Tons of data—
Big opportunities
HPE Telecom Analytics
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All operators are pursuing a range of Big Data initiatives that rely heavily on information management and analytics for clear insight into their customers’ preferences and behaviors. The goal is to translate them into customer-impacting services and business models.

Face the data explosion

Regardless of whether you are a communications service provider (CSP), cable operator, or media and entertainment company, you are surely faced with an explosion of varied, high-volume, and high-velocity data streams. To be successful and profitable in this hyper-competitive industry, it’s necessary to orient yourself to the real needs of your customers by making use of your most valuable asset—information, and translate that into new services.

What’s important is that you, as an operator, are already familiar with handling vast volumes of data in your existing and routine processes. However, historically, operators have not taken advantage of monetizing the value that is inherent in the data they hold. Big Data concepts provide the means by which you can analyze the treasure trove of information you collect and store.

See the opportunity

Business pressures urge organizations to make use of their most valuable asset—data. It’s necessary for you to differentiate your offerings and target customers more effectively, thereby generating greater customer loyalty, and taking advantage of new business models, including partnerships with third-party providers.

Figure 1: From knowing to understanding your customer
Monetizing the value of data is now seen as a means by which you can generate new revenues to offset the commoditization of your traditional services and compete in the over-the-top (OTT) market. It also has the potential to enable you to target cross-sell and up-sell opportunities among your existing customer base.

Big Data applications that are context aware can place you at the heart of the digital value chain. By combining real-time insight (location, interests, and activities) with demographic knowledge such as customer relationship management (CRM) information, habits, and preferences, you can achieve an unparalleled marketing power.

**Review the core focus areas**

There are three core areas in which operators can maximize the value of their data. One is to use Big Data to target products and marketing offers to increase loyalty and personalize the user experience according to the customer’s needs. Another is to use network and IT data to increase operational efficiencies and improve effectiveness of customer experience management. By knowing how the network is used, you can identify where to invest in new capacity, when to make traffic-boosting offers, and how to serve your customers most efficiently. Finally, and perhaps the area that generates the most excitement, is the potential that operator data has to enable new business models. The information operators have about their customers has obvious value to third-party and OTT service providers, too. This presents a means by which you can insert your organization in the digital value chain and be more than a network infrastructure provider. Operators shouldn’t just keep on investing more in the network; if you want to prove your value to your partners, you need to know your subscribers better.

**Figure 2: Focus areas**

There are four key source areas of data that operators can access. There is network data—comprising use records such as call detail records (CDRs), performance monitoring data, fault monitoring data, and call management data. Then there is the subscriber data, which is drawn from the network registry, operations support systems (OSS), and business support systems (BSS). These types of data are typically structured, and information is relatively easy to retrieve from source databases.

Big Data retrieval and analysis become more complex as additional data sources are included. One is application data, which includes traffic analysis, such as deep packet inspection and data from SMS, the web, search, and email. Data from social media, mobile applications, and devices are also sources of unstructured data that can be analyzed to deliver great value. Finally, operators can access significant market information such as user profile data, demographics, and segmentation.
The structured data that operators collect amounts to millions of transactions and is the information that they have used to run their businesses for many years. This area is a familiar territory; however, operators haven’t applied this data to areas outside their traditional operations to generate value so far—either because they don’t see the value, or are concerned by privacy governance.

Unstructured data is far more complex and new terrain for operators. There are billions of transactions to take into account, and sources can be as varied, as data from office documents, sensors, survey responses, or call center operations. Unstructured information can be used to gain insight into business drivers. Bringing this data together—from structured and unstructured sources—is at the heart of operators’ plans to derive value and generate revenue and differentiation from Big Data.

Review our approach

Hewlett Packard Enterprise (HPE) developed a specific solution to enable you to achieve this. The HPE Telecom Analytics solution comprises four areas of value that address the proactive strategy required, the demand for targeted products and marketing offerings, the need for network experience optimization, and the potential for new business models.

Those four areas support a series of business cases surrounding Big Data. An operator uses HPE solutions to look at the network and identify what a customer is doing, and then combines that with demographic information about the subscriber, and eventually with its social media information—if the subscriber authorized their operator to do that. This gives real-time insight into what the customer is interested in and what they are doing. Business models associated with that information could be used to help search providers be more effective than they are on their own. It could also be used to target offers to an operator’s own customer through its own portal. Or, it could be used in partnership with third parties to target advertising or products.

Due to the sensitivity of the information, respecting the subscriber’s privacy is a key requirement of any solution managing Big Data. Operators have to guarantee their subscribers that their private data is managed with the appropriate level of confidentiality, anonymized, and protected.
Within operators, Big Data is much deeper than in any other industry because of the volumes of structured and unstructured data involved. The operators’ challenge is to perform real-time analysis and act on it to drive profits. To do this, HPE developed its Telecom Analytics Blueprint, which draws market, subscriber, network, and application data into its software portfolio to make it available in four solution areas: targeted products and marketing, network experience optimization, new business models enablement, and proactive data strategies. This software portfolio forms the HPE Smart Profile Server (SPS), which includes two very well-known HPE technologies: Vertica, the platform for real-time analytics, and Autonomy IDOL, which delivers expertise in analytics of unstructured data and social sentiments.

**Figure 4: HPE Telecom Analytics—Architecture blueprint**

Transform your business

Big Data in telecoms presents many disparate opportunities for operators to address. A core set of technology is common to all, and operators can use it to put in place a company-wide Big Data strategy, or address specific business cases for Big Data. HPE Telecom Analytics brings a combination of capabilities in HPE business analytics solutions, together with deep expertise for the telecom industry. Subscribers are increasingly expecting more and more behavior-based, personal-based offers and services from their operators. By doing so, you can transform your businesses and profitability.
HPE in the telecommunications industry

HPE helps the world’s CSPs transform the way they do business. To grow in a fast-changing market, they must meet the huge demand for new services and streamline internal operations. HPE is unmatched in its ability to help CSPs drive transformation with more than 30 years of telecom experience, global IT leadership, expertise in entertainment, and leadership in consumer devices.

We offer an end-to-end portfolio from core network to handheld devices, including a suite of convergent IT and telecom solutions, such as software—OSS/BSS, service delivery platform, subscriber data management, cloud, professional services including business consulting, integration, and managed services/outsourcing, joint go-to-market programs, carrier-grade servers, storage, printers, tablets, and smartphones.

HPE Solution Lifecycle Services

HPE Solution Lifecycle Services for the communications and media industry help you realize the full value of your solutions, from planning and assessment through to testing, deployment, operation, and nearly continuous improvement. Each service area leverages proven processes and best practices to balance capital expenditures (CAPEX) and operating expenses (OPEX) and reduce risk, while keeping your projects on time and your operations running smoothly.

HPE Solution Lifecycle Services for the communication and media industry

- HPE Services offer a proven way for navigating through your transformational journey.
- HPE Solution Consulting Services help define business transformation and translate strategies into actionable solutions.
- HPE Solution Implementation Services offer a low-risk project lifecycle across design, development, customization, and network and system integration.
- HPE Solutions Management Services increase the operational efficiency of your existing solutions, including reactive, proactive, operational, and enhancement services.
- HPE Outsourcing Services offer a variety of sourcing options designed to improve business agility while reducing your OPEX; options include IT and infrastructure outsourcing, application management, and business process outsourcing.

Learn more at hp.com/go/TelecomAnalytics