

Use Case for TV Anywhere Services

Solution Summary

What is TV Anywhere? - "TV Anywhere" Services Deliver Video Programming (Episodic TV, Movies, etc...) via the Internet to PC's and Mobile Devices. Sometimes referred to as Over the Top (OTT) Video services, these applications provide subscribers with access to a catalog of TV Programming and Movies (depending on who the provider is) as part of a subscription package or transactionally. Some popular examples of TV Anywhere Services are HBO GO, Netflix, Amazon on Demand iTunes. Many traditional Cable and Satellite providers now also offer this type of service as a part of their package.

Why is it Cool? - Customers want access to the programming when and where they want, without being tethered to their home TV and ideally at little to no additional cost. Programming providers can provide exclusive content such as previews of new episodes and most importantly gather valuable information about their customers behavior.

Business Value Impact Summary

- Premium Cable TV Channels are essentially "boxed in" to two shrinking distribution channels, Cable/Sat TV and Packaged Goods - OTT Services can be used to break them out of that box without upsetting their current model or their relationship with current distribution partners.
- TV Anywhere Services forge a direct relationship with subscribers and can increase subscriber growth and build brand loyalty. The Direct to Consumer approach gives the content owner more direct control over the customer experience and enhances the overall value of their brand.
- Content Providers can now collect the type of Big Data that other infrastructure Service providers such as Netflix capture and use that information to improve the value of their products
- The owners of the most successful TV Anywhere platforms will potentially have increased leverage in negotiating distribution deals and will benefit by enhancing their data gathering capabilities.
- TV ANYwhere providers can now collect customer preference and behavior data directly, building value with data about their customers behavior and positioning them for a major market shift.
- This Hybrid Model Allows content providers to manage distribution costs and maximize revenue throughout the market transition.
- Because no new revenue is directly generated by certain OTT Services from the Premium channels, Managing Infrastructure costs while ensuring perfect (TV like) performance in partnership with CenturyLink is vital to their success.

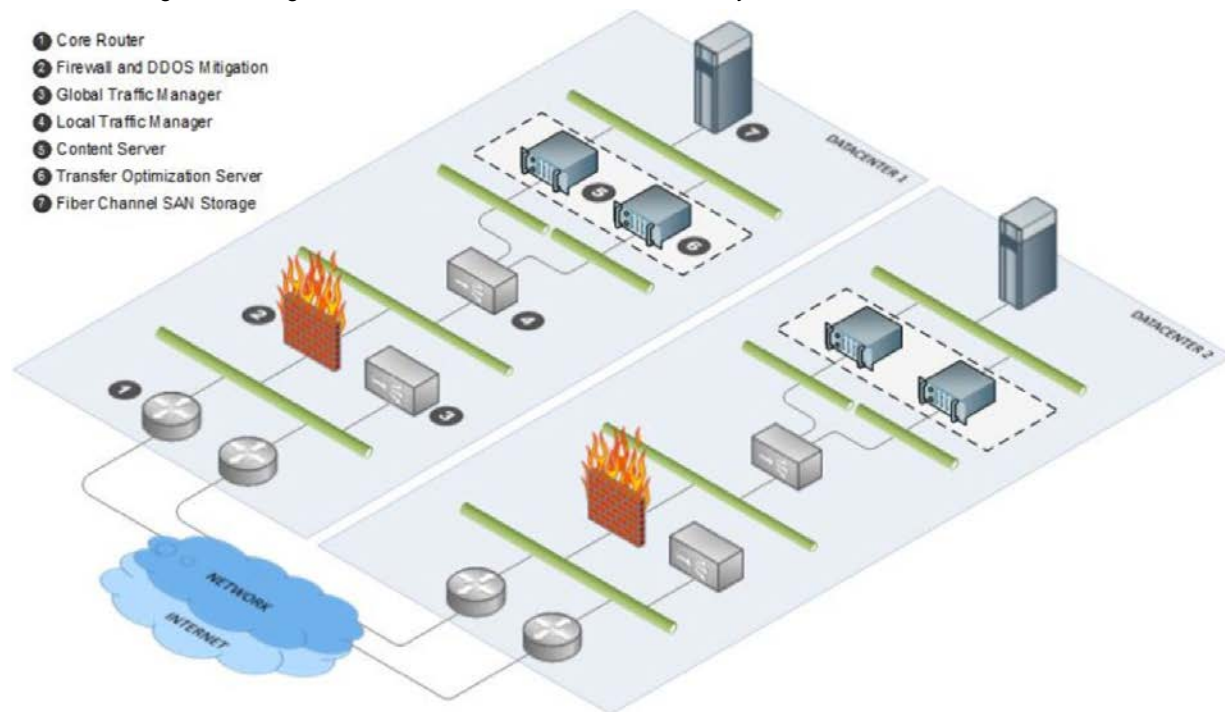
How CenturyLink differentiates our TV Anywhere Services

CenturyLink guarantees 100% Uptime, provides broad geographic coverage and lowers costs with with a unique 3 Data Center Active/Active/Active Architecture.

- Fully Managed Intelligent Hosting & Dedicated 3Par Utility Storage
- Application Management – Standard Managed Oracle DBA as well as advanced DBA services for support for and Advanced Oracle Data Guard architecture
- Networking - Managed F5 Global Traffic Managers and Local Traffic Managers, Dedicated HAN (layer 2/layer 3), Managed FW w IPS, Log Management, Enhanced DDoS.

Reference Architecture Diagram

Below is a diagram of a high level reference architecture for a TV Anywhere solution.



Solution Components

Below is a list of the Services that make up this solution

Storage

ORIGIN STORAGE: The Unique Definition of “Origin Storage” is a key component of this solution, what differentiates CenturyLink and what we would try to replicate. Scalable, Low cost storage, low-latency connectivity to CDN providers, multiple locations with real-time replication.

CONTEXT: The Content we are storing for our TV Anywhere customers is being delivered directly to consumers, sans use of a CDN Via CenturyLink Network/Internet Services.

Hosting

INTELLIGENT HOSTING AND SYMPHONY OPEN: A combination of Traditional Managed Hosting for core infrastructure demand and Symphony Open for capacity bursting. We overbuilt the environment to meet the spikes, and physical hardware was used based on performance requirements and licensing restrictions (Software licensing costs made certain configurations less attractive than others).

CONTEXT: Using Cloud for bursting reduced overall costs yet provides sufficient capacity to meet peak seasonal and daily demand variations.

Managed Apps

MANAGED DATABASE: Subscriber info plus information about each user including shows watched, pointers to where they are in viewing each episode, ect.

CONTEXT: These services provide value to HBO because it effectively scales their current staff, provides 24/7 operational support, let's HBO DBA team focus on more strategic duties.

Security

Security Consulting and Managed Firewalls, IPS, Log Mgmt, Enhanced DDoS: CenturyLink is responsible for protecting this infrastructure from Internet attacks.

CONTEXT: By including these services we have added significant value to the customer as a single point of accountability for both content, network and infrastructure security