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UNIVERSIDAD TECNÓLOGICA DE COAHUILA

Challenge
- Software updates congesting network
- Slow browsing speeds and internet restrictions for users
- Had to block YouTube even though it was essential to LMS usage

Solution
- **CACHE**BOX**230**

Benefit
- Software updates taken off network
- Instant speed improvements for users
- Fast access to Smart English content
- Freed up bandwidth capacity for other learning curriculum

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*Having happily used my **DNS**BOX solution for years, I was already familiar with the basic GUI and knew ApplianSys' products are reliable and easy to use*

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Eduardo Guevara, IT Manager

CACHEBOX enables Smart English implementation at University of Coahuila

Located in Ramos Arizpe, Coahuila, Mexico, Universidad Tecnólogica de Coahuila (UTC) caters for 3,200 students. UTC is part of a group of universities called Coordinacion General De Universidades Tecnologicas, that receive partial funding from the government.

To support e-Learning UTC encourages internet use in the classroom and made plans to implement a Learning Management System (LMS) – called Smart English - with content from sites including YouTube and SoundCloud.

Network link constantly saturated

With a bring-your-own-device (BYOD) scheme, UTC's 100Mbps bandwidth link served around 1,600 concurrent student devices. But with such heavy demand for internet access, the link was constantly overwhelmed by student requests.

Network congestion caused slow speeds as UTC's students tried to access content in the classroom.

This led Network Manager Juan Eduardo Sanchez to implement controls over the network's traffic, blacklisting certain sites, including YouTube.

But with the new LMS highly dependent on YouTube content, Eduardo needed a solution that would allow access to it.

CACHEBOX - the ideal solution

Turning to his trusted DDI vendor, ApplianSys, he found they offered a caching solution that was schools-focused and affordable.

Eduardo decided to deploy a **CACHE**BOX**230** to handle student traffic and offload demand on bandwidth. "Having happily used my **DNS**BOX solution for years, I was already familiar with the basic GUI and knew ApplianSys' products are reliable and easy to use," he says.

With CACHEBOX: Network congestion alleviated. YouTube back in use.

Once deployed, **CACHE**BOX instantly freed up UTC's precious bandwidth. Network congestion was alleviated as popular requests from students were stored locally and served via cache.

With **CACHE**BOX's reporting, Eduardo gained advanced visibility of his network traffic, quickly learning that thousands of repeat requests for large software update files were the primary cause for network congestion.

Since deployment, **CACHE**BOX stores gigabytes of Microsoft, Apple and Chrome updates, and serves them locally. As a result, it has saved an average of 65-70% of UTC's available bandwidth capacity, month after month.

Traffic Summary

Bandwidth Total	1.51TB	Average Object Size (from cache)	176KB
Bandwidth Saved	987GB	Unique Sources	1
Bandwidth Savings (%)	65.6%	Unique Domains	18.1k
Requests Total	23.2M	Average Speed (direct)	195 KB/s
Requests Saved	5.70M	Average Speed (from cache)	2.01MB/s
Request Savings (%)	24.6%	Acceleration	6.75
Average Object Size (direct)	28.7KB	Hit Speedup	10.30

> **"**
> *One time, our network went down. But as soon as I switched **CACHE**BOX back on, I immediately saw a faster connection – between 35-50 Mbps. That's when I realised how much more useable **CACHE**BOX makes the internet*
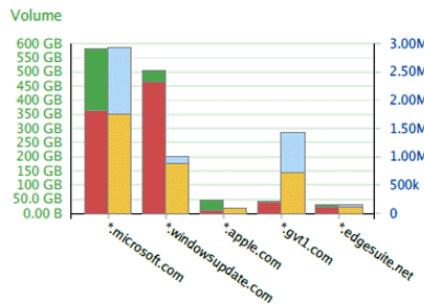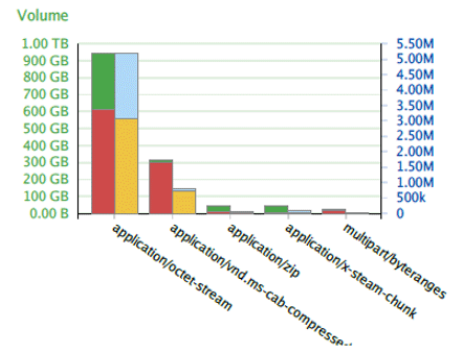> **"**

Eduardo Guevara, IT Manager

Request Destinations by Domain

Requested Content Types

Report for the month of August 2019

Thanks to **CACHE**BOX, UTC can unblock YouTube videos and fully implement Smart English without worrying about bandwidth congestion – giving students a seamless e-learning experience.

"One time, our network went down following a problem at our ISP's end. I had to disconnect **CACHE**BOX and other equipment to get the ISP issue resolved. When it was fixed, I forgot to switch **CACHE**BOX back on – and that's when I truly experienced how slow everything was – we were at 1Mbps connectivity at the time," says Eduardo.

"But as soon as I switched **CACHE**BOX back on, I immediately saw a faster connection – between 35-50 Mbps. That's when I realised how much more useable **CACHE**BOX makes the internet!"