Field	Description
Custom Certificate Name	This field only appears when the Custom Certificate field is set to Enable. Displays the name of the custom certificate.
Load Custom Private Key	This field only appears when the Custom Certificate field is set to Enable. Allows you to enter a custom private key (Some restrictions apply; see Custom Certificate on page 171 for details.) To load a custom private key: 1. Click Load Private Key. 2. Click Browse... and navigate to the private key file. 3. Click Upload file to device. 4. Once you have uploaded the custom certificate and the custom private key, click Apply and reboot the device.
Custom Private Key Name	This field only appears when the Custom Certificate field is set to Enable. Displays the name of the private key.

Power Management

The AirLink RV50 Series gateway gives you a number of options for managing power usage, depending on your application and hardware configuration. For example, you can use the Services > Power Management screen to configure the RV50 to automatically enter standby mode based on the state of the ignition switch, an I/O input, low voltage input to the gateway, or time of day. For additional power saving strategies, see Additional Power Saving Strategies on page 180 or refer to the AirLink RV50 Series Hardware User Guide.

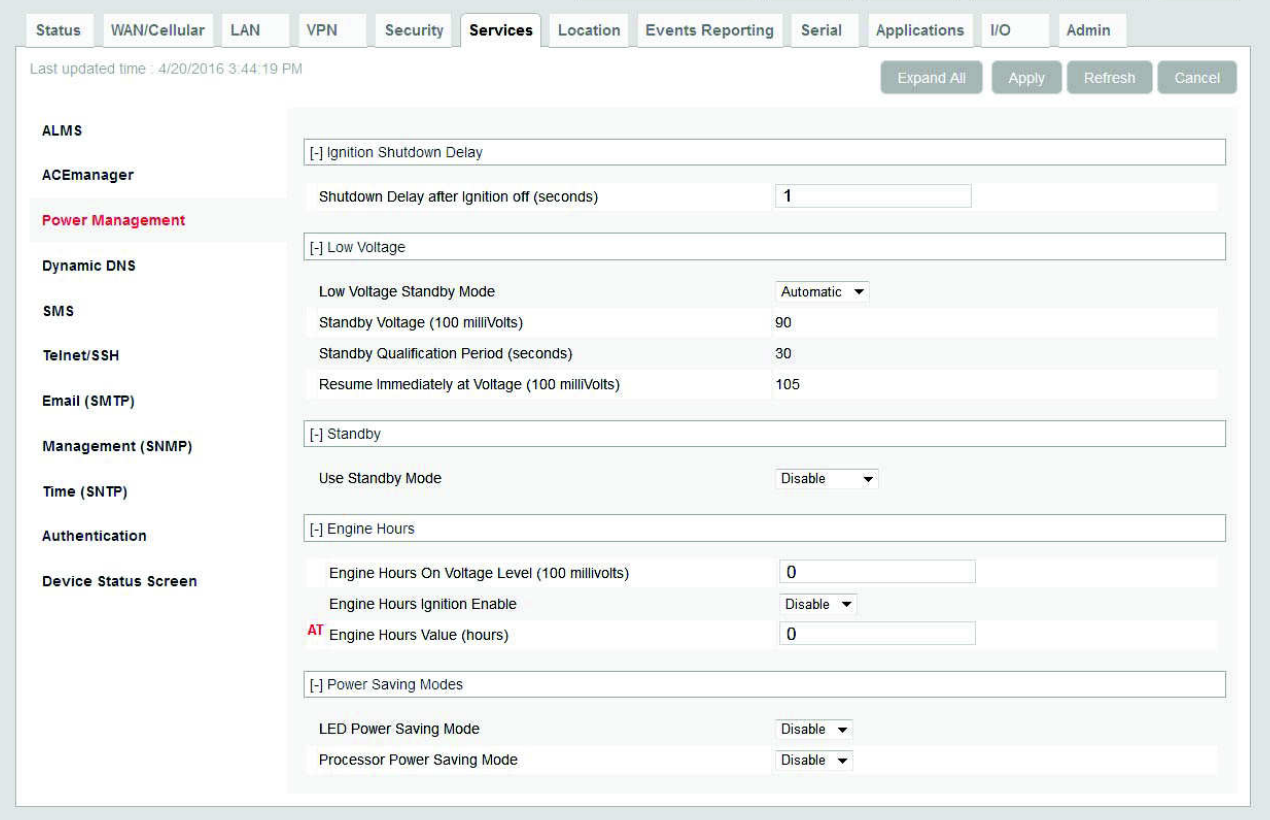


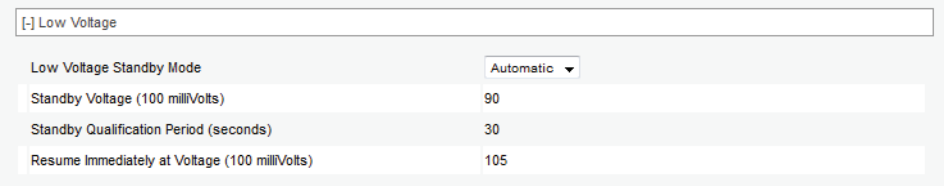
Figure 8-3: ACEmanager: Services > Power Management

Field	Description
Ignition Shutdown Delay	
Shutdown Delay after Ignition off (seconds)	Set the delay (in seconds) between the time the ignition input goes low and the gateway shuts down. • Range: 1–43200 (12 hours) • Default is 1. The timer is reset if the ignition comes on during the delay period.

Field	Description
Low Voltage	

Note: Changes to the low voltage settings take effect when you click Apply, but the new values are not permanently stored on the gateway it is rebooted. Also note that, after a change is made, the first reboot may take longer than usual.

Note: Exercise caution when setting the Low Voltage Standby fields. Before setting the Resume immediately at Voltage field, ensure that you have a power source readily available that can supply the configured voltage. The reset button is not available when the gateway is in standby mode, so you cannot use it reset the gateway to factory default settings. If you have inadvertently set the Resume Voltage too high, follow the instructions in How do I get my gateway out of Low Voltage Standby mode? to return your gateway to normal operation.

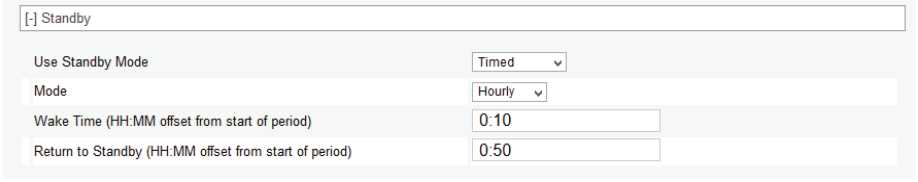
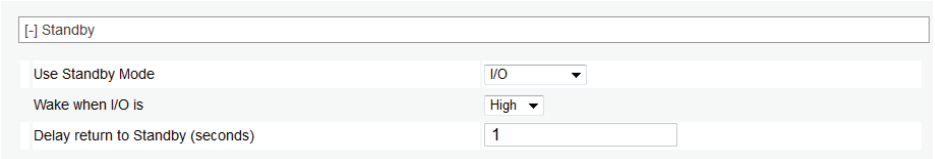


Low Voltage Standby Mode	Use this field to chose a set of predefined values for low voltage standby mode or to enable the option to configure custom values. • Custom—Allows you to configure the values used for low voltage standby mode. For more information on the configurable fields, see Standby Voltage (100 milliVolts), Standby Qualification Period (seconds), and Resume immediately at Voltage (100 milliVolts). When configuring these fields, the difference between the number in the Standby Voltage field and the number in the Resume immediately at Voltage field must be greater than 5, with the smaller number in the Low Voltage Standby Mode field. For example, if you enter 120 in the Resume immediately at Voltage field, the highest number you can enter in the Low Voltage Standby mode field is 114. • Automatic—The gateway uses preset values. (default) • Off—The gateway uses the lowest possible preset values for low voltage standby mode and enters standby mode if the voltage falls below 5.8 V.

Table 8-1: Low Voltage Standby Mode Configurable Ranges and Preset Values

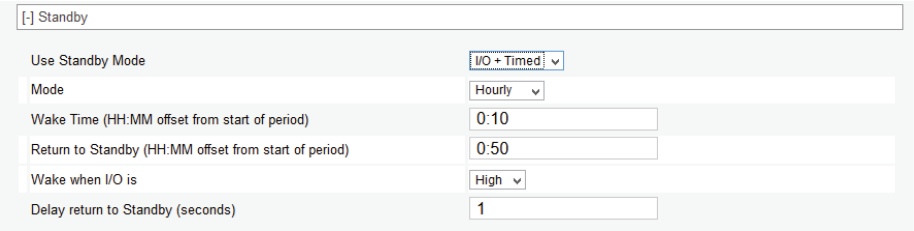
Low Voltage Standby Mode	Standby Voltage (100 milliVolts)	Standby Qualification Period (seconds)	Resume immediately at Voltage (100 milliVolts)
Custom	58–294 Default is 90.	30–3600 Default is 30.	68–300 Default is 105.
Automatic	90	30	105
Off	58	30	68

Field	Description
Standby Voltage (100 milliVolts)	If the incoming voltage to the gateway is below the value set in this field for the period of time set in the Standby Qualification Period (seconds) field, the gateway goes into standby mode. This field is read-only if the Low Voltage Standby Mode is set to Automatic or Off. If Low Voltage Standby Mode is set to Custom, the valid range is: • 58—294 hundreds of milliVolts • Default value depends on the setting in the Low Voltage Standby Mode field. See Table 8-1. Enter the value in tenths of Volts. For example, for 11.5 V, enter 115. The difference between the number in the Standby Voltage field and the number in the Resume immediately at Voltage (100 milliVolts) field must be greater than 5, with the smaller number in the Low Voltage Standby Mode field. For example, if you enter 120 in the Resume immediately at Voltage field, the highest number you can enter in the Low Voltage Standby mode field is 114.
Standby Qualification Period (seconds)	Set the time period (in seconds) that the voltage to the gateway is below the value set in the Standby Voltage (100 milliVolts) field before the gateway goes into standby mode. This field is read-only if the Low Voltage Standby Mode is set to Automatic or Off. If Low Voltage Standby Mode is set to Custom, the valid range is: • 30—3600 seconds • Default is 30.
Resume immediately at Voltage (100 milliVolts)	Set the voltage at which the gateway exits standby mode and resumes normal operation. This field is read-only if the Low Voltage Standby Mode is set to Automatic or Off. If Low Voltage Standby Mode is set to Custom, the valid range is: • 68—300 hundreds of milliVolts • Default value depends on the setting in the Low Voltage Standby Mode field. See Table 8-1. Enter the value in tenths of Volts. For example, for 12.5 V, enter 125. The difference between the number in the Standby Voltage (100 milliVolts) field and the number in the Resume immediately at Voltage field must be greater than 5, with the smaller number in the Low Voltage Standby Mode field. For example, if you enter 120 in the Resume immediately at Voltage field, the highest number you can enter in the Low Voltage Standby mode field is 114.
Standby	
Use Standby Mode	Select the type of Standby mode you want to configure Options are: • Disable (default) • Timed • I/O • I/O + Timed Changes take effect when you click Apply. No reboot is required. Note: You cannot set this field to I/O or I/O + Timed if the I/O line is already being used by the Relay Output or by the Pull-up for I/O.

Field	Description
Timed 	
Mode	Select the Mode: • Hourly—Wake Time (HH:MM offset from start of period) and Return to Standby (HH:MM offset from start of period) operate on an hourly basis • Daily—Wake Time (HH:MM offset from start of period) and Return to Standby (HH:MM offset from start of period) operate on an daily basis • Custom—Provides the option set a test period to repeat the Wake/Standby cycle
Wake Time (HH:MM offset from start of period)	Set the time (hours:minutes on a 24 hour clock) at which the gateway wakes up. If you selected Hourly in the Mode field, set the minutes (the hour portion is ignored) and the gateway wakes up every hour at the configured time. If you selected Daily in the Mode field, the gateway wakes up every day at the configured time.
Return to Standby (HH:MM offset from start of period)	Set the time (hours:minutes on a 24 hour clock) at which the gateway goes into standby mode. If you selected Hourly in the Mode field, set the minutes (the hour portion is ignored) and the gateway goes into standby mode every hour at the configured time. If you selected Daily in the Mode field, the gateway goes into standby mode every day at the configured time. *Note: There must be at least 5 minutes between the Wake Time (HH:MM offset from start of period) and the Return to Standby time.*
Repeat Period	This field only appears if you select Custom in the Mode field. Use this field to configure how often the Wake Time (HH:MM offset from start of period)/ Return to Standby (HH:MM offset from start of period) cycle is repeated. The options are: • 2 Hours (default) • 3 Hours • 4 Hours • 6 Hours • 8 Hours • 12 Hours
I/O 	

Field	Description
Wake when I/O is	Select the I/O state that causes the gateway to wake. Options are: • High (default) • Low *Note: If the I /O line is already configured for another purpose, this I/O option is not available.*
Delay return to Standby (seconds)	Select the delay between the I/O state change and the gateway entering Standby mode (in seconds). • Range is 1–43200 (12 hours) • Default is 1 second.

Field	Description
I/O + Timed	

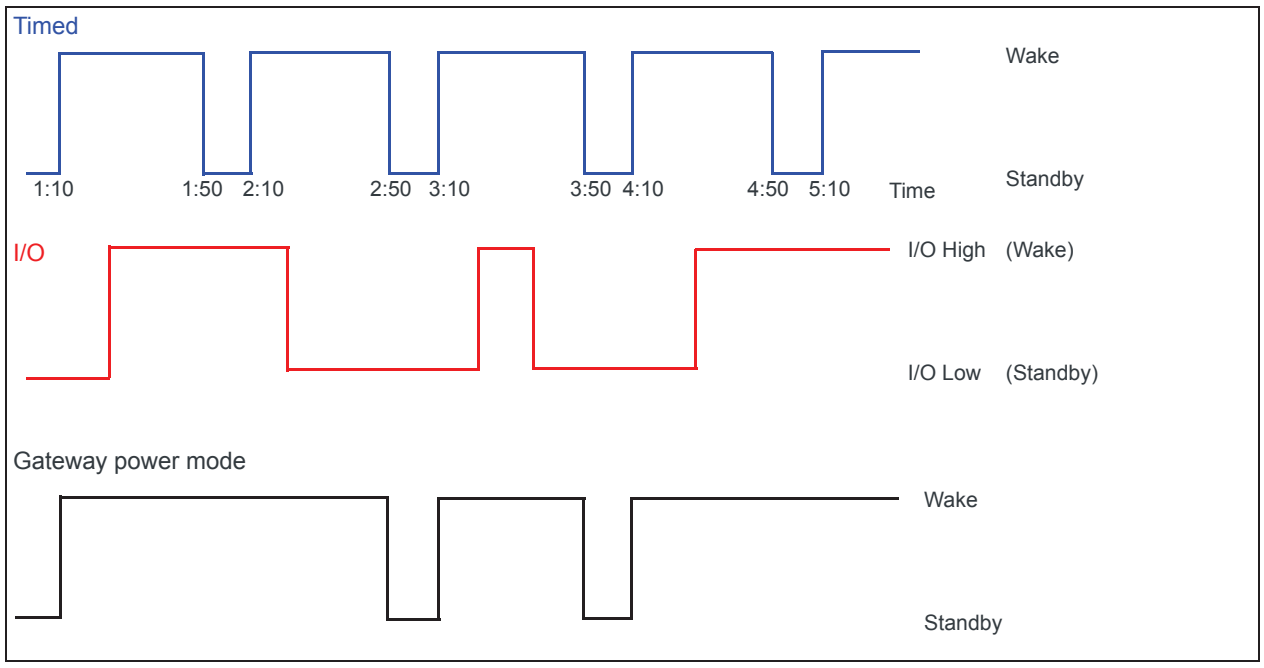


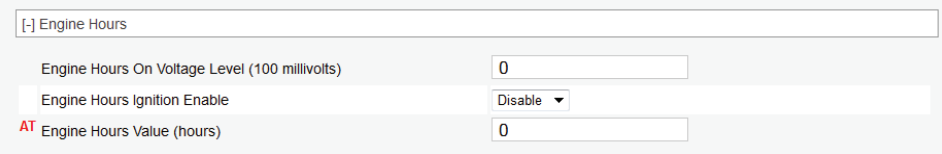
To configure the fields for I/O + Timed, see Timed on page 176 and I/O on page 176.

When both I/O and Timed are configured, the gateway is standby mode only when both I/O and Timed conditions for standby mode are met. The gateway exits standby and returns to the normal operating mode when either the Timed or I/O (or both) conditions for standby are no longer met.

Example: The following example is based on the default settings.

- Timed is set to wake at 10 minutes after the hour and return to standby 50 minutes after the hour.
- I/O is set to wake when the I/O is high.



Field	Description
Engine Hours — ALEOS can start and stop counting engine hours based on: • Voltage on power connector Pin 1 (Power pin) from the vehicle battery (Engine Hours On Voltage Level) • State (High/Low) of power connector Pin 3 (Ignition Sense pin) (Engine Hours Ignition Enable) If you configure both fields, both conditions must be met before the device begins counting engine hours. For more information on the power connector pins, refer to the Hardware Configuration User Guide for your AirLink gateway. 	
Engine Hours On Voltage Level (100 millivolt)	If you want to use this field to trigger counting engine hours, the AirLink gateway must be using the vehicle battery as a power source (i.e. Pin 1 [VCC] and Pin 2 [ground] on the AirLink gateway's power connector are connected to the vehicle battery). Enter the voltage level above which the AirLink gateway starts counting engine hours. When the voltage from the vehicle battery falls below that value, the device stops counting engine hours. Enter the desired value of the ignition in millivolts. For example, to set the voltage level at 13.0 volts, enter 130. The default value is 0, which means the feature is disabled. Engine hours are not incremented based on the power pin voltage level.
Engine Hours Ignition Enable	If Pin 3 (the ignition sense pin) on the AirLink gateway's power connector is wired to the vehicle's ignition switch, oil pressure switch, or some other digital input, you can use this field to trigger counting engine hours. The device starts counting engine hours when the voltage on Pin 3 is high and stops counting when the voltage is low (Ground or 0 volts). For more information on the power connector pins, refer to the Hardware User Guide for your AirLink gateway. Options are: • Disable (default) Engine hours are not incremented based on changes to Pin 3. • Enable
Engine Hours Value (hours)	Displays an estimate of the number of hours the engine has been running, based on either the input voltage from the vehicle battery or the voltage on the ignition sense pin, depending on which of the two previous fields you configured. For more information on the power connector pins, refer to the Hardware User Guide for your AirLink gateway. You can also set the engine hours value to an initial value. The default value is 0. The maximum allowed value is 65535. You can also use an AT Command to set this value. For more information, see *ENGHRS on page 445. *Note: You can configure Events Reporting to send reports based on this value. For more information, see Events Reporting Configuration on page 249.*

Field	Description
Power Saving Modes	
LED Power Saving Mode	Set the LED Power Saving option: • Enable—When enabled, the Signal LED Is off when the signal strength is good or average, and the Network LED is off when the RV50 is connected to a network. The LEDs still indicate: **Signal LED:** • Poor signal: Flashing Amber • No signal: Flashing Red **Network LED:** • Connecting: Flashing Green • No network available: Flashing Red • Disable—Signal LED and Network LED indicate all states (default) **Signal LED:** • Good signal: Solid Green • Average signal: Solid Amber • Poor signal: Flashing Amber • No signal: Flashing Red **Network LED:** • LTE network: Solid Green • 3G or 2G network: Solid Amber • Connecting: Flashing Green • No network available: Flashing Red *Note: For a complete description of LED behavior, refer to the AirLink RV50 Series Hardware User Guide.*
Processor Power Savings Mode	Recommended for customers who require the lowest possible active/idle power consumption, for example, in battery or solar powered applications. Enabling this feature saves energy by reducing performance where possible. The default setting (Disable) favors performance, but increases power consumption.

Additional Power Saving Strategies

If the following table lists features, that if not used in your application, can be turned off/disabled to minimize power consumption.

Feature	Default Setting	Location in ACEmanager
	Off/Disable	> Global Settings See Location Service on page 228.
Ethernet port	On	LAN > Ethernet > General LAN > Ethernet > Advanced See Ethernet Port Configuration on page 114.

Feature	Default Setting	Location in ACEmanager
Ethernet Link Setting (data rate)	Auto 10/100/1000	LAN > Ethernet > Advanced See Link Setting on page 115.
USB port	On USBNET	LAN > USB > General See USB Device Mode on page 118.
Serial port	On/Enable	Serial > Port Configuration See Serial Port on page 268.

Dynamic DNS

Dynamic DNS allows an AirLink gateway's WAN IP address to be published either to a proprietary Sierra Wireless dynamic DNS service called IP Manager, or to a 3rd party DNS service.

Whether you have one Sierra Wireless AirLink gateway or multiple devices, it can be difficult to keep track of the current IP addresses especially if the addresses are not static but change every time the devices connect to the mobile network. If you need to connect to a specific gateway, or the device behind it, it is much easier when you have a domain name (mypage.mydomain.com).

Reasons to Contact or Connect to a Device:

- Requesting a location update from a delivery truck
- Contacting a surveillance camera to download logs or survey a specific area
- Triggering an oil derrick to begin pumping
- Sending text to be displayed by a road sign
- Updating the songs to be played on a juke box
- Updating advertisements to be displayed in a cab
- Remote accessing a computer, a PLC, an RTU, or other system
- Monitoring and troubleshooting the status of the gateway itself without needing to bring it in or go out to it.

A dynamic IP address is suitable for many Internet activities such as web browsing, looking up data on another computer system, for data only being sent out, or for data only being received after an initial request (also called Mobile Originated). However, if you need to contact the AirLink gateway directly, a device connected to the AirLink gateway, or a host system using your AirLink gateway (also called Mobile Terminated), a dynamic IP will not give you a reliable address to contact (since it may have changed since the last time it was assigned).

Domain names are often only connected to static IP addresses because of the way most domain name (DNS) servers are set-up. Dynamic DNS servers require notification of IP Address changes so they can update their DNS records and link a dynamic IP address to the correct name.

- Dynamic IP addresses are granted only when your AirLink gateway is connected and can change each time the gateway reconnects to the network.