

STRENGTHENING YOUR CAMPUS INFRASTRUCTURE: WHERE TO START

New uses for technology are surfacing in higher education —digital learning, 5G, Internet of Things, in-flight security — that push standard networks to the wall. Here's what *Campus Technology* learned when we asked IT, security and other college and university professionals about the current state of their institution's networking infrastructure and how well positioned it is for supporting next-generation demands.

SECURITY, BANDWIDTH AND ADAPTIVITY LEAD...

Where do you want to strengthen your network?



Cybersecurity



WiFi



Capacity



Adaptability

...WITH AGILITY AND FACILITY ON THE WISHLIST

What campus respondents said: "I want to:

...quickly accommodate new service requests"

...reallocate capacity on demand"

...master micro-segmentation"

...enhance remote site connections"

...get more bandwidth and manage it properly"



NETWORK TRAFFIC DEMANDS NOW & ON THE HORIZON

Traffic for operational activities will be replaced by a mix of traffic dedicated to learning and operations.

	Top Consumption Today	Where Growth Will Be Greatest in 1 Year	Where Growth Will Be Greatest According to IT Roles
1	Student learning data	Streaming video	Voice-over IP
2	Streaming video	Student learning data	Streaming video
3	Virtual conferencing	Virtual conferencing	Student learning data
4	Voice-over IP	Training simulations	Virtual conferencing
5	Surveillance cameras	Virtual reality	Surveillance cameras

INFRASTRUCTURE PLANNING

9 Most Common Topics Showing up in Network Strategic Planning

- ① Cloud services
- ④ Voice-over-IP
- ⑦ Fiber infrastructure
- ② Managed WiFi
- ⑤ Big data analytics
- ⑧ Unified communications
- ③ Disaster recovery
- ⑥ Managed IT services
- ⑨ IoT support

WHERE'S THE BUDGET? (AND OTHER INFRASTRUCTURE CHALLENGES)

No. 1 Budget Issue

For 7 in 10 institutions, budgetary constraints reign supreme as the top challenge; that's at the top of the list for 75% of IT roles and 62% of non-IT roles.

	All Colleges	2-year	4-year public	4-year private
UP	12%	6%	31%	9%
FLAT	61%	50%	57%	74%
DOWN	27%	44%	12%	17%

While 2-year colleges are losing budget ground, 4-year publics are gaining

For 2 in 10 institutions, hurdles also include:



- Lack of IT people with the right knowledge or experience
- Non-stop phishing/ransomware/data breaches
- Siloed operations
- Governance
- Too many manual processes
- Limited network capacity

THE SOLUTION: PREPARE FOR THE LONG RUN!

Infrastructure modernization is **no longer a one-step process**.

Choose an adaptive network solution that...

- 👍 Emphasizes open standards to work with what you have in place.
- 👍 Prioritizes flexibility to accommodate what you will need in the future.
- 👍 Focuses on opex requirements, not just one-time capex restrictions.
- 👍 Delivers management automation through data intelligence, software control and a programmable interface.
- 👍 Can continue accelerating to keep pace with your ever-changing needs.

FOR MORE INFORMATION, PLEASE VISIT:

<http://www.centurylink.com/public-sector/discover/smart-campus.html>

<https://www.ciena.com/insights/research-education/>

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Notes: Findings are based on a Campus Technology online survey open for invitation-only response in summer 2018. After filtering for appropriateness of affiliation, job roles and completeness of answers, survey results represent 123 respondents. Roles included: IT management and staff (53%), teaching and research (16%), other institutional leadership (15%) and other institutional staff (15%). Affiliations included two-year public institutions (20%), four-year publics (46%), four-year privates (28%), trade/vocationals (5%) and other (2%). Responses may not total 100% due to rounding.