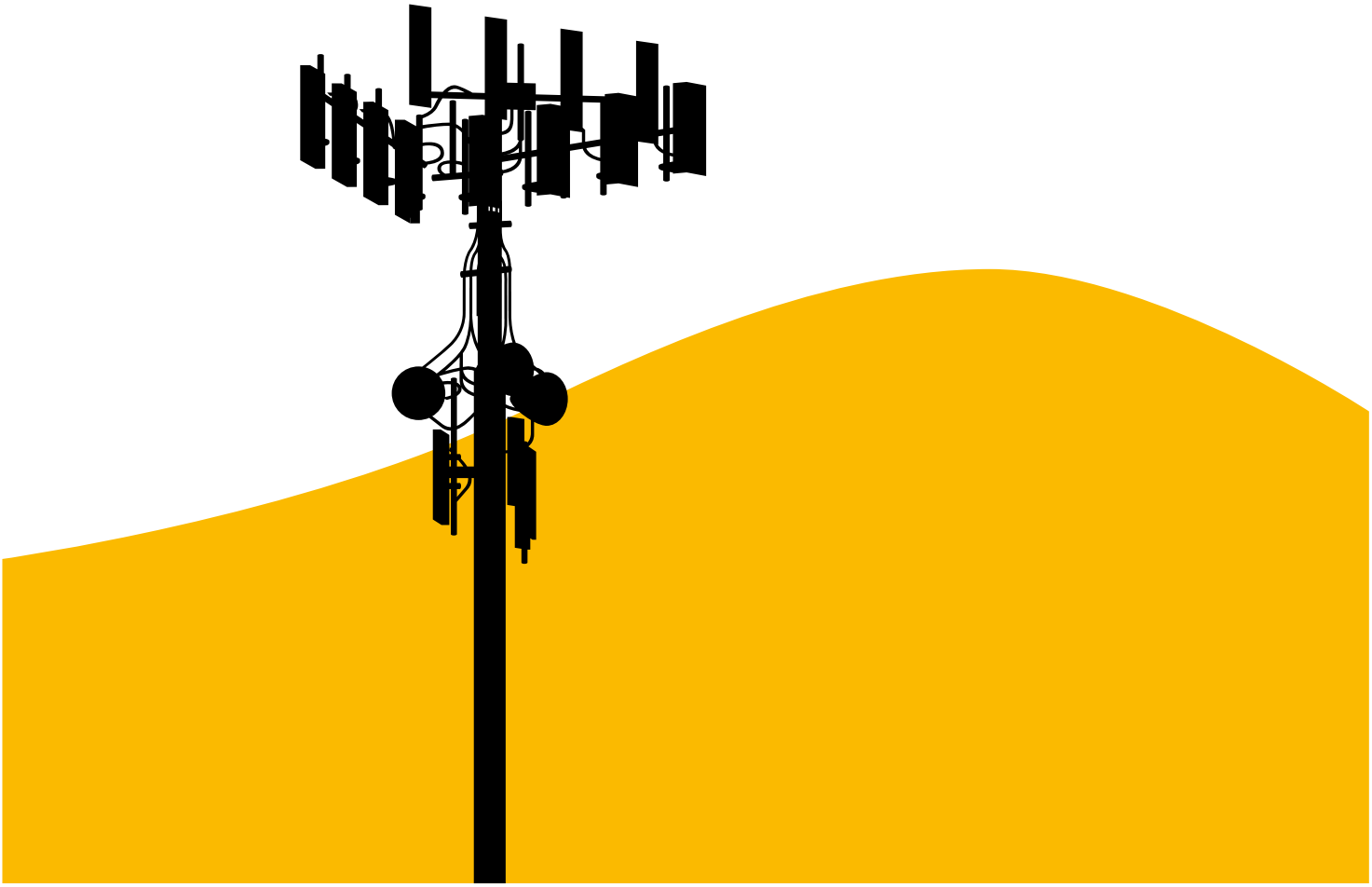
SAP Thought Leadership Paper
Telecommunications

Policy Management and Service Monetization

Conserve Network Capacity, Increase Customer Satisfaction, and Boost Revenue



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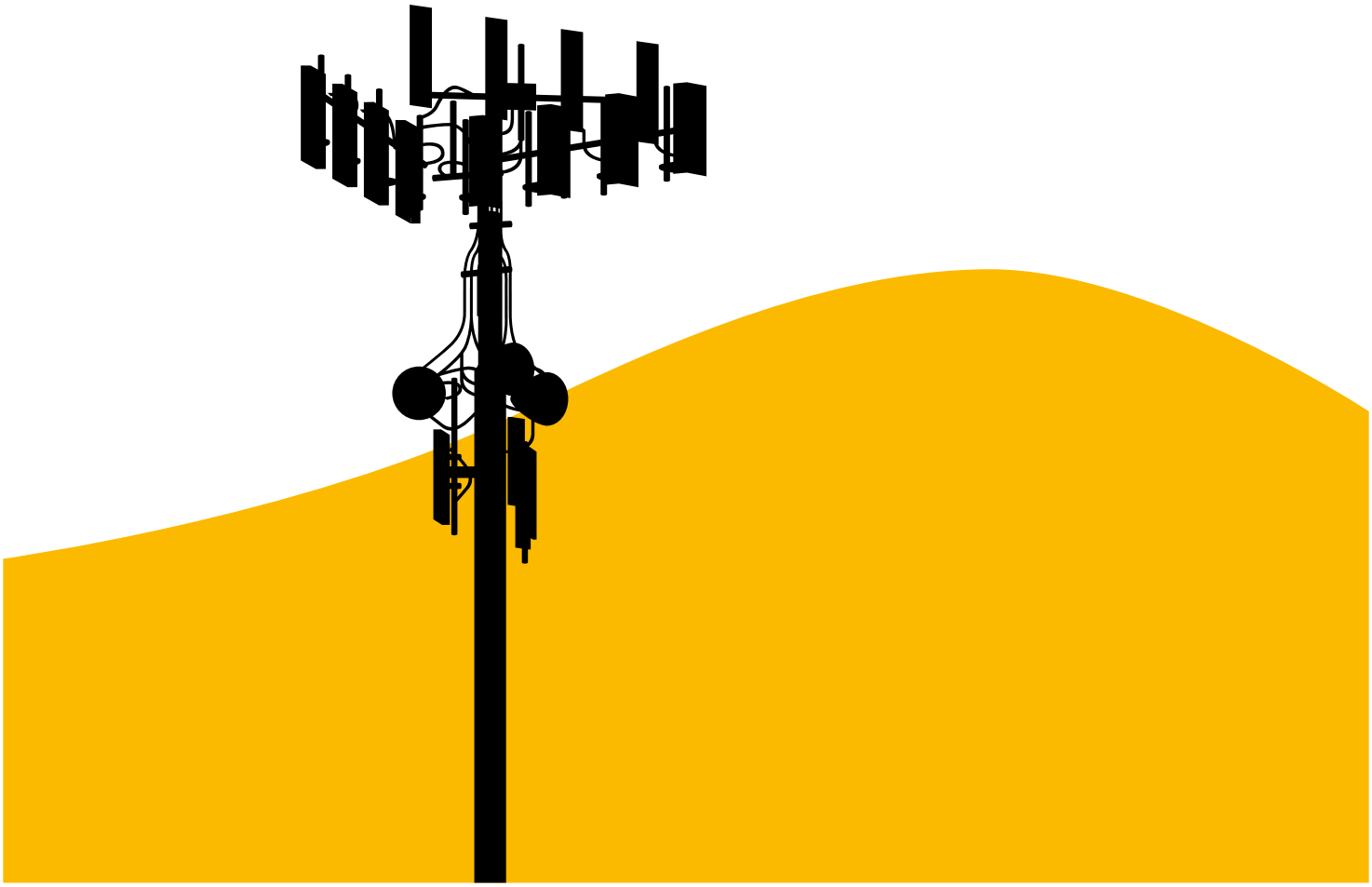
Given the growth of smart devices and the unquenchable thirst for data, communication service providers (CSPs) seek ways to reduce network congestion – even while increasing revenue.

Policy management and service monetization can help. By putting your charging system at the center of your policy management initiative, you can charge for new services that let your customers control how they consume network resources. This helps optimize the user experience across networks – keeping your customers satisfied and opening up new streams of revenue.



Managing Capacity as Data Demand Grows

For communication service providers (CSPs), the explosion in smart device usage is a good thing. More smart devices – smartphones, tablets, and so on – mean more customers. For network managers within these CSPs, the story is a bit more nuanced. After all, increased smart device usage leads to exponential growth in data demand – and such growth can easily overwhelm the capacity of CSP networks.

Yet while data usage goes up, most CSPs are loath to raise prices on their customers due to highly competitive industry conditions. The outcome is downward pressure on the amount consumers pay for data on a per-unit basis – an amount that is dropping precipitously. This eats into CSP revenues.

Faced with the reality of limited bandwidth and finite resources, many CSPs are starting to explore policy management – the process of applying operator-defined rules for resource allocation and network usage.

Traditionally, policy management has involved two technically focused areas – quality of service and network performance. Quality of service involves the definition of service-dependent performance requirements to guarantee network quality. For example, a CSP might give voice services higher priority than peer-to-peer services. This helps to increase customer satisfaction and avoid churn.

Network performance is focused on avoiding network congestion. Here the CSP curtails the bandwidth of users with excessive data usage and limits traffic rates. For example, the CSP can delay certain packets or even allow an acceptable rate of packet loss for specified services such as video.

To this list SAP adds a third area – one that is focused less on technology and more on business process. This area is known as service monetization.

Service Monetization in Practice

In the context of policy management, service monetization is the ability of a CSP to manage capacity with new services that send distinct price signals to influence customer behavior. While it supports the tiered pricing models that many CSPs now use to manage capacity, it can also support more dynamic scenarios by allowing granular control over service quality.

BANDWIDTH ON DEMAND

For example, let's say that a customer with a mid-tier data tariff wants to use a smartphone to stream a high definition video. Due to traffic congestion, however, you, the CSP, are limiting bandwidth in a fair way to conserve capacity. When your customer attempts to stream the video, he or she receives a notice explaining that current bandwidth conditions will not support the stream.

Predictably, the result of this experience will leave the customer frustrated. If he or she is nearing the expiration date of the contract with your CSP, the customer may consider switching carriers.

Service monetization can help you react in a way that leaves your customer more satisfied. Instead of sending a notice that disallows the stream, you could respond with a notice that allows your customer to upgrade the data tariff for a time-limited nominal fee. For instance, the customer could spend $2 for two hours of higher bandwidth – just enough time and capacity to watch the movie.

This helps ensure customer satisfaction and increases CSP revenue. It also increases CSP relevance – which is extremely important at a time when customers increasingly see more value in content than the network on which it is delivered. Giving your customers options that help them optimize their content consumption experience only helps you remind them of your value.

As a side note, the upgraded bandwidth discussed here cannot be linked to a particular content provider. Such arrangements would violate net neutrality policies that seek to keep the Internet playing field as level as possible. This, however, does not preclude a CSP from engaging in revenue-sharing agreements with content providers based on the quality of the network connections the CSP provides in general.

PROFILE-BASED BANDWIDTH CONTROL

Another example of service monetization in practice involves a subscriber with a family plan. Let's say that the family has a 12-year-old son with a smartphone that he uses to surf the Web, check e-mail, and communicate with friends via social networking sites. To include their son on the family plan, the parents first want some control over their son's Internet experience.

With service monetization, you can block access to inappropriate content based on the age parameter in the son's user's profile. You can also block access entirely during certain time frames – say, from 8:00 p.m. to 8:00 a.m. – so the family can rest assured that the son gets his sleep and does his homework. Either way, you're giving your customers the control they need to use your service in the way that they see fit.

INTEGRATION AS THE ENABLER

In both scenarios discussed here, service monetization lets you offer additional services that help you minimize network congestion and keep your customers satisfied. And because you charge for these additional services, it also helps you increase revenues.

The challenge, of course, is managing the details. How do you track and record the increased data tariff charge you'll levy for customers who temporarily upgrade their bandwidth to stream a movie in HD? Or how do you ensure that the 12-year-old son's profile is accurately and consistently applied to block inappropriate content?

The answer is integration. The fact is, network performance and quality of service – the first two pillars of policy management – work at an aggregate level. For example, your CSP can implement a policy that favors voice communications over peer-to-peer to reduce network congestion across the board. This can be managed with policy management software focused exclusively on the network layer.

Service monetization, on the other hand, moves out of the technical sphere and into the commercial sphere. Here, policies are applied on a per-subscriber basis with individual charges that are linked to specific customer decisions and behaviors. To manage these charges in an efficient manner, SAP recommends that CSPs integrate their policy management systems with back-end charging systems, which can then be used to define and execute network policies. Furthermore, changes can be automatically captured and applied to a customer's invoice to avoid revenue leakage. This approach also supports full traceability for when customers dispute charges and for analyzing charge data to increase profitability.

Your CSP may want to integrate customer relationship management into the fold as well. This makes it easier to transfer customer profile information into the charging system to manage scenarios such as profile-based bandwidth control, as described earlier. With this information in your charging system, you can more effectively manage the age-related services for which your customers choose to pay.

FROM INSIGHT TO ACTION WITH POWERFUL ANALYTICS

Effective policy management and service monetization assumes an understanding of what customers want. This, in turn, requires ongoing analysis of customer usage patterns – which can only be accomplished with powerful, real-time analytics. With such capabilities, you can quickly analyze where and when congestion problems occur and then implement new policies in a timely manner to rectify the problem. You can also glean insights that enable you to offer location- and customer-specific tariffs ahead of time to proactively reduce congestion. This can help keep customers satisfied, reducing churn and increasing CSP revenue.

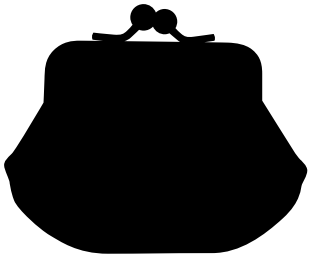
SERVICE MONETIZATION FOR YOUR ENTERPRISE CUSTOMERS

You can also apply policy management and service monetization to serve your enterprise customers. Indeed, for mission-critical applications, the demand for high bandwidth and quality of service may be higher among businesses and consumers. With service monetization, your CSP can ensure your enterprise customers always have the network capacity they need to keep their businesses moving forward.

LESS CONGESTION, MORE REVENUE

According to this approach, your charging system ultimately takes center stage in your policy management efforts. Here, the functionality of the charging system extends beyond its traditional role, to help you more effectively execute and enforce policies that you define. These policies, in turn, help you not only to minimize network congestion but also to generate more revenue. At a time of limited network capacity and increased competition from operators and content providers alike, this can help you more effectively realize your business objectives.

With real-time, online charging capabilities, you can charge for complex, blended data services even with multiple concurrent service usage.



How SAP Can Help

We can help you get your policy management and service monetization initiative off the ground with the SAP® Convergent Charging application. This application is part of the larger SAP Billing for Telecommunications package, which you may already use to manage subscriptions. Configurable, flexible, and rule-based, SAP Convergent Charging manages network policies for a wide range of services you deliver – with the high availability you demand and the scalability you require to grow.

With real-time, online charging capabilities, you can charge for complex, blended data services even with multiple concurrent service usage. You can also enhance customer loyalty by delivering a single bill for all services while at the same time eliminating fraud and credit exposure risks with tighter online control of subscriber balances and allowances. An intuitive GUI, meanwhile, enables visual programming and advanced functionality to build custom algorithms that calculate the price of new services. This lets you launch new policies and services more quickly – and with greater confidence.

For analyzing your usage patterns, we offer a broad range of options from the SAP BusinessObjects™ portfolio. We also offer the SAP HANA™ platform, which includes flexible, multipurpose, in-memory computing software that allows you to analyze huge amounts of data at speeds never before possible. When trying to manage the growing data volume associated with network events and policy management, this is the kind of advantage that helps separate you from the competition.

LEARN MORE

For communication service providers, service monetization is a critical pillar in an effective policy management strategy. It can help address the issue of ongoing network congestion while boosting revenues by enabling you to introduce new services quickly and effectively. To learn more about how SAP can help you tackle service monetization and how SAP powers Telco 2.0 at Internet speed, contact your SAP representative today or visit us online at www.sap.com/telecommunications.

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