GO Committee #2
November 18, 2020

Worksession

M E M O R A N D U M

November 13, 2020

TO: Government Operations and Fiscal Policy Committee

FROM: Dr. Costis Toregas, Council IT Adviser

SUBJECT: Internet Access in Time of COVID

PURPOSE: No decisions are to be made in this worksession - the Committee requested a review of internet access at the home or family level in this time of COVID.

The following are expected to attend:

Councilmember Craig Rice (by prerecorded video)
Dr. Francine Alkisswani, National Telecommunications and Information Administration
Joanne Hovis, President, CTC Technology & Energy (invited)
Gail Roper, Director, Department of Technology Services (DTS) and Chair, Interagency Technology Policy Coordination Committee (ITPCC) Chief Information Officer (CIO) Subcommittee
Peter Cevenini, Associate Superintendent for Technology and Innovation, Montgomery County Public Schools (MCPS)
Chuck McGee, Director, Department of Infrastructure and Operations, MCPS
Other members of ITPCC and ITPCC CIO Subcommittee (not yet confirmed)

Summary of Staff Recommendations:

There are no decisions to be made during this worksession. The Committee requested a review of internet access at the home or family level in this time of COVID, as children, parents, workers and the elderly have increased needs to be able to communicate and perform basic life functions using the internet. Rather than hearing what each of the 6 major agencies are doing in their own domain, the Committee hopes to take a family-centric view and identify gaps that perhaps exist between services that diverse agencies are providing to County families.

Staff suggests the following sequence of presentations:

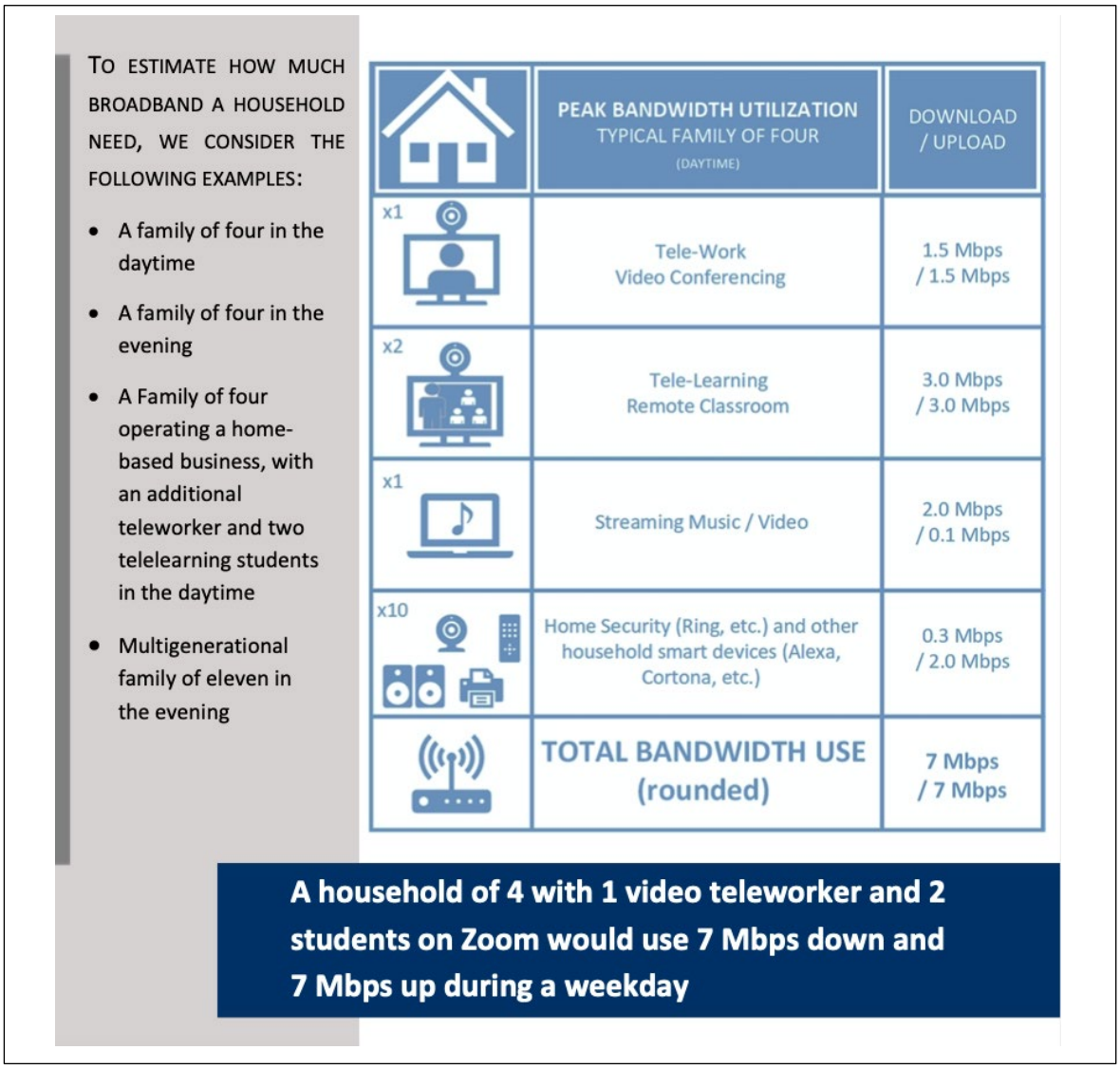
- Opening comments by Committee members
- A brief video from Councilmember Rice on the NACo Broadband Task Force for bridging the Digital Divide and his own role in it
- Dr. Alkisswani, NTIA, will give a brief overview of federal efforts to bridge the broadband divide, focusing on the intersect of education and technology in the Historically Black Colleges and Universities
- Joanne Hovis from CTC will present some early findings from a DTS report on "Rural Broadband Connectivity and Demand in the Ag Reserve"
- A statement by Gail Roper, DTS CIO and Chair, CIO Subcommittee of the Interagency ITPCC
- Discussion with agency CIOs and representatives from:
    - Montgomery County Government
    - Montgomery County Public Schools
    - Montgomery College
    - Washington Suburban Sanitary Commission
    - Maryland-National Capital Park and Planning Commission
    - Housing Opportunities Commission

Setting the context

The six major agencies of the County provide technology infrastructure to their employees so they can perform their work; in addition, they provide internet access and tools (including hardware, training and software) to residents when their mandate allows them to do so. Whether it is to school students in MCPS, career changers taking courses at Montgomery College or users of parks overseen by M-NCPPC, the County is involved in broadband provision. These efforts are of course complemented by the private sector through a variety of direct and indirect broadband providers who have different pricing structures and sometimes discounts or free programs, again depending on circumstances.

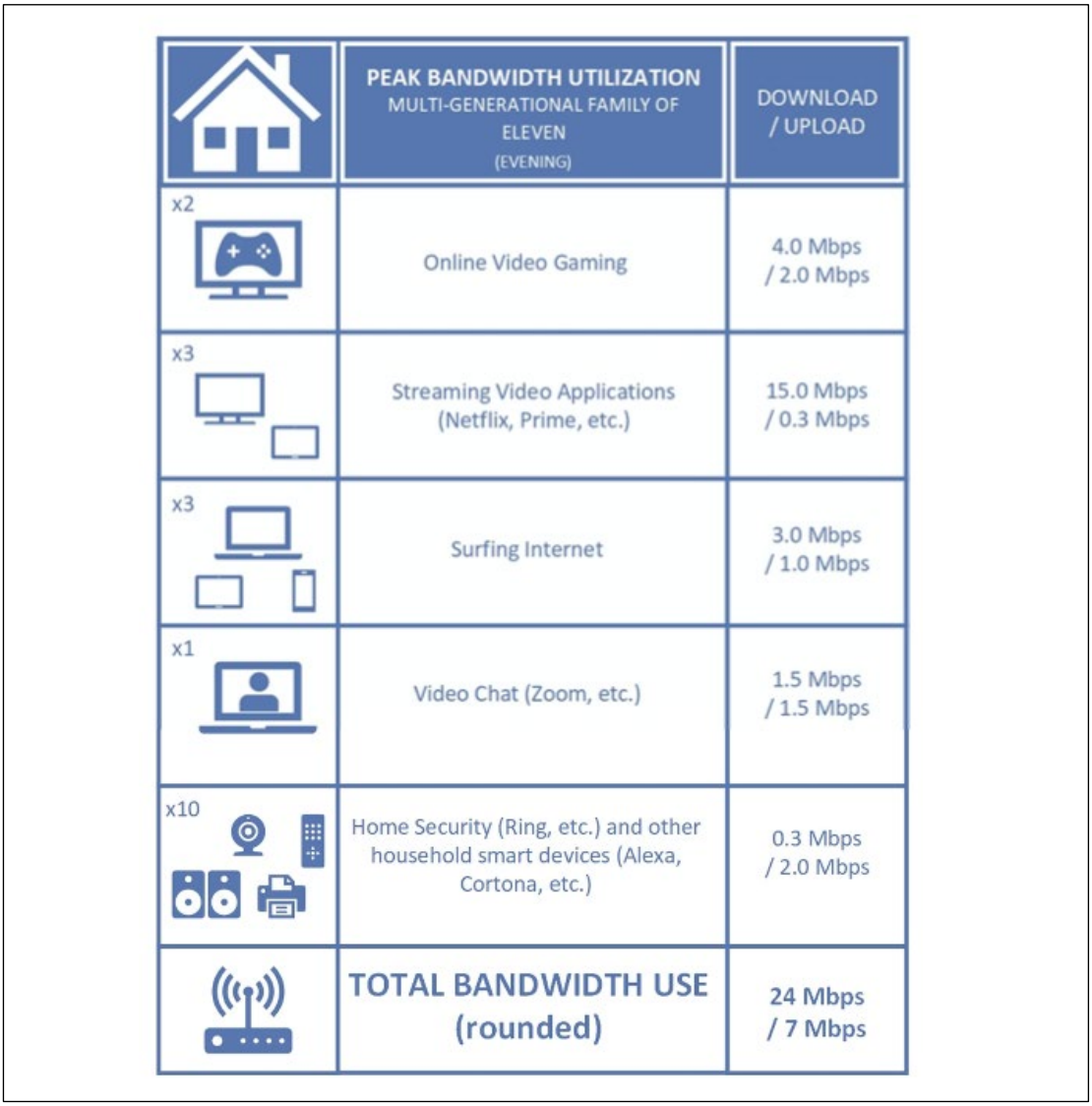
There is an opportunity to explore the gaps in service that may exist as our County residents and businesses turn to internet access to continue their learning and working experience in times of the pandemic. It is difficult to assess just where the need is the greatest, as information is in both public and private hands. The Committee may want to engage with private internet providers in a subsequent worksession; the current discussion will focus on governmental efforts and partnerships that help County residents get online and satisfy their needs for access and utilization of internet-based resources.

The family view of internet needs is best captured in the following graphic:



Source: "Rural Broadband Connectivity and Demand in the Ag Reserve" forthcoming from Office of Broadband Programs, Department of Technology Services

In a multi-generational setting, this demand is even higher; again, the graphic below illustrates this difference:



	PEAK BANDWIDTH UTILIZATION MULTI-GENERATIONAL FAMILY OF ELEVEN (EVENING)	DOWNLOAD / UPLOAD
x2	Online Video Gaming	4.0 Mbps / 2.0 Mbps
x3	Streaming Video Applications (Netflix, Prime, etc.)	15.0 Mbps / 0.3 Mbps
x3	Surfing Internet	3.0 Mbps / 1.0 Mbps
x1	Video Chat (Zoom, etc.)	1.5 Mbps / 1.5 Mbps
x10	Home Security (Ring, etc.) and other household smart devices (Alexa, Cortona, etc.)	0.3 Mbps / 2.0 Mbps
	TOTAL BANDWIDTH USE (rounded)	**24 Mbps / 7 Mbps**

Source: "Rural Broadband Connectivity and Demand in the Ag Reserve" forthcoming from Office of Broadband Programs, Department of Technology Services

Making sure that bandwidth at these levels is made affordable and available is a challenge. Steps that would address this divide might include:

- identifying gaps between required and available bandwidth at a home level (including an explicit analysis from a Racial Equity perspective);
- identifying possible marketplace solutions and their cost envelope (including current and future internet service providers – ISPs – as well as other creative partnerships to offer broadband);
- defining governmental strategies and a road map to help close these gaps.

These are steps that must be tackled by all County agencies together. Wise investments in internet infrastructure are a necessity, and even more so in times of COVID when our reliance on the internet is spiking. The guiding principle has to be the provision of services to the family and not only the creation of agency programs that may miss many; a true collaboration is needed.

The Committee may want to task the ITPCC with creating a plan to address this digital divide in the next budget cycle; it is an issue for which the Committee has been encouraging, in prior worksessions, development and funding in a cross-agency manner.

There are three attachments to provide background:

1. a biographical sketch of Dr Alkisswani (©1-2);
2. a press release describing the National Association of Counties' recently announced Task Force on broadband and the digital divide (©3); and
3. a presentation of the Department of Technology Services efforts to engage with the community on broadband access; other agencies may comment on their own program initiatives during the discussion (©4-10).

Spotlight on Commerce: Francine E. Alkisswani, Ph.D., Minority Broadband Initiative, National Telecommunications and Information Administration

February 20, 2020
Infrastructure

Francine E. Alkisswani, Ph.D., Minority Broadband Initiative, National Telecommunications and Information Administration

National Telecommunications and Information Administration (NTIA)

Guest blog post by Francine E. Alkisswani, Ph.D., Minority Broadband Initiative, National Telecommunications and Information Administration

Although I grew up in Charleston, I am both a coal miner's daughter and granddaughter from the hollows of Cabin Creek, West Virginia. As I reflect on Black History Month, I think of those who inspired and nurtured me while I lived in a segregated community and attended segregated schools. They included teachers, principals, doctors, lawyers, and pastors who were all graduates of Historically Black Colleges and Universities (HBCU's).

I learned about college through these mentors as well as the ladies in my church who worked at West Virginia State College, an HBCU, which was about 15 miles from where I lived. After getting married, I moved to Pittsburgh, Penn., and eventually received my Ph.D. from the University of Pittsburgh.

I joined the Commerce Department's National Telecommunications and Information Administration (NTIA) in 1993, as an evaluation specialist for the Technology Opportunities Program where I provided technical assistance in support of digital inclusion for vulnerable populations and broadband access for HBCU's and their communities.

Today, I work on NTIA's Minority Broadband Initiative, which is an outgrowth of the Black College Satellite Program that I worked on as a graduate student. This program continued to develop at Cheyney University in Pennsylvania, where I worked before joining the Commerce Department. Cheyney is the nation's first HBCU established in 1837. It was here that I first tried to put my vision for digital inclusion into practice.

Most recently, I worked at the White House Initiative on Historically Black Colleges and Universities as part of a detail assignment. HBCUs have an important role to play in NTIA's Minority Broadband Initiative's drive to increase broadband access in rural and unserved areas. I am truly excited to lead this initiative, and to work with broadband stakeholders and HBCUS to solve broadband challenges in unserved and underserved areas of the country.

Historically Black Colleges and Universities have been the cornerstone of education for the African-American community for more than 150 years. It is fitting that during Black History Month we pay tribute to the importance of these institutions as national treasures and honor their critical role in our nation's productivity, competitive inclusiveness, and economic prosperity.

For the majority of my career, I have advocated for greater digital inclusion for vulnerable populations. I feel fortunate to have a job that allows me to build upon my commitment to this work.

Ed. note: This post is part of the Spotlight on Commerce series highlighting the contributions of Department of Commerce African Americans during Black History Month.

PRESS RELEASE

National Association of Counties Forms Broadband Task Force to Bridge the Digital Divide

Oct. 21, 2020
National Association of Counties Forms Broadband Task Force to Bridge the Digital Divide

WASHINGTON – National Association of Counties (NACo) President Gary Moore today announced the formation of a broadband task force. The task force, comprised of nearly three dozen county government officials from across America, will study the lack of reliable broadband with a particular focus on the challenges facing underserved communities.
A report, titled *Understanding the True State of Connectivity in America*, released by NACo and partner organizations earlier this year, found that nearly two-thirds (65 percent) of U.S. counties experience the internet at speeds below minimum standards set by the Federal Communications Commission (FCC), with that number even higher in rural America, where 77 percent of counties operate below the FCC standard.
"With the COVID-19 pandemic affecting families and businesses, the need for reliable high-speed internet is more acute than ever," said Task Force Co-Chair Craig Rice, a Montgomery County, Md. council member. He noted that many people are attending school and working from home. Individuals and families are relying on the internet for remote health care and conducting transactions through e-commerce.

"Our new task force will examine the intersection of public and private sector efforts to deploy broadband networks and create a blueprint for local governments to help bridge the digital divide," said Task Force Co-Chair J.D. Clark, the county judge in Wise County, Texas.

Local governments often face state-imposed limitations to expanding access to broadband connectivity. In 22 states, local governments are restricted from making investments in broadband infrastructure networks. NACo is working to pass federal legislation that would remove those barriers and expand broadband access.

Lack of reliable broadband is a major barrier to socioeconomic opportunity, education, health and overall quality of life. Without access to high-speed internet, many rural communities – and even pockets in urban areas – are isolated and left behind. A 2018 study conducted by Microsoft concluded that 19 million rural Americans do not use broadband, largely due to a lack of access. For these small communities, broadband can serve as a lifeline, connecting students to online degrees and connecting sick patients to medical consultation that is locally unavailable.

High-speed internet is also consistently identified as a top challenge facing small businesses in rural America and stifles entrepreneurship by limiting the ability of individuals to take on independent work. In this economy, broadband is critical to building resilient and future ready communities.

See the full list of broadband task force members here. To explore all of NACo's broadband resources, visit www.naco.org/broadband.

The Department of Technology Services
Community-based Initiatives Portfolio
The Growth Lane

Presentation By DTS Director Gail Roper on 10/21/2020

DTS Community-based Initiatives

Summary of Efforts

DTS has broadened the strategy to establish a digital equity agenda for the community. These efforts respond to the need to improve digital access and expand innovation throughout the Montgomery County Community. DTS has also brought innovative solutions to pressing needs for COVID testing and to securing ballot drop boxes.

Some highlights of completed and in progress projects from our Fast Lane initiatives:

• Outdoor Public Wi-Fi	December 2020
• COVID-19 registration and testing	October 2020
• Main Street Apartments Digital Equity Project POC	Completed - 30 apartments connected est. 55
• MC311 – Phase I Efforts	November 2020

Growth Lane Initiatives:

• FiberNet III Upgrade and Expansion	December 2021
• HOC Partnership for Community Wi-Fi	TBD -30-40 –Buildings
• 5G Exploration Project	December 2020
• Montgomery County Cyber Security Academy	TBD
• Montomery County Code Challenge	TBD

Community effort projects underway

Outdoor Wi-Fi

With the County Executive's support, the Department of Technology Services' Office of Broadband Programs is working with Montgomery County Public Libraries ("MCPL") to install outdoor Wi-Fi at 10 libraries.

These libraries were selected because they are located in underserved communities of color – i.e., the highest number of low-income households without home internet access and the largest number of Black and Latino households – or had the highest participation in MCPL small business programs prior to Covid-19 closures.

- Work has been completed at Gaithersburg, Nightingale (Poolesville), Twinbrook, and Olney
- Work will be completed at Long Branch, White Oak, Aspen Hill, Germantown, Praisner (Burtonsville) month end
- Work at the Silver Spring Library Purple Line Station and Civic Plaza will be completed soon after.

The outdoor WiFi will enable MCPL to offer services using the outdoors as program space and enable low-income families and small business owners to use free Wi-Fi. OBP is also looking to leverage equipment savings further to expand outdoor Wi-Fi at four Recreation Centers in coordination with REC.

Community effort projects underway

Main Street Apartments Digital Equity Project Proof of Concept

OBP partnered with Main Street Apartments, Smart Home/Wi-Fi device provider Plume, and equipment provider Positron Access Solutions to offer free 50 Mbps/50 Mbps internet access and Wi-Fi/smart home services in Main Street Apartments for special needs and affordable housing residents as a pilot project.

Plume, a leading smart home experience company, will provide an enhanced home Wi-Fi offering to residents free of charge. That service includes strong, consistent Wi-Fi coverage, online security, parental and access controls and 24/7 customer service. Positron, a leading enabler of high-speed internet services over in-building coax or telephone pairs, is providing the broadband access equipment necessary for residents to connect to Montgomery County's free internet. Montgomery County is sharing information about this pilot with other interested jurisdictions and it was recently featured in Ars Technical magazine.

Approximately 32 of 55 potential residents have had the internet access and Wi-Fi service installed in their apartments by the OBP Community Technology staff thus far.

Community effort projects underway

COVID-19 registration, testing and results delivery Innovation Project

Under Lisa Henderson's leadership, the department put into action a select group of process innovators making up an innovation project team to implement a complex low code Microsoft platform for COVID-19 testing with a timeline of 4-6 weeks. This technology platform is a toolbox of technology that will enable DTS to provide solutions that can be accomplished in shorter time frames eliminating the need to embark on multi-month/year projects. We will be able to provide citizen facing solutions in a more expeditious fashion.

DTS obtained a grant valued at $200,000 from Microsoft for the application platform, consulting services, and ongoing maintenance resulting in significant cost savings to the County. This solution will meet the County's critical need for reliable registration, scheduling, test lab interfaces, and test results notification to patients. The Microsoft system is a cloud-based Software as a Service (SaaS) solution and maintains 99.9% availability for critical citizen services to benefit important public health strategies to fight the COVID 19 virus.

- Microsoft's COVID-19 platform is currently being used in the District of Columbia, North Carolina, Georgia, Missouri, Wisconsin, North Dakota, New York State, Tennessee Department of Corrections, and South Carolina.
- Strong, collaborative partnerships between DCTI, HHS, DGS, DOT and FRS project team members are ensuring this project will be a success in Montgomery County.

Community effort projects underway

MC311

As a result of the COVID-19 pandemic, Montgomery County resident needs have changed and require an increased level of support. Hold times and abandonment rates have increased during the COVID-19 pandemic.

To address these needs and to maintain the best level of customer service to our residents, Change Management Lead, Shayna Taqi is partnering with the Public Information Office, MC311 Center on an effort to undergo business analysis, business process re-engineering and strategic planning consultation. Organizational and Technology Change opportunities have been identified and are broken out into short, mid and long-term actions. In the short term, the group is looking at self service options for residents to get quicker, on demand answers to their common questions on their IVR and online.

Further work will address streamlining the types of calls the 311 center takes as well as telephony, portal and CRM enhancements.

Questions