



BOOSTING THE NETWORK WITH **VITAMIN P:** **Policy, Personalization and Profitability**

As operators move to tiered and usage based service plans and deliver new machine-to-machine (M2M) services, the role of policy control is evolving beyond fair usage to include a plethora of use cases - By **David Sharpley**, Senior Vice President, Bridgewater Systems

The strategic importance of the mobile control plane in 3G and 4G networks, including subscriber, service and policy controls, has never been more apparent to operators globally as they manage the complexities of rapid growth in mobile devices, applications and traffic.

To date, operators have focused on implementing fair usage controls, driven by the extensive use of flat-rate plans. However, as operators move to tiered and usage based service plans and deliver new machine-to-machine (M2M) services, the role of policy control is evolving beyond fair usage to include a plethora of use cases.

The transition from flat-rate to tiered services

Network, device, and application policy provides operators with a range of controls to enable tiered pricing plans. Operators including AT&T in the US and O2 in the UK are accelerating the transition from flat-rate data plans to tiered services based on bandwidth or

application tiers that let subscribers choose the combination of usage and price that best meets their needs. In a tiered services model, lower-cost plans can be used to target casual users, slow technology adopters, and lower-income demographics.

Middle-of-the-road plans can be crafted to meet the needs of the average user, and premium plans with higher data usage limits can be used to target tech-savvy consumers and business users who will pay to enjoy the full range of applications and services made possible by the mobile Internet.

Policy controls based on real-time subscriber data provide the network, subscriber, and service intelligence operators need to capitalize on the tiered services opportunity with targeted plans that provide value commensurate with price. They also provide the flexibility to dynamically modify service characteristics depending on the situation. Customers can receive proactive notification well in

advance of exceeding their usage limits in the form of an e-mail, an SMS text message or a redirection to a web portal where they can be offered:

- A temporary service upgrade;
- A trial period at a new service tier;
- A new service tier; or
- Slower service to minimize excess charges.

Tiered services combined with flexible deployment plans provide a compelling business case to customers over and above “all-you-can-eat” plans.

In order to successfully introduce tiered services, operators need to give subscribers a way to monitor their mobile data usage in real time. Policy solutions that extend to the device, such as that offered by Bridgewater’s myPolicy™ solution, provide enterprise and consumer customers with a real-time view of their mobile data usage by clicking on an application on their smartphone.

This approach not only empowers subscribers to control their own spending but is a vital tool to help operators convert customers from flat-rate to tiered service plans.

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Service personalization

By adding personalized features to tiered services, operators can give subscribers the services and applications they want, when they want them, where they want them, and how they want them. They can deliver this level of personalization by combining rich subscriber data with policies to customize offerings such as:

- Providing a free ‘day pass’ for a new service funded by mobile advertising revenues;
- Delivering more bandwidth to a subscriber who wants to engage in mobile gaming in the evening but not during the day;
- Allowing a subscriber to download unlimited videos on the weekends;
- Providing streaming videos or music when the subscriber is at home but not while roaming; and
- Enabling a new third-party location-based social networking service.

Pre-purchase data services

Pre-paid services are a popular way of increasing market penetration. They give subscribers the flexibility to buy and use a preset amount of data with the convenience of paying for these services via credit card, voucher or promotional offers.

However, with the recent growth in mobile data traffic, the pre-paid billing servers used by operators have become increasingly complex. Pre-purchase plans make life simpler for the customer as well as the

operator, who no longer has to deal with the cost and complexity of deploying a pre-paid billing server.

In this scenario, policy control enables usage to be metered based on time or volume which must be paid for in advance by the consumer.

Machine-to-machine services

M2M services are experiencing a period of rapid growth, with an estimated 60 billion machines serving a global audience of six billion people. Applications in areas such as healthcare, public safety, and energy are fuelling the drive towards more ubiquitous M2M services. The control plane function in 3G and 4G networks plays a central role in the delivery of these services by managing network resources, devices, and applications. Public safety services, for example, can benefit from automated communication between traffic cameras, health monitors, and mobile communication devices. The network can give priority to emergency data traffic, devices, and applications, distribute alerts to emergency workers, and even re-route vehicle traffic.

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These use cases demonstrate how policy control as an integral part of the mobile control plane has evolved, with fair usage controls just one of many ways that operators are implementing smarter network, device and application controls to deliver new services.