EXPERT OPINION:

Policy and Charging Control under Load

It's clear that Policy and Charging Control (PCC) is rapidly becoming key to controlling operators' networks. But, as Sukki Sandhar writes, whether operators have already made their static policy decisions, or are embarking on establishing PCC, they are evaluating the same issue. "What happens when we start to push dynamic policy decisions through a service-centric PCC layer that is integrated to the enterprise and network? What are the cost, performance and the consequential reliability implications to my architecture?"

Sukki Sandhar, Head of Policy Orchestration for Kabira Technologies

Dynamic Policy

During the last two years, mobile IP service users behaviour has changed, mainly due to:

- The success of smartphones
- The introduction of mobile broadband

The sum of these factors causes a dramatic change in data usage, transforming it to a torrent and more importantly, this growth is set to continue. Overloaded access to resources threatens to cause serious quality of service (QoS) issues and is driving operators to seriously consider PCC.

Operators often manage QoS problems with further investment in network infrastructure or controlling network and enterprise resources. It is in fact a combination of both these techniques that is becoming the solution of choice.

"Implementing the right policy controls and integration is critical for fueling growth and stemming unnecessary investment."

Service layer policy control delivers the greatest impact since this layer is more informed about user state, subscription and billing. For example, service layer PCC enables operators to de-couple billing from the network, make real-time decisions monitoring and negotiate policy decisions during service delivery. Standards recommendations like 3GPP provide a reference point for defining implementations of such solutions. However, that isn't always enough. Complicated operator environments require customisation to make solutions fit. Implementing the right policy controls and integration is critical for fueling growth and stemming unnecessary investment.

Avoiding Saturation with Policy Orchestration

Today, during saturation-peak periods, networks are left on their own to 'manage' load – often resulting in negative user experience and customer dissatisfaction. PCC enables operators to implement business decisions on how to manage, handle and avoid saturation. Fine-grained control allows operators to deliver and guarantee value to their customers, whilst monitoring and managing their resources. For example, fair usage, quota management and parental control are all used to control the services a user has subscribed to.

While PCC is a solution that addresses a host of network problems, discussions with operators reveal up to 80% of their time can be spent addressing infrastructure problems with reliability, scalability, performance and integration. Current service centric policy solutions typically include an application server, database and mediation technology, an expensive and complex way of delivering network-grade policy. Scaling such a deployment requires diverse levels of hardware, skills, software and complexity.

Several operators are instead moving away from the conventional three-tiered architecture to a solution such as Kabira's Policy Orchestration product, an all-in-memory, highly-available transaction processing architecture that delivers telco-grade reliability, scale, low latency, high volume and performance. With Policy Orchestration your solution is designed from the start to handle massive growth with the same high degree of reliability.

Visit **www.kabira.com** to learn how dynamic service centric policy management, specifically built to manage peak load provides clear benefits for major operators.

Reproduced from VanillaPlus Magazine