

# ORPAK AVI/RFID Fueling

## Feature Reference

Date: December 13, 2016



**Verifone**<sup>®</sup>

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## ORPAK AVI/RFID Fueling

### Using this Feature Reference

This Feature Reference provides detailed information on how to configure and use the ORPAK AVI/RFID Fueling feature on the Commander Site Controller and RubyCi. The Feature Reference contains the subsections listed below:

- **Overview** - This section contains a brief description, requirements and the supported hardware configurations for the ORPAK AVI/RFID Fueling feature on the Commander Site Controller.
- **Configuring** - This section contains information on how to configure the ORPAK AVI/RFID Fueling feature on the Commander Site Controller.
- **Using** - This section describes how to prepare the Commander Site Controller for the ORPAK AVI/RFID Fueling feature.
- **Reporting** - This section contains a sample report with a detailed report description for the ORPAK AVI/RFID Fueling feature on the Commander Site Controller.

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## Revision History

Date	Description
02/01/2016	Initial Release.
09/15/2016	Updated Format.
12/13/2016	Updated PCI private IP addressing requirements.

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# CONTENTS

- GLOSSARY OF TERMS . . . . . iv
- ORPAK AVI/RFID FUELING SYSTEM. . . . . 1
  - Overview. . . . . 1
    - Feature Description . . . . . 1
    - ORPAK AVI/RFID Fueling System . . . . . 2
    - VIU Transaction Flow . . . . . 3
    - Support Limitations . . . . . 3
    - Supported Hardware Configuration . . . . . 3
  - Configuring the ORPAK AVI/RFID . . . . . 4
    - Configuring with Commander Configuration Client. . . . . 4
  - Using the ORPAK AVI/RFID . . . . . 6
    - Normal Operation . . . . . 6
    - Fueling Pause and Resume . . . . . 6
  - Reporting the ORPAK AVI/RFID . . . . . 7
    - AVI/RFID Transaction Receipt . . . . . 7
- APPENDIX. . . . . 8
  - Dispenser Display . . . . . 8
    - Dispenser General Limits . . . . . 8
    - Dispenser ORPAK AVI/RFID Fueling Display Sequence . . . . . 9
    - Loyalty . . . . . 9
    - Handle Up Calling . . . . . 11

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## GLOSSARY OF TERMS

The following terms and definitions will assist the reader with understanding the content of the Feature Reference.

Terms	Definitions
AVI	Automatic Vehicle Identification
CGI	Common Gateway Interface
DCR	Dispenser Card Reader
EPS	Electronic Payment System
FCC	Forecourt Controller
IFSF	International Forecourt Standards Forum
MWGT	Master Wireless Gateway Terminal
NR	Nozzle Reader
OTI	A company which produces an RFID system similar to that of ORPAK. It is currently not supported.
RFID	Radio Frequency Identification
SDK	Software Development Kit
VIPER	Verifone's Payment Processing Software running on the Electronic Payment Server.
VIU	Vehicle Identification Unit
WGT	Wireless Gateway Terminal

# ORPAK AVI/RFID Fueling System

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## Overview

### Feature Description



*Before starting, obtain the ORPAK AVI IP address from the ORPAK AVI technician.*



*To comply with PCI private IP addressing requirements, the Verifone Enhanced Zone Router disallows communication with public Internet addresses, and no longer openly routes or allows communication from or to IP addresses outside of the defined Verifone Zone.*

*192.168.31.x is reserved for the Verifone POS zone.*

*All device IP addresses that communicate with the POS Zone must be RFC1918 compliant, meaning they are any private addresses that fall in the following IP scope:*

- 10.0.0.0 - 10.255.255.255
- 172.16.0.0 - 172.31.255.255
- 192.168.0.0 - 192.168.255.255

*Establishing communication between a store network device and a Verifone device in the POS Zone using the Verifone Enhanced Zone Router requires the following configurations:*

- *Assign an RFC1918 compliant address to the store device.*
- *Configure the store router/firewall to allow the device to communicate to the EZR.*
- *Use Config Client to define a Device Specific Route to the device.*
- *Configure a Port Forwarding rule on the EZR for the device. (Requires both the device IP address and port number.)*

*For detailed setup instructions, refer to the following documents:*

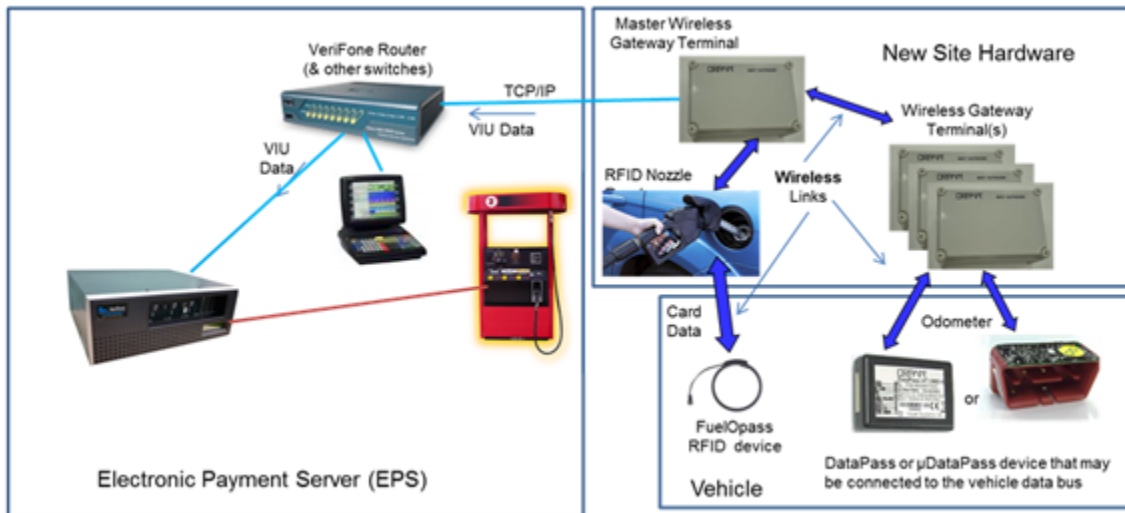
- *Commander Site Controller Network Configuration Guide*
- *Enhanced Zone Router Installation Guide*

The ORPAK AVI/RFID Fueling System allows a vehicle equipped with the FuelOmat Gold Vehicle Identification Unit (VIU) devices to obtain automatic payment authorization and purchase fuel.

The VIU data is obtained from the vehicle through a wireless connection to a Nozzle Reader (NR) or Wireless Gateway Terminal (WGT) as shown below in the diagram. Next, the VIU data is transferred from these devices via wireless links to the Master Wireless Gateway Terminal (MWGT).

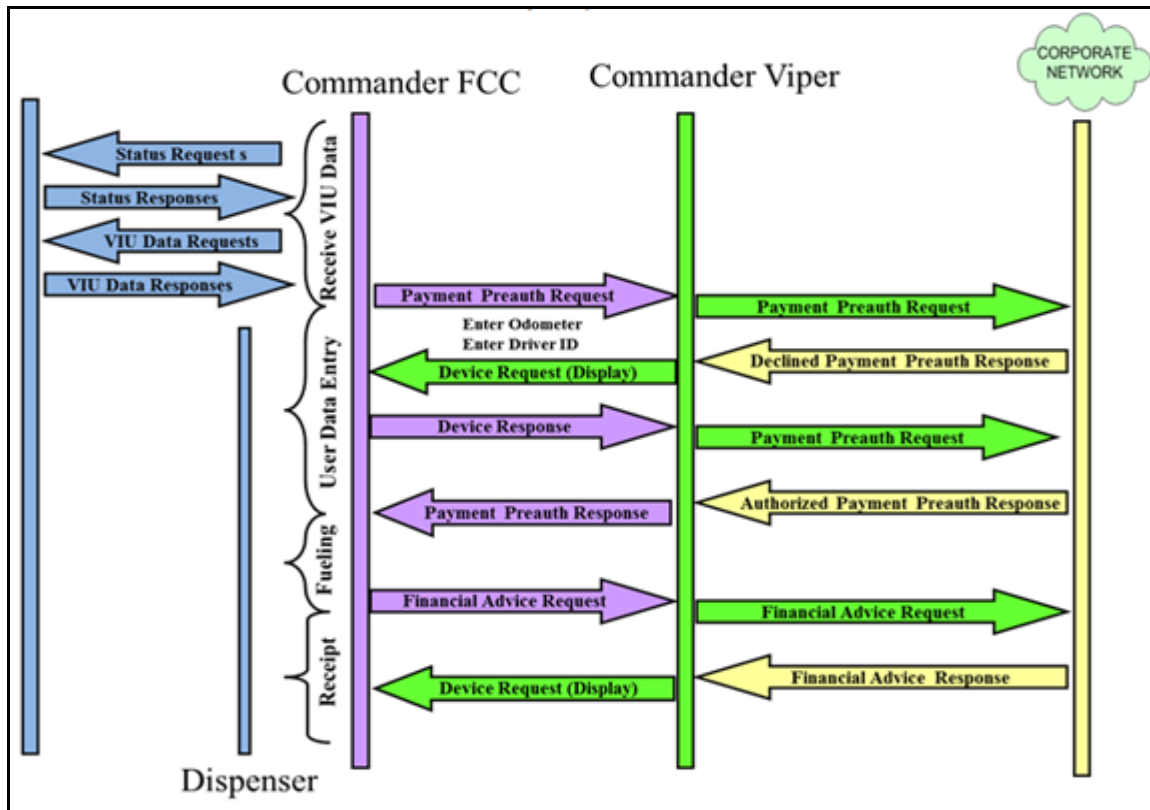
The Electronic Payment Server (EPS) periodically sends a status request to the Master WGT via a wired ethernet link. When the MWGT status indicates that VIU data is available, the EPS system will request this data, use it to gain payment approval and allow fuel to be dispensed.

## ORPAK AVI/RFID Fueling System



## VIU Transaction Flow

A VIU Transaction Flow is shown below. The interface between the MWGT and the Commander Site Controller is defined by the WGT SDK document. The interface between the Commander Forecourt Controller and VIPER is defined by the International Forecourt Standards Forum (IFSF) document.



## Support Limitations

- The ORPAK AVI/RFID Fueling feature supports the MWGT and additional WGT devices.
- The ORPAK AVI/RFID Fueling feature supports only fleet payment types.
- Since VIU track discretion data restricts the purchase to fuel only, there are no modifications to prevent the car wash prompt.
- Current POP functionality is not altered.
- EPS Loyalty is disabled unless it is selected at the Dispenser Card Reader (DCR) prior to an AVI/RFID fueling attempt. See the Appendix for additional detail.
- For an explanation of how *“Handle Up Calling”* will operate in conjunction with the IFSF\_AVI entry method, see the Appendix.

## Supported Hardware Configuration

- Commander Site Controller with Topaz / Ruby2
- RubyCi with Topaz / Ruby 2



## Configuring the ORPAK AVI/RFID

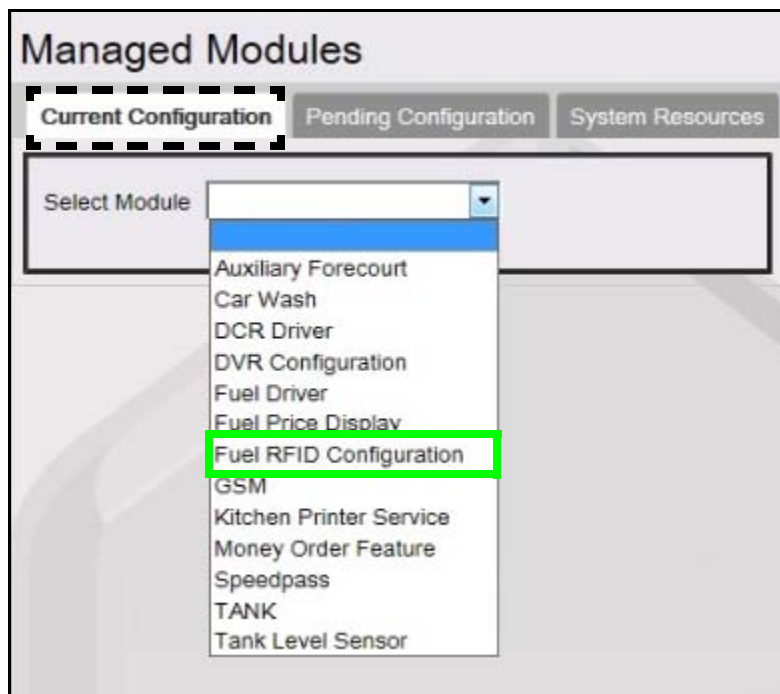
### Configuring with Commander Configuration Client

1. Obtain the AVI IP address from the Orpak AVI technician.
2. From the Configuration Client, go to: Tools > Managed Modules.




The Managed Modules window displays. The following tabs are available for selection:

- Current Configuration
- Pending Configuration
- System Resources



3. Select the [Current Configuration] tab.
4. Select [Fuel RFID Configuration].

- Configure the Fuel RFID Configuration parameters.

Value	Description
<b>RFID</b>	
AVI enable	Select to enable AVI.
AVI IP Address	Sets the AVI IP address that must match what is programmed on the AVI controller.
OTI enable	Select to enable OTI.
 <i>oti is a company which produces an RFID system similar to that of ORPAK. It has been included for future interface support but is not currently used.</i>	
OTI IP Address	IP address for OTI.

- Select [Save] to accept, or [Cancel] to exit without saving changes.



*The MWGT will be installed on the store LAN. The store router must have a path configured between the Commander Site Controller and the MWGT.*

*The configured address must be within the RFC1918 defined range for private IP addresses. Addresses attempting to access the POS Zone that are not within the RFC1918 scope will be denied.*

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## Using the ORPAK AVI/RFID

### Normal Operation

1. Insert the nozzle that has the RFID into the vehicle gas tank where the Opass RFID device is located.
2. The Opass RFID device mounted on the gas tank makes the connection to the RFID nozzle and approves the pump.
3. If equipped, the customer lifts the lever on the pump and selects the grade.
4. The customer dispenses the fuel.
5. The customer hangs up the nozzle and completes the fuel transaction.
6. A receipt is printed at the DCR.

### Fueling Pause and Resume

If the VIU data becomes unavailable while fuel is approved for dispensing, the Commander Site Controller prevents fuel from being dispensed (Fueling Pause). During a Fueling Pause, the Commander Site Controller displays the *"PUMP STOPPED"* message at the DCR. If the dispenser handle is lowered during a Fueling Pause, the Commander Site Controller will terminate the transaction.

If fuel dispensing has been prevented (Fueling Pause) for an AVI/RFID transaction, the Commander Site Controller will prevent the cashier from reapproving the dispenser. There is a limitation in the Tokheim dispenser firmware where a stop command is ignored when it is received within three seconds after a start command is received. The Commander Site Controller performs a three second delay before issuing a stop command for the Tokheim system to prevent the cashier from reapproving the dispenser. This three second delay will also be observed for all Fueling Pauses with Tokheim dispensers.



# APPENDIX

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## Dispenser Display

The following is information provided to show the dispenser display limitations.

### Dispenser General Limits

#### Gilbarco:

##### *Non-graphics*

One line will display the first 20 characters and then scroll to show any additional characters up to a maximum of 100 characters (any additional characters beyond 100 will be truncated).

##### *Graphics*

There are eight lines of 20 characters per line.

#### Wayne:

##### *Non-graphics*

Two lines of 16 characters per line

##### *Graphics*

- 2-line display – there are two lines of 16 characters per line.
- Full Screen with 5-inch Display – there are nine lines of 16 characters per line; it is also possible to display 12 lines of 21 characters per line in expanded character mode (only available on Full Screen graphics dispensers).



*The 21 character expanded character mode is currently only used for the idle screen. It is possible to use this mode for other screens if desired.*

#### Tokheim:

##### *Non-graphics*

There are lines of 20 characters per line.

##### *Graphics*

There are four lines of 20 characters per line.

## Dispenser ORPAK AVI/RFID Fueling Display Sequence

The following is an example of the messages displayed for a typical ORPAK AVI/RFID Fueling transaction sequence.

1. The nozzle is removed from the dispenser, placed in vehicle fuel inlet, and VIU data is received by the EPS.
2. The dispenser displays the authorizing message and the POS workstations display the fueling icons.
3. If VIU data does not contain the required network payment user data (such as odometer), the customer may be prompted to enter it.
4. After the network payment is authorized, fueling is authorized and the pre-fueling prompt is displayed.
5. After fuel dispensing is initiated, the fueling message is displayed.
6. If the nozzle is removed from the vehicle fuel tank, the dispenser is de-authorized and a pause message is displayed.
7. If the nozzle is replaced in the vehicle fuel tank, the dispenser is re-authorized so that fueling can be resumed. A fueling message will be displayed.
8. When fuel dispensing is completed and the nozzle is replaced, the dispenser will tender the transaction and display the receipt prompt.

## Loyalty

This section describes Loyalty functionality for an AVI transaction.

### Loyalty prompt presented while dispenser idle.

A Loyalty prompt is presented at the DCR requesting that customer to select either "Yes" for Loyalty or "No" to skip Loyalty.

### *Scenario 1: Customer selects Loyalty prior to placing nozzle in fuel tank.*

1. The customer selects [Yes] at the Loyalty prompt.
2. A prompt is presented at the DCR requesting the customer to provide Loyalty information by card swipe or other method such as manual entry.
3. The customer enters the <Loyalty information>.
4. The POS uses the provided Loyalty information to compute the discount on the fuel purchase.
5. Any Loyalty generated price per gallon discount and discounted prices display at the dispenser.
6. The customer places the nozzle in the fuel tank.
7. The POS receives payment information from the MWGT.
8. The POS approves the dispenser for fueling.
9. The customer dispenses the fuel and hangs up the nozzle.
10. The Loyalty discount is included on the receipt by the POS.

***Scenario 2: Customer selects not to use Loyalty prior to placing nozzle in fuel tank.***

1. The customer selects [No] at the Loyalty prompt.
2. A prompt is presented at the DCR requesting the customer provide payment information.
3. The customer places the nozzle in the fuel tank.
4. The POS receives payment information from the MWGT.
5. The POS approves the dispenser for fueling.
6. The customer dispenses the fuel and hangs up the nozzle.

***Scenario 3: Customer does not make a Loyalty selection prior to placing nozzle in fuel tank.***

1. The customer places the nozzle in the fuel tank.
2. The POS receives payment information from the MWGT.
3. The POS approves the dispenser for fueling.
4. The customer dispenses the fuel and hangs up the nozzle.

**Loyalty prompt presented after payment information received.**

A payment prompt is presented at the DCR requesting the customer to swipe a payment card and press a payment type key.

1. The customer places the nozzle in fuel tank.
2. The POS receives payment information from the MWGT.
3. The POS skips the Loyalty prompt since this is an AVI transaction.
4. The POS approves the dispenser for fueling.
5. The customer dispenses the fuel and hangs up the nozzle.

## Handle Up Calling

This section describes the system behavior when the POS is configured for a “*call in*” from the dispenser to the POS workstation. The dispenser call in begins when a dispenser handle is lifted. The POS workstation produces both an audible and visual alert indicating that a dispenser is calling in for authorization. The cashier can then authorize the dispenser by pressing a key on the workstation.

### Card Takeover Enabled

Precondition: The system is configured to allow payment information to be presented at the DCR after the dispenser has been approved for fueling by the cashier (Card Takeover Enabled).

*Scenario 1: Cashier authorizes fueling prior to customer placing nozzle in fuel tank.*

1. The customer raises the handle on dispenser.
2. The POS alerts the cashier of the pump calling in for authorization.
3. The cashier approves the dispenser for fueling.
4. The customer places the nozzle in the tank.
5. The POS receives payment information from the MWGT.
6. The customer dispenses the fuel and hangs up the nozzle.

*Scenario 2: Cashier authorizes fueling after customer places nozzle in fuel tank.*

1. The customer raises the handle on the dispenser.
2. The POS alerts the cashier of the fueling authorization request.
3. The customer places the nozzle in the tank.
4. The POS receives payment information from the MWGT.
5. The POS approves the dispenser for fueling.
6. The POS disables the cashier approval of the dispenser.
7. The customer dispenses the fuel and hangs up the nozzle.