



Harbour ISP Supports Three Times as Many Users with netElastic

Achieves Greater Scalability and Lower Costs with netElastic vBNG

Based in New South Wales, Australia, Harbour ISP has been providing internet services in Australia since 2005, delivering high quality, fast, and competitively-priced broadband internet through fiber, fixed wireless, and satellite, as well as providing VoIP and mobile phone services.

THE CHALLENGE

Harbour ISP was experiencing rapid subscriber growth, and customers were continually consuming more bandwidth and requiring more service offerings. These factors were placing enormous demands on Harbour's network.

As they planned and prepared for their continued growth and expansion, Harbour ISP decided to upgrade their network and significantly expand their fiber broadband footprint. Harbour ISP's primary focus has always been customer satisfaction, and a key driver of their network transformation was to deliver outstanding customer experiences to both existing subscribers and subscribers in new territories.

In determining the right vendor solution to help Harbour ISP with their network transformation, important criteria included scalability, flexibility, and costs.

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— Tom Bishop, Harbour ISP

HARDWARE-BASED NETWORK PROVIDERS

Before embarking on their network upgrade, Harbour ISP was using MikroTik routers, which could only handle 2,000 - 3,000 users (which was a small percentage of their total user base). This meant Harbor ISP had to manage dozens of MikroTik routers to support all their customers. In addition, reliability was an issue since these routers required many late night reboots. Given the scalability and reliability issues, Harbour ISP decided to consider other vendors.

The Cisco ASR 1000 Series Router was also evaluated. While the Cisco solution possessed the scalability and reliability Harbour ISP wanted, it came with a very high price tag. In addition, Cisco had many features that Harbour didn't need, which made the high cost even harder to justify.

THE SOLUTION

Harbour ISP chose netElastic vBNG for its greater scalability and flexibility, and at lower price points. With its software-defined networking (SDN) architecture, netElastic's market-leading scalability and performance supports up to 128,000 subscribers per vBNG, with throughput up to 160 Gbps on a single server. netElastic also supports up to 400 Gbps in a multi-node or cluster configuration, due to the separation of data and control planes.

netElastic's high-performance data plane includes proprietary optimizations and packet flow designs that deliver maximum throughput on 10GbE interfaces. The control plane is equally powerful with support for all routing, switching and subscriber management protocols.

"Harbour ISP has always been open to new technologies that can address our business needs in new and better ways." said Tom Bishop, Harbour ISP Infrastructure Manager. "netElastic's vBNG fits that bill, since it's software-based and can run on white box servers from multiple vendors, which eliminates vendor lock-in and increases our flexibility."

Harbour chose to deploy a 100Gbps vBNG with a total of ten 10GbE interfaces. Four interfaces face the core network in two link aggregation groups for interface redundancy and high aggregate throughput.

For redundancy, a second vBNG was deployed with the same capacity as the first vBNG to balance subscriber sessions between each. In addition, a PADO delay was configured so that each vBNG could handle all connection requests if the primary failed to respond in time. This high availability between the BNGs ensures customers can always access the network.

Cost was an important consideration and with netElastic's "Pay-as-you-Grow" licensing model, Harbour didn't have to purchase a large



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(and unnecessary) number of software licenses upfront. Instead, Harbour only purchased software licenses for the small number of subscribers that were initially migrated to the new vBNG. Providing even more cost savings and flexibility, additional licenses can be added at any time in subscriber license packs as small as 2,000 subscribers.

“netElastic’s pay as you grow licensing model helps reduce our risk in entering new markets and allows us to start small and stay profitable,” states Harbour ISP’s Tom Bishop.

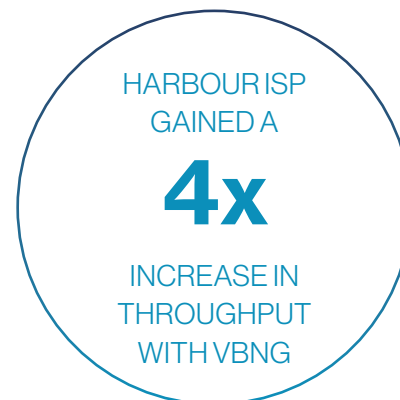
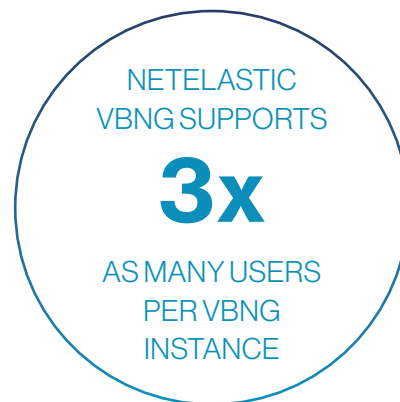
RESULTS

Compared to the limited scalability provided by MikroTik routers, netElastic vBNG supports three times as many users per vBNG instance without any additional hardware purchases. Harbour ISP also gained a four-fold increase in throughput with vBNG. As a result, Harbour ISP can now deliver ultra-fast broadband services to its subscribers.

Tom Bishop from Harbour ISP added, “The performance, scalability, and stability of the vBNG along with support from netElastic have been keys to our network success.”

netElastic’s software-based approach and industry-leading scalability also helped Harbour save 70% over traditional, hardware-based BNG solutions. These savings have enabled Harbour to invest more in strategic company initiatives, such as customer acquisition and business growth.

In summary, Harbour ISP has successfully expanded and grown their business with netElastic vBNGs that scale quickly and efficiently. In fact, Harbour ISP is now one of the fastest growing ISPs in Australia.



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