



PROJECT GOALS:

Provide a superior customer experience for subscribers on the Cell C network, by ensuring excellent network performance.

Meet stringent requirements to protect subscribers and the infrastructure from internal and external threats.

Enable continuous availability of the network infrastructure.

BUSINESS CHALLENGE

In an industry where innovation is critically important, Cell C was the first to operate on a dual-band network. This enabled them to offer innovative subscriber price plans and be the first to offer cost-effective call options including per-second billing. Cell C is implementing further innovations, building the first HSPA+ 900 MHz network in South Africa. Cell C already covers 67 percent of the South African population with HSPA+ coverage - more than any of its competitors - which provides customers with a stronger signal, both indoors and outdoors.

Cell C wanted to stay ahead in subscriber growth, including meeting the surging demand for mobile data access with their recent "Cell C loves Android™" theme. It was important to deliver uncompromising network performance as mobile data traffic surged, so that they maintain a superior quality of experience. On their HSPA+ network, Cell C offers its subscribers the fastest Internet speeds in South Africa. "WHOOOOSH!" is used to describe the subscriber experience of "lightning-fast" streaming video, downloading songs and apps, and Facebook.

These stringent performance requirements extend to Cell C's network security solution. They wanted to protect subscribers accessing the Internet and protect internal infrastructure. The key firewall implemented in the packet core needed to ensure high performance and continuous availability of Cell C's services, while protecting both end users and Cell C.

ABOUT THE COMPANY

Cell C is the third-largest mobile operator and the third-largest company in South Africa, offering products and services to more than 8 million subscribers, and largely owned by Oger Telecom with over 41 million subscribers. The company is committed to delivering a full range of services with its voice, data and multimedia communications network. Its driving principles are affordability, accessibility and value for money. Cell C seeks to better serve its customers and has made tremendous efforts to positively transform their lifestyle and livelihood by enabling affordable mobile communications.



SOLUTION

It was essential for Cell C to implement a network security solution that would maintain a strong level of security to comply with regulatory measures, as well as provide advanced protection against threats and vulnerabilities, such as those to which all service providers are subjected. Additionally, Cell C did not want to compromise on the quality of the subscriber experience, so the solution needed to either meet or exceed the company's Key Performance Indicators for network performance.

Prior to implementing its new solution, Cell C used a Check Point Firewall-1 on open server platforms. The Check Point Firewall-1 protected the network environment, but the company wanted to greatly increase network throughput and connection performance to protect millions of concurrent mobile subscribers.

Cell C chose to use the Crossbeam X80-S platform running Check Point's firewall at the perimeter of its packet core to protect the network and the interfaces to corporate functions, including billing capabilities. Crossbeam was the only solution provider that could meet Cell C's demanding capacity and scalability requirements for both current and future needs. Another advantage to choosing Crossbeam was its best-of-breed approach. Cell C had made a significant investment in Check Point's firewall technology and was reluctant to give up that investment in skills and resources. With Crossbeam, Cell C was able to continue using Check Point Firewall-1, while gaining the carrier-class scalability, high-availability and performance benefits of the X80-S platform. The rules, skills, and resources Cell C had used for Check Point Firewall-1 were directly transferrable to the Crossbeam X80-S platform.

For the scale of Cell C's business, they selected an X80-S platform with redundant Network Processing Modules (NPMs) for high-performance network connectivity with built-in failover and load balancing for high availability. X80-S Application Processing Modules (APMs) were used to run both a Check Point VPN and the Check Point Firewall-1. With this configuration, Cell C can easily handle the surging volumes of mobile data on their network, along with the increasing load of many millions of concurrent connections.

RESULTS

Like other mobile operators, Cell C needs to accommodate the peak demands when a higher percentage of subscribers are using their mobile devices simultaneously. To easily accommodate these peaks and to allow for future growth, Cell C wanted to be able to handle 10 times the volume of data that was traversing the network when they initially selected Crossbeam.

Cell C has 3G coverage in all major cities in South Africa and also continues to grow its 4G sites. According to Christopher Marrian, Senior Manager of Information Security at Cell C:

"Crossbeam not only exceeded our current requirements but proved it would scale to also exceed our 4G requirements based on our experiences, especially with the capabilities of the newly released Crossbeam NPM9650 networking processing module and its ability to support massive throughput and many millions of concurrent connections."



ABOUT CROSSBEAM

We improve the sophisticated networks of enterprises, government agencies, and service providers by architecting platforms that are more adaptable, high-performing, reliable, and secure.