E1/T1 trunk support in virtualised call centres

Today's call centres rely heavily on IP communications links. However, they might still require a number of E1 or T1 ports to connect them to legacy equipment. Call centre technology partners needed a solution to allow them to run their applications on standardised, virtualised servers, whilst still enabling them to provide physical E1/T1 ports.

Background

Traditional deployments of Aculab's hardware-based media processing resources (cPCI, PCI and PCIe form factor boards) are likely to be on dedicated rack mount servers. There has been a huge shift over recent years to install IT applications onto virtualised servers. However, when you have to install a telephony board into a server, your choices for server virtualisation are limited. Aculab's 1U chassis-based Prosody X product solves this problem.

Requirements

Several of Aculab's call centre application developer customers with solutions running Aculab's APIs were being driven by their customers to virtualise the customer premise equipment as much as possible. Those customers did not want to change their code, nor did they want the API to change. Furthermore, there was still the need to build large systems with multiple physical trunks.

Solution

Aculab's solution was to provide a new 1U chassis form factor for Prosody X hardware-based media processing. This solution completely eliminated the headache of having to think about hardware board installations and sourcing suitable servers. That meant customers were free to choose the deployment method for the application server – therefore being able to support virtualised application servers.

Enterprise chassis

High Availability chassis

Customer comments:

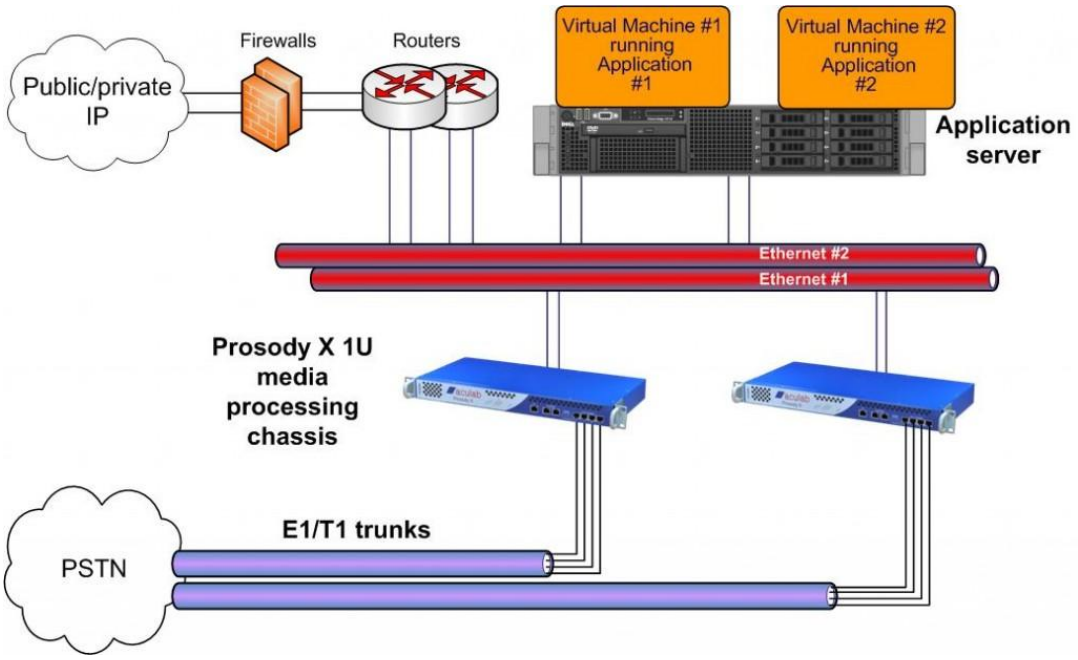
"The 1U chassis is a great extension to the whole scenario where our software runs as a virtual machine"

"Letting the developer choose the application server without having to worry about boards is good"

"The whole idea sounds great for us"

Simpler deployments have been able to take advantage of the smaller Prosody X 1U Enterprise model, which comes with trunk capacities of 1, 2 or 4 E1/T1 trunks. Customers with higher capacity or more complex resiliency needs have chosen the High Availability (HA) model with its redundant power supplies and fans, and capacity options of 4, 8 or 16 E1/T1 trunk ports.

Multiple Prosody X 1U chassis and multiple application servers can also be supported. In the diagram below, the application server is running two virtual machines, which attach to two Prosody X 1U chassis for media processing and PSTN interconnectivity. For simplicity, in the first deployment, a single application instance accessed a single chassis, but in subsequent deployments sharing of the Prosody X resources between multiple applications was used.



As one satisfied customer explained, “With Aculab’s new configuration, we were able to build our platform as a number of virtual machines. That enabled significant savings on App servers, with no compromise on redundancy and resilience.”

Applications can be distinct, for example, Application #1 – inbound call centre, and Application #2 – outbound call centre, or they can be separate instances of the same application, separated for the purpose of resilience. “The flexibility offered by virtualisation is there to be exploited by all customers,” noted Andrew Nicholson, Product Manager at Aculab.

Conclusions

- The same extensive API as the Prosody X board and Prosody S software products
- No longer dependent upon chassis vendors for chassis with specific PCI/PCIe/cPCI slots
- Virtualise your software completely; less need to deal with driver updates and OS dependencies