Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	WC Docket No. 13-184
Modernizing the E-rate Program for)	
Schools and Libraries)	
)	

Comments of ApplianSys on the proposed rulemaking on how Category Two budgets
should be regulated for FY2020 and beyond

ApplianSys LLC. ("ApplianSys"), pursuant to the Notice of Proposed Rulemaking released June 9 2019, respectfully submits its comments and observations on the proposed future funding mechanisms for the Schools and Libraries Program of the Universal Service Fund.

ApplianSys acknowledges the highly effective role that 2014's E-rate modernisation order has played in ensuring that more schools benefit from sufficient internet connectivity and from the internal network components required to translate that internet capacity into safe, reliable classroom connectivity.

The proposal to continue with the 5-year Category Two budget approach and to retain the existing Category Two eligible services list is sensible and justified by the evidence. This approach will ensure that:

> a) schools that are late to adopt e-Learning methods are not left behind

> b) early adopters can cope with the inevitable growth in demand for internet capacity as teachers become more able and more inclined to use digital content in the classroom.

Our caching appliance, **CACHE**BOX, has been the most widely selected caching solution in the E-rate program since 2015. As such, ApplianSys is uniquely qualified to provide data to the Wireline Competition Bureau on the impact of caching in terms of cost-efficiencies and the significant speed increases experienced in classrooms.

We have provided detailed evidence to commissioners in 2017 and 2018 and hereby re-iterate that the widespread adoption of caching will ensure best value for Universal Service Fund investment in schools internet connectivity. By taking measures to encourage more schools to deploy caches than currently do, the commission can expect to make significant savings on Category 1 spend.

Using performance data from CACHEBOX customers and e-rate bandwidth funding requests, we extrapolated potential savings delivered to e-rate by caching. We presented the commission with data that demonstrated how the annual cost to deliver peak internet demand with bandwidth alone would be over $2.2bn compared with $648m with caching. The average cost to deliver peak demand would fall from $5.77 per Mbps per month down to $1.77.

The Eligible Services List (ESL) proposed August 2nd explains that, if this Notice of Proposed Rule Making (NPRM) is not acted on by the commission before the ESL is adopted, caching will be available only to a limited subset of districts. In light of this and of the value delivered by caching,

ApplianSys recommends that the FCC act quickly to adopt this NPRM and avoid the unintended consequence that caching will be made unavailable to many districts.

Respectfully submitted,

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