



Policy sophistication unifies network and IT domains, enables CSPs to differentiate and create value

David Sharpley is senior vice president of marketing, product management and channels for Bridgewater Systems, the provider of intelligent broadband controls for mobile and converged operators. With policy management now at the forefront of communications service providers' (CSPs) agendas as they seek to monetise smartphone traffic and make the best use of their network investments, Sharpley shares his views on the rapid development of the policy market with VanillaPlus.



VanillaPlus: Why is policy so topical today?

David Sharpley: It's common knowledge that there's a big gap between the growth of mobile data and the cost of delivering it. I call that the Martini glass: Operating costs are going up, but corresponding revenues aren't matching. The scale of the challenge CSPs face is immense and worsening. I was at a golf tournament last night and they were giving away five tablets. Those devices will drive bandwidth consumption at a rate of 120+ times that of a standard feature phone, and the uptake of these devices is immense. People are moving to using multiple devices as a consequence and, just because you're using your tablet, it doesn't mean you're not using your smartphone or your laptop as well, so there's an obvious upswing in bandwidth consumption.

CSPs are desperately looking to 'mind the gap' between the cost of delivery and the growth of consumption by trying to differentiate themselves in the market with offerings such as a social media plan or unique tiered services.

VP: What is the role of policy control in the

operator's network and how is this evolving?

DS: While it has been talked about for almost a decade, it is only recently that we've seen tremendous interest in policy control. The initial demand centres around helping to manage network-oriented use cases such as fair usage or managing peer-to-peer. Now, we are seeing a proliferation of use cases to help CSPs differentiate their offerings and assist in network congestion. Generally, policy is moving outside the traditional network domain as it is fast becoming recognised as a key enabling technology for innovation around dynamic services, new service models, as well as new business models such as for M2M – with strong interest from IT and marketing stakeholders within service provider organisations. Policy will become the much-needed bridge between network and IT domains to manage and ensure a superior customer experience.

VP: How does policy fit into the IT domain?

DS: We're seeing the increased complexity of policy use cases and how it can be applied and integrated to the IT side of the business to create differentiation. How policy relates to ►



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charging has now become very important and can have an enormous impact. For example, if you subscribe to a certain package, as a CSP, I may decide to offer you a happy hour that doesn't count as part of that package. That happy hour might be at a time when my network is not heavily used so I can make my customer feel good while the network is only burdened at an off-peak time. You can do very specific things that are IT systems oriented and require interaction with revenue management and CRM systems.

There are also multiple points of interaction from a policy control perspective. You interact directly to elements in the data plane to enforce subscriber policies, while on the northbound side interface with systems such as provisioning, charging and various types of notification frameworks to allow subscriber interaction.

VP: What are the primary use cases you are seeing?

DS: There is strong interest in a lot of different types of tiered services. A daypass for roaming users is a good example. Another is a turbo button by which a user can get an enhanced service while downloading a video. The proposition is simple: For an extra dollar we'll give you extra speed for a limited period. The whole notion is to move away from pure flat rate and increase ARPU on a per subscriber basis. Anything that requires metering has a policy use case where there's an aggregate of time, volume and application type. That enables CSPs to offer 2GB of video or unlimited Twitter as an offer to their users.

Those are complex propositions, metered on three axes but they give operators the flexibility to make relevant, timely offers and control usage so an excess user may get downspeeded.

VP: Bridgewater offers more than just policy control – what is the role of policy within your broader pre-integrated intelligent broadband controls portfolio?

DS: We're also a leader in service control

which helps managing network access using static policies to control which devices and users get access to the network. For example, a smartphone accessing the network has a different profile or policy on attachment than an M2M connection for a machine. The latency profiles might be different, the throughput levels might be different and the time they consume might be different, so that needs to be based on policy applied at the point of attachment to the network.

Our PCRF is dynamic in nature and controls things in real time. Underlying that service control and policy control is the subscriber data management framework. CSPs require a flexible and carrier-grade subscriber profile repository to assist them to manage subscribers, devices and their respective profiles. This framework allows them to do this effectively and across different services and networks.

VP: Why are intelligent broadband controls, including policy, central to the subscriber's data experience?

DS: If you look at the customer experience and take an example of what it means in a typical 'day in the life' scenario, I'd give the example of a user buying a new smartphone. A profile may be created online or through a call centre or CRM interaction – that's one of the first policy interactions. Then real-time activation needs to transfer into policy management to implement policies attached to that subscriber profile.

Another example is the need to be transparent to the user. If a user enters a branch of Café Nero and gets offloaded onto the Café's Wi-Fi network, they need to be seamlessly re-authenticated onto that network.

Another scenario would be for a roaming traveller who leaves London and flies to Paris. On arrival, they are prompted to buy a roaming day pass for €10 that allows them unlimited roaming for the day. We're entering a different monetisation package now. Later the same day, the user decides to download a movie and takes a turbo boost package to ►



boost bandwidth for the duration of the download. Extending the scenarios further, the user may be waiting for a train at a time of congestion like 9am and the host CSP, realising that the network is congested, might downspeed the roaming subscriber because they are not on their operator's home network.

In each of these interactions, all of those tie back to the value of the pre-integrated intelligent broadband controls platform that Bridgewater uniquely has.

VP: What are some of the key buying criteria for CSPs? How do you see demand developing?

DS: There are several criteria. Some CSPs are looking for solutions that they can quickly deploy in the network that can provide them with a high level of pre-integration with charging and interoperability into the network, as well as other systems such as notification and provisioning.

As part of that, operators all have multi-vendor networks so the multi-vendor nature of how we can deploy is very attractive. Multi-vendor IOT (interoperability testing) is a big plus for Bridgewater while other vendors are focused on their own end to end offers.

A third criterion is performance and scalability. These are absolutely critical. We've continued to invest in performance testing and scalability testing, which we have done with Cisco Systems and IBM. The notion of what can be done to enable CSPs to differentiate their offerings around innovative use cases merits continued exploration. At Bridgewater we have created a use-case cookbook to do just that. It explores new use cases and different variants to drive real value for operators. Value creation for operators is ultimately at the core of our systems. 🗣️

This interview took place before the announcement that Amdocs is set to acquire Bridgewater Systems. See news story p.4 for the details.