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CACHEBOX saves bandwidth for Cable & Wireless St Helena

CHALLENGE

Remote location requires expensive, low capacity satellite connection

Too much in-house network administration resource spent trying to develop a caching solution

SOLUTION

Two **CACHE**BOX**230**s deployed using Web Cache Communication Protocol and clustering

Integration with bandwidth acceleration appliance and load balancer

BENEFIT

Simple, effective caching solution which has saved 20% bandwidth and significant IT resource

Delayed Cable & Wireless' investment in further bandwidth capacity

> *I've recommended ApplianSys to other C&W business units who have all made purchases and were happy with the results.*

About Cable & Wireless

Situated in the middle of the South Atlantic, the island of St Helena couldn't be more remote. As the sole telecoms operator Cable & Wireless (C&W) needed to provide a fast, reliable broadband connection to residential and enterprise customers.

Relieving the strain on bandwidth and IT resource

Because it is so remote, there is currently no fibre optic connection between St Helena and international networks. C&W use a 10mbps satellite connection to deliver telephony and broadband services to more than 2000 residential customers and 200 businesses on the island.

They use a bandwidth acceleration appliance to gain the equivalent of an additional 5mbps. However, the cost of providing broadband is still very high and C&W are unable to provide broadband at speeds enjoyed elsewhere in the world.

C&W recognised that caching would optimise the use of their limited bandwidth and looked for solutions within their existing network. "Our bandwidth accelerator came with some caching features but we found them to be too unstable," explained Adam Yon, Networks Manager at C&W St Helena.

They also looked at building a solution in-house. Adam described the issues that his IT team experienced: "we tried to develop a Squid solution but had compatibility problems with our acceleration equipment. Much of our network administration resource was tied up with trying to get it to work and dealing with issues when it didn't."

C&W needed a solution that was proven to work in their situation and that could be deployed without putting a strain on their network management team. They needed an appliance that would deliver high performance caching, cater for redundancy and integrate with their acceleration equipment.

A Simple solution with enhanced redundancy

Two **CACHE**BOX**230**s were deployed using Web Cache Communication Protocol (WCCP) to provide improved redundancy. Cisco routers and switches (along with one or two other brands) use WCCP to connect with web caches, maintain the transparent redirection of traffic and optimise resource usage.

The **CACHE**BOXes were clustered as 'siblings' to provide greater efficiency by avoiding duplication of cached objects. This maximises cache storage capacity and enables a large number of requests to be handled. Clustering also provides improved redundancy for C&W; if one cache is unavailable, traffic is automatically redirected to the other. In the unlikely event that both boxes were down, WCCP would ensure that network traffic would continue to flow, by-passing them.

Adam commented "it was very simple to deploy **CACHE**BOX and it's very easy to use. ApplianSys' Technical and sales support staff are very knowledgeable and helpful."

Saving money, bandwidth and IT Resource

CACHEBOX has helped Cable & Wireless St Helena make best use of its limited bandwidth. "We have noticed up to 20% bandwidth savings which saved us money as it delayed the need to purchase additional bandwidth. We've added more services and can now cater for bandwidth intensive content including YouTube and Facebook, significantly improving our customer experience. We can also handle the high data requirements of software updates which is important to our business customers."

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> *I work with many technology companies around the world and this has been one of my best experiences.*

C&W benefit from **CACHE**BOX's pre-caching functionality. During quiet periods, they access and cache popular content to enable fast, local access during peak times. This frees up bandwidth to deal with increased traffic.

"**CACHE**BOX works well with our bandwidth accelerator which allows it to access and store data more quickly. This also applies for pre-cached content so we have a solution that squeezes every last drop out of our limited bandwidth."

Adam summarised: "We now have a robust product that is well tested and has been tailored to cater to Service Providers like us. He sees technical support as a key part of the package: "ApplianSys' technical expertise has reduced the administrative strain on our network managers. I work with many technology companies around the world and this has been one of my best experiences in terms of product support and aftercare. Feedback is acted on and new features added where possible. I have recommended ApplianSys to other C&W business units, who have all purchased **CACHE**BOX and are happy with the results."

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