April Is Sweeps (out) Month for YouTube

The hospital this month declared a temporary ceasefire in the battle of bandwidth.

With Internet connection times steadily increasing, especially at midday, Information Services (IS) temporarily restricted employees’ access to streaming videos from YouTube, effective April 1. Patients will continue to have access to YouTube, said Kelly O’Connor, director of voice/data communications for University of Colorado Health.

The hospital, meanwhile, is doubling its current 100-megabits-per-second network bandwidth – its capacity to handle Internet communications – O’Connor added, and the employee restriction should be lifted by May 3. The upgrade requires purchasing new routers and finalizing contracts with CenturyLink, the hospital’s internet service provider (ISP).

O’Connor said she’s heard more complaints from employees the past couple of months about slow Internet connection times. Activity, she said, typically begins increasing around 11 a.m. with the start of the lunch rush and remains high until about 2 p.m.

Data showing traffic by specific times of the day aren’t available, said Jennifer Dressel, a system security analyst with IS. But data she collected show that during a two-week period, March 12-26, YouTube users ate up a total of more than 800 gigabytes of bandwidth. In a single 24-hour day, March 15, YouTube took up 68 gigabytes, or about 6.5 percent of total capacity at any given time – a prescription for a slow network.

Information overload. With new bandwidth in the works, O’Connor figured employees could ride out the inconvenience. But in March, a transplant coordinator reported she’d been unable to connect to the United Network for Organ Sharing (UNOS) site to add a patient name to the national waiting list for a transplant organ.

In addition, providers at the University Medicine-Lowry Clinic complained of delays when they tried to log on to Epic, O’Connor said. But the UNOS incident was the impetus for the YouTube restriction.

“That concerned me greatly because it had a direct impact on patient care,” O’Connor said. To prevent further delays, she hooked the transplant coordinator’s computer to a dedicated digital subscriber line.

As for patients, O’Connor said it’s important that they continue to have full and convenient access to the Internet, particularly because so many are confined to the hospital for long periods of time.

“They are who we are here to serve,” she said. “Many of them use the Internet to maintain communications with family and friends, to let them know how they’re doing.”

The hospital added bandwidth and expanded employee access to YouTube about a year ago – it had been restricted to Marketing prior to that – in part to give all employees access to the many informational and training videos available on the site. Supporters of the expansion also pointed out at the time that the restriction meant UCH employees couldn’t watch videos promoting their own

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hospital's services and accomplishments, including a video showing several of their leaders discussing the first of two number-one quality and safety rankings UCH received from the University HealthSystem Consortium.

Since that time, however, the amount of network traffic has increased significantly as hundreds of employees hired in anticipation of the opening of AIP 2 and new UCHealth staff came on board. Since last April, for example, UCH headcount has increased 15 percent, from just over 4,400 to nearly 5,100, according to Human Resources.

While streaming videos take a large chunk of bandwidth, connecting to any site, whether it's for training, education, entertainment or anything else, also takes a piece of the available space. When the traffic exceeds bandwidth capacity, the network, just like a highway built to handle a certain volume of cars, slows down and eventually backs up.

So by doubling its bandwidth, the hospital is in essence building a wider highway -- and one with some extra lanes to accommodate growth, O'Connor said. The upgrade will also include adding a contract with a second ISP for backup if the CenturyLink connection goes down, she said.

The battle of bandwidth is a sign of the Internet’s ever-growing influence, she concluded.

"When we moved to this campus," she said, "Internet access was not deemed one of the most critical considerations. It's now a critical pathway for training and many other activities at the hospital."