

Do you always want to be On-Road every time to get data?

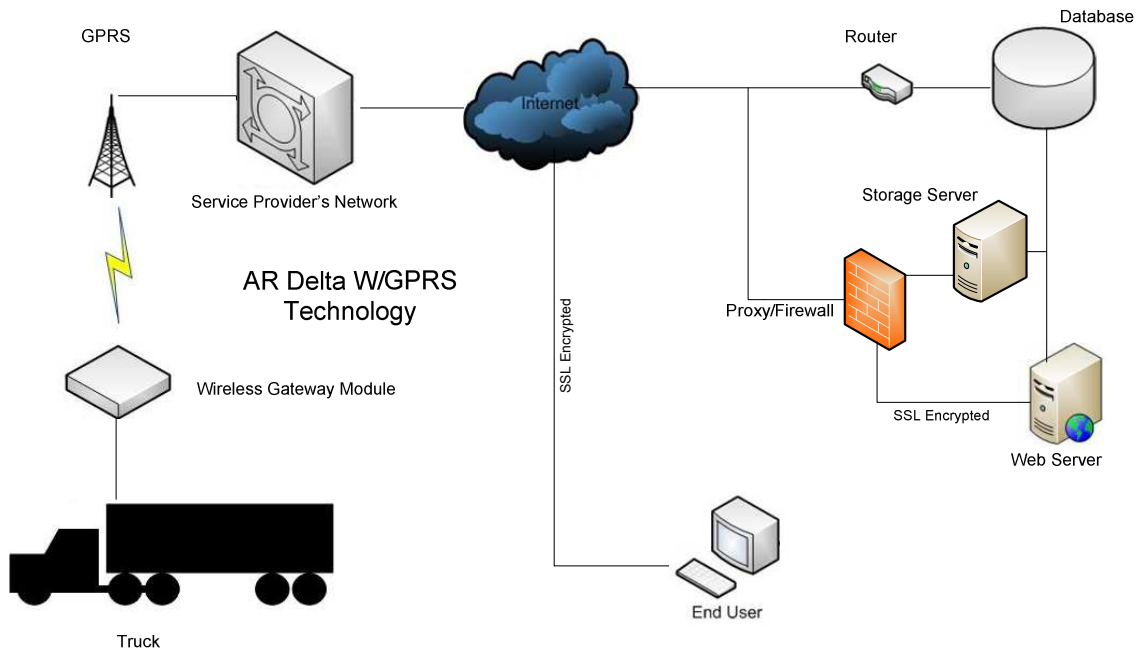


Or would you rather AR Delta delivered the same data to your desk?



Make your Choice

ARDELTA PRODUCT ARCHITECTURE



1. Installation

i. Software Installation

Installation is very simple and can be accomplished in 3 simple steps:

- a. Copy the software into a USB thumb drive
- b. Insert the USB thumb drive into Wireless Gateway Module
- c. Turn ON the vehicle

The software is automatically installed and the vehicle is automatically registered with the Database

ii. Vehicle Registration

The vehicle is automatically registered with the Database following installation

iii. No software required on the PC

ARDelta is a web application. So no software is required except the web browser and internet connection

2. Data storage

i. 1GB on-board Flash

1GB Flash memory for data storage for queuing before forwarding to the central database to handle short periods of network connectivity and transmission speed issues

ii. SD Card (Expandable memory)

4GB / 8GB SD card for data storage to handle extended periods of GPRS network connectivity issues

3. Transmission Speed

i. GPRS Modem

Modem spec	Time for 10KB Data	Time for 1MB Data	Time for 1GB Data
GPRS Modem at peak speed (19 Kbps)	4 sec	7.37 min	126.58 hrs
GPRS modem at average speed (15 Kbps)	5 sec	9.32 min	159.07 hrs

Note: The above numbers are the times calculated based on transmission time of a bulk of data and should be used to get a rough idea on the transmission speed.

ii. EGPRS modem (EDGE Technology)

Expecting 3 to 4 times improvement in transmission speed compared to GPRS modem

Note: Existing hardware supports both GPRS and EGPRS modems

4. System Status indication with Amber and Red LEDs

The LEDs on Wireless Gateway Module are configured to indicate the system status

About 24 states are displayed with various patterns of the LEDs

5. Secured login

The web application can be accessed with a secured login

The ARDelta administrator provides and manages the customer accounts

6. Remote Parameter Monitoring

i. J1939 Standard SPNs (Parameters)

ARDelta supports theoretically any number of parameters

Existing system can monitor **1362** J1939 SPNs (Parameters) simultaneously

User can define additional SPNs and use them without any change to the system

ii. J1939 Proprietary parameters

ARDelta supports customer specific proprietary parameters

ARDelta can be customized for such parameters

iii. Memory location based parameter monitoring

ARDelta supports theoretically any number of memory parameters

Existing system can monitor such parameters (1 byte, 2 byte, 4 byte)

User can define memory parameters and use them

iv. Memory location based parameter monitoring through a2I file

ARDelta has in-built a2I file parser

User can provide memory parameter configuration by uploading .a2I file

v. Memory location based parameter monitoring through custom file formats

ARDelta supports customer specific file formats

ARDelta can be customized for such formats

vi. Custom sensors monitoring and Driving outputs

ARDelta supports customer specific sensors and drives

ARDelta can be customized for such I/Os

Existing hardware has limited I/Os, hardware can be extended.

(4 Analog inputs, 4 analog outputs, 12 Digital outputs, 2 LEDs)

All the above parameters can be viewed in standard reports from web application

All standard reports can be exported to Excel and saved as a file for further analysis

7. Diagnostics

i. Active Diagnostics

Active Diagnostics are captured from the vehicle with timestamp and occurrence count

DTCs can be viewed in standard reports

DTC report can be exported to Excel for further analysis

ii. Logged Diagnostics

Logged Diagnostics are captured from the vehicle with timestamp and occurrence count

DTCs can be viewed in standard reports

DTC report can be exported to Excel for further analysis

8. Firmware Update

i. Using USB pen drive

Same as installation process in 3 simple steps

Wireless Gateway Module is intelligent enough to revert back to previous known good state in case of any invalid or bad firmware update attempt

ii. Using ARDelta web app

Remote firmware update in 2 simple steps

a. Upload the firmware into Database using web app

b. Select the firmware and upload to Wireless Gateway Module using web app

Firmware gets updated automatically over GPRS and the status can be seen in web app

No travel to the vehicle is required

This can be accomplished from your desk with a few clicks.

Wireless Gateway Module is intelligent enough to revert back to previous known good state in case of any invalid or bad firmware update attempt

For more information contact

Mr. Mahesh Ramoju

Division Manager – Product Development

E-Mail: mramoju@autorobinc.com