While demand for faster broadband connectivity for a growing number of users, devices and applications continues to climb, the elapsed time between the debuts of each generation of broadband technology innovation is shrinking. Service providers can be caught in the middle, anxious to deliver competitive services but struggling to keep up with the required investment cycle to do so. Virtualization of network services offers a welcome opportunity to procure the latest technology without a heavy capital investment. Casa Systems’ Managed Services (CMS) provide fixed and / or Wi-Fi connectivity as a turn-key solution, enabling any size service provider to offer highly competitive services in a pay–as-you-grow model.

The economics of broadband are very different for large MSOs serving dense urban areas as compared to smaller or more rural MSOs or to Private Cable Operators. For example, a single CMTS may be amortized over 35K subscribers in a dense urban setting, as compared to over 1K subscribers in a single MDU served by a Private Cable Operator. Service providers who are able to take advantage of the latest technologies, such as DOCSIS® 3.1, are able to postpone or eliminate costly service group splits, while delivering gigabit + services. And, having access to the latest generation of performance monitoring and management tools can enable higher customer satisfaction and longer customer life.

Casa’s Managed Services (CMS) provide these advantages for smaller MSOs and Private Cable Operators. Casa Systems provides CMTS-as-a-Service (CMTSaaS) for fixed broadband and / or WAG-as-a-Service (WAGaaS) for Wi-Fi as well as planning, design and implementation professional services. In many cases, the physical or virtual CMTS and the virtual WAG (Wireless Access Gateway) that deliver the services are hosted and managed by Casa Systems for the service provider. CMS provides "plan, build and run" services, including full provisioning and CMTSaaS NOC services, enabling service providers to shift the difficult work of planning, provisioning, and operating broadband networks to a team of experts.
CMTSaaS

Casa's CMTSaaS provides full support for DOCSIS® 3.1, enabling service providers to take advantage of higher order modulation to deliver faster speeds both upstream and downstream. Downstream speeds up to 2.5Gbps are possible today, and upstream at 500Mbps. Casa's solution is engineered to scale up to the DOCSIS® 3.1 maximum of 10Gbps DS and 1Gbps US in the future. The solution can be delivered on premise on one of Casa's award winning physical chassis (for example in an MDU), or via our vCCAP solution on COTS x86 servers.

Casa’s vCCAP solution remotes the physical layer (PHY) processing to a remote node while the MAC layer processing is performed in a data center, head end or hub office. This approach reduces physical and logical risk in the network. The remote node, or R-PHY node can be strand or pole mounted or can be located in a building. Connectivity from the R-PHY node to the cable modem can be coaxial or CAT-5, allowing service providers to take advantage of existing infrastructure and avoid costly and time consuming rewiring.10G optical connectivity from the R-PHY node back to the vCCAP helps assure maximum throughput.

WAGaaS

Casa Systems’ Wireless Access Gateway (WAG) is access point independent - a variety of commonly deployed access points work with Casa’s WAG. Deployable on a COTS x86 server, the WAG is highly scalable, supporting up to 1M actively detached devices in a single RU. Vertical traffic segregation and management per SSID enable a variety of use cases, including Home as a Hotspot, MDU, hospitality and other enterprise applications in addition to Wi-Fi first or mobile offload uses.

Active traffic management features include:
- DSCP marking/remarking
- Dynamic rate limiting & QoS
- CGNAT
- vCPE support / service chaining
- TWAG S2a interface

The WAGaaS solution can be deployed on premise or hosted by Casa Systems to deliver high speed (line rate throughput) Wi-Fi services to subscribers in a pay-as-you-grow model.

Summary

With Casa Systems’ as-a-service solutions, service providers of all sizes can affordably deliver highly competitive broadband services today and enjoy incremental capacity on-demand as needed via a future engineered platform that’s already ready for 10G. Casa’s Managed Services solutions mean that even the smallest of service providers can enjoy economies of scale and compete more effectively and efficiently for today’s demanding subscribers with state of the art solutions from a proven partner.