customers and what value these affected customers had to the operator. Thus, if that engineer needed to choose whether to remedy site X or Y first, he would be in no position to make a smart, correct, data-driven decision.

The truth in telco is that key data trends are hidden from the CSP's view and buried in poorly structured data drawn from siloed applications. This situation can't continue. Why?

For example, if we say value X nearly exceeds value Y every Thursday between 4pm and 5pm and 90% of the customers affected belong to the operator's highest 1% of revenue generators then is it not a problem – or at least a missed opportunity – if the CSP remains unaware of the fact? Where is the opportunity to reduce churn? To improve the customer experience?

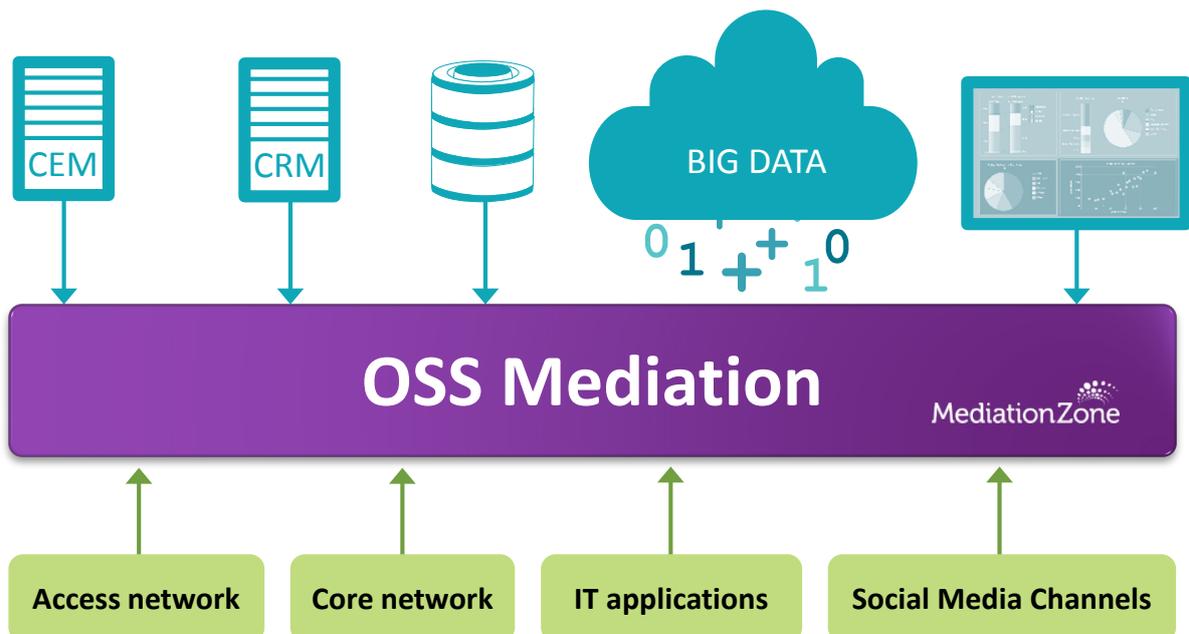
Few, if any CSPs today see trends as subtle as the example above in the flood of siloed data generated by their various systems. This is where OSS Mediation – which in simple terms brings to OSS data the same normalization layer that mediation has for years delivered to BSS – steps in.



# OSS Mediation from DigitalRoute

DigitalRoute OSS Mediation provides operators with a new way to leverage the data created within their OSS'. Using DigitalRoute's industry-leading MediationZone platform to collect and consolidate network data, OSS Mediation:

- 1** Provides a horizontal integration layer that is capable of acquisition and high-volume processing from a large number of individual and diversified OSS sources simultaneously.
- 2** Correlates from all network segments to create actionable information adapted to a variety of different target applications.
- 3** Filters, correlates, aggregates and refines raw data, in the process offloading analytics & database layers by as much as 90-95% using DigitalRoute's smart KPI management engine.
- 4** Manages data type diversity in both online and offline modes.



## Technology Summary

OSS Mediation from DigitalRoute delivers:

### Off-the-shelf integration

with equipment, systems and databases from leading vendors. New interfaces are added through configuration, not coding.

### KPI calculation and management

with threshold assessments and actions already at the mediation layer with a minimum of impacts on network management and analytics.

### Graphical workflow engine

enabling rapid adaptation of deployed solution.

### High-performance

high-availability and unlimited scalability through a distributed environment executing on commercial off-the-shelf hardware.



As Heavy Reading concluded,

“In order to gain a holistic picture of service performance, operators need to access and manipulate data from different silos. Only when telcos have assembled all the data they need will they be able to carry out the correlation and analysis necessary to assure a customer's service experience.”

The logical way for today's mobile  
CSP to take control with  
**DigitalRoute OSS Mediation.**