



## Description

Diavaso is a suite of apps for remote meter reading using smartphones or tablets. The Diavaso app suite consists of 5 individual apps; SensusRF Finder, Collection Station, Collection Mobile, Configuration & Service, and Data Logger. These can be used individually or in combination depending on your requirements for remote meter reading (AMR) or small scale fixed network (AMI). The mobile applications run on an Android™ device and communicate with the SensusRF radio transceiver SIRT (Sensus Interface Radio Tool). The Diavaso apps are compatible with all SensusRF meters and repeaters.

The Diavaso apps are designed to be used for meter installation, remote reading, maintenance and configuration of meters and repeaters. The Collection Mobile also includes a server based interface (web portal) for managing the meter reading workflow, reporting as well as data exchange with the billing system.

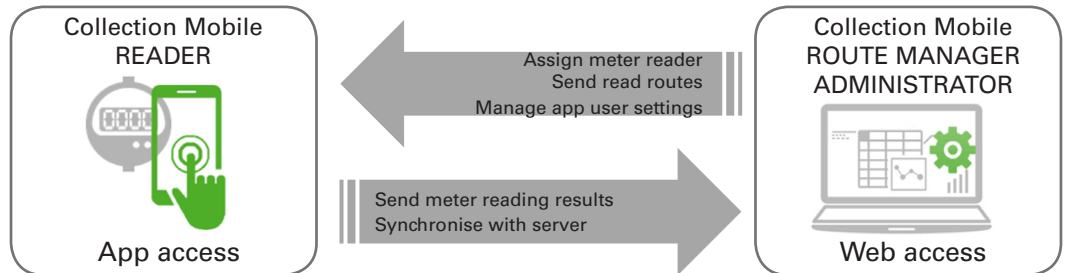
## Benefits

- User friendly, modular set of apps to suite your needs
- Designed for meter installers, meter readers, route managers and administrators to make your mobile meter reading easier to manage
- Manage any SensusRF radio endpoints
- No infrastructure required - You only need to have a Collection Mobile server
- No software installation and configuration required - Just simply download the apps
- Available as a hosted solution
- Compatible with most Android smartphone and tablets

## Collection Mobile



Client-server based solution aimed to simplify the management of the meter readout process. The application consists of two elements; Collection Mobile app (Android based) and web portal (web server). The web server provides an interface to manage the meter reading process, assign work and manage workflow, DIAVASO settings, reporting and data exchange with the billing system. The Android client provides the way to collect the meter data and upload it back to the server.



- Receive routes to read
- View & select the routes to read
- Automatic meter read or manual entry
- Fast Mode & Full Data Mode
- Map view with route navigation
- View events and meter details
- Supports camera and barcode scanner
- Customer signature (option)

- Import routes list from billing system/MDM
- Assign multiple routes to meter readers
- Manage mobile meter readers and workload
- Track meter reading status
- Export meter readings to billing system/MDM
- Generate reports
- Customisation & configuration
- View communication log



\*Hosted option available

## Collection Station



Automatic route read for drive-by meter reading or automated meter reading in small scale fixed networks. In drive-by 'Mobile Mode', the meter data from the route read can be synchronised with the server automatically or manually. The route list can be sent from the server to the app and assign a route to a meter reader. In fixed network 'Stationary Mode', it can be programmed to provide scheduled meter reading.



- Send drive-by route list from the server to the app
- Assign a route to a meter reader
- Read the meters on the list

- Mobile Mode for drive-by
- Stationary Mode for small scale fixed network
  - Shopping malls
  - Apartment blocks
  - Gated communities

- Scheduled remote meter reading in fixed network
- Automatic and manual synchronisation with the server in drive-by mode

## Configuration & Service

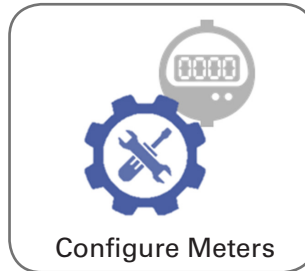


Meter readout and configuration tool for meter installers and service technicians.



### On-site Analysis

- Rich data analysis on site
- Access SEMI data and data logger data



### Configure Meters

- Configure endpoints
- Assign endpoints to routes
- View event status
- Reset alarms
- Set alarm trigger levels
- Configure fixed date reading



### Configure Radio

- Check radio link
- Activate radio of endpoints and repeaters
- Configure:
  - Radio link
  - Repeater location

## SensusRF Finder



Detect, locate and read any meter within the range of the SensusRF radio transceiver SIRT. View all SensusRF meters and repeaters via the app and check the meter readout status, radio connectivity and event notifications.



### Locate your Meter

- Find any SensusRF meters within radio range
- Locate even without any route information



### Radio Health Check

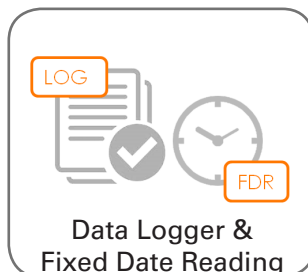
- Radio connectivity
- Signal strength
- Meter events



### Remote Meter Read

- Read a meter anytime without route preparation
- Meter reading over radio
- Event notification

## Data Logger



### Data Logger & Fixed Date Reading

- Access and download
  - Data logger data
  - Fixed date reading data
- Only displays the pre-configured endpoints



### Adjust Settings

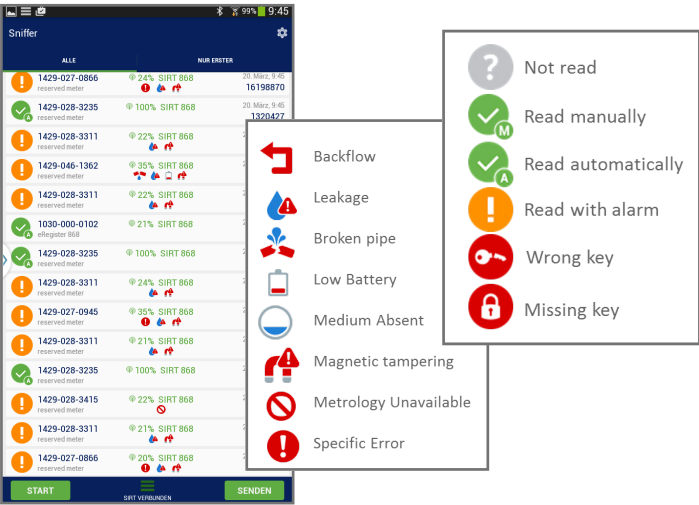
- Select type of information
- Adjust date range
  - Day of month
  - Logging interval



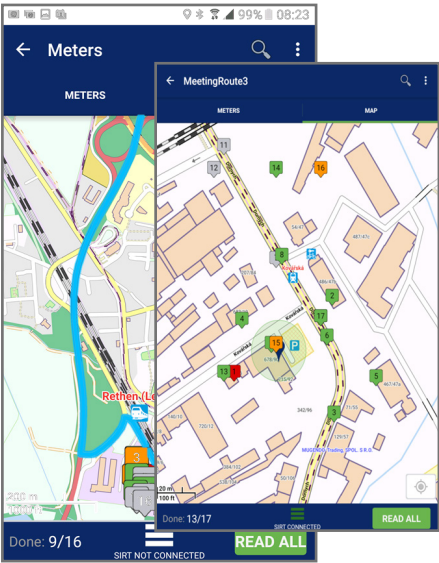
### Download & Send

- Multiple downloads in parallel and view status
- Send downloaded data to FTP server
- Secure data transmission using FTPS/SFTP protocols

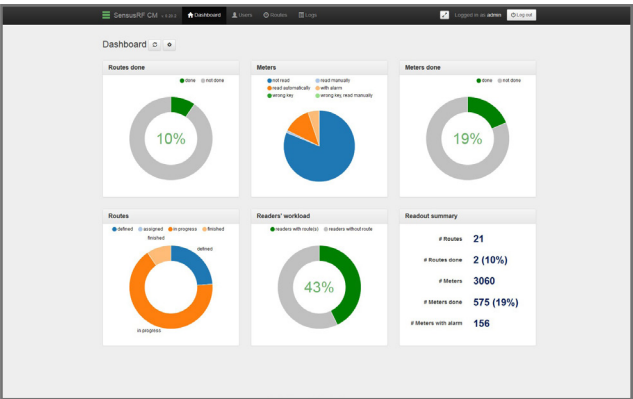
# Application View



| Meter readout screen with status & alarm icons |



| Route readout navigation view |



| Collection Mobile Administrator dashboard |

User	Name	Meter count	Read meter count	Scheduled date	Status	Comment	Actions
zeta	Nova puchobda	4	2	2.11.2014	In progress	your read mode	<a href="#">Import route</a> <a href="#">Delete route</a>
sergis	Denro route	17	13	10.3.2015	In progress	Test route	<a href="#">Import route</a> <a href="#">Delete route</a>
NADA	Sensus LU PERLE 800	14	0	27.3.2015	Defined		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Jakovac01	83	68	18.5.2015	Finished		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Jakovac02	83	0	19.5.2015	In progress		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Jakovac03	83	0	20.5.2015	In progress		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Jakovac04	83	0	21.5.2015	In progress		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Jakovac05	83	0	22.5.2015	In progress		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Jakovac06	83	25	23.5.2015	In progress		<a href="#">Import route</a> <a href="#">Delete route</a>
harald.f	Simulac	25	32	19.5.2015	In progress	Simulac puchobda	<a href="#">Import route</a> <a href="#">Delete route</a>
adrian	Simulac 2	25	14	—	Finished		<a href="#">Import route</a> <a href="#">Delete route</a>
MARTINADON	Kolodchak	607	270	19.5.2015	In progress		<a href="#">Import route</a> <a href="#">Delete route</a>

| Collection Mobile Administrator reporting tools |

## Data Availability

	Collection Mobile	Collection Station	Configuration & Service	SensusRF Finder
BUP data (meter ID, meter index and events and radio signal quality)	✓	✓	✓	✓
Fast mode (BUP data)	✓	✓		
Semi data (Full Data Mode)	✓		✓	✓
Fixed date reading	✓		✓	
Data logger			✓	

## Features Comparison

	Collection Mobile	Collection Station	Configuration & Service	SensusRF Finder
<b>Meter reading</b>				
• Find meter & repeaters in range			✓	✓
• On-demand read	✓		✓	✓
• Route reading	✓	✓		
• Scheduling (fixed network)		✓		
• Send reading to server	✓	✓	✓	✓
<b>Events</b>				
• View	✓	✓	✓	✓
• Send notification	✓	✓	✓	✓
• Analyse	✓		✓	
• Reset & change parameters			✓	
<b>Radio</b>				
• View radio connectivity	✓	✓	✓	✓
• Adjust radio link			✓	
• SIRT communication log	✓		✓	
Configuration (meter, radio, users)			✓	
Produce reports	✓			
Progress tracking	✓			
Map view	✓			
Camera	✓		✓	

## Installation Types & Users

	Collection Mobile	Collection Station	Configuration & Service	SensusRF Finder
<b>Installation Type</b>				
• Walk-by	✓		✓	
• Drive-by	✓	✓		
• Fixed Network (small)		✓	✓	
<b>Users</b>				
• Meter Installers			✓	✓
• Meter Readers	✓	✓		
• Radio Technicians			✓	✓
• Route Managers	✓			
• App Administrators	✓			

## System Requirements

<b>App Name</b>	
<b>SensusRF Finder Configuration &amp; Service Data Logger</b>	Android version 4.2 (Jelly Bean) and higher Android device with screen size at least 4 inches, bluetooth support and network access SIRT Accessible FTP server
<b>Collection Station</b>	Android version 4.2 (Jelly Bean) and higher Android device with bluetooth support, WiFi or mobile network access SIRT Charger for the Android device and SIRT (for Stationary mode) Accessible FTP (SFTP, FTPS) server (to get configuration from and send collected readings to) Accessible SMTP server (if email alerts are required) Android device with SIM card (if SMS alerts are required or the mobile network will be used as the only option to upload/download files to/from FTP)
<b>Collection Mobile</b>	Android version 4.2 (Jelly Bean) and higher Android device with screen size at least 4 inches and bluetooth support Network access to CM (Collection Mobile) server SIRT Accessible web server
	<b>Export &amp; Reports</b> Export file format: CSV Report file format: PDF Report types: All routes report, single route report, alarms report
	<b>CM Server Requirements</b> <b>Operating system:</b> Windows (Windows 7 or higher, Windows Server 2008 R2 or higher), Linux (the kernel must be 3.10 minimum) <b>RAM memory:</b> Minimum 3GB with 5GB available disk space <b>Installation Requirements:</b> <ul style="list-style-type: none"> <li>Administrator (Windows) or root (Linux/Unix) rights on the target machine</li> <li>Valid certificate for the domain that will be used for running SensusServer web application. The certificate must be stored in the one of the following formats: JKS, PKCS11 or PKCS12. Self-signed certificate will not work correctly. The certificate has to be signed by a public certification authority.</li> <li>JRE 7 or above installed on the target machine.</li> </ul>
	<b>Hosting Service</b> CM server can also be hosted at Sensus datacenter.

## Ordering Information

Product Name	Order Number
SensusRF Finder	18 45 08
Diavaso CS	18 45 09
Diavaso CM (Server) Small	18 45 11
Diavaso CM (Server) Medium	18 45 12
Diavaso CM (Server) High	18 45 13
Diavaso CM (Server) Unlimited	18 45 14
Diavaso Configuration & Service	18 45 15
Diavaso Datalogger	18 45 16
Diavaso CM-Server (Hosted Service)	On demand

## Licensing & Registration

Trial mode is available for the first 60 days with SensusRF Finder, Configuration & Service and Data Logger. Software registration using the license key is required in order to access the full functionality of the applications. License keys are unique to each Android device as they are generated according to the device serial ID.

## Security & Data Protection

All sensitive data stored and transmitted using Diavaso are encrypted and protected against unauthorised access. There are no plain data sets stored on the tablet that may be accessible. Please refer to the manuals of each Diavaso applications for further details.



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