Case Study: METTLE SE

Vertical : Internet Service Provider (ISP)
Geography : State of Kerala, India

Client Profile

They are Kerala's own home-grown ISP. They are one of the pioneers of Internet-through-cable which has brought always-on Internet access across Kerala about ten years ago. They are one of the largest private investors in Kerala with infrastructure consisting of 700km-long optic-fibre backbone and 40000km of hybrid fibre-coaxial cable network spread over cities and town in the state.

They provide services to corporates, educational institutions and residential customers. They have also set up their own international satellite gateways at Trivandrum and Ernakulam.

Problems to solve

As a leading ISP their customer base is huge. To comply with governmental regulations and to implement security norms, the Internet traffic generated in their network has to be filtered before it leaves the ISP and traffic from upstream networks has to be filtered as it enters the ISP. At the same time there shouldn't be any latency added in the whole procedure. And the device should be able to handle the vast number of sessions generated. Being an ISP NOC (Network Operating Centre), downtime is not affordable.

Solution

Two Mettle SE 5700 devices are deployed at ISP's Trivandrum and Ernakulam NOCs to work as bridge-mode firewall to take care of their Internet traffic filtering requirements. The Mettle SE installed at NOCs are of service provider-grade in terms of performance and ruggedness. The devices can handle 1gbps of traffic on a 24/7 basis with deterministic near-wire speed performance.

Zero Down Time

Each NOC has two redundant power sources powering the devices. To ensure zero device downtime Mettle SE 5700 comes with rugged redundant power supply units which allow it to take power from two independent sources. Here is one of the scenarios where dual-redundant PSU helps.

Power sources at NOC undergoes routine preventive maintenance every month. It is done by taking down one power source at a time. During this period, Mettle SE continues functioning as it can take power from the second source.

Firewall

Mettle SE runs as a bridge-mode firewall at the NOCs. Mettle SE has been deployed in a way that it is invisible to other network devices but at the same time traffic flowing through it is filtered. Mettle SE devices, at each NOCs, has more than 1100 firewall rules specified in it as of this writing. Latency is a concern for an ISP since it introduces delay in processing network traffic which in turn leads to a slow Internet experience for the subscribers. Mettle SE handles the traffic with minimal latency.

Conclusion

Though Mettle SE is an integrated network services engine, at this ISP, it is deployed just as a bridge-mode firewall. This installation is a clear case of how rugged, reliable and powerful Mettle SE is in a 24x7 service provider environment. This installation is three-year old and this period is enough to prove how good a device is.

For further information:
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