Mobility Fund Phase II (MF-II) Challenge Process:
USAC Challenge Portal User Guide

TABLE OF CONTENTS

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

We have estimated that each response to this collection of information will take 204 hours for challengers and 71 hours for challenged parties. Our estimate includes the time to request access to the online challenge portal, read the instructions, gather and compile the required data, and certify and submit the data. If you have any comments on this estimate, or on how we can improve the collection and reduce the burden it causes you, please write the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-1251), Washington, DC 20554. We will also accept your comments via the Internet if you send them to **pra@fcc.gov**. Please DO NOT SEND ANY ACCESS REQUESTS OR SUBMIT ANY DATA REQUIRED BY THIS COLLECTION TO THIS ADDRESS. You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-1251.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, P.L. 104-13, OCTOBER 1, 1995, 44 U.S.C. 3507

General Information and System Requirements

Requirement	Description
Internet Browsers and Versions Supported	- Internet Explorer version 11 - Safari version 10 - Edge version 14 and 15 - Chrome version 51 through 59 - Firefox version 46 through 55
User Access	Authorized existing users will receive instructions for accessing the portal via e-mail. New user accounts require prior FCC approval. For more information, see Challenge Portal Access Request PN
Comma Separated Values File Editor	In order to upload CSV files to the system, a text editor software that can create and edit CSV files will be required. We recommend using Notepad++ and/or spreadsheet programs that support text formatting.
Concurrent Accounts	Each organization will be permitted to have up to three user accounts.
Session Timeout	Sessions will timeout after 30 minutes of inactivity. You will receive a warning modal 5 minutes prior to the expiration of your session.

Please note: Throughout this user guide, the term "challenger" refers to an entity granted access to the USAC Challenge Portal system and participating in the MF-II Challenge Process. A challenger may be a mobile service provider; state, local, or Tribal government; or another entity, such as a business, organization, or individual consumer, who has been allowed to participate via the grant of a waiver for good cause shown by the FCC. The terms "user" and "you" refer interchangeably to an individual identified on a challenger's request for access to the USAC Challenge Portal system that is authorized to submit challenges and certify speed test data on behalf of the challenger.

Portal Home Page

The initial landing point for the system is the **Download Data** page. The Portal Home Page initially has navigation links to two sections of the USAC Challenge Portal system: **Download Data** and **Challenge**. You may switch between the two sections by clicking on either of the links in the navigation header. A third section, **Respond**, will become available after the challenge window closes.

Downloading Data

The **Download Data** page allows you to download a zip archive containing confidential, provider-specific coverage maps, as well as baseline GIS and tabular data for each state (or state equivalent). Only those states (or state equivalents) that have challengeable areas and that are included in the Mobility Fund Phase II Challenge Process will appear in the dropdown menu.). **In order to view polygon shapefiles you will need software that can view shape files (.cpg, .dbf, .prj, .shp, .shx), such as ArcGIS or QGIS.**

Steps to Download Data

1. Click on the checkbox to acknowledge the confidential nature of the data.

2. Select the state (or state equivalent) for which you wish to download data from the dropdown menu.

3. Click on the **Download** button.

You can download files one state (or state equivalent) at a time. Once a file download is complete, you may select another state to download its data.

Mobility Fund II Challenge

Download Data   Challenge

Download Data

Download Coverage Maps, Clutter Data, and the Handset List below.

☑ I acknowledge that provider coverage, clutter, and approved handset data is confidential information provided by the FCC and agree to only use this confidential data for purposes of submitting a challenge within the Mobility Fund II Challenge Process Portal.

KS ▾   **Download**

Baseline Data Details

The files contained in each baseline data download archive are summarized in the table below:

File Description	File Types
Coverage Maps for each provider in the state These are based upon the Propagation Maps for each provider, merged to a single layer, excluding water-only areas and subsidized areas.	.cpg, .dbf, .prj, .shp, .shx
Eligible Areas This is the map of areas presumptively eligible for Mobility Fund Phase II support in the state.	.cpg, .dbf, .prj, .shp, .shx
Propagation Maps for each provider in the state These are the unprocessed maps of 4G LTE propagation submitted by the provider as part of the MF-II 4G LTE Collection.	.cpg, .dbf, .prj, .shp, .shx
State Boundary This is the map of the state, based upon 2010 US Census TIGER data, intersected by the uniform grid.	.cpg, .dbf, .prj, .shp, .shx
Water-only Areas This is the map of water-only census blocks, based upon 2010 US Census TIGER Data, intersected by the uniform grid. Water-only areas are excluded from the Mobility Fund Phase II Challenge Process.	.cpg, .dbf, .prj, .shp, .shx
Provider Clutter	.csv
Provider Handsets	.csv

Creating Challenges

The default page in the **Challenge** section is the **Create Challenge** page. On this page, you can view, manage, and create challenges for a state (or state equivalent). As adopted by the FCC, an entity may challenge the determination that an area is presumptively ineligible for Mobility Fund Phase II support by collecting and submitting speed test measurement data on a per-state basis.

At the top of the page, you can view summary information about the challenges submitted for your entity. In particular, the system will display:

a) the number of days remaining until the close of the challenge window; and
b) the number of grid cells for which challenge data has been submitted but to which a user has not yet certified.

Below the summary information, you can create a new challenge for a state (or state equivalent) using the **Challenge Upload** form. You may also download this **User Guide** PDF document, as well as the **Challenger Speed Test Template** used to collect speed test measurement data from the **Challenge Help** section, located on the right side of the page.

## Collecting and Formatting Speed Test Data

A challenger may challenge the determination that an area is presumptively ineligible by collecting and submitting evidence that there is no unsubsidized 4G LTE service meeting the FCC's adopted specifications in an area. In order to do so, the challenger must gather speed test measurement data for each unsubsidized provider in an area using standard parameters. For details on the requirements for collecting speed test data, please see section III.B.3, "Evidentiary Requirements for Challenge Data," of the Challenge Process Procedures PN.

Once sufficient speed test data have been collected, you may then submit these data by uploading a **Challenger Speed Test** file via the **Challenge Upload** form. The **Challenger Speed Test** file must be in Comma Separated Value (CSV) format and must match the USAC file template structure. All data values must be submitted per the **Data Specifications** guide below.

For best results, please use robust text editing software, such as Notepad++ or a spreadsheet program (i.e., Microsoft Excel), and use the USAC file template, which can be downloaded from the **Challenge Help** section of the **Create Challenge** screen.

Additionally, please note:

1. Challenger Speed Test files must be structured according to the USAC file template, which shows all the fields that you must include.

2. You must upload your Challenger Speed Test file to the Mobility Fund II Challenge System as a plain-text CSV file. To convert a Microsoft Excel (.xlsx) spreadsheet into a CSV file, within Excel, select File > Save As, choose CSV (Comma delimited), and select Save.
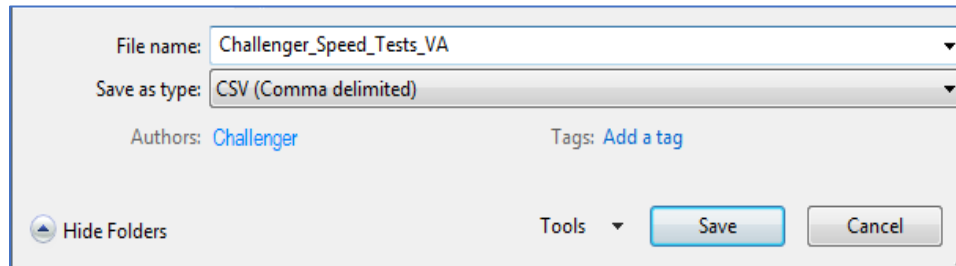
- ▪ Microsoft Excel may prompt you to confirm the file type. If you see the following pop-up box, select '**Yes**'.
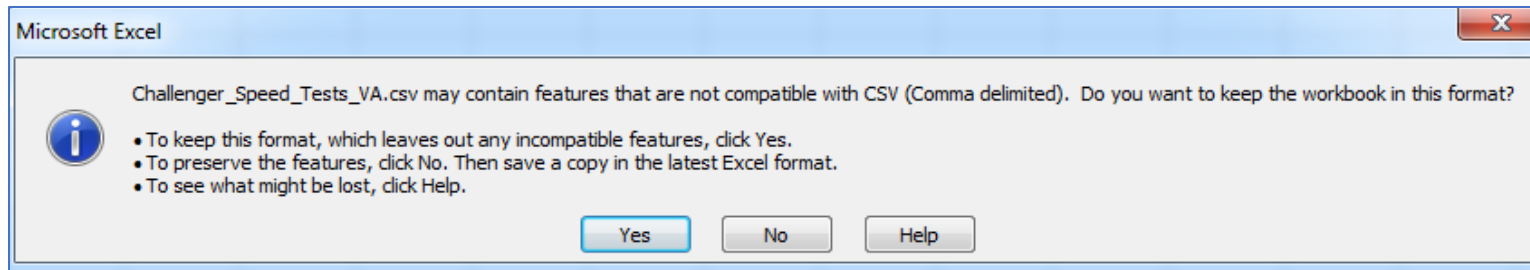
3. Challenger Speed Test files must include the header row as provided in the USAC file template. You must include the column headers used in the CSV template in the first row of each file you upload. If your file's header row does not match the USAC file template exactly, the file will not upload successfully. If this happens, correct the header and then try uploading it again.

4. Fields that include commas must be wrapped in double quotes (i.e., "Wireless Company, Inc.") if editing in a text editor. If using Microsoft Excel or other sophisticated editors, this should be done automatically when saving the file.

Managing Numerical Values in the CSV Template when using Microsoft Excel

Several of the columns in the Challenger Speed Test CSV file template must contain numerical values that strictly match the file specification and special care must be taken to preserve the data format when using Microsoft Excel.

Please note: Saving files in CSV format using Microsoft Excel will remove any special formatting. It is recommended that you keep a copy of data in Excel Workbook (i.e., XLSX) file format while working on and making edits to data. Once you are ready to upload your Challenger Speed Test file, you should then save a copy in CSV format.

Ensuring Latitude & Longitude Decimal Precision: The Challenge Speed Test file specification requires that the **latitude** and **longitude** fields include at least 5 values to the right of the decimal. Please follow these steps to ensure that Microsoft Excel does not remove any trailing zeros:

1. Select all values in the **latitude** and/or **longitude** column(s) and then click to access the **Format Cells** dialog box.

2. From the **Category** box, select **Number** and set the **Decimal places** value to a number of **at least 5**.

3. Leave the **Use 1000 Separator** checkbox **unchecked**, and make sure that the top value (i.e., **-1234.43210**) is selected under the **Negative Numbers** box.
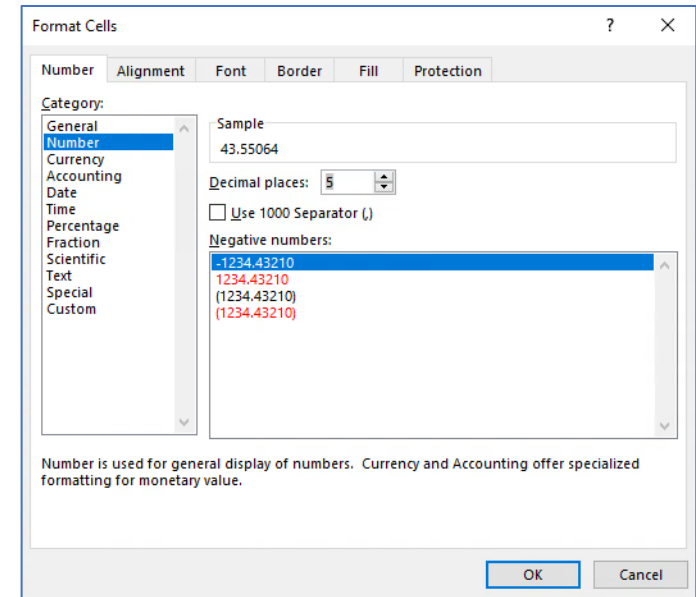
Ensuring the Device IMEI is not in Scientific Notation Format: The Challenger Speed Test file specification requires that the **device_imei** field match a valid IMEI code of between 15 and 16 digits. Please follow these steps to ensure that Microsoft Excel does not reformat long digit strings using scientific notation:

1. Select all values in the **device_imei** column and then click to access the **Format Cells** dialog box.

2. From the **Category** box, select **Number** and set the **Decimal places** value to **0**.

3. Leave the **Use 1000 Separator** checkbox **unchecked**.

Preserving Special Formatting when Opening a CSV File: when opening a CSV file in order to make any corrections using Microsoft Excel, special care must be taken to preserve the data formatting. Please follow these steps to ensure that Microsoft Excel preserves text formatting of certain values:

1. In Microsoft Excel, open a new blank workbook and from the **Data** ribbon select **From Text** or **From Text/CSV** (depending on platform).

2. Select **All Files** from the **File Types** dropdown menu, if necessary, then select the CSV file and click **Import**.

3. Depending on platform or version of Microsoft Excel, either the **Text Import Wizard** window appears or the **Import Data** window may appear.

   If using the **Text Import Wizard**:

   a. Select **Delimited** and click **Next**.

   b. From the **Delimiters** selection, check **Comma** and uncheck all other checkboxes and click **Next**.

   c. For each of the **latitude**, **longitude**, and **device_imei** columns in the **Data Preview** box, select the column and select **Text** from the **Column data format**. Once finished, click **Finish**.

   d. From the **Import Data** dialog box, select **Existing worksheet** and click **OK**.
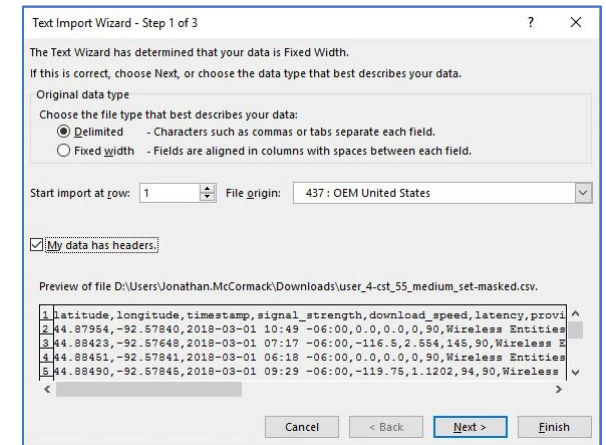
   If using **Import Data**:

   a. Select **Comma** from the **Delimiter** dropdown.

   b. Select **Do not detect data types** from the **Data Type Detection** dropdown.

   c. Click the **Edit** button to enter the **Query Editor**.

   d. Click **Use First Row as Headers** from the **Transform** section of the **Home** ribbon, then click **Close & Load**.
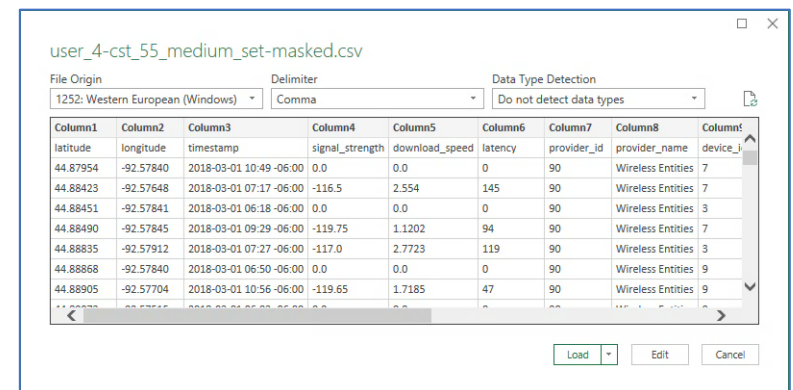
Creating a Challenge for a State

At the top of the **Create Challenge** page, there is a counter that indicates how many days your entity has left to certify challenges that have been uploaded and how many grid cells have challenges but have not been certified. The window to file challenges opens on March 29, 2018 and will remain open through November 26, 2018, during which time speed test results may be uploaded and certified.

Please note: Only speed test results that have been certified by the close of the challenge window will be considered as having a challenged area. Once the challenge window closes, you will no longer be able to upload speed test data.

Steps to Create a Challenge

1. Select the state for which you would like to upload speed test data from the dropdown menu on the **Challenge Upload** form.

2. Click on the **Upload File** button.

3. Select a properly formatted **Challenger Speed Test** CSV file from your computer and click **OK** to upload the file.

In order to create a challenge, you must upload a CSV file that matches the Challenger Speed Test file template and that contains at least one valid speed test record for the state (or state equivalent) selected in the dropdown menu.

Viewing the Results of Automated Data Validation

Once the file uploads successfully, the system will begin automated validation of your submitted challenge data. Depending on the number of speed tests included in the Challenger Speed Test file, automated validation may take some time to complete. For larger files with hundreds of thousands of records, this process may take up to two hours. Please note that while the system supports files with greater than one million records, processing of excessively large files may take more than two hours to complete.

If any data errors are encountered during the automated validation process, the system will provide a warning that errors were found and you will be able to download the records that failed validation.

Please note: If your file has not completed validations after two hours, please email USAC support at mf2challengeoperationssupport@usac.org.

⚠ Please download and review the data errors file before certifying your challenge. Speed test records with errors will be excluded from challenges. Please note that you must submit all speed test records collected for cells that you challenge, including those that show download speeds greater than or equal to 5 Mbps.

Challenge State	Cells Challenged	# of Speed Tests	Validation Progress	Created On	Created By	Download Data Errors	Download Speed Test File	Review & Certify	Delete Challenge
AZ	0	4,394	Completed	Jun 4, 2018 11:34:08 AM	Jonathan.McCormack@acme.wireless	📄csv	📄csv	View	Delete
CA	0	38,143	Completed	May 31, 2018 5:35:30 PM	Jonathan.McCormack@acme.wireless	-	📄csv	View	Delete
AL	0	32,815	Completed	May 31, 2018 5:10:44 PM	Jonathan.McCormack@acme.wireless	-	📄csv	View	Delete

Speed Tests and Data Validation Summary

At the bottom of the page, you can view a table that includes summary statistics about the speed tests that have been uploaded for the challenger and the results of data validation, grouped by state (or state equivalent).

| Field	Description
Challenge State	The state (or state equivalent) for which a **Challenger Speed Test** file has been uploaded.
Cells Challenged	The number of grid cells in the state for which at least one valid speed test record has been uploaded.
# of Speed Tests	The number of valid speed tests uploaded for a particular state. A valid speed test record is one that passes validation for each field in the **Challenger Speed Test** file.
Validation Progress	An indicator that provides the status of automated validations.
Created On	A timestamp of when the data file was uploaded.
Created By	The user account (email address) of the user that uploaded the data file.
Download Data Errors	A link to the **Data Errors** CSV file that includes data errors, if any. For the glossary of errors, please see the **Data Errors and Warning Codes** section below.
Download Speed Test File	A link to the **Challenger Speed Test** CSV file that has been uploaded for the state.
Review and Certify	A link to the **Review and Certify Challenge** page, where you may certify valid speed test records and complete the process to create challenges.
Delete Challenge	A link to allow you to delete the speed tests that were uploaded for a particular state. A challenger may only have one uploaded **Challenger Speed Test** file per state. **Please note**: If there are errors in your Challenger Speed Test file, or if you would like to submit additional speed tests for a state, you must delete the existing speed tests before uploading a new Challenger Speed Test file.

Reviewing and Certifying Challenges

The **Review and Certify Challenge** page is available in the **Challenge** section after validation has successfully completed for at least one state (or state equivalent). On this page, you can view summary information about your challenge for a particular state (or state equivalent). You may also review and certify challenges on a grid cell-by-grid cell basis for the state.

This page may be accessed via the **Review/Certify Challenge** link in the navigation bar or via the **View** link in the Review/Certify Challenge column for a particular state in the summary table on the **Create Challenge** page.

At the top of the **Review and Certify Challenge** page, the system displays the number of days remaining until the challenge window closes and how many grid cells have challenges but have not yet been certified. You may also select a different state (or state equivalent) for which a valid Challenger Speed Test file has been uploaded and for which you would like to review and certify challenges by selecting a state from the dropdown menu.

Mobility Fund II Challenge Process Portal

Download Data   Challenge

Create Challenge   Review/Certify Challenge

Challenge Review & Certification

84 days left to create/certify Challenges

6481 grid cells not certified across all states

Select a State to view Challenge Summary and Detail information: CA

Below are the Challenge Areas for CA. Please review the Challenge Area data and, if appropriate, certify to its accuracy.

Please note: All speed test data that have been successfully validated by the system must still be certified before a challenge is considered complete. In order to be able to certify challenges for a grid cell, a challenger must submit valid speed test data that challenges at least one square kilometer of ineligible area in a state (or state equivalent).
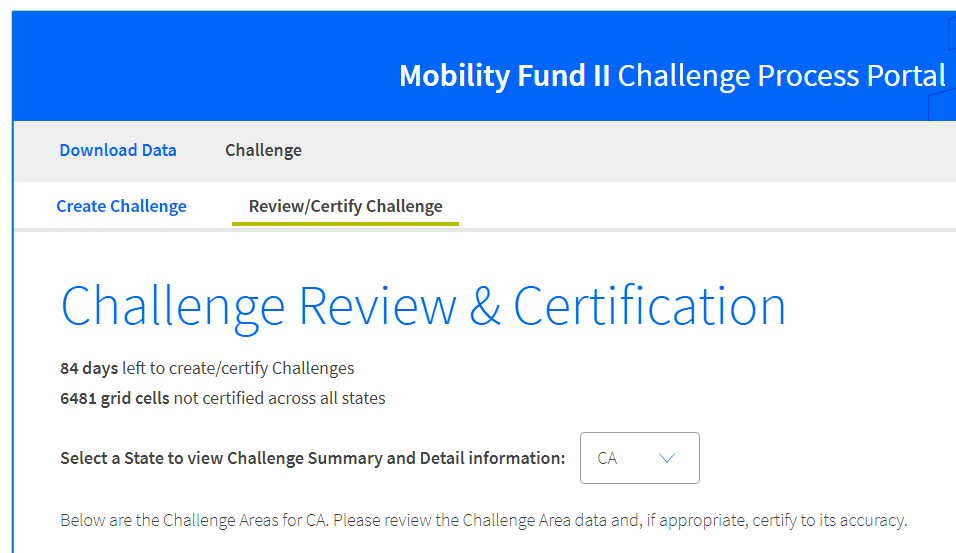
Viewing Summary Information about Challenges in a State

Next, you may view summary statistical information about the state (or state equivalent) selected for review in the **Challenge Summary** table. This table includes aggregate information about speed tests that have been submitted and validated on behalf of the challenger, including the number of grid cells with at least one valid speed test point, the number of grid cells that meet the density requirement, the number of grid cells certified, and the total area challenged across the state.

Challenge Summary

Grid Cells Tested: **2108**	Total Challengeable Area: **1648.23 sq km**
Grid Cells Tested ≥ 75%: **1008**	Grid Cells Certified: **50**
Grid Cells Tested < 75%: **1100**	Grid Cells Not Certified: **2058**
	Grid Cells Invalid: **1308**
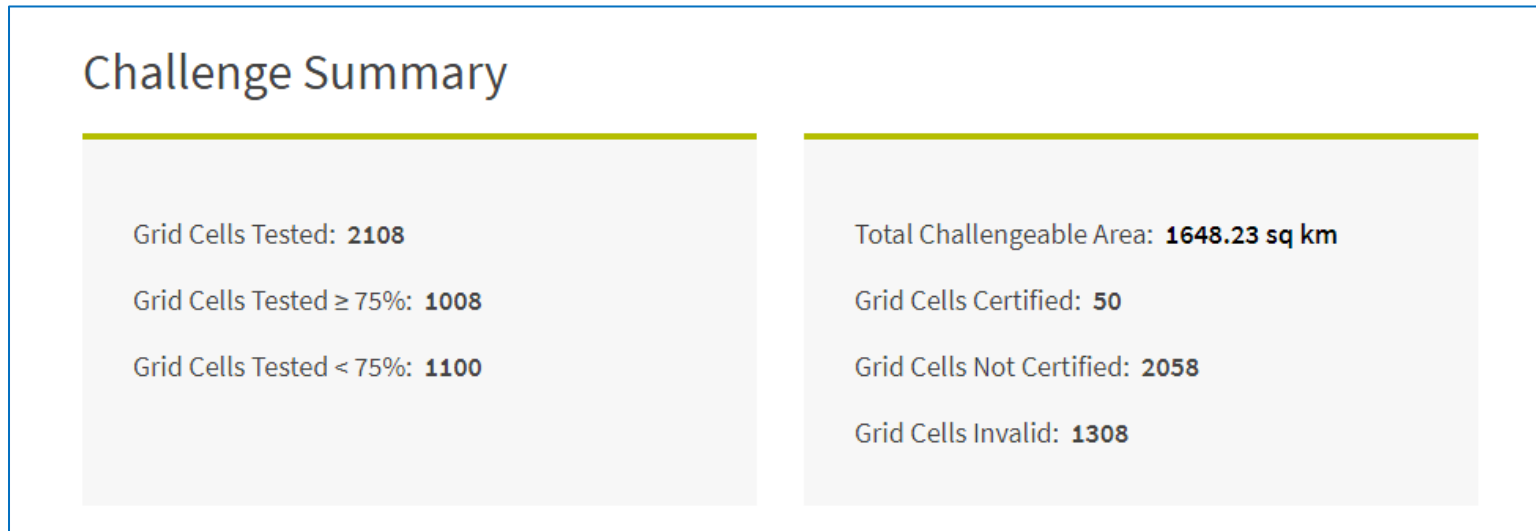
Challenge Summary

Information contained in the Challenge Summary table is described below:

Field	Description
Grid Cells Tested	The number of grid cells where there is at least one valid speed test point
Grid Cells Tested > 75%	The number of grid cells where the tested area exceeds the 75% density requirement
Grid Cells Tested < 75%	Then number of grid cells where the area tested does not meet the 75% density requirement **Please note**: these cells may still be certified notwithstanding that the cells do not meet the density requirement
Total Challengeable Area	The total challengeable (ineligible) area in the state where provider coverage may be challenged
Grid Cells Certified	The number of grid cells in the state containing valid speed test records that have been certified
Grid Cells Not Certified	The amount of grid cells in the state containing valid speed test records that have not yet been certified
Grid Cells Invalid	The number of grid cells in the state for which there is not a sufficient number and/or type of speed test records required to create a challenge

Viewing Detailed Information about Challenges in a State

The **Challenge Detail** table is displayed at the bottom of the page and includes detailed information on a grid cell-by-grid cell basis for all the validated speed test records that have been uploaded for a particular state (or state equivalent) on behalf of the challenger. At the top of the table, you may select one or more filters to filter the records in the table by:

- **Grid Row** or **Grid Column**;

- **Ineligible Area Tested** (you may specify values for Minimum Percent and/or Maximum Percent tested); and/or

- **Status** (values can be **Not Certified**, **Certified**, or **Invalid**)

Please note: you must click the **Apply** button after entering any filters for the filter to take effect.

> ⓘ Warning: grid cells with Ineligible Area Tested less than 75.00% can be certified and included in your challenge but have a higher likelihood of a negative adjudication outcome.
>
> **Challenge Detail**
>
> Export Table Data   Displaying 1-50 of 3416 records
>
> Filter by: Grid Row [   ]   Grid Column [   ]   Ineligible Area Tested   Min % [   ]   Max % [   ]   Status [Select Status ▾]
>
> [Apply]
>
> | ☐ | State | Challenge Grid Row | Challenge Grid Column | Ineligible Area Tested | Status | Associated Speed Test | Map View |
> |---|-------|---------------------|------------------------|------------------------|--------|------------------------|----------|
> | ☐ | CA | 2139 | 701 | 98.50% | Not Certified | View Data | View Map |
> | ☐ | CA | 2139 | 702 | 39.84% | Not Certified | View Data | View Map |
> | ☐ | CA | 2139 | 704 | 67.03% | Not Certified | View Data | View Map |
> | ☐ | CA | 2140 | 698 | 56.04% | Not Certified | View Data | View Map |
> | ☐ | CA | 2140 | 699 | 49.64% | Not Certified | View Data | View Map |

You may also export data in CSV format by clicking on the **Export Table Data** link at the top of the table. Exported data includes the speed tests associated with each grid cell, along with the associated grid row, grid column, and ineligible area tested percent, and reflects any filters currently applied.

Challenge Details

Information contained in the Challenge Detail table is described below:

Field	Description
State	State (or state equivalent) that is selected in the dropdown list for the **Challenge Review and Certification** page
Challenge Grid Row	The grid cell row of the challenged area
Challenge Grid Column	The grid cell column of the challenged area
Ineligible Area Tested	The proportion of the challengeable (ineligible) area for which the submitted speed test data tested **Please note**: the value in the table is highlighted when the area tested does not meet the 75% density requirement
Status	The status of the grid cell (i.e., **Certified**, **Not Certified**, or **Invalid**)
Associated Speed Test	Link to display the speed test records associated with a particular grid cell
Map View	Link to view the grid cell and associated speed tests on a map

Viewing Speed Test Records Associated with a Challenge

The details of the speed test data records associated with the challenged area in a grid cell can be viewed by clicking on the **View** link in the **Associated Speed Tests** column of the **Challenge Detail** table for a particular grid cell. These records include all of the valid speed tests submitted in the **Challenger Speed Test** file that, when processed, count toward the **Ineligible Area Tested** percentage for that grid cell.

Associated Speed Test(s)

Row #	Latitude	Longitude	Timestamp	Signal Strength	Download Speed	Latency	Provider ID	Provider Name	Device ID	Device IMEI	Measurement Method Code
9270	40.78425	-122.89259	2018-03-01 08:59 -08:00	-120.45	1.8423	136	90	Wireless Entities	99	358936468023947	2
9271	40.78659	-122.89826	2018-03-01 08:51 -08:00	-120.37	1.8132	67	90	Wireless Entities	99	358936468023947	2
9272	40.78673	-122.89736	2018-03-01 11:58 -08:00	-122.95	0.8591	49	90	Wireless Entities	105	634452211491185	2
9273	40.78691	-122.89243	2018-03-01 11:17 -08:00	-119.21	1.5532	68	90	Wireless Entities	99	358936468023947	2
9274	40.78735	-122.89271	2018-03-01 10:07 -08:00	0.00	0.0000	0	90	Wireless Entities	99	358936468023947	2
9275	40.78804	-122.89299	2018-03-01 07:47 -08:00	-120.54	1.5417	98	90	Wireless Entities	99	358936468023947	2
9276	40.78903	-122.89631	2018-03-01 07:34 -08:00	0.00	0.0000	0	90	Wireless Entities	105	634452211491185	2
9277	40.78922	-122.89319	2018-03-01 09:26 -08:00	-113.89	3.0625	28	90	Wireless Entities	105	634452211491185	2
9278	40.78974	-122.89327	2018-03-01 06:45 -08:00	-122.29	0.4114	57	90	Wireless Entities	105	634452211491185	2

Viewing Challenges on a Map

The **Map View** page displays on a map the geography of the speed test data associated with the challenged area in a grid cell and can be viewed by clicking on the **View** link in the **Map View** column of the **Challenge Detail** table for a particular cell.

Summary information about the challenge is displayed at the top of the **Map View** page screen in the **Challenge Details** table, which includes the State, Grid Row, Grid Column, and Ineligible Area Tested for the challenged area in the selected grid cell.

There are two tabs to the right side of the map, which allow you to switch between the aggregated **Baseline & Tests** map and a provider-specific **Providers** map.

Baseline & Tests Map View

By default, the **Map View** page displays the **Baseline & Tests** map, which includes layers showing the **Eligible Area** (orange), **Ineligible Area** (dark gray), **Water Area** (blue), and **Tested Area** (green). You may check the checkbox next to each layer to show or hide the layer.

The **Ineligible Area** layer shows the geographic area for which one or more providers reported to have unsubsidized 4G LTE service meeting the FCC's MF-II coverage specification. The **Tested Area** layer shows the geographic area for which the challenger has submitted speed test measurements for each unsubsidized provider, after the system has applied a 400 meter buffer (i.e., drawn a circle with radius of 400 meters) around each speed test measurement point. As a result, the **Ineligible Area Tested** percentage is the portion of the **Ineligible Area** layer that is overlapped by the **Tested Area** layer.
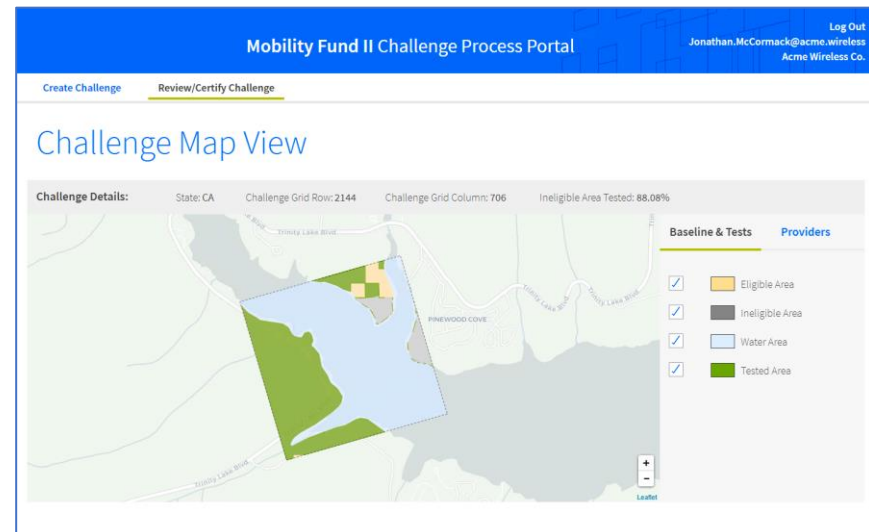
Providers Map View

Selecting the **Providers** tab on the **Map View** page displays the **Providers** map, which shows the speed test data points, tested, and untested areas in the grid cell on a per-provider basis. For each provider that has unsubsidized coverage in the grid cell, you may select the radio button next to its name to display the map data for that provider.

After selecting map data for a provider, the system displays all speed test data points for each measurement associated with the selected provider, as well as the 400 meter buffered area around each measurement point. Because speed test data from measurements conducted in adjacent cells may, when buffered, overlap with a provider's unsubsidized coverage in the selected grid cell, and therefore count toward establishing whether an area has been tested, some displayed points may fall outside of the grid cell.

You may view additional details about the individual speed test records for each speed test measurement point by clicking on the point(s) inside the buffered area.

The map shows the **Tested Area** (dark green) for all buffered speed points, which reflects the portion of the selected provider's unsubsidized coverage for which the challenger has submitted a valid speed test measurement covering that area. Conversely, the **Untested Area** (light green) is the portion of the selected provider's unsubsidized coverage not covered by a valid speed test.

In order to return to the **Challenge Review and Certification** page, you may click on the **Review/Certify Challenge** link in the navigation bar at the top of the page or click the back button in your browser.
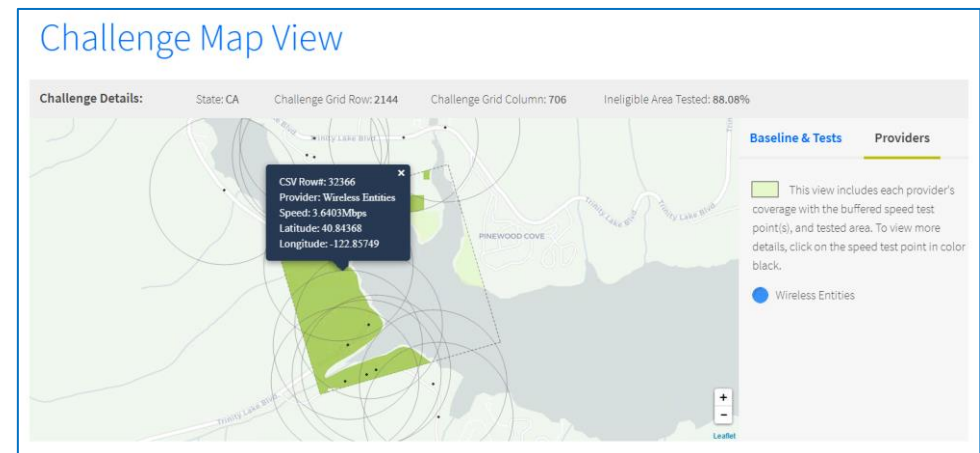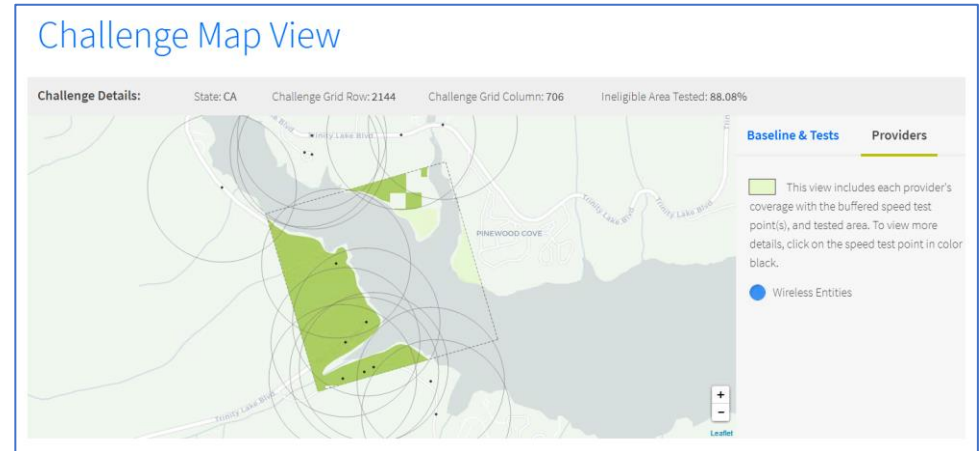
Certifying Challenges

A challenger must certify to the accuracy and completeness of the submitted data in order to complete the challenge for one or more grid cell(s). From the **Challenge Detail** table on the **Review and Certify Challenge** page, you may select the grid cell(s) for which you want to certify by clicking on the checkbox on the left-hand side of the table for a particular grid cell. Once you have selected the grid cell(s) to certify, you may click on the **Certify** button at the bottom of the page to certify those cells.

Please note: you may also click the checkbox at the top of the table to select all grid cells displayed in the table, or you may click the link next to that checkbox to select all grid cells across all pages. Only grid cells that have a status of **Not Certified** can be selected for certification.

Certification Confirmation

After clicking the **Certify** button below the **Challenge Detail** table, the **Certification Confirmation** modal is displayed. In order to complete certification, you must then enter the **Name** and **Title** of the qualified engineer (or government official) who has completed the **Challenge Data Certification Form** PDF document. Finally, you must enter your name to constitute your **electronic signature** to the data certification and click the **Certify** button.

Please note: for details about who may certify, please see the Challenge Process Procedures PN, section III.B.5 (Certifying a Challenge). Additionally, the **Challenge Data Certification Form** that must be completed by a qualified engineer (or government official) is available as Appendix F of the Challenge Process Procedures PN.

Once cells are certified, the tables on the Review and Certify Challenge page are updated. Upon certification of all of the grid cells with challenges that you would like to submit, your challenge for a particular state (or state equivalent) is complete.

Only those grid cells that have a certified challenge by the close of the challenge window will be processed and presented to challenged parties for response during the response window.

Data Specifications

The table below provides the specification for the **Challenger Speed Test** CSV file.

Field (* = required)	Description	Data Type	Max Length	Example
latitude*	Latitude of the speed test location. Values must have at least five digits to the right of the decimal. Coordinates must be in the WGS84 geographic coordinate system.	Float	N/A	39.509220
longitude*	Longitude of the speed test location. Values must have at least five digits to the right of the decimal. Coordinates must be in the WGS84 geographic coordinate system.	Float	N/A	-98.433700
timestamp*	Date and time of the speed test measurement in ISO 8601 style format (YYYY-MM-DD HH:MM ±HH:MM) Speed tests must be recorded between 06:00 and 24:00 in the local time zone of the measurement location and must be between 2018-02-27 and the date of file upload.	Date	30	2017-09-07 13:42 -04:00
signal_strength*	Measured signal strength of the speed test in dBm. (Value may be 0 if coverage is insufficient to conduct test)	Decimal	N/A	-99.10
download_speed*	Measured download speed in Mbps (Value may be 0 if coverage is insufficient to conduct test)	Decimal	10	5.89

Field (* = required)	Description	Data Type	Max Length	Example
latency*	Measured latency in milliseconds (Value may be 0 if coverage is insufficient to conduct test)	Integer	10	176
provider_id*	FCC identifier for the provider	Integer	3	90
provider_name*	Common name of speed measurement network provider	String	255	Acme Wireless
device_id*	FCC identifier for the unique device from the Provider_Handsets.csv file	Integer	3	5
device_imei*	Device IMEI number	String	16	867686022335391
measurement_method_code*	FCC code for the measurement method (1: non-drive app test, 2: software drive test, 3: hardware drive test)	Integer	1	1
measurement_app_name	The name of the measurement app used (Value may be null if measurement_method_code not 1)	String	255	FCC Speed Test App
measurement_server_location*	IP address or location of measurement server	String	150	Virginia

Data Error Codes

If submitted data fail validations, you may download the **Data Errors** CSV file from the **Create Challenge** screen. The table below provides a list of all data error codes generated by the system.

Category	Code	Description
Latitude	LAT_REQUIRED	The latitude field is required and must not be null.
Latitude	INVALID_LAT_DEGREE_RANGE	The latitude range to the left of the decimal must be between -90 and 90, inclusive.
Latitude	INVALID_LAT_FORMAT	The latitude must be in numeric decimal format.
Latitude	INVALID_LAT_DECIMAL_ACCURACY	The latitude must have a minimum of 5 digits to the right of the decimal.
Longitude	LON_REQUIRED	The longitude field is required and must not be null.
Longitude	INVALID_LON_DEGREE_RANGE	The longitude range to the left of the decimal must be between -180 and 180, inclusive.
Longitude	INVALID_LON_FORMAT	The longitude field must be in numeric decimal format.
Longitude	INVALID_LON_DECIMAL_ACCURACY	The longitude field must have a minimum of 5 digits to the right of the decimal.
Latitude / Longitude	INVALID_SPEED_TEST_LOCATION	The latitude and longitude coordinate of each speed test must match a valid challenge area cell for the state.
Timestamp	TIMESTAMP_REQUIRED	The timestamp field is required and must not be null.

Category	Code	Description
Timestamp	INVALID_TIMESTAMP_FORMAT	The timestamp field must be a string in valid ISO 8601 format: (YYYY-MM-DD HH:MM ±HH:MM)
Timestamp	INVALID_TIMESTAMP_TIME	The timestamp of each speed test measurement must be recorded between 06:00 and 24:00 within the local time zone of the measurement location.
Timestamp	INVALID_TIMESTAMP_DATE_RANGE	The timestamp of each speed test measurement must be recorded between 2018-02-27 and the date of file upload
Signal Strength	SIGNAL_STRENGTH_REQUIRED	The signal_strength field is required and must not be null.
Signal Strength	SIGNAL_STRENGTH_FORMAT	The signal_strength field must be in numeric decimal format.
Download Speed	DL_SPEED_REQUIRED	The download_speed field is required and must not be null.
Download Speed	INVALID_DL_SPEED_FORMAT	The download_speed field must be an integer or in numeric decimal format.
Latency	LATENCY_REQUIRED	The latency field is required and must not be null.
Latency	INVALID_LATENCY_FORMAT	The latency field must be in integer format.
Provider ID	PROVIDER_ID_REQUIRED	The provider_id field is required and must not be null.
Provider ID	INVALID_PROVIDER_ID_FORMAT	The provider_id field must be in integer format.
Provider ID	INVALID_PROVIDER_ID_CHALLENGE	The provider_id cannot match your own organization's ID.

Category	Code	Description
Provider Name	PROVIDER_NAME_REQUIRED	The provider_name field required and must not be null.
Provider Name	INVALID_PROVIDER_NAME_LENGTH	The provider_name field must be a string that is less than or equal to 255 characters long.
Device ID	DEVICE_ID_REQUIRED	The device_id field is required and must not be null.
Device ID	INVALID_DEVICE_ID_FORMAT	The device_id field must be in integer format.
Device ID / Provider ID	INVALID_DEVICE_PROVIDER_ASSOCIATION	The device_id and provider_id must match a device and provider pairing from the Provider Handsets file.
Device IMEI	DEVICE_IMEI_REQUIRED	The device_imei field is required and must not be null.
Device IMEI	INVALID_DEVICE_IMEI_LENGTH	The device_imei field must be between 15 and 16 characters long.
Device IMEI	INVALID_DEVICE_IMEI_FORMAT	The device_imei field must be a string of digits.
Measurement Method Code	MEASUREMENT_METHOD_CODE_REQUIRED	The measurement_method_code field is required and must not be null.
Measurement Method Code	INVALID_MEASUREMENT_METHOD_CODE_FORMAT	The measurement_method_code field must be in integer format.
Measurement Method Code	INVALID_MEASUREMENT_METHOD_CODE	The measurement_method_code must match one of the acceptable measurement codes: 1, 2, 3.
Measurement App Name	MEASUREMENT_APP_NAME_REQUIRED	The measurement_app_name field is required and must not be null when the measurement_method_code value is 1.

Category	Code	Description
Measurement App Name	INVALID_MEASUREMENT_APP_NAME_LENGTH	The measurement_app_name field must be a string that is less than or equal to 255 characters long.
Measurement Server Location	MSMT_SERVER_LOCATION_REQUIRED	The measurement_server_location field is required and must not be null.
Measurement Server Location	INVALID_MSMT_SERVER_LOCATION_LENGTH	The measurement_server_location must be a string that is less than or equal to 150 characters long.