XON and Procera Networks give Access Kenya DPI that scales to their entire customer base

XON, with Procera Networks, has delivered a multi-tenant system to Access Kenya's entire customer-base, providing a self-service portal showing detailed near realtime, per-application reporting, per customer.

The system also enables revenue protection through billing integration and asymmetric quality of service, ensuring that customers receive exactly the service they are paying for.

This is a first for African Internet service providers (ISPs) that were previously limited to providing this service to only a handful of their customers due to scalability limitations. The solution from XON and Procera currently scales to cover a service providers entire customer-base from residential to enterprise.

"This is the first time that an Internet service provider (ISP) can offer customers per-application utilisation reports and allow customers to dynamically apply policies based on those reports. For example an Access Kenya customer can now see that their link is being saturated by peer-to-peer traffic and apply a policy to restrict it during business hours. All of this without contacting the Access Kenya helpdesk." says Anthony Laing, GM of Networking at XON. "Off-the-shelf solutions allow only selected customers this type of functionality but none that could scale to the entire customer base from residential to subscriber, as was the requirement of Access Kenya."

XON drove the development of this functionality with Procera Networks' R&D team in Sweden to develop a new system that could scale to meet current requirements and beyond. They did so within three months by developing new software according to XON's specifications that are unique for the African market. Procera Networks opened a Johannesburg office two years ago but has actively engaged with value-added channel partner XON to meet the needs of African organisations.

The result is a solution with multi-tenant capability, able to perform deep packet inspection (DPI) to the application level, dynamically provision bandwidth, even divide a total 10MBPS per customer, for example, between two locations and allocate excess where necessary. The type of service made possible for Access Kenya is technically difficult to achieve on a fixed line network where there can be multiple exit points from the network, a feature uncommon to mobile networks where traffic entering and leaving the network tend to travel via far fewer points.

"Customers can access a dashboard via the Web to see how much of

their bandwidth is being used, which is a commonplace service, but Access Kenya customers can actually see which applications are using all the bandwidth and then apply policies to manage those application by volume, time of day or throughput " says André Barnard, who lead the project for XON. "That level of granularity is unprecedented in the market and gives Access Kenya an outstanding competitive lead in its market." The basic reports that divulge total traffic volumes would take very long on Access Kenya's old network but now, even with additional functionality, are generated in near realtime.

The alternative, says Barnard, is that companies buy a given throughput line from their ISP. They are forced to buy additional capacity when they experience network lag or performance issues. However, those performance issues could be related to improper use of the network, such as users viewing YouTube or using peer-to-peer software. The ability to inspect the type of traffic traversing the network, and the means to dynamically manage that themselves, gives clients the opportunity to better use their available infrastructure for business purposes.

"The savings potential is enormous," says Barnard, "because customers know precisely where their bandwidth is going."

"XON and Procera's leading subscriber management capabilities enable us to develop and deploy new packages for all of our customers in ways that were previously not achievable," says Raymond Macharia, CTO of Access Kenya. "Our customers will benefit from an enhanced experience made possible by more granular network quality and utilisation data."

Anthony Vimal, VP of EMEA sales at Procera Networks, says: "As network operators in developing regions start to experience rapidly growing demand for IT services and provisioning, they are quickly realising the importance of having a next-generation network intelligence platform – not only to handle the additional traffic load from today's bandwidth-intensive services, but to bring to market new enterprise IT service offerings."