Technical Requirements Fact Sheet

The Nation's Report Card

National Assessment of Educational Progress

2024 NAEP: School-provided Internet

The NAEP Technical Fact Sheet contains information for district technology directors and on-site technology coordinators responsible for managing technology requirements for the NAEP assessment.

The NAEP assessment will be conducted using a preinstalled assessment application on 25 **NAEP-provided devices**. NAEP representatives administer the assessment using three additional NAEP provided devices to proctor the assessment. During the assessment, 28 NAEP-provided devices will establish a secure connection with NAEP Cloud systems to load assessment content, monitor progress, and upload assessment responses in real time via the **school-provided internet.**

For more information about NAEP, visit nces.ed.gov/nationsreportcard

Summary of NAEP Preassessment Procedures

NAEP network configuration and setup procedures are summarized in the table below. Each procedure is further detailed in the subsequent sections. The on-site technology coordinator **must ensure** that all the configuration and setup procedures are strictly followed and confirmed at two points in time:

- Prior to or during the assessment planning meeting in January 2024 and;
- One week prior to the scheduled assessment date.

TECHNICAL CATEGORY	TECHNICAL REQUIREMENTS
Bandwidth	Provide a stable, uninterrupted wireless internet connection of 5 Mbps download speed and 2 Mbps upload speed for 28 devices **in the designated testing location(s) on the assessment day.**
Firewall Safelisting	**Complete safelisting** (also known as whitelisting or allowlisting) of NAEP URLs **prior to the assessment day.**
Network Diagnostic Tool	**Run** the Network Diagnostic Tool **prior to the assessment day.**
Wireless Access Point	Secure a **testing location** with a **strong Wireless Access Point** that supports the number of required simultaneous connections.
Network Connectivity Type	**Identify** the network connectivity type used in the designated testing location prior to the assessment day. **Note:** The network connectivity type will help identify how to access the Wi-Fi, for example if a captive portal is used or district- or school-level network is used.
Wi-Fi Credentials	**Provide** a username and a password, **prior to the assessment day**, to access the school-provided internet based on the network connectivity type. Details around Wi-Fi credentials are provided in the "Wireless Internet Connection Credentials Requirements" section of this document.

Network Configuration and Setup

Network configuration and setup have a significant impact on the performance of the NAEP online assessment. An incomplete or improperly configured network can impact the student testing experience by causing network interruptions. The following subsections provide information regarding network configuration and setup.

Bandwidth

NAEP assessments require a stable, uninterrupted wireless internet connection of **5 Mbps download speed** and **2 Mbps upload speed** for up to **28 devices** in each of the **designated testing location(s)**.

The following table identifies bandwidth needs at the individual device level and at the assessment session level supporting up to 28 devices.

BANDWIDTH REQUIREMENTS	DOWNLOAD BANDWIDTH SPEED	UPLOAD BANDWIDTH SPEED
For **one NAEP Provided device**	178 Kbps	71 Kbps
For a testing session of **28** NAEP provided devices	5 Mbps	2 Mbps

Firewall Safelisting

Safelisting (also known as allowlisting) of NAEP URLs is an important activity that must be completed before the assessment day. This activity ensures that the school's Wi-Fi will accept NAEP URLs and will not affect students taking the assessments. If your school or district uses a firewall that allows access to specific URLs and blocks other URLs, you will need to add NAEP URLs for safelisting. Follow your district's and/or school's instructions on how to safelist the required URLs. The following list of URLs **must be** safelisted before the assessment day for conducting the assessment and posting the assessment data:

URLs/URIs REQUIRED To Be Safelisted Before the Assessment Day	
PURPOSE AND DESCRIPTION	**URL/URI**
Safelist URLs by domains (Wildcard DNS)	*.naepnpd.org
Safelist by URI	https://api.enaep.prod24.naepnpd.org https://enaep.prod24.naepnpd.org
URLs to confirm safelisting is completed	https://api.enaep.prod24.naepnpd.org/ping https://enaep.prod24.naepnpd.org

The following list of URLs **are preferred** to be safelisted for running the Network Diagnostic Tool using the Ookla speed test. If your school has a restriction on safelisting Ookla URLs, NAEP will still be able to evaluate school bandwidth using the Network Diagnostic Tool.

URLs/URIs PREFERRED To Be Safelisted Before the Assessment Day	
PURPOSE AND DESCRIPTION	**URL/URI**
Safelist URL by domains (Wildcard DNS)	*.speedtestcustom.com *.ooklaserver.net:8080
Safelist by URIs	https://naep.speedtestcustom.com https://c.speedtestcustom.com https://speedtest-ng.naepnpd.org.prod.hosts.ooklaserver.net:8080/
URLs to confirm safelisting is completed	https://naep.speedtestcustom.com https://c.speedtestcustom.com https://speedtest-ng.naepnpd.org.prod.hosts.ooklaserver.net:8080/hello

Network Diagnostic Tool

A **Network Diagnostic Tool** will be provided to the district technology director and on-site technology coordinator to confirm that the bandwidth and safelisting requirements are met for the testing location. The diagnostic tool must be run by the on-site technology coordinator **prior to or during the assessment planning meeting in January.** There may be last-minute security or network updates in the school that may cause previously safelisted URLs to be overwritten or may alter available bandwidth. As such, the on-site technology coordinator must run the Network Diagnostic Tool again **7 days prior to the scheduled assessment day** to ensure bandwidth and safelistings needed for NAEP assessments are intact. Based on the results from the Network Diagnostic Tool, there may be a need to safelist the URLs again closer to the administration.

When running the Network Diagnostic Tool, the on-site technology coordinator must

- run the tool on the **same school Wi-Fi network** that will be used for the assessment; and
- run the tool in the **planned NAEP assessment location** and under the **same conditions** (i.e., during the school day and not in the evening, over the weekend, or when school is otherwise not in regular session).

Note: The Network Diagnostic Tool can be run multiple times by district or on-site technology coordinators to check the safelist and bandwidth status or to identify a testing location that supports NAEP bandwidth requirements.

Wireless Access Points

The following are general guidelines for Wireless Access Points (WAPs):

- Located in the same room as the external NAEP-provided devices.
- Configured to support at least 28 devices.

Network Connectivity Type

There are several different network connectivity types most commonly used to connect to the internet. NAEP representatives are required to know which network connectivity type will be used in the designated assessment location on the assessment day and instructions on how to connect to the internet for both Windows and Chromebook devices. The following table lists different network connectivity types, along with a description and implications for NAEP. On-site technology coordinators are expected to provide related details **during the assessment planning meeting in January** to ensure a successful connection to the internet on the assessment day.

NETWORK CONNECTIVITY TYPE	DESCRIPTION	IMPLICATIONS FOR NAEP
Dedicated Network	This network is set up by the school specifically for NAEP. The school will provide a single Wi-Fi login credential that can be used to connect all 28 external NAEP-provided devices on the assessment day. **This is the preferred network for NAEP to use.**	District Technology Coordinator must ensure that the dedicated network is setup before the assessment day. On-site technology coordinator must provide network name and login credentials to the NAEP representatives before the assessment day.
District-level Network	This network connection line is managed and configured at the district level and is available across all schools.	On-site technology coordinator must provide network name and login credentials to the NAEP representatives before the assessment day.
School-level Network	This network connection line is managed and configured by the school.	On-site technology coordinator must provide network name and login credentials to the NAEP representatives before the assessment day.

NETWORK CONNECTIVITY TYPE	DESCRIPTION	IMPLICATIONS FOR NAEP
Guest Network	This network has a separate access point that provides access to the internet but not to the school network. This network may or may not require a password.	On-site technology coordinator must provide network name and login credentials to the NAEP representatives before the assessment day.
Open Network	This network requires no password.	On-site technology coordinator must provide network name to the NAEP representatives before the assessment day.
Authentication via the Captive Portal	A captive portal is a web page accessed with a web browser that is displayed to newly connected users of a Wi-Fi connection before they are granted broader access to network resources.	On-site technology coordinator must provide network name and detailed instructions on how to connect to Wi-Fi via captive portal along with the credentials to the NAEP representatives before the assessment day.
Non-default Extensible Authentication Protocol (EAP)	This network has secure authentication protocols that enable users to sign into the school's network securely.	On-site technology coordinator must provide network name and login credentials to the NAEP representatives before the assessment day. Along with the credentials, details on the preferred protocol for connecting to the school's Wi-Fi must also be provided in advance. The following are some examples: • LEAP • PEAP • EAP-TLS • EAP-TTLS
Hidden Network	This network has passive security measurements. The router does not broadcast SSID (service set identifier); thus, the network name can't be discovered in the available network list via the network tray.	On-site technology coordinator must provide network name and detailed instructions on how to connect to Wi-Fi via captive portal along with the credentials to the NAEP representatives before the assessment day.
Concurrent Connection Limitation per Single User Profile	This network has a strict security policy allowing only a certain number of devices to be connected concurrently per one network user profile.	On-site technology coordinator must provide network name and login credentials to the NAEP representatives before the assessment day. Along with credentials, detailed instructions on how to identify and configure the hidden network connection must be provided. These instructions will include details on the following settings: • SSID - network name • The type of encryption used by the network (WEP, WPA-PSK, or WPA2-PSK)

Wireless Internet Connection Credentials

Based on the above network connectivity types, NAEP representatives may need a username and a password to access the school-provided internet.

- If a dedicated Wi-Fi network can't be set up, schools **must provide Wi-Fi network credentials to the NAEP representatives before the assessment day.**
- There should be a single Wi-Fi login credential that will be used to connect all 28 external NAEP-provided devices to the school's/district's Wi-Fi.

Security

External NAEP-provided devices are federal government-furnished equipment secured according to NAEP assessment delivery policies. The firewall in the device is configured to a safelist, allowing access only to NAEP-approved websites. Additionally, a restricted Windows user account is used to deliver assessments with a locked down, secure browser application for Windows and a secure kiosk application for Chromebooks. This prevents students from accessing any other software, applications, and websites.

The NAEP assessment delivery application launches in a secure, locked down browser on a Windows device and as a secure kiosk application on a Chromebook device, preventing access to other software, applications, and websites. Students can only view assessment content.

- Assessments display in full screen mode and cannot be minimized.
- There is no access to any other applications.
- Students cannot exit the assessment application.

Frequently Asked Questions

Will my school be able to participate in NAEP if my school doesn't meet the technical requirements?

Yes, NAEP will work with your school on alternative administration options.

Do I need to be at the school during the day of the NAEP assessment?

Yes, the on-site technology coordinator will be required at the school when the NAEP representatives arrive on the assessment day to help troubleshoot network connection issues.

Will I need to help with internet connectivity problems during the assessment?

Yes, if an issue pertains to the school-provided internet connection or access restrictions, then the NAEP representatives will reach out to the assigned technology coordinator.

Can NAEP representatives relaunch the assessment if devices lose their internet connection?

Yes, if there is a temporary interruption in internet connectivity, the NAEP representatives can relaunch the assessment. If the school loses internet connectivity, the school coordinator and NAEP representatives will make a joint decision on the next steps.

Do I need to contact my NAEP representatives if my school has a planned network outage that is scheduled on or near the assessment day?

Yes, please contact your NAEP representatives to discuss the planned network outage.

Can you use my school's equipment for the NAEP assessments?

No, NAEP will provide the devices and necessary equipment for students to use.

Can I reach out to the Help Desk for any questions on technical requirements?

Yes, contact the NAEP Help Desk at 1-800-283-6237 or naephelp@westat.com with any query related to technical requirements.

The Nation's Report Card

National Center for Education Statistics (NCES) is authorized to conduct NAEP by the National Assessment of Educational Progress Authorization Act (20 U.S.C. §9622) and to collect students' education records from education agencies or institutions for the purposes of evaluating federally supported education programs under the Family Educational Rights and Privacy Act (FERPA, 34 CFR §§ 99.31(a)(3)(iii) and 99.35). All of the information provided by participants may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). By law, every NCES employee as well as every NCES agent, such as contractors and NAEP coordinators, has taken an oath and is subject to a jail term of up to 5 years, a fine of $250,000, or both if he or she willfully discloses ANY identifiable information about participants. Electronic submission of participant's information will be monitored for viruses, malware, and other threats by Federal employees and contractors in accordance with the Cybersecurity Enhancement Act of 2015. The collected information will be combined across respondents to produce statistical reports.

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