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Preface

This Installation Guide describes the requirements and procedures to install this Oracle Hospitality RES 3700 (RES) release.

Audience

This document is intended for:

- Deployment personnel
- Database administrators
- System administrators
- Product support

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:
https://support.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received and any associated log files
- Screen shots of each step you take

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at http://docs.oracle.com/en/industries/hospitality/

Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2016</td>
<td>• Initial publication.</td>
</tr>
<tr>
<td>May 2017</td>
<td>• Automatic discovery mode.</td>
</tr>
<tr>
<td></td>
<td>• Generating a client trust pass phrase.</td>
</tr>
</tbody>
</table>
# 1 Installing RES 3700

## Installation Roadmap

The following table provides a roadmap for installing RES 3700 (RES).

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify your system environment</td>
<td>Before beginning the installation, verify that the system environment meets the recommended system and network requirements.</td>
<td>See the Oracle Hospitality RES 3700 5.5 Release Notes.</td>
</tr>
<tr>
<td>Understand RES 3700 security</td>
<td>Before beginning the installation, read and understand environment and application security for RES 3700.</td>
<td>See the Oracle Hospitality RES 3700 5.5 Security Guide.</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Before beginning the installation, verify that you have sufficient operational understanding of key concepts and perform the necessary steps to prepare the deployment site for RES installation.</td>
<td>See Installation Prerequisites.</td>
</tr>
<tr>
<td>Pre-convert the database</td>
<td>If you are upgrading RES from a version older than 5.x, pre-convert the database for compatibility with RES 5.x.</td>
<td>See Pre-Completing Databases.</td>
</tr>
<tr>
<td>Install the RES 5.5 Prerequisites</td>
<td>You must run the RES 5.5 Prerequisites installer.</td>
<td>See Installing the RES 5.5 Prerequisites.</td>
</tr>
<tr>
<td>Install RES 5.5</td>
<td>You must run the RES 5.5 Setup installer.</td>
<td>See Installing RES 5.5</td>
</tr>
<tr>
<td>Restore a database</td>
<td>If you are upgrading RES, restore the database that you previously pre-converted.</td>
<td>See Restoring Pre-Converted Databases.</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
<td>Reference</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Verify server configurations</td>
<td>Make sure the server and database are configured to communicate after restoring a database.</td>
<td>See Verifying Server Configurations After Restoring a Database.</td>
</tr>
<tr>
<td>Install or update RES on client workstations</td>
<td>Make sure client CAL is updated and configured properly to communicate with the RES server. When the RES server restarts, the client CAL automatically downloads and installs or upgrades the RES client on each device. If the install or upgrade does not start, reboot the client.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Configure optional RES settings</td>
<td>You can customize the settings on your system.</td>
<td>See Configuring Optional RES Settings.</td>
</tr>
<tr>
<td>Install peripherals</td>
<td>To use peripheral devices with RES, follow the instructions specific to the peripheral you want to install, or refer to the hardware documentation for the peripheral you want to install.</td>
<td>See Installing Peripherals.</td>
</tr>
</tbody>
</table>
2 Installation Prerequisites

This chapter describes the knowledge, actions, and preparation required before beginning RES installation.

Before Starting

Make sure you have an:

- Operational understanding of PCs and a working knowledge of the Microsoft Windows interface.
- Operational understanding of the Client Application Loader (CAL) technology.
- Understanding of POS terminology and concepts.
- Understanding that:
  - You cannot perform incremental database backup after installing a patch. You must first perform a full database backup under the new patch.
  - You cannot repair or modify installation features due to changes in the setup process. If a problem occurs, you must reinstall RES.
  - RES installation does not support installing to a mapped drive. Make sure to install RES to local drives.

Configuring a Batch File to Execute Scripts During Patching

If you are installing a maintenance release, you can configure a batch file to execute scripts:

1. Add a registry key under `HKLM\Software\Micros\` and name it `Patch`.
2. Create and set the following two String values for this key:
   - `CustomPreUpdate`: the installer runs the file linked through this key at the beginning of the process. You can use this key to shut down non-RES services.
   - `CustomPostUpdate`: the installer runs the file linked through this key after updating all files, but before updating the database.

Setting the User Account Control (UAC) Setting to the Default Level

RES installation requires permissions to add a new user to the Administrator Group. Use the existing administrator account only to create a new user and to add existing users to the Administrator Group.

1. Click **Start**, and then click **Control Panel**.
2. Click **User Accounts**.
3. Select **Change User Account Control Settings**.
4. Make sure the selected setting is **Default**. Otherwise, select **Default**, and then restart the server.
Keep the server and Microsoft Windows clients at the Default UAC setting for daily POS operations.

**Disabling Anti-virus Software**

Anti-virus software can obstruct RES installation due to a script locking feature. Disable the anti-virus software or disable the script locking feature.

**Shutting Down the MICROS Portal Services**

- If you are performing a RES upgrade on a system with a MICROS Portal installation, shut down the Micros Agent and Micros Watchdog services. If you do not shut down these services, the system may lock up during database conversion.
- If the end users modified Global.css to allow Manager Procedures to support double-byte characters, back up Global.css and then restore the original version of Global.css from the Micros\common\ManagerProcAsp\ folder. You can copy the modified file back to the directory after installation finishes.

**Clearing Packing Slips and Invoices from the Project Management Queues**

If the site uses Project Management (PM) software, reconcile and approve all packing slips and invoices. The system may not properly prevent users from selecting and modifying receipts during a closed period.

**Installing Internet Information Services (IIS)**

**On Microsoft Windows 10**

1. Click Start, click Control Panel, and then click Programs and Features.
2. Select Turn Windows features on or off.
3. Click Internet Information Services.
4. Click Web Management Tools, and then select IIS 6 Management Compatibility and IIS Management Console.
5. Click World Wide Web Services, and then:
   a. Click Application Development Features, and then select ASP and ASP.NET.
   b. Click Common HTTP Features, and then select Default Document, HTTP Errors, and Static Content.
   c. Click Health and Diagnostic, and then select HTTP Logging and Request Monitor.
   d. Click Performance Features, and then select Static Content Compression.
6. Click OK.
On Microsoft Windows 7
1. Click Start, click Control Panel, and then click Programs and Features.
2. Select Turn Windows features on or off.
3. Click Internet Information Services.
4. Click Web Management Tools, and then select IIS 6 Management Compatibility and IIS Management Console.
5. Click World Wide Web Services, and then:
   a. Click Application Development Features, and then select ASP and ASP.NET.
   b. Click Common HTTP Features, and then select Default Document, HTTP Errors, and Static Content.
   c. Click Health and Diagnostic, and then select HTTP Logging and Request Monitor.
   d. Click Performance Features, and then select Static Content Compression.
6. Click OK.

On Microsoft Windows Server 2008 R2
1. Click Start, click Administrative Tools, and then click Server Manager.
2. In Server Manager, click Roles, and then click Role Summary.
3. Click Add Roles, and then click Next.
4. Click Web Server (IIS), click Next, and then click Next.
5. Select Asp.net and Asp.
6. Click Add required role services.
7. Under Health and Diagnostics, select HTTP Logging and Request Monitor.
8. Select IIS Management Console and IIS 6 Management compatibility.
9. Click Next, and then click Install.

Enabling Firewalls
Enable firewalls before installing RES on a server or Win32 client. If you disable firewalls during installation, the installers do not recognize the firewalls and automatically create the necessary exceptions. See "Updating the exceptions list for firewalls" for adding exceptions after installation finishes.

Backing Up Your OCBServer.ini File
The RES installer overwrites the existing \Scripts\OCBServer.ini file. Back up OCBServer.ini before upgrading or patching RES.

Backing Up Your Web.config Files
The RES installer overwrites the Web.config files in the following folders:
• \MICROS\common\ManagerProcsASP\
• \MICROS\common\ManagerProcsFujitsu\n• \MICROS\common\ManagerProcsPPC\n• \MICROS\common\MenuBoard\n• \MICROS\common\ReportViewer\n• \MICROS\common\ResPosApiWeb\n
Back up the Web.config files before upgrading or patching RES. You can replace the files with the modified versions after installation finishes.

Modifying AppStarter.cfg

If you are upgrading and you had previously configured the AppStarter.cfg files, you must perform the following steps before beginning the upgrade to allow client initialization:

1. Open Installation Path\CAL\Files\AppStarter.cfg in an editor.
2. Look for the following lines:
   //Wait for MDSHosts.xml
   $(MICROS_DIR_COMMON_BIN)\WaitForHostsFile.exe,, Wait for MDSHosts File, -1
3. Add the following lines:
   // Run Client Trust Utility
   $(MICROS_DIR_COMMON_BIN)\CTUtil.exe,, Client Trust Utility, -1

Upgrading the Existing Database on a Lab System

Sybase 16 cannot handle certain conversions due to custom tables, triggers, stored procedures, and so on. Make sure to upgrade the existing database before performing installation at a live site to make sure the upgrade succeeds.

Enabling Context-Sensitive Help on Microsoft Windows 7 and Server 2008

The following Microsoft updates must be performed and completed for context-sensitive help to function correctly:

- Microsoft Windows 7:
- Microsoft Windows Server 2008 R2:

Context-sensitive help will not function on Microsoft Windows 10.

Configuring the Server and Clients to Avoid Automatically Powering Off

1. Click Start, click Control Panel, click System, and then click Device Manager.
2. Right-click the network card, and then select Properties.
3. On the Power Management tab, deselect Allow the computer to turn off this device to save power.
4. Click Start, click Control Panel, and then click Power Options.
5. Select Change when the computer sleeps.
6. Set Put the computer to sleep to Never.

Configuring the Binding Order of the MICROS RES Network Adaptor on Servers with Dual NIC Cards

1. Click Start, click Control Panel, click Network and Sharing Center, and then click Change Adapter Settings.
2. Press ALT, click Advanced, and then click Advanced Settings.
3. On the Adapters and Bindings tab, select the MICROS RES Network Adaptor, and then use the arrow buttons to move it to the top of the list.

Final checks and reminders

- You cannot perform incremental database backup after installing a patch and before performing a full database backup under the new patch.
- You cannot repair or modify installation features due to changes in the setup process. You must reinstall RES to repair problems.
3 Pre-Converting Databases

If you are upgrading from a RES version older than 5.0, you must pre-convert the database to be compatible with the RES 5.0 database. Note that a database that has been pre-converted to 5.x does not work with earlier versions of RES. Make sure to create a backup copy of the database before you pre-convert the database.

Pre-Converting Databases from RES 3.1 or Earlier

You cannot pre-convert and upgrade databases from RES 3.1 or earlier directly to RES 5.x. Upgrade and convert older databases to RES 3.2 or a compatible version of RES 4.x, then pre-convert the database to RES 5.x.

Pre-Converting Database from RES 3.2

1. Copy PreConvert32DB.bat from \support\ to a temporary folder.
2. In the MICROSO Control Panel, set Restaurant to OFF.
3. Double-click PreConvert32DB.bat.
4. Rename Micros.DB to PreConverted32.DB and copy it to the RES 3700 5.x server.

Pre-Converting Databases from RES 4.x

You can convert the following RES 4.x databases to RES 5.x. If you are using a version that is not on the following list, upgrade to a compatible version before pre-converted the database:

- 4.9 and 4.9 MR1
- 4.8 and 4.8 MR1 through MR5
- 4.7 and 4.7 MR1 through MR3
- 4.6 and 4.6 MR1
- 4.5 and 4.5 MR1
- 4.4
- 4.3 HF1 and HF2 (HF1 is the oldest hotfix database that can be upgraded. 4.3 MR3 cannot be upgraded to 5.x.)

To pre-convert the database, follow these steps:
1. Make sure the 4.x database is running.
2. Copy 4xPreConvertTo5x.mcs from \support\ to a temporary folder.
3. Open Database Manager with a user count that has database rebuild privileges.
4. In Database Manager, navigate to Rebuild.
5. On the Update tab, click the folder icon below Apply Scripts.
6. Navigate to the temporary folder and select the copy of 4xPreConvertTo5x.mcs.
7. Click Apply Scripts.
8. On the Backup Database tab, select Backup Database.
9. Click Run.

10. Rename `\Database\Data\Backup\Archive\4x.MBZ` to `PreConverted4x.MBZ` and copy it to the RES 5.x server.
4 Installing the RES 5.5 Prerequisites

You must run the RES 5.5 Prerequisites installer before running RES 5.5 Setup.

1. Stop RES:
   a. In the MICROs Control Panel, set Restaurant to OFF.
   b. Make sure all hard drive clients are in a closed system state.
   c. Close all applications, including the MICROs Control Panel.
   d. If you modified any core RES files, make sure to create a backup and replace them with the original files before proceeding. While modified files do not stop the patching process, the installer may skip the update process on modified files. You can replace the files with the backed up copy after the update finishes.

2. Double-click MICROs RES 5.5 Prerequisites.exe to allow it to automatically extract the executables and to automatically launch the installation wizard.

3. Follow the instructions and click Install to begin installing or updating the Prerequisite applications.

4. When prompted, click Finish to complete installation.

5. If you upgraded from the RES 5.0 Prerequisite, do not uninstall the RES 5.0 Prerequisite installation from the Microsoft Windows Control Panel.
5 Installing RES 5.5

1. Download and then double-click `setup.exe`.
2. If Microsoft Windows prompts you about allowing changes to the computer, click **Yes**.
3. On the welcome page, click **Next**.
4. On the License Agreement page, read, accept or refuse the terms of the license agreement, and then click **Next**.
5. On the install path page, click **Browse** to specify a different install location, and then click **Next**. You must install the MICROS files in the root folder of a local drive.
6. On the setup type page, select whether you want to install a new database or whether you want to use an existing database, and then click **Next**.
   a. If you select to install a shell database, select the type of shell depending on the currency being used. For example, the US dollar uses two decimal spaces and the Russian ruble uses three decimal spaces.
   b. If you select to use an existing database, select whether you want the installer to restore a pre-converted database or whether you will perform restoration after installation. Use the .MBZ5 file produced during pre-conversion.
7. Review the installation summary, and then click **Next**.
8. When beginning database upgrade, enter a Client Trust Passphrase when prompted by the Database Manager.
9. Reboot the system when prompted by the installer.
10. When installing RES 5.5.2 or later, if there is no Client Trust Passphrase configured, the installer creates and assigns a random passphrase.
11. When the Client Application Loader completes installing or upgrading RES on the client workstations, the AppStarter prompts you to enter the Client Trust Passphrase. You can enter the Client Trust Passphrase at each client, or place the system in Discovery Mode to allow configured clients to automatically retrieve and use the Client Trust Passphrase. You can place the system in Discovery Mode using the following methods:
   a. For RES 5.5.2 and later, you can set a duration for Discovery mode by entering the following in a command line prompt: `DM -DS duration_minutes -UID username -PWD password` You cannot set the duration of discovery mode to be longer than 60 minutes.
      Enter the credentials for a database DBA or for a RES user with sufficient privileges to change encryption keys.
   b. Enter the Client Trust Passphrase for a client, and then reboot the client. After POS Operations starts, click **Yes** when it prompts, **Do you want to put the system in auto discovery mode?**
c. Launch **Database Manager**, click **Encryption Keys**, click **Activate Discovery Mode**, and then click **Yes** when it prompts. This will activate discovery mode. Do you wish to continue?

12. Review the *Oracle Hospitality RES 3700 5.5 Security Guide* for information and instructions regarding post-installation security.
Activating RES Features

After installation, you must activate RES features before usage.

1. Launch the License Manager.
2. For each Installed Product (POS 3700, Kitchen Display System, RES Platform, Enterprise Office, Enterprise Management, Guest Services Solution), select the product tab.
3. Select the Product/Features tab under the Activation group.
4. Select all Product Activation items.
5. Select the purchased features in the Feature Activation group.
6. Click Reload.
7. Verify the selected features show a check mark under the product tab.
7  Restoring Pre-Converted Databases

This chapter describes how to restore a pre-converted RES database to RES 5.x after RES is installed on the deployment site. Use these instructions if you chose not to convert the database during installation or if you need to restore a database at any point after RES is operational.

Restoring RES 3.2 Databases

You can only restore a 3.2 database using the command line.

1. Copy PreConverted32.DB to your RES server.
2. In the MICROS Control panel, set Restaurant to OFF.
3. Navigate to \Micros\Database\Data\ and create a backup of micros.db and micros.log. The restoration process deletes these files.
4. In a command line interface, enter:
   DM –u "PathToPreConverted32.DB"
   For example:
   DM –u "D:\My DBs\PreConverted32.DB"
5. Change the encryption keys, DBA passwords, and Micros passwords. The server and database uses the default encryption keys and passwords after restoring the database.

Restoring 4.x Databases

You can only restore a 4.x database from a complete Micros.MBZ and by using the command line.

To restore a 4.x database, follow these steps:

1. Copy PreConverted4x.MBZ to your RES server.
2. In the MICROS Control Panel, set Restaurant to OFF.
3. Navigate to \Micros\Database\Data\ and create a backup of micros.db and micros.log. The restoration process deletes these files.
4. In a command line interface, enter:
   DM –u "PathToPreConverted4x.MBZ"
   For example:
   DM –u "D:\My DBs\PreConverted4x.MBZ"

The server and restored database uses the encryption keys and passwords stored in 4x.MBZ.

Restoring 5.x Databases

You can restore a RES5x.MBZ5G3 database using either the Database Manager GUI or the command line. If you restore the database using the Database Manager GUI, the process saves a copy of the existing database as
\Micros\Database\Data\Replaced.mbz5g3. If you restore the database using the command line, the process deletes any existing micros.db and micros.log in the \Micros\Database\Data\ folder.
Verifying Server Configurations After Restoring a Database

You must verify server configurations whenever you restore the database.

1. Open the MICROS Control Panel and set Restaurant to Database.
2. In the POS Configurator, and click Devices, and then click Network Node.
3. Enter the Computer Name, IP Address, Subnet Mask, and Workstation Type for all nodes, especially the Server.
4. Click Update Host File.
   a. If the server prompts you for administrator permission for allowing changes, click Allow changes.
   b. Enter the administrator password if required.
5. In the MICROS Control Panel, select Restaurant, and then click Reload DB.
6. After the status icons become green check marks, set Restaurant to OFF.
7. Restart the server.
8 Configuring Optional RES Settings

Using Custom Logos
You can configure the logo shown in RES by changing res3700.bmp.
1. To change the logo on the RES Server, place the modified res3700.bmp file in the \MICROS\Res\POS\Bitmaps\ folder.
2. To change the logo on the respective clients, place the modified res3700.bmp file in the \Files\CF\MICROS\Bitmaps\ folder for each client. See Client CAL Folders for a list of the root folders for each client.
3. Wait 30 seconds for the file to transfer from the server to the client.
4. Reboot the client.

Using Custom Icons
You can configure custom icons for hard drive clients by editing customicons.dll.
1. Place the modified customicons.dll file in the \Files\CF\MICROS\Bin\ folder for each client. See Client CAL Folders for a list of the root folders for each client.
2. Wait 30 seconds for the file to transfer from the server to the client.
3. Reboot the client.

Using Custom Display Configurations
You can configure the OPS display by editing OPSDisplayUser.cfg.
1. To change the display on the RES Server, place the modified OPSDisplayUser.cfg file in the \MICROS\Res\POS\etc\ folder.
2. To change the display on the respective clients, place the modified OPSDisplayUser.cfg file in the \Files\CF\MICROS\etc\ folder for each client. See Client CAL Folders for a list of the root folders for each client.
3. Wait 30 seconds for the file to transfer from the server to the client.
4. Reboot the client.

Using Custom Scripts
1. To install the scripts on the RES Server, place the script files in the \MICROS\Res\POS\Scripts\ folder.
2. To install the scripts on the respective clients, place the script files in the \Files\CF\MICROS\Scripts\ folder for each client. See Client CAL Folders for a list of the root folders for each client.
3. Wait 30 seconds for the file to transfer from the server to the client.
4. Reboot the client.
Using SIM Scripts

1. To install the scripts on the RES Server, place the script files in the \MICROS\Res\POS\etc\ folder.

2. To install the scripts on the respective clients, place the script files in the \Files\CF\MICROS\etc\ folder for each client. See Client CAL Folders for a list of the root folders for each client.

3. Wait 30 seconds for the file to transfer from the server to the client. Reboot the client.
9 Installing Peripherals

Installing the Rochelle Box

Before beginning installation, make sure your phone line is split so that one part goes to the phone and one part goes to the Rochelle box.

Installing Rochelle Model 2045

1. Click Start, click Run, enter regedit, and then click Run.
2. Navigate to My Computer\HKEY_LOCAL_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\-
3. Create a String key and name it ComPort.
4. Set the value of ComPort to the COM port number you want the box to use.
5. Attach the Rochelle box to the specified COM port on the server machine.
6. Click Start, click Control Panel, and then click Administrative Services.
7. Double-click Services, scroll to MICRO Caller ID Service, and then start the service.

Installing Rochelle Model 2050

1. Click Start, click Run, enter regedit, and then click Run.
2. Navigate to My Computer\HKEY_LOCAL_MACHINE\Software\Micros\GSS\CallerID\Rochelle\
3. Create a String key and name it NumDevices.
4. Set the value of NumDevices to 1.
5. Navigate to My Computer\HKEY_LOCAL_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\
6. Create and set the value of the following String keys:
   a. ComPort = COMPortNumber
   b. ComParameters = [2400 for baud | N for parity | 8 for data | 1 for stop]
   c. IniString = A_F0\r\nAT_R0\0\r\n
   d. DeviceLines = 4
7. If you want to attach additional devices, use the registry path My Computer\HKEY_LOCAL_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\Number
   For example, Parameters2
8. Attach the Rochelle box to the specified COM port on the server machine.
9. Click Start, click Control Panel, and then click Administrative Services.
10. Double-click Services, scroll to MICRO Caller ID Service, and then start the service.
Running a Rochelle Box in Demo Mode

1. Click Start, click Run, enter regedit, and then click Run.
2. Navigate to My Computer\HKEY_LOCAL_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\.
3. Create a String key and name it ComPort.
4. Set the value of ComPort to the COM port number you want to use.
5. Attach a null modem cable from the specified COM port to another COM port on the server.
6. Start the Rochelle Emulator.
7. Click Start, click Control Panel, and then click Administrative Services.
8. Double-click Services, scroll to MICROs Caller ID Service, and then start the service.

Installing Order Confirmation Boards (OCB)

The 3700 POS Interface supports the following Order Confirmation Board (OCB) devices:
- Texas Digital AccuView OCB
- Texas Digital Wenview OCB
- MICROs OCB

Setting Up the OCB Server

1. Create a copy of \micros\res\pos\scripts\OCBServer-template.ini and rename it to OCBServer.ini.
2. Configure the parameters in OCBServer.ini as described in the following table:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| DeviceType | 0 = None  
1 = Texas Digital AccuVIEW  
2 = Texas Digital WenVIEW  
3 = Texas Digital AccuVIEW CE  
4 = Everbrite SNS OCS  
5 = MICROs OCB and Drive-Thru Display Controller |
| ConnectType | 1 = COM Port  
2 = TCP/IP (MICROs OCB only) |
| ComPort | 1 = COM1  
2 = COM2  
Etc. |
| **BaudRate** | 1 = 1200  
|             | 2 = 9600  
|             | 3 = 19200 (suggested Baud Rate for AccuVIEW OCB)  
|             | 4 = 38400  
|             | 5 = 57600  
|             | 6 = 115200  
|             | If the site encounters display issues, set the Baud Rate to 3.  |
| **IpAddress** | MICROS OCB only.  
|               | Set the IP Address [ipaddr:port] of the OCB device. The port value can be found in the OCB.ini file as the value of the **Listen Port** parameter. By default, use 13001.  |
| **TotalLabel** | Label shown at the bottom of the OCB display immediately before the total due value.  |
| **TaxLabel** | Label shown at the bottom of the OCB display immediately before the tax value.  |
| **TotalScreenLine1** | The first line of text shown on the total screen shown by the OCB after an order is complete and the after service totaling or final tendering the associated check on the POS.  |
| **TotalScreenLine2** | The second line of text shown on the total screen.  |
| **Line1, Line2, etc.** | Each line of text of the default Message shown on WenView OCB devices. The devices show the text when the OCB is idle.  |
| **ScrollText1, ScrollText2, etc.** | Each line of text of the scrolling message shown at the bottom of the OCB display. AccuVIEW devices show an unlimited amount of scroll messages, while WenVIEW devices show one scroll message.  |
| **DisplayMenuItems**, **DisplayDiscounts**, **DisplayTenders**, **DisplayServiceCharges** | Determines whether to show the specified detailed type.  
| **DisplayVoids** | OCBServer does not support this parameter. If the parameter is set to 1, OCB logs a message to indicate the option is not supported. OCB always shows direct voids.  |
DisplayMenuLevelPrefix  Determines whether to show the menu level prefix. You must configure a menu item to show a menu level prefix using the **Menu level name** class option to use this parameter. OCB selects the main or sub level prefix based on the **Use sub menu level for pricing** level class option.

DisplayMenuItemDefaults  Determines whether to show default condiments in Conversational Ordering Mode.
0 = Do not display.
1 = Display.

DisplayTaxAndTotalLine  Determines whether to show a running tax and total line at the bottom of the OCB while taking an order.
0 = Do not display.
1 = Display.

DisplayTotalScreen  Determines whether to show the total screen after completing an order and service totaling or final tendering the associated check on the POS. If the value is set to 0, the OCB skips the total screen and shows the default menu screen (WenVIEW) or slide show (AccuVIEW).
0 = Do not display.
1 = Display.

DisplayAllCondimentQty  Determines whether to show the condiment quantity even for single items. You must include this feature during installation.
0 = Do not display.
1 = Display.

CurrencySymbol  Define the currency symbol shown with the total value due on the total screen. By default, the value is set to $.

3. **Create a copy of** `\micros\res\pos\scripts\OCBClient.template.ini` **and rename it to** `OCBClient.ini`.

4. **Copy** `OCBClient.ini` **to the respective folder from the following list for client types that send information to the OCB:**
   - `\micros\res\cal\win32\files\micros\res\pos\scripts\`
   - `\micros\res\cal\ws4LX\files\cf\micros\scripts\`
   - `\micros\res\cal\ws5\files\cf\micros\scripts\`
   - `\micros\res\cal\ws5A\files\cf\micros\scripts\`

5. **Configure each copy of** `OCBClient.ini` **as described in the following table:**
Table 3 - OCBClient.ini Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServerIP</td>
<td>Define the IP address of the server hosting the OCB service. In most cases, set this parameter to the IP address of the 3700 RES server.</td>
</tr>
<tr>
<td>OCBToClaimOnStartup</td>
<td>Define the OCB device to claim on startup.</td>
</tr>
<tr>
<td></td>
<td>0 = Do not claim any device on startup.</td>
</tr>
<tr>
<td></td>
<td>1 = Claim OCB device 1 on startup.</td>
</tr>
<tr>
<td></td>
<td>2 = Claim OCB device 2 on startup.</td>
</tr>
<tr>
<td></td>
<td>When using the new MICROS OCB, use 0.</td>
</tr>
</tbody>
</table>

6. In the POS Configurator, click Devices, and then click Interfaces.
7. Add or change the name of a record to OCB.
   a. Set the Outgoing message name to OCB.
   b. Select SIM Interface.
8. Create a copy of \micros\res\pos\scripts\OCBClient.isl and rename it to PMSNumber.isl. For example, if you changed record 3 to OCB in the POS Configurator, rename OCBClient.isl to PMS3.isl.
9. Copy PMSNumber.isl to the respective folder from the following list for client types that send information to the OCB:
   - \micros\res\cal\win32\files\micros\res\pos\etc\%
   - \micros\res\cal\ws4LX\files\cf\micros\etc\%
   - \micros\res\cal\ws5\files\cf\micros\etc\%
   - \micros\res\cal\ws5A\files\cf\micros\etc\%

You can add buttons for handling OCBs in POS Configurator touchscreen designer.
1. Set the Category to SIM/PMS Inquire.
2. Set the Interface to 1 OCB.
3. Set the Inquire Number to one of the following:
   1 = Start the OCB.
   2 = Stop the OCB.
   3 = Claim OCB device 1.
   4 = Claim OCB device 2.
   5 = Temporarily claim OCB device 1.
   6 = Temporarily claim OCB device 2.
   7 = Release OCB device 1.
   8 = Release OCB device 2.
   9 = Set the send flag.
   10 = Release the current OCB device.
   99 = Receive OCB information.

You can verify OCB service installation and configuration:
1. Click to Start, click Control Panel, click Administrative Tools, and then double-click Services.
2. Select MICROSO OCB Server.
3. Set the Startup Type to Automatic.
4. Click Start Service. Restart the server if it is already running.
5. Fix the OCBServer.ini configurations if you see an error message. Two common error messages are:
   a) The data is Invalid: Check the OCBServer.ini for invalid configurations.
b) The system cannot find the file specified: The OCBServer.ini file is missing or in the wrong location.

### Configuring the MICROS OCB Drive Thru Display Controller

1. Add a network node:
   a. In the POS Configurator, click Devices, and then click Network Node.
   b. Click Add a record.
   c. Fill out the Network tab and select Order Confirmation as the Workstation Type.
   d. Click Save.

2. Set up the server:
   a. In the POS Configurator, click Devices, and then click Network Node.
   b. Click Add a record.
   c. Fill out the Network tab and select Workstation as the Workstation Type.
   d. Configure the Com Ports tab.
   e. Click Save and close the form.
   f. In the POS Configurator, click Devices, and then click Devices.
   g. Click Add a record.
   h. On the General tab, select Drive-Thru Display Controller for the Device Type and the record added in steps b through e for the Network Node.
   i. Click Save.

3. Configure the MICROS OCB device:
   a. Edit
      \micros\res\CAL\OrderConfirmation\Packages\OrderConf\Micros\EC\OCB.ini
   b. Copy the edited OCB.ini to
      \micros\res\CAL\OrderConfirmation\Files\CF\Micros\ETC\MICROS\Res\CAL\Win32\Packages\Win32RES\Micros\Common\Etc\OCB32.ini

4. Configure the Drive-Thru Display:
   a. Edit
      \MICROS\Res\CAL\Win32\Packages\Win32RES\Micros\Common\Etc\OCB32.ini
   b. Copy the edited OCB32.ini to
      \MICROS\Res\CAL\Win32\Files\Micros\Common\Etc\

### Configuring an OCB After Updating a Database

1. In the POS Configurator, click Devices, and then click Network Node.
2. Click Add node and fill out the fields as described in the following table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node number</td>
<td>Change to 301.</td>
</tr>
<tr>
<td>Name</td>
<td>OCB Unit</td>
</tr>
<tr>
<td>Computer Name</td>
<td>OCB</td>
</tr>
</tbody>
</table>
Installing Peripherals

IP Address  192.168.100.240
Subnet Mask  255.255.255.0
Workstation Type  zzz-Order Confirmation

3. Restart the OCB device and configure CAL.
4. Restart the Micros OCB Server service.

Verifying an OCB installation

1. Navigate to CAL\OrderConfirmation\Files\CF\Micros\Etc\OCB.ini
2. Find the following lines:
   
   [Logging]
   ; Verbosity = 0

3. Remove the ; and change the value to 6.
4. In the OCB log you should see the following:
   
   | date and time | OCU | OCB | 0 | [TCP] Disconnecting |
   | date and time | OCU | OCB | 0 | [TCP] Receive thread exits |
   | date and time | OCU | OCB | 0 | [TCP] Listener thread starts |
   | date and time | OCU | OCB | 0 | [TCP] Waiting for a connection... |
   | date and time | OCU | OCB | 0 | [OCB] showTotalScreen begins |
   | date and time | OCU | OCB | 0 | [OCB] showTotalScreen ends |

Deleting Interface Files for an Unused OCB Server
RES shows errors when it tries to connect to an OCB device that is not connected to the system. You must delete the PMSNumber.isl files that you do not use from the \micros\res\pos\etc\ folder.

Installing Fingerprint Scanners
RES supports finger print scanners as peripherals for the following server operating systems:

- Microsoft Windows POSReady 2009
- Microsoft Windows 7 (32-bit)

Installing the DigitalPersona Driver
Install the DigitalPersona driver before connecting the Finger Print Scanner. If you connected the finger print scanner prior to installing the driver, you must remove the default driver.

1. In the POS Configurator, click Devices, click User Workstations, click Peripherals, and then configure a finger print scanner.
2. In MICROs Control Panel, set Restaurant to OFF.
3. On your Microsoft Windows operating system, navigate to \Micros\DigitalPersona\:
   - On Microsoft Windows 7 (32-bit), right-click Setup.exe and select Run as administrator.
   - On a Win32 client or server, right-click InstallOnly.bat and select Run as administrator.
4. Follow the on-screen instructions. When prompted for a key, click **Default Key**.
5. Restart the server when prompted.
6. Connect the fingerprint scanner to the client.
7. Start RES.

**Installing the DigitalPersona SDK on Win32 Workstations**

1. On each Win32 workstation, install the DigitalPersona SDK package using the included installer:
   
   ```
   C:\Micros\DigitalPersona\Win32 or Win64\U.are.U_RTE\Setup.exe
   ```

2. If you are using the Eikon fingerprint reader, install the TouchChip add-on using the included installer:
   
   ```
   C:\Micros\DigitalPersona\Win32 or Win64\TouchChipAddOn\Setup.msi
   ```

   The workstation prompts users to enroll their fingerprints before they can log in using the fingerprint reader.

**Troubleshooting a USB Device Error**

The most common cause for this error is that the DigitalPersona driver has been loaded by both an earlier version of RES and by the platform.

1. Stop CAL on the client.
2. Delete Platform.dat from DOC.
3. Format the CF with **CFW.exe**.
4. Load the latest platform on the server.
5. Reconfigure CAL on the client to point to the server.
7. Plug in the fingerprint scanner.

**Deleting the Default Fingerprint Scanner Driver**

1. Disconnect the fingerprint scanner.
2. Click **Start**, click **Control Panel**, and then click **Device Manager**.
3. Right-click **U.R.U. @4000B Finger Print reader**, and then select **Delete**.
4. Install the DigitalPersona driver.

**Setting Up Encrypted Magnetic Card Mode (EMSR) using MagTek IPAD Reader**

Encrypted Magnetic Card Mode (EMSR) uses TransactionShield to eliminate cardholder data at the customer system level and to encrypt data as the card is swiped through the external MagTek IPAD device. EMSR stores the data in a secure, hosted location using a MerchantLink transmission. This feature uses cloud-based decryption and ensures that the merchant no longer has decrypted data on the site.
**EMSR Compatibility**

EMSR is compatible with Win32 and WinCE workstations. It is not compatible with Windows Mobile clients. If you are using a Windows 7 workstation with RES 5.4 MR1, you must manually reboot the client after changing the EMSR mode setting.

EMSR does not support the following transactions:

- COM API
- Web API
- Debit

To determine whether a WS5A or 2015 client has an integrated magnetic stripe reader that supports encryption, make sure the client serial number is greater than or equal to the following:

- WS5a = 2167105845
- PCWS2015 = 2166004747

If you are enabling EMSR, make sure none of the following PINPad Payment devices are configured under any clients in the POS Configurator:

- PINpad
- Mx870 Terminal
- ViVOPay
- ViVOPay 4800

You can configure Protégé to run on a client without IPAD, but you must configure Protégé to be a cash-only terminal, as it will not accept electronic payments with EMSR enabled.

**Enabling EMSR**

Note that once you enable EMSR mode, you cannot disable it through POS Configurator. If you accidentally enable this mode, contact your product representative.

1. In the POS Configurator, click **System**, and then click **Restaurant**.
2. On the **Security** tab, select **Encrypted MSR Mode**.
3. Click **Yes** to confirm enabling EMSR mode.
4. Configure the **Function**: **Non-Sales/Sign in PINpad swipe**. This allows operators to use the EMSR for swiping an employee ID card for signing into a client.

**Installing the MagTek IPAD Reader**

You can install the MagTek IPAD Reader on a client to encrypt card data at the point of swipe. On the Workstation 4 LX and Workstation 5, you must connect the reader to the client using compatible USB ports as shown in the following image:
1. On the client that will use the MagTek IPAD reader, stop POS Operations.
2. Connect the MagTek device to the client USB port.
4. Test the reader by pressing the **Clock-in** key. The reader should make a sound and prompt the user to swipe a card.
5. Close the **Clock In** dialog box.

**Manually Entering Credit Card Data in EMSR Mode**

If the magnetic stripe reader cannot read a credit card, you can enter the account number using the ID Tech SecureKey device. You cannot use the POS Operations touchscreen to enter card data.
10 Troubleshooting

Updating the Firewall Exceptions List

If you enabled your firewall after installation, changed firewalls, or your clients constantly show prompts for Backup Server Mode and Stand-alone Resiliency, run the following batch file to update the exceptions list:

```%MicrosDrive%\Micros\common\Bin\ConfigureICF.bat```

Cannot Start POS Operations After Changing Server Name or IP Address

RES does not automatically propagate server identity changes to clients.

1. After making changes in the network node, click Update Host File.
2. Click Start, select Programs, select MICROS Applications, and then click MICROS Control Panel.
3. Select the SQL Database Server node.
4. On the Status tab, click Reload.
5. Set Restaurant to OFF.
6. Restart the server.

Cannot Update Database

The RES installer uses a safeguard to prevent updating a database from a later RES version to an earlier RES version. This safeguard can prevent you from performing an acceptable update. The safeguard determines whether you can perform the database update by comparing the `db_build_num` column for the Database row in the `db_version_cfg` table to the last four digits of the Version registry key. The conflict arises because maintenance releases do not update the registry key.

For example, the RES 5.2 installer sets the `db_build_num` of the Database row to 1327 and the `HKLM\Software\SysWow6432Node\MICROS\Version` key to 5.2.0005.1327. The 5.2 MR2 installer changes the `db_build_num` of the Database row to 1714 as part of its update procedure. If you try to perform a database update after installing the maintenance release, the safeguard finds that the Database number (1714) points to a later version than the perceived registry version (1327) and does not allow the database update.

You can work around the version check to update a database by installing a maintenance release, which always performs a database update. If you do not have an available maintenance release, you can perform the following steps:

1. Click Start, click Run, enter Regedit, and then click Run.
2. Navigate to `HKLM\Software\SysWow6432Node\Micros`.
3. Change the last four digits of the Version key to a higher number than the Database `db_build_num`. For example, change 5.2.0005.1327 to 5.2.0005.2327 to make the registry version higher than 1714.
4. Click Start, click Run, enter `DM -U`, and then click Run. This updates the database.
5. Revert the last four digits of the Version key. If you do not revert the registry version, an incorrect database update can cause errors and future RES updates can fail.
6. Restart the server.

Fixing a Corrupted Compact Flash

The Compact Flash can be corrupted if the server or client powers off during installation. Reformat the compact flash and restart the installation process on the client.

POS Operations says “System Closed” on Clients

If you set the server (Restaurant) to Back of House in the MICROS Control Panel, all clients show the “System Closed” screen.
To fix this issue, set Restaurant to Front of House.

Removing Unused Client Nodes from the Database

RES continues attempting to connect to unused clients. Remove unused client nodes from the database to reduce the amount of bandwidth used to search for clients.
1. Click Start, select MICROS Applications, and then click MICROS Control Panel.
2. On the menu bar, click View, and then click Show All Clients.
3. Remove the unused client nodes.

Printing Service Fails

Do not assign more than 8 print devices to a client.
Restart the client.

Finding the Delivery Dispatch File

RES installs DeliveryDispatch.log in MICROS\RES\POS\Etc

Finding the Installation Log Files

If you are performing a full install, RES Setup creates the log file MicrosResSetup.log in the Windows folder of the RES server.
If you are installing a maintenance release, RES Setup creates the log files MicrosResPatch.log and MicrosMainPatch.log in the Windows folder of the RES server.
Each compatible client retrieves files from their respective folder in the `\MICROS\Res\CAL\` directory.

**Table 5 - Client CAL Folders**

<table>
<thead>
<tr>
<th>Client</th>
<th>Folder</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT Research WebDT 410</td>
<td>DT410</td>
</tr>
<tr>
<td>DT Research WebDT 415</td>
<td></td>
</tr>
<tr>
<td>DT Research WebDT 430</td>
<td>DT430</td>
</tr>
<tr>
<td>Workstation 4LX</td>
<td>WS4LX</td>
</tr>
<tr>
<td>Workstation 5</td>
<td>WS5</td>
</tr>
<tr>
<td>Workstation 5A</td>
<td>WS5A</td>
</tr>
<tr>
<td>PCWS 2015</td>
<td>Win32</td>
</tr>
<tr>
<td>Tablet R-Series</td>
<td>mTablet</td>
</tr>
<tr>
<td>Tablet E-Series</td>
<td>Win32</td>
</tr>
<tr>
<td>Order Confirmation Board (Peripheral)</td>
<td>OrderConfirmation</td>
</tr>
</tbody>
</table>