

Fixing the Connectivity Problem: Gauteng DoE

Equitable access to central content for all schools

THE CHALLENGE

Gauteng's Department of Education (GDE) has developed a contextualized content portal. But in many areas of the province, schools don't have sufficient bandwidth for students to access the portal and its media-rich content on their own devices. Teachers were forced to fall back on traditional teaching methods and offline resources.

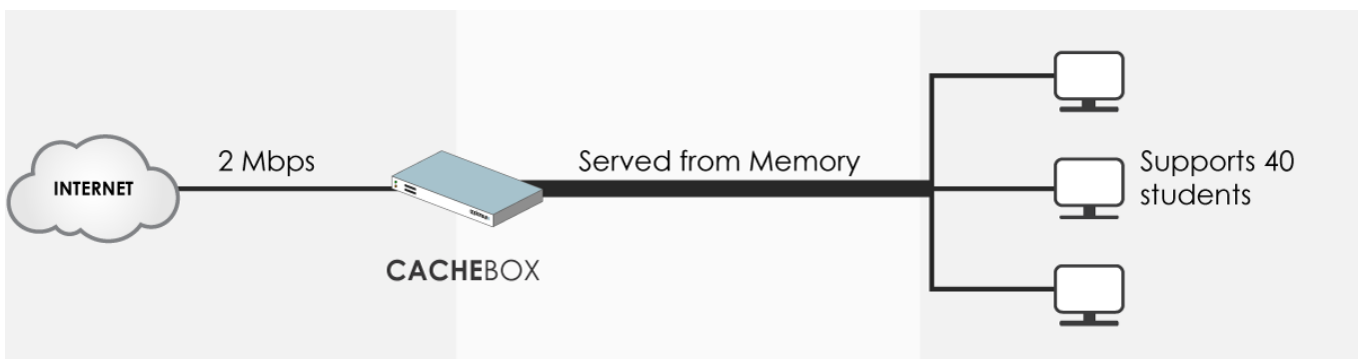
THE SOLUTION

Keen for the online materials to be accessible for all, so that teachers and the Department can benefit from the learning metrics and central content management that the platform offers, GDE assessed the savings and performance boost that CACHEBOX delivers:

- Without CACHEBOX:** **Students need 3.5 Mbps each** to avoid congestion and video buffering
- With CACHEBOX:** **1 Mbps easily supports 20 students**

Simultaneous access – FIXED!

CACHEBOX cut bandwidth consumption by 97.9% - a whole class of 40 students can be supported by just 2Mbps of the school's internet connection, while correctly sending authentication and learning data back to the internet.



Slow content – FIXED!

Content from cache is **50x faster than from the internet** – download speeds are slashed

Domain	VOLUME of DATA		AVERAGE SPEED	
	% of total	% cached	Miss	Hit
gdecontent.co.za	99.4%	97.9%	22.5 KB/s	1.16 MB/s