

DIMETRA™



TRACES User Guide

APRIL 2022

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Disclosure table

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件	×	○	×	×	○	○
电路模块	×	○	×	×	○	○
电缆及电缆组件	×	○	×	×	○	○
塑料和聚合物部件	○	○	○	○	○	×
<p>本表格依据 SJ/T 11364 的规定编制。</p> <p>O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。</p> <p>X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 标准规定的限量要求。</p>						

Service Information

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Contact Details

Technical Requests: techsupport.emea@motorolasolutions.com

Repair Support: repair.emea@motorolasolutions.com

Contact Us: https://www.motorolasolutions.com/en_xu/support.html

Parts Identification and Ordering

If you need help in identifying non-referenced spare parts, direct a request to the Customer Care Organization of a local area Motorola Solutions representative. Orders for replacement parts, kits, and assemblies should be placed directly at the local distribution organization of Motorola Solutions or through the Extranet site Motorola Online at <https://emeaonline.motorolasolutions.com>.

However, you cannot order export-controlled products or spare parts such as TEA-related boards through Motorola Online. Send an order form with actual end-customer details by e-mail to your customer care team.

Your Input

Send questions and comments regarding user documentation to documentation@motorolasolutions.com.

Document History

Edition	Description	Date
MN004595A01-A	Initial version of the User Guide for TRACES Release 2.2.	December 2017
MN004595A01-B	Updates related to Scout, Integrated Terminal Management and TRACES Map Server Updated Logging On to TRACES Web Mapping Client on page 20	August 2019
MN004595A01-C	Updates: <ul style="list-style-type: none"> • TRACES Web Mapping Client on page 20 • TRACES Web Mapping Client Side Menu Bar Buttons on page 21 • TRACES Web Mapping Client Main Menu Settings Overview on page 22 • Loading Data to TRACES on page 23 • TRACES Web Mapping Client Templates on page 24 	April 2020
MN004595A01-D	Updates: <ul style="list-style-type: none"> • TRACES Web Mapping Client Reports on page 28 with subsections 	June 2021
MN004595A01-E	Updates: <ul style="list-style-type: none"> • TRACES Web Mapping Client Templates on page 24 	April 2022

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About TRACES User Guide Manual

The purpose of this document is to provide a user guide for the Terrestrial RF Automated Coverage Evaluation Solution (TRACES) service.

The following acronyms are used in the manual:

BMP

Bitmap

BTS

Base Transceiver System

CSV

Comma Separated Values

DMR

Downlink Measurement Report

GUI

Graphical User Interface

iTM

Integrated Terminal Management

ISSI

Individual Short Subscriber Identity

LA

Location Area

MCCH

Main Control Channel

MER

Message Erasure Rate

MS

Mobile Station

POS

Performance, Optimization, and Security

QoS

Quality of Service

RF

Radio Frequency

RSSI

Received Signal Strength Indication

MS

Site Controller

SQL

Structured Query Language

TETRA

Terrestrial Trunked Radio

TIF

Tagged Image File

TRACES

Terrestrial RF Automated Coverage Evaluation Solution

UMR

Uplink Measurement Report

UNS

Unified Network Services

Useful Background Information

Motorola offers a variety of courses designed to assist in learning about the system. For information, go to <http://www.motorola.com/training> to view the current course offerings and technology paths.

Related Information

In addition to this manual, the following documents are available for the TRACES system:

- TRACES Administrator Guide

Icon Conventions

The documentation set is designed to give the reader more visual clues. The following graphic icons are used throughout the documentation set.



DANGER: The signal word DANGER with the associated safety icon implies information that, if disregarded, will result in death or serious injury.



WARNING: The signal word WARNING with the associated safety icon implies information that, if disregarded, could result in death or serious injury, or serious product damage.



CAUTION: The signal word CAUTION with the associated safety icon implies information that, if disregarded, may result in minor or moderate injury, or serious product damage.

CAUTION: The signal word CAUTION may be used without the safety icon to state potential damage or injury that is not related to the product.




IMPORTANT: IMPORTANT statements contain information that is crucial to the discussion at hand, but is not CAUTION or WARNING. There is no warning level associated with the IMPORTANT statement.



NOTE: NOTICE contains information more important than the surrounding text, such as exceptions or preconditions. They also refer the reader elsewhere for additional information, remind the reader how to complete an action (when it is not part of the current procedure, for instance), or tell the reader where something is on the screen. There is no warning level associated with a notice.

Style Conventions

The following style conventions are used:

Convention	Description
Bold	This typeface is used for names of, for instance, windows, buttons, and labels when these names appear on the screen (example: the Alarms Browser window). When it is clear that we are referring to, for instance, a button, the name is used alone (example: Click OK).
Monospacing font	<p>This typeface is used for words to be typed in exactly as they are shown in the text (example: In the Username field, type Admin).</p> <p>This typeface is used for messages, prompts, and other text displayed on the computer screen (example: A new trap destination has been added).</p>
<i><Monospacing font in bold Italic></i>	<p>This typeface is used with angle brackets as placeholders for a specific member of the group that the words represent (example: <i><router number></i>).</p> <p> NOTE: In sequences to be typed in, the angle brackets are omitted to avoid confusion whether to include the angle brackets in the text to be typed.</p>
CAPITAL LETTERS	This typeface is used for keyboard keys (example: Press Y, and then press ENTER).
<i>Italic</i>	This typeface is used for citations. A citation usually is the name of a document or a phrase from another document (example: <i>DIMETRA System Overview</i>).
→	An → (arrow pointing right) is used for indicating the menu or tab structure in instructions on how to select a certain menu item (example: File → Save) or a certain sub-tab.

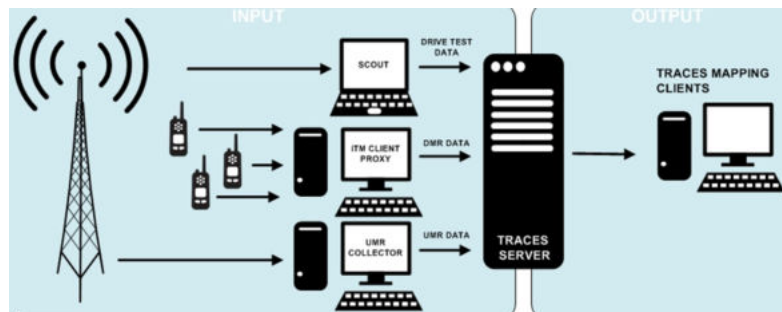
Chapter 1

TRACES Overview

The service comprises the TRACES mapping database server and at least one TRACES mapping client.

The TRACES server is a repository database for the captured TETRA RF survey data, network uplink data, and terminal downlink data. The Radio Frequency (RF) survey data exported from the Motorola Solutions Scout application is automatically uploaded to the server after a test drive or test walk. The network Uplink Measurement Reports (UMRs) are automatically uploaded to the database after being measured by the base stations and sent to the UMR collector. The terminal Downlink Measurement Reports (DMRs) are captured by the terminals whenever they experience a network service interruption, and are retrieved by Integrated Terminal Management (iTM) whenever the radio is docked. This data is automatically uploaded to the database. The RF coverage predictions can be imported into TRACES to facilitate comparisons between the predicted and actual coverage.

Figure 1: TRACES System Overview



Chapter 2

TRACES Server Operations

The following sections describe the procedures enabling TRACES uploading the Downlink Measurement Reports (DMRs), the Uplink Measurement Reports (UMRs), and the Scout data to the database.

2.1

Downlink Measurement Reports

The type of infrastructure where the signaling and traffic is transmitted by the base stations and received by the terminals.

For details on preparing the terminal for DMR collection, and creating and assigning log collection policies, see the *Integrated Terminal Management Client User Guide* manual.

2.2

Uplink Measurement Reports

The type of infrastructure where the signaling and traffic is transmitted by the terminals and received by the base stations.

2.2.1

Checking the UMR Collection

After installing the TRACES server, the Uplink Measurement Reports (UMRs) in the Base Tranceiver System (BTS) and are set up. From this moment on, the TRACES server can collect the UMRs.

Procedure:

- 1 Open TRACES and from the main menu, select **UMR Collector**→**Statistics**.
The collected messages counts increases as UMRs are received.
- 2 Click **Close**.

2.3

Scout Data Types

Scout provides the capability to export captured data, either directly after the recording, or from previously captured data files.



NOTE: You can obtain the Scout Application from the Motorola Solutions services team.

You can create two kinds of files:

- An export file that contains the locations, serving and best neighbor cells and signal strength values,
- An export file that contains the serving cells parameter settings and neighbor lists. This file is called the base station summary report.

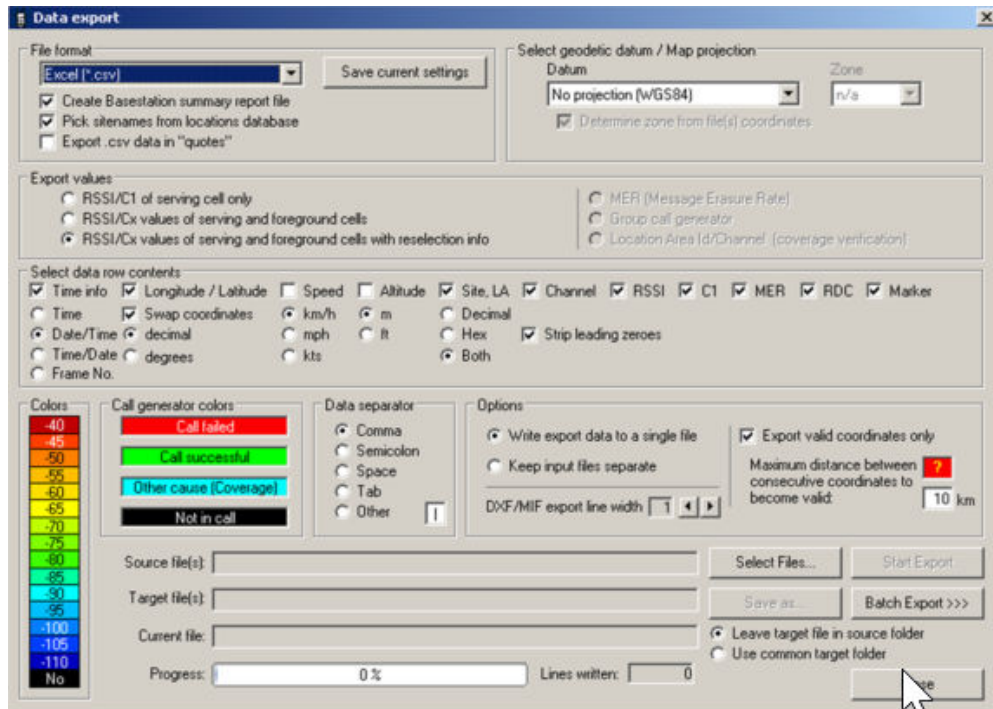
2.3.1

Setting Up Scout Data Export

Procedure:

- 1 From the Scout main menu, select **Tools→Data Export**.
- 2 Ensure that the following settings are configured:

Figure 2: Scout Data Export Setting Window



- 3 If a comma data separator is not available due to the regional and language settings of the PC, select a semicolon.
- 4 Click **Save current settings**. Click **Close**.

2.3.2

Recording and Auto Exporting Scout Data

The Scout data is automatically exported when the recording finishes.

Procedure:

- 1 From the Scout main menu, select **Tools→Data Export**.
- 2 Click **Open** and select the RF site location database file.
- 3 Select **Tools→Record**.
- 4 Enter the file name.
The name should follow the naming convention:
DataTag_YYYYMMDD
- 5 Once the recording is complete, click the stop button.
- 6 Select **Tools→AutoRecord**.

Two .csv files are created in the recorded folder.

2.3.3

Exporting Scout Data Manually

Procedure:

- 1 From the Scout main menu, select **Tools**→**Data Export**.
- 2 Click **Open** and select the RF site location database file.
- 3 Select **Tools**→**Data Export**.
- 4 Click **Select Files** and browse for the folder where the data is located.
- 5 Select the required .atp files. Click **Open**.
- 6 Enter the file name and click **Save**.
The name should follow the naming convention:
DataTag_YYYYMMDD
- 7 Click **Start Export**.
- 8 When the export finishes, at the prompt, click **No**.
The file opens in the associated application.
- 9 In the **Data export** window, click **Close**.
Two .csv files are created in the recorded folder.

2.3.4

Loading Scout Export File on the TRACES Server

Procedure:

- 1 Copy the two Scout export files, DataTag_<YYYYMMDD>.csv and DataTag_<YYYYMMDD>_Summary.csv to the removable media.
- 2 Move the two Scout export files to the TRACES server upload folder:
D:\TRACESData\LogExporter\<CUSTOMER_NAME>



NOTE: When a 'D' drive is not present, the source folder is:
C:\TRACESData\LogExporter\<CUSTOMER_NAME>

The Scout export files are automatically uploaded to the TRACES database.

2.4

Populating RF Sites

The typical name of the RF (Radio Frequency) sites file is as follows:

RF_SITES_LIST_<Customer_Version>

The format of the file is: # type = RF_SITES; customer = <customer prefix>;
LAC, Identifier, Longitude, Latitude, Zone, Site

where <customer prefix> is the same prefix as the one entered during the Uploader configuration.

Procedure:

- 1 Upload the RF_SITES_<Customer_Version> file to the TRACES Server upload folder
where the <Customer_Version> is the version assigned to the particular customer.
The default upload folder is located at D:\TRACESData\Uploader.

- 2 Wait two minutes and verify that the file is moved from the “upload” folder to the “loaded” folder.
The default “loaded” folder is: D:\TRACESData\Uploader\Loaded.

Chapter 3

TRACES Web Mapping Client

TRACES web mapping client is a web-based version of the desktop TRACES Mapping Client. TRACES Mapping Client provides a web Graphical User Interface (GUI) for the user to view selected data from the database, create statistics and key performance indicators, generate reports, data queries, and export data.

TRACES web mapping client contains a revised set of functionalities and provides a better user experience. Web client is accessible through a web browser.

Requirements:

The supported web browser is Google Chrome 76. A standalone installer is included in the TRACES Server installer. The path to Chrome installer is: `C:\Program Files\MotorolaSolutions\TRACESServer\chrome\ChromeStandaloneSetup64.exe`. TRACES Server Configuration – a web container module of TRACES server needs to be configured according to the Administrator Guide. A file containing Base Transceiver System (BTS) locations needs to be uploaded.

3.1

Logging On to TRACES Web Mapping Client

Procedure:

- 1 Open the Chrome web browser.
- 2 Access the TRACES Web application through the HTTPS protocol by entering one of the following addresses in the address bar:
 - `https://localhost`
 - `https://localhost: <port_number> /tracesweb/`
if the configured `<port_number>` is **NOT** 443.
- 3 If information about the connection being not private appears, click **Advanced**→**Proceed to localhost (unsafe)**.
- 4 Log on with your username and password.



NOTE: For details on users and passwords, see *Traces Administrator Guide*.

3.2

TRACES Web Mapping Client Overview

The main screen of the TRACES web client consists of a map and a side menu bar. All data is presented on the map. The side menu bar contains customization controls, menu, and tools.

3.3

TRACES Map View

The TRACES map view consists of a configurable base map, zoom control, and a scale line.

The map view shows the location of the Base Transceiver Systems (BTSs) and loaded data. Sites are presented by using the following icon: BTS.

Figure 3: BTS Icon



Zoom controls zoom the map view in and out.

Pressing the E button shows the whole map.

Pressing the I button shows map attributions.

The scale line in the bottom-left corner shows the current view scale.

3.4

TRACES Web Mapping Client Side Menu Bar Buttons

Table 1: TRACES Web Mapping Client Side Menu Bar Buttons

Image	Name	Function
	Menu button	Opens the application main menu.
	Add source button	Opens the dialog where the user selects and loads data.
	Screenshot icon	Takes a screenshot of the current map view.
	Add view to report button	Opens the dialog where the user adds a current map view to the report.
	Draw button	Enables the drawing mode.
	Draw mode button	Enables drawing grids or boundary shapes on the map.
	Grid/Boundary options button	Enables various options for drawn shapes.
	Settings button	Opens the global settings window.

3.5

TRACES Web Mapping Client Main Menu Functionalities Overview

Sessions

Opens a session management window where user can save, load, and edit sessions of the application. This functionality enables deleting a saved session and loading a new one.

Clear session

Resets the application to its initial state.

Settings

Opens the global settings window.

Reports

Opens the report management window where user can modify sections and generate and manage reports.

Sites

Enables site layer options.

Legends visibility

Enables the visibility of all legends.

Layers

Opens layer control menu and enables the individual layer visibility and changing the layers order. Changes are automatically saved and visible on the map.

About

Provides the information about the application and the license agreement.

Logout

Logs out the current user and returns to the login screen.

User guide

Opens the user guide.

3.5.1

TRACES Web Mapping Client Main Menu Settings Overview

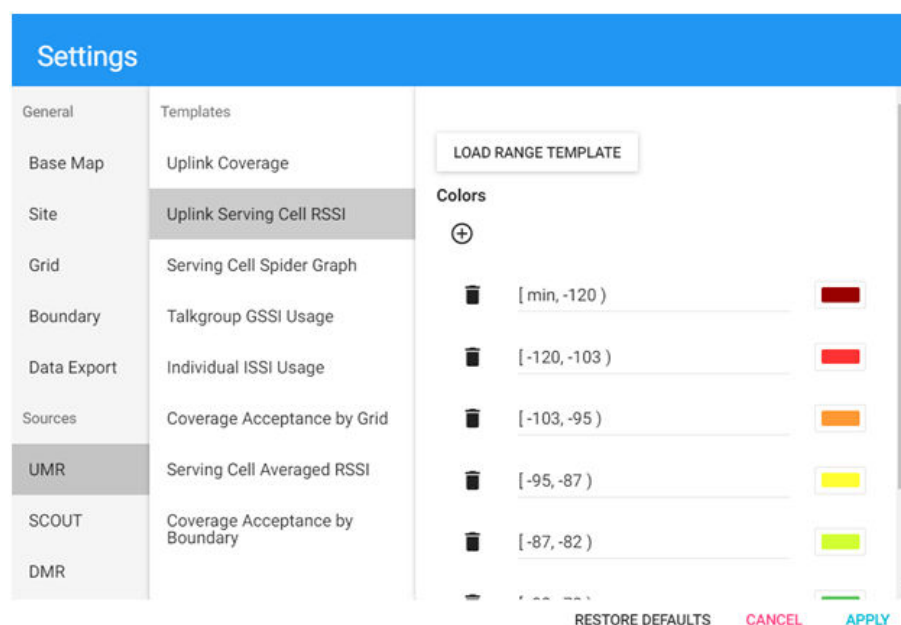
The settings window contains all configurable application parameters.

On the left side, you can select a category, like base map and sources. For every source, you can configure parameters for specific templates available. You can save changes by clicking **Apply**. Clicking the **Restore Defaults** button resets settings to their initial state.



NOTE: On the first startup, the application checks if the local Traces Map Server is present. If Traces Map Server is not present, contact Motorola Solutions Support or configure your own Tile Map server.

The following window shows how the settings are applied to all newly loaded data sources. It is also possible to modify an already loaded data source by clicking the **settings** button on the view context menu.

Figure 4: The TRACES Web Mapping Client Settings Window

3.6

TRACES Data Analysis

TRACES manages data present on the TRACES server. The main functionality of the application is the possibility to load data and analyze it through multiple views called templates.

3.6.1

Loading Data to TRACES

Procedure:

- 1 Open TRACES and, from the menu bar, select **Add source**.
- 2 In the **Load source** window, from the **Source** drop-down menu, select the type of data you want to upload.
Available sources are determined by the network type and license.
- 3 Choose how to display data by performing one of the following actions:

If...	Then...
If you want to display data in live mode (ONLY for UMR),	perform the following actions: <ol style="list-style-type: none"> a Select the Live mode check box. b From the Time span drop-down menu, select the time range in which you want the data to display. c From the Refresh time drop-down menu, select the time for the data to re-fresh.
If you want to display data in non-live mode,	perform one of the following actions:

If...	Then...
	<ul style="list-style-type: none"> If you want to select the time range in which you want the data to display manually, perform the following actions: <ul style="list-style-type: none"> a In Start data, Start time, End date, and End time, set the values for which you want to display the data. b Click the save icon. If you want to select the time range by using the predefined options, perform the following actions: <ul style="list-style-type: none"> a From the Time span drop-down menu, select the time range for which you want to display the data. b From the Refresh time drop-down menu, select the time for the data to refresh.

4 Click **Next**.

5 From **Starting template**, select the template type.

a Optional: You can limit the data set to selected sessions by using the **Session** filter.

b Click **Load**.

Data is loaded to the map.

3.6.2

TRACES Web Mapping Client Templates

TRACES offers a wide range of different views for Scout, Downlink Measurement Reports (DMRs), and Uplink Measurement Reports (UMRs).

When the data source is loaded, a new button appears in the side menu bar. It shows the name of the loaded source and its ordinal number.

Clicking the source button displays its context menu. In this menu, you can:

Toggle the view visibility

Toggle the view legend visibility

Remove the view

Open the view statistics

Export data

Edit the view

Change the view template


Open the view settings

Open the filters for the view

Every source has a defined set of templates that show different aspects of data.

Table 2: Scout Templates

TRACES Template Name	Description
Serving Cell Trace	Shows the location of data points.

TRACES Template Name	Description
Serving Cell Direction	Shows the location of data points and the direction of the travel.
Serving Cell MER	Shows the serving cell message error rate (MER) as an error count in each message.
Serving Cell RSSI	Shows the serving cell received signal strength ranges in dBm.
Serving Cell Site Name	Shows the site name for each serving cell. Each color represents connection between the serving cell and the site.
Serving Cell Spider Graph	Shows the serving cell to site spider graph. Each spider graph line and color represents connection between the serving cell and the site.
Coverage Acceptance by Grid	<p>Shows the serving cell trace within a selected grid. The fill color is determined by the following criteria, configurable in the settings:</p> <ul style="list-style-type: none"> • Minimum number of samples per grid square satisfied and x% samples above signal threshold display as above threshold • Minimum number of samples per grid square satisfied and less than x% samples above signal threshold are drawn as below threshold • Minimum number of samples per grid square not satisfied are drawn as grey • Empty grids indicate no samples <p>To learn more about TRACES Web Mapping Client View Settings, see TRACES Web Mapping Client View Settings on page 33.</p> <p> NOTE: Before choosing grid templates, it is required to draw shapes on the map.</p>
Coverage Acceptance by Boundary	<p>Shows the serving cell trace within selected boundaries. The fill color is determined by the following, configurable in settings criteria:</p> <ul style="list-style-type: none"> • Minimum number of samples per grid square satisfied and x% samples above signal threshold are drawn as above threshold • Minimum number of samples per grid square satisfied and less than x% samples above signal threshold are drawn as below threshold • Minimum number of samples per grid square not satisfied are drawn as grey • Empty grids indicate no samples


TRACES Template Name	Description
	<p>To learn more about TRACES Web Mapping Client View Settings, see TRACES Web Mapping Client View Settings on page 33.</p> <p> NOTE: Before choosing boundary templates, it is required to draw shapes on the map.</p>

Table 3: DMR Templates

TRACES Template Name	Description
Failure Locations by RSSI Range	Shows the failure locations by received signal strength ranges in dBm.
Failure Locations by ISSI	Shows the failure locations by radio.
Failure Locations by Site Spider Graph	Shows the failure locations to site spider graph. Each spider graph line and color represents connection between the failure location and the site.
Failure Locations by Site	Shows the failure locations by site.
Failure Locations by Channel Number	Shows the failure locations by channel number.
Failure Locations by Fail Cause	Shows the failure locations by the failure cause.
Failure Locations by Grid	Shows the failure counts for each grid square.

Table 4: UMR Templates

TRACES Template Name	Description
Uplink Coverage	Shows the grouped data points associated with the location of terminals with respect to a site or sites.
Uplink Serving Cell RSSI	Shows the average RSSI ranges in dBm.
Serving Cell Spider Graph	Shows the serving cell to site spider graph. Each spider graph line and color represent connection between group of the serving cells and the site.
Talkgroup GSSI Usage	Shows the identity of the talkgroups.
Individual ISSI Usage	Shows the location of an individual terminal identified by a radio.
Coverage Acceptance by Grid	<p>Shows the serving cell trace within a selected grid squares. The fill color is determined by the following, configurable in settings criteria:</p> <ul style="list-style-type: none"> • Minimum number of samples per grid square satisfied and x% samples above signal threshold are drawn as above threshold • Minimum number of samples per grid square satisfied and less than x% samples above signal threshold are drawn as below threshold • Minimum number of samples per grid square not satisfied are drawn as grey

TRACES Template Name	Description
	<ul style="list-style-type: none"> Empty grids indicate no samples <p>To learn more about TRACES Web Mapping Client View Settings, see TRACES Web Mapping Client View Settings on page 33.</p>
Serving Cell Average RSSI	Shows the average received signal strength ranges in dBm within a selected grid.
Coverage Acceptance by Boundary	<p>Shows the serving cell trace within a selected boundaries. The fill color is determined by the following, configurable in settings criteria:</p> <ul style="list-style-type: none"> Minimum number of samples per grid square satisfied and x% samples above signal threshold are drawn as above threshold Minimum number of samples per grid square satisfied and less than x% samples above signal threshold are drawn as below threshold Minimum number of samples per grid square not satisfied are drawn as grey Empty grids indicates no samples <p>To learn more about TRACES Web Mapping Client View Settings, see TRACES Web Mapping Client View Settings on page 33.</p>



NOTE:

Every point in the UMR is a centroid of points grouped according to the defined criteria from the given area. Criteria definition is set per each view. Area size depends on the scale which is currently available on the screen. For High Density Grids area, the size may vary.

The number of samples displayed on each level can differ due to the location accuracy reported by the radio. The number of samples on a higher level is more or equal to the sum of samples displayed in the same area in a more detailed view (lower level).

3.6.3

TRACES Web Mapping Client Statistics

The statistics window shows statistics tables calculated for the current views.

Statistics are divided into categories specific for a data type. The following additional parameters can be selected to calculate data differently.

Recalculate

Triggers the calculation of statistics with the newest parameters specified.

Add to Report

Opens a report selection window and enables adding a current statistics table to the selected report.

3.6.4

TRACES Web Mapping Client View Settings

View settings are applicable only for the selected view.

You can modify template parameters like acceptance thresholds or colors. If you click **Set as user default**, view settings are copied to global settings and are applied to all newly loaded sources.

3.6.5

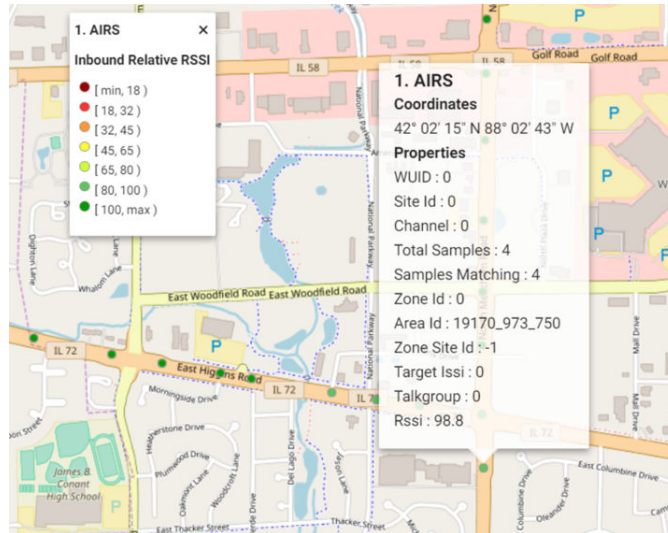
TRACES Map Interaction

The available feature is:

Pop-up View

Opens a pop-up with information about an element (a point, grid, or boundary) by clicking it on a map.

Figure 5: Pop-up View



3.7

TRACES Web Mapping Client Reports

Reports are created by the user in the TRACES web application.

Reports consist of a title, description, and a list of sections. A section may contain a map view or a data statistics table. The report contents are determined by data that is loaded in the application when the report is created or appended. This includes active data sources, selected dates and filters. When the report is ready, the user generates a .pdf or .docx document.

The following types of reports are available:

Standard Reports

Standard Reports allow the user to add static, unmodifiable sections.

Template Reports

Template Reports allow the user to define a parameterized template of each section. When such a report is prepared for generation, the user is asked to provide values for defined parameters.

3.7.1

TRACES Reports Management

The **Reports Management** window allows you to modify or update previously created reports.

Selecting a report from the list shows its sections. A map section displays a view that is either captured from the user screen (Standard Reports) or created on the server during the report preparation phase (Template Reports). It shows the section title, description, and lists data sources. A statistics section shows a title and description. The preview of table contents is not possible.

The user can edit a section or remove it entirely. The order of sections can be adjusted. A report can contain a maximum of 20 sections.

3.7.2

Creating TRACES Reports

Procedure:

- 1 Select the report type:
 - **Standard report**
 - **Template report**
- 2 Enter the title and description.
- 3 Click **CREATE**.

3.7.3

Adding a View as a Section to a Report

Procedure:

- 1 From the left menu bar, select **Add view to report**.
- 2 In the **Add view to report** window, perform one of the following actions:
 - From the **Select an existing report** drop-down menu, select a report.
 - Create a new report by clicking **CREATE A NEW REPORT**.
- 3 Click **Next**, and perform the following actions:

If...	Then...
If this is a Standard Report ,	perform the following actions: a On the screen with the current map, enter the title and description. b Click ADD .
If this is a Template Report ,	perform the following actions: a On the screen with a parameter assignment area at the bottom, enter the title and description. b If you want to create a new parameter, click CREATE PARAMETER , and define the parameter. You can add multiple parameters. You can also create them later in the Reports Management window. c Click Add .


3.7.4

Adding Statistics as a Section to a Report

Procedure:

- 1 Load any data source.
- 2 From the left menu bar, select a data source.
- 3 Select **Statistics**.

- 4 In the **Statistics** window, click **ADD TO REPORT**.
- 5 Perform one of the following actions:
 - From the **Select an existing report** drop-down menu, select a report.
 - Create a new report by clicking **CREATE A NEW REPORT**. See [Creating TRACES Reports on page 29](#).
- 6 Perform the following actions:

If...	Then...
If this is a Standard Report,	click ADD .
If this is a Template Report,	perform the following actions: <ol style="list-style-type: none"> a Click NEXT. b On the screen with a parameter assignment area at the bottom, enter the title and description. c If you want to create a new parameter, click CREATE PARAMETER, and see Creating Parameters. You can add multiple parameters. <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;">  NOTE: You can specify parameters for each data source. </div> <ol style="list-style-type: none"> d If you need to edit a parameter, click EDIT PARAMETERS and see Editing Parameters. e Click Add.

3.7.5

Generating Standard Reports


Procedure:

- 1 In the TRACES web application, access the menu bar, and select **Reports**.
- 2 In the **Reports Management** window, select the report you want to generate.



NOTE:

Each section of the report is editable. After making changes, you must click **SAVE**.

To see the information about the data at the time of capture, hover over the  icon.

- 3 Click **Generate Report**.

3.7.6

Generating Template Reports

Procedure:

- 1 In the TRACES web application, access the menu bar, and select **Reports**.

- 2 In the **Reports Management** window, select the report you want to generate.




NOTE:

You can create or edit parameters after selecting any section, and specify parameters for each data source. Parameters are specified for the whole report..

Each section of the report is editable.

After making changes, you must click **SAVE**.

To see the information about the data at the time of capture, hover over the  icon.

- 3 Click **PREPARE REPORT**.

During the report preparation phase, all data for the report is collected from the database. The **PREPARE REPORT** button starts this process, and can also be used to refresh report data before subsequent generation.

- 4 On the screen with parameter assignment, enter the date and time for each parameter.

The default is the current date.

- 5 Click **SUBMIT**.

After the report preparation process is complete, a notification appears, and in sections with a view, a map screenshot appears.

- 6 Click **GENERATE REPORT**.


3.8

Drawing Grids and Boundaries on Maps


The drawing mode enables drawing grids and boundaries on the map. Those shapes are used by specific view templates and can be used to analyze data over polygons.

Procedure:

- 1 From the left menu bar, select **Draw**.

The mouse pointer changes into a blue dot and the button icon changes to .

- 2 Perform one of the following actions:

If...	Then...
If you want to draw a grid,	click two different points on the map. A box with a grid inside appears.
If you want to draw a boundary,	perform the following actions: <ol style="list-style-type: none"> a From the left bar menu, click Grid/boundary options. b Click several different points on the map. The vertices of a polygon are determined. c Close the polygon by double-clicking any point on the map. <div>  NOTE: You can create multiple boundaries. </div>

You can use the following shape menu options to perform additional actions with grids and boundaries:

- Changing the grid size
- Toggling shape labels
- Clearing grids/boundaries
- Exporting grids/boundaries to the .kml file
- Importing shapes from the .kml file
- Zooming maps
- Toggling shapes visibility

3.9

Changing the Password

Procedure:

- 1 In the Traces Web Client main window, in the side menu bar, click **General**.
- 2 Click **Change Password**.
- 3 In the **Change Password** window, fill in the following text fields:
 - **Old Password**
 - **New Password**
 - **Confirm Password**
- 4 Click **Submit**.



NOTE: If the password expires, the **Change Password** window appears automatically during log-in.

Appendix A

AppendixTRACES

A.1

TRACES Web Mapping Client View Settings

View settings are applicable only for the selected view.

You can modify template parameters like acceptance thresholds or colors. If you click **Set as user default**, view settings are copied to global settings and are applied to all newly loaded sources.