



Proposal to

New Jersey Economic Development Authority

2020-RFI-OET-Covid19-109

Bridging the Digital Divide for New Jersey's Students

July 31, 2020

Verizon Contact:

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10170 Junction Drive, Floor 02
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July 31, 2020

New Jersey Economic Development Authority
36 W. State Street
Trenton, NJ 08608

Re: Request for Information (RFI) 2020-RFI-OET-Covid19-109, Bridging the Digital Divide for New Jersey's Students

Dear New Jersey Economic Development Authority ("NJEDA" or the "Authority"):

Enclosed is Verizon's response to the recent RFI issued by the New Jersey Economic Development Authority. Our unmatched coverage, service and distance learning solutions will enable New Jersey school districts to narrow the digital divide and allow students to learn in innovative ways and experience a whole new level of connectivity.

For students around the country, classroom learning has become distance learning. Despite the uncertainty around closed schools, Verizon can help provide continuity for districts and their students:

- **Technology:** Verizon's distance learning services and solutions provide secure, effective distance learning tools for uninterrupted education.
- **Connectivity:** With Verizon's reliable, secure networks, school administrators can give teachers and students the connectivity and collaboration tools they need for effective distance learning.
- **Training:** Your Verizon account team(s) can create a training program with your assistance and guidance. This training program could include on-site training (where possible), webinars, and online training.

The information contained in this response to NJEDA's RFI reflects our current distance learning services and solutions, which are subject to change. Upon request, Verizon can create a comprehensive offer tailored to your specific needs. Should you have any questions or need further clarification on any aspect of this offer, please contact Suzanne Veraja, Client Partner, SLED Business Development, at 917-414-9668 or Suzanne.Veraja@verizonwireless.com.

Sincerely,

Todd Loccisano
VP – Contract Management

Enclosure:

- Verizon's Response to NJDEA's RFI Questions

Verizon's Response to NJEDA's RFI Questions

- 1) Please provide information on your company, group, government entity, or self and your capacity and qualifications as they relate to remote learning and educational technology.

Verizon Response:

Verizon Wireless has been in business since 2000; however, the companies that merged to form Verizon Wireless had been in business for an average of 15 years. Verizon Wireless has more than 119.9 million wireless retail connections at the end of the second quarter 2020.

We provide wireless service to organizations of all sizes including small businesses, Fortune 500 corporations, and federal, state and local governments. We also have considerable experience providing service to educational entities with subscriber lines in excess of 10,000.

Verizon is focused on technology and connectivity solutions for the people who are serving all of us during this pandemic -- our first responders, public health agencies, school districts, and federal, state and local governments. Verizon is helping to connect students and teachers in today's new learning environment all across the country. Whether distance learning from home, going back into the classroom full-time or some combination thereof, reliable Internet access, devices and security solutions will be critical to keeping millions of students connected as they head into the 2020-2021 school year. Together with various states and school districts, Verizon has stepped up to help solve the critical need for millions of students to have the Internet access, devices and security solutions they need to continue learning.

For more information surrounding Verizon's capacity and qualifications as they relate to remote learning and educational technology, please visit:

https://enterprise.verizon.com/solutions/public-sector/education/distance-learning/?cmp=paid_search:google:3_missions:sem:awareness&gclid=EAlaIqobChMlpdr-5-Dy6glVDeDICh2ZAwRIEAAYASAAEgKtePD_BwE&gclsrc=aw.ds#

- 2) What is your experience with and understanding of New Jersey's digital divide, both prior to and during the COVID-19 pandemic?

Verizon Response:

Verizon understands the high costs associated with smartphones, laptops, desktop computers, and dedicated and mobile broadband connectivity. We also understand that low-income residents of New Jersey's cities and rural communities are much less likely to own a computer or smartphone or have internet access at home. This digital divide is not surprising, given the cost of modern technology.

Verizon has been a long standing partner with the State and school districts to provide cost-effective connectivity solutions to support various remote learning initiatives throughout the years.

- 3) Which key areas are you/your organization most qualified to address (choose all that apply)?
 - a. Access to technology/devices
 - b. Internet connectivity
 - c. Training/technical assistance/professional development

Verizon Response:

Verizon is qualified to address all of the State of New Jersey's key focus areas:

- **Access to technology/devices:** We offer several categories of wireless devices, including smartphones and basic phones, tablets and other Internet access devices. Each device is thoroughly tested before it can be used on any of our networks. We often offer devices that are exclusively created with Original Equipment Manufacturers (OEM).
 - All of the smartphones we offer are enabled to utilize our high-speed data services and run on various operating platforms, such as Apple iOS or Android
 - We offer tablets from multiple manufacturers, all of which can access the Internet via our 4G LTE network or a Wi-Fi connection. Tablets run primarily on the Apple iOS or Android operating systems
 - In addition, we offer dedicated devices, referred to as jetpacks or routers to provide customers with a mobile Wi-Fi 4G LTE or 5G connection. These devices are capable of connecting multiple Wi-Fi-only devices to the Internet
 - Our customers can also access the Internet wirelessly at broadband speeds on their computers via data cards, USB modems or through the use of certain netbooks with embedded 4G LTE Mobile Broadband modules
- **Internet connectivity:** Verizon has the ability to provide both wireless and dedicated broadband connectivity. Verizon's fourth generation (4G) network for wireless data is based on Long Term Evolution (LTE) technology. 4G LTE has reshaped the wireless industry; not only has 4G LTE expanded the types of applications that can be used on wireless devices, but its implementation has opened wireless networks to new and unique devices.

While actual network loads can impact performance, typical user throughput speeds are 5 Mbps to 12 Mbps for download and 2 Mbps to 5 Mbps for upload, comparable to landline broadband speeds. With Verizon LTE Advanced, our next generation of wireless, customers will continue to enjoy typical 4G LTE download speeds; however, peak data speeds may increase up to 50% in most markets.

Additionally, Verizon can provide the State of New Jersey with Mobile Device Management (MDM), Verizon Private Network, and other connectivity solutions that provide for a secure, compliant mobile broadband connection.

- **Training/technical assistance/professional development:** Your Verizon account team can create a training program with your assistance and guidance. This training program could include on-site training at locations across the country, online training currently available by device/application at www.verizonwireless.com and also webinars as needed to ensure your employees are comfortable with their new devices and services.

On mutually agreed upon days and times, a Verizon account team member can be assigned to your organization's location for additional support and training of your Corporate Subscribers at no additional charge. If equipment is delivered by a Verizon representative, the account team member can review the basic features of the device, as well as any service features you may be receiving. Alternately, if equipment is shipped to the State, the school districts always have the ability to contact their account team member in order to receive additional information on any features or services.

The State of New Jersey can learn about device hardware, software applications, email setup and Smartphone maintenance on their own schedule through our Online Learning Center sessions. There are recorded and/or live sessions available presented via Adobe Connect software. The Online Learning Center can be accessed at:
<http://learning.verizonwireless.com/learning/>

- 4) Please provide your experience with and understanding of both the Children's Internet Protection Act (CIPA) and the Family Educational Rights and Privacy Act (FERPA) as it relates to remote learning and educational technology. Provide a narrative of how the response meets the requirements of these Acts.

Verizon Response:

Clarification: Verizon is a conduit of data. Verizon does not access customer/student data except as necessary to perform the transportation service, or as required by law.

Verizon is familiar with school districts' obligations under FERPA and CIPA and will work in good faith with each district to ensure that the Verizon distance learning solution proposed is compliant with these requirements. Examples of solutions that can assist the State of New Jersey in providing a secure, compliant distance learning solution are as follows:

- The Verizon Private Network
- MDM Solutions
 - Verizon MDM
 - MobileIron
 - IBM MaaS360
- Verizon SecureCloud Gateway
- CIPA Compliant Content Filtering
 - Asavie Moda
 - CyberReef

- 5) Please also indicate, where applicable, what specific role your company, group, government entity, or self can play in tackling the digital divide.

Verizon Response:

At its core, our business connects people with each other and the world around them. Our technology powers connections that enable people, businesses and society to do amazing, groundbreaking things. Millions of customers rely on Verizon's services today while counting on us to deliver them the digital world of tomorrow. It's why we're committed to using our technology and our assets to help build a brighter future.

We Encourage, Invest in and Reward Innovation in Others

Verizon Innovation Centers

The Verizon Innovation Centers are designed to drive innovation and help foster creative solutions connecting people, places and things wirelessly using LTE technology. Our Innovation Centers in Waltham and San Francisco have hosted hundreds of customers, prospective collaborators and companies large and small who are working with us to bring 4G LTE connectivity to non-traditional products.

5G Labs

Verizon has opened new 5G Labs to encourage local innovators to rethink what's possible in a 5G world. Each 5G Lab has a live 5G network and offers access to dedicated space and resources to select participants who are looking to explore test cases that will benefit from 5G's speeds, bandwidth and low latency.

Each Verizon 5G Lab location concentrates on industries and technologies that draw from local expertise:

- New York City - media and financial technology
- Cambridge, MA - robotics, healthcare and real-time enterprise solutions
- Palo Alto, CA - emerging technology, education and big data
- Washington, DC - public safety and first responders, cyber security and hospitality
- Los Angeles, CA - immersive experiences such as augmented reality and holograms
- London, UK – explore the potential of 5G network technology and co-create new applications and hardware
- San Diego, CA – build and test application development and solutions

Verizon's first 5G Lab, in New York City, has already helped several technology and academic partners develop and prove-out a number of innovative 5G solutions, including immersive education, remote healthcare, cloud gaming and mixed reality solutions for enterprises.

Open Development

Our Open Development (OD) Program is designed to allow and encourage the development community to create new products, applications and services to bring to the marketplace on the Verizon wireless network. The OD Program not only benefits device manufacturers, but government and business entities as well. OD enables government and business customers to partner with device manufacturers to develop customized device solutions and bring those solutions to the marketplace quickly. To date, there are over 1000 OD-compliant devices; many of the devices are classified as machine-to-machine (M2M), including routers and telemetry devices.

Verizon Ventures

Verizon Ventures seeks and invests in promising entrepreneurial companies that are tackling some of today's biggest challenges. We're proud to connect innovation and opportunity, and back big new ideas with funding, domain expertise and strategic connections. Over the last decade we've worked with scores of companies covering a range of industries, technologies and market segments.

Verizon Innovative Learning

In partnership with Digital Promise, Verizon Innovative Learning equips every student and teacher at select middle schools across America with a device and up to a four-year data plan. In addition to free technology and access, schools receive extensive teacher training and support, along with the opportunity to engage in powerful teaching and learning that leverages technology in and out of the classroom.

The program, which launched in partnership with Digital Promise in 2012, has reached more than 86,000 students and nearly 6,000 teachers across 150 middle schools nationwide. Over the course of the initiative, Verizon Innovative Learning provides the opportunity for students to leverage emerging technology such as augmented & virtual reality, artificial intelligence, 3D design and Internet of Things. To date, Verizon has invested \$400 million in education efforts, has impacted one million students and will reach two million more by 2021.

Delivering the Promise of the Digital World

The digital world promises a better, more connected life, and we're the ones delivering it through our award-winning network and Internet of Things solutions. We make it possible for people, businesses and things to communicate better. Our goal is to inspire tomorrow's innovators to use technology to build brighter futures for themselves, their families and the world.

- 6) What are the biggest challenges/concerns/gaps in the State's current remote learning and educational technology ecosystem?

Verizon Response:

Verizon has identified the following challenges/concerns/gaps in the State's current remote learning and educational technology ecosystem: procurement challenges, equipment and technology, and security and device management solutions.

Because of our existing technology footprint in the State, Verizon is uniquely positioned to assist the State in developing strategies to overcome the above challenges/concerns/gaps. The State's dedicated Account Manager can work with the State and the districts to discuss ways in which Verizon can help.

- 7) Despite considerable progress, even prior to the COVID-19 pandemic, many communities throughout New Jersey still face a digital divide. Can you comment on specific obstacles that have impacted or worsened this divide?

Verizon Response:

Verizon understands the State's desire to close the digital divide. We recognize that this effort has been a State priority, even prior to the COVID-19 pandemic. Home-based connectivity can be costly for low-income and housing insecure families. Additionally, schools have limited budgets and are unable to use the E-Rate program for off-campus broadband and other wireless services to assist in enabling students to engage in remote learning.

- 8) Can you comment on the remote learning needs of specific populations that may be particularly impacted by the digital divide, including but not limited to:
- English language learners (ELLs)
 - Students with disabilities and/or special needs, including students with IEPs and 504 plans
 - Younger students who may be unable to use or navigate a digital device without an adult's assistance
 - Students experiencing homelessness or housing instability
 - Students in urban areas
 - Students in suburban areas

- g. Students in rural areas

Verizon Response:

Verizon has the experience and capability to provide applications, services, solutions, and partners to address the diverse needs of New Jersey School districts and students. Verizon continually evaluates equipment, products, and features provided by our vendors and suppliers to offer solutions that will enable our products and services to be more accessible to all.

- 9) What big ideas do you have to supplement gaps in student access to devices and internet connectivity? What role should the State play? What role might private entities, foundations and/or nonprofit organizations play? Please provide specific examples if possible.

Verizon Response:

We're committed to digital inclusion, ensuring that everyone has the opportunity to realize the benefits of technology and participate in the digital economy. Today, we work hand-in-hand with nonprofit partners and our team of education and technology experts to build and administer STEM- focused programs that create the kinds of transformative opportunities that change lives.

A Verizon Foundation signature education initiative targeting Title 1 middle schools, Verizon Innovative Learning (VIL), provides free technology, free internet access, teacher training and a next-gen, technology-infused curriculum to under-resourced schools across the country. Over 150 schools have participated in our program since 2014, and we plan to reach 350 schools by 2021.

This year, we're adding 100 new schools to our program. Some of our schools include state-of-the art labs, which give students the opportunity to experience AR/VR and AI first hand. In addition, we brought 5G technology to the classroom in 2019 and plan to deploy 5G to 100 schools by the end of 2021. Our VIL program also offers learning experiences for middle school young men of color and rural young women. We partner with HBCUs, Hispanic Serving Institutions (HSIs), community colleges and Minority Serving Institutions (MSIs) to host tech summer camps followed by weekly enrichment classes year-round.

- 10) What steps should the State take to ensure that remote learning and educational technology equitably serves the needs of students in historically disadvantaged communities?

Verizon Response:

Verizon has the experience and capabilities to be a partner with the State in developing steps to ensure that remote learning and educational technology equitably service the needs of students in historically disadvantaged communities.

- 11) What strategies should the State consider to obtain sufficient hardware and internet access for all students? Are there free or low-cost options that the State should explore, such as donations of goods and/or services directly to school districts?

Verizon Response:

Verizon's Distance Learning Initiative provides cost-effective devices and services for qualifying K-12 schools. For more information, please visit:

https://enterprise.verizon.com/solutions/public-sector/education/distance-learning/?cmp=paid_search:google:3_missions:sem:awareness&gclid=EALalQobChMlpr-5-Dy6glVDeDICh2ZAwRIEAAYASAAEgKtePD_BwE&gclsrc=aw.ds

- 12) When standard home broadband connections are not available or affordable, what nontraditional broadband models should be considered for New Jersey students and school districts?

Verizon Response:

Verizon can provide the district with a comprehensive mobile broadband solution, using a Verizon provided Jetpack and/or embedded technology solution (SIM) for data connectivity and MDM and content filtering solutions for added security and CIPA compliance.

Verizon understands the need for schools to provide CIPA filtered internet access on and off school campus. When issuing school owned LTE cellular broadband connectivity, CIPA compliance can be achieved based on the specific use case. This may include schools that allow take home of school owned hardware, that already have or may not have CIPA content filtering added already. We have the experience to address CIPA gaps. This is achieved through various methods including a private network connection, CIPA bolt on solutions, mobile device management, and our SIM secure product.

- 13) Are there particular features of devices and/or connectivity that are important to meeting the remote learning needs of all students, including students with disabilities, English language learners (ELLs), students experiencing homelessness, low-income students, and students at risk of not meeting the State's challenging academic standards?

Verizon Response:

Verizon is committed to meeting the communication needs of our customers with disabilities. With that goal in mind, we provide a wide range of innovative solutions and technologies that increase accessibility to our products and services. Today there are thousands of apps and devices to help users with visual, auditory, physical or cognitive disabilities; Verizon supports the following features: discussion, screen reader, assistive touch, image stabilizer, enlarged images, speech to text, alerts, visual scheduling, remind me, and many others.

- 14) Are there programs from other states/localities that New Jersey should draw from?

Verizon Response:

Verizon has partnered with other localities and school systems and has broad experience in establishing remote learning programs, for example Verizon's Distance Learning Initiative:

https://enterprise.verizon.com/solutions/public-sector/education/distance-learning/?cmp=paid_search:google:3_missions:sem:awareness&gclid=EALalQobChMlpr-5-Dy6glVDeDICh2ZAwRIEAAYASAAEgKtePD_BwE&gclsrc=aw.ds

- 15) Regarding training of students, educators and parents in educational technology, what do you see as the most significant issues that need to be addressed through technical assistance or professional development? Please provide specific examples if possible.

Verizon Response:

Verizon can work with the districts to develop training and support programs for the needs of the users. Verizon's wireless technical support staff are available 24/7 if a district's users are experiencing a technical issue with their service or equipment.

- 16) What training and supports should be provided to students, teachers, and parents/guardians who are not experienced in remote learning methods or using educational technology, e.g. training on data security and online safety? What should be provided when new remote learning tools are introduced, and what should be provided on an ongoing basis?

Verizon Response:

Your Verizon account team can create a training program with your assistance and guidance. This training program could include on-site training at locations across the country, online training currently available by device/application at www.verizonwireless.com and also webinars as needed to ensure your employees are comfortable with their new devices and services.

On mutually agreed upon days and times, a Verizon account team member can be assigned to your organization's location for additional support and training of employee subscribers at no additional charge. If equipment is delivered by a Verizon representative, the account team member can review the basic features of the device, as well as any service features you may be receiving. Alternatively, if equipment is shipped to your organization, your employees always have the ability to contact their account team member in order to receive additional information on any features or services.

On an on-going basis, students, teachers, and parents/guardians can learn about device hardware, software applications, email setup and Smartphone maintenance on their own schedule through our Online Learning Center sessions. There are recorded and/or live sessions available presented via Adobe Connect software. The Online Learning Center can be accessed at: <http://learning.verizonwireless.com/learning/>.

- 17) What professional development should be provided to educators focusing on the pedagogical aspects of remote learning and tailored to the educational technology employed by districts (e.g. strategies for teachers to collaborate and share best practices or peer-to-peer training)?

Verizon Response:

Clarification, Verizon can work with the districts to develop training programs for educators and students.

- 18) What strategies should the State consider to ensure that educators are able to utilize the accessibility features and accommodations tools made available through technology-based formats that provide individual supports and meet requirements of IEPs and 504 plans?

Verizon Response:

Verizon can assist the State to develop an orientation, training, and ongoing technical support program to enable educators to utilize the accessibility features and accommodations tools made available through technology-based formats that provide individual supports and meet requirements of IEPs and 504 plans.



19) What training and technical assistance strategies around remote learning should be considered for English language learners (ELLs) and their parents/guardians?

Verizon Response:

Verizon generally provides service and support within the United States, predominantly in the English language. However, product manuals that accompany our wireless devices are written in both English and Spanish. Additionally, where necessary, our customer service employees who have foreign language skills will assist with a customer request. In the event that such personnel are not available, we may elect to use a third-party translation service to facilitate communication with our customers.