

**Oracle® Hospitality Cruise Shipboard
Property Management System**
Quick Check-In Synchronization User Guide
Release 8.0
E87032-06

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Preface

The Quick Check-In Synchronization (QCI Sync) is an interface that connects the Quick Check-In stations to the shore-side database server through a separate network, enabling users to continue to work in an off-line mode.

Audience

This document is intended for application specialist and users of Oracle Hospitality Cruise Shipboard Property Management System (SPMS).

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

Date	Description of Change
May 2017	<ul style="list-style-type: none">• Initial publication
May 2018	<ul style="list-style-type: none">• Removed Log SQL feature
July 2018	<ul style="list-style-type: none">• Minor change to Precondition section.
September 2018	<ul style="list-style-type: none">• Additional troubleshooting step
January 2019	<ul style="list-style-type: none">• Updated Prerequisites and new screens for Transparent Data Encryption (TDE).
March 2020	<ul style="list-style-type: none">• Updated requirement in Prerequisite section.

Prerequisites

This section describes the minimum requirements to run QCI Sync application.

QCI Shore Database Server

- Oracle Database Server 12c and Oracle Data Access Components (ODAC) Installation
- SPMS Web Service Installation
- OHC SPMS Version 8 Installation
- Latest version of OHC Advanced Quick Check In

PC running QCI Sync Interface

- Oracle 12c Full Client and ODAC Installation
- OHC SPMS Version 8 Installation
- Latest version of QCI Sync Interface

PC running OHC Advanced Quick Check In at shore-side

- Oracle 12c Full Client and ODAC Installation
- OHC SPMS Version 8 Installation
- Latest version of OHC Advanced Quick Check In

Supported Operating Systems

- Microsoft Windows 10 - 32 - bit / 64 - bit System
- Microsoft Windows Server 2012 R2

 **NOTE:**

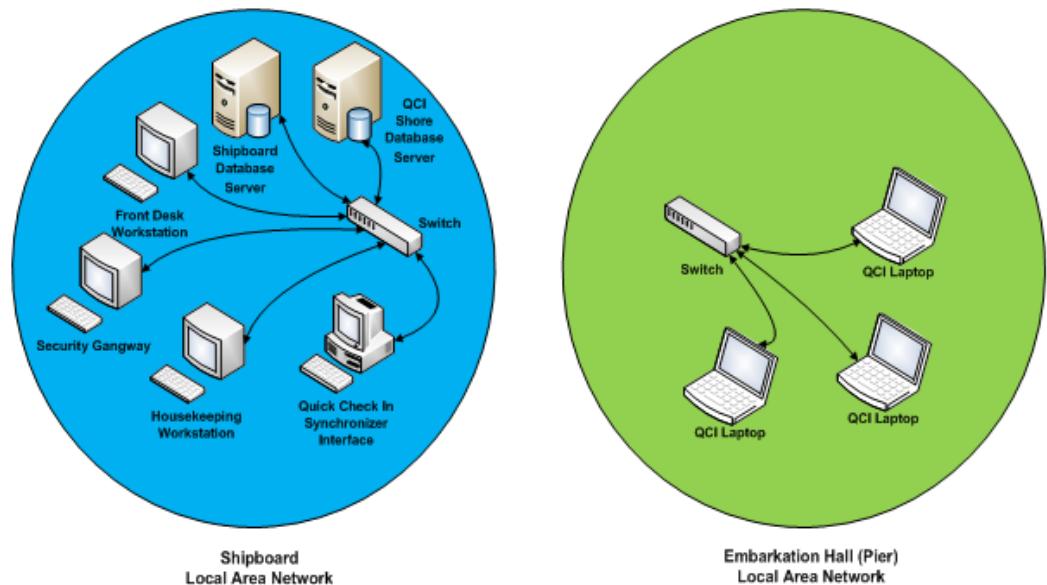
When referencing to the database on the shore-side, please use the same TNS name that is used by the ship application to reference the database on the ship-side. For example, if the TNS name "SPMSv8DB" is used on the ship side to reference the Ship database, then the same TNS name "SPMSv8DB" must be used on the shore side to reference the QCI Shore database.

Use the same Database user password for QCI Shore database and ship Database. With this, any QCI laptop can get the database password from the Secure Server on ship-side when there is network connectivity. This is also why the TNS Name used on ship side and shore side have to be the same.

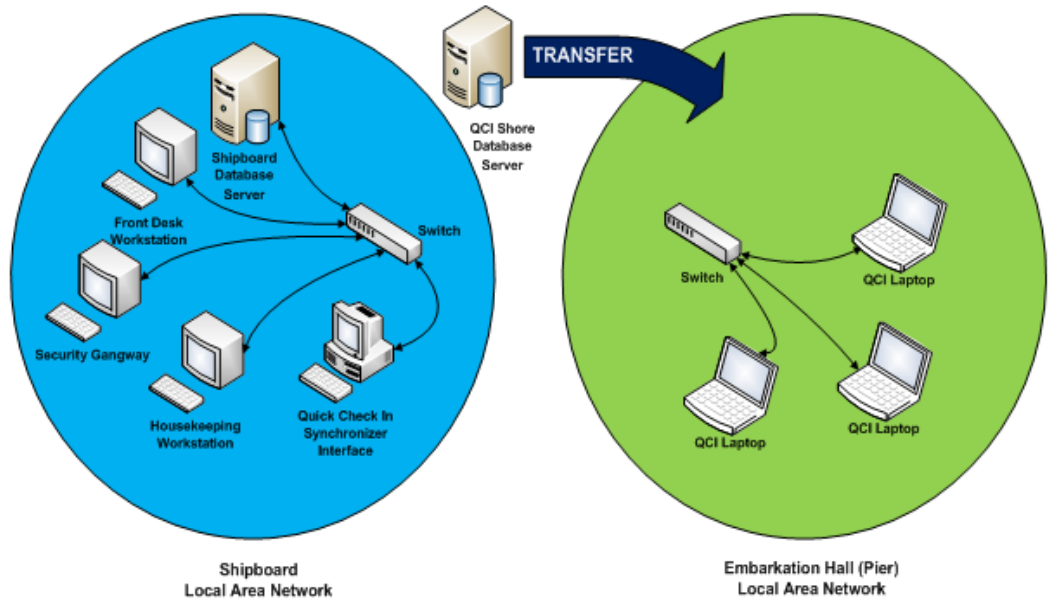
1 Technical Diagram and Workflow

The QCI Sync Interface enables the pier-side stations to continue to work in real-time in an off-line mode. This is accomplished by connecting the Quick Check-In stations to a shore-side database server that resides on a separate network within the Embarkation Hall. The external network remains linked to the shipboard environment, allowing data synchronization between the shipboard database and the shore-side database through an interface. In the event of lost connectivity, transactions are held and written to the shore-side database server when connectivity is restored, and the interface synchronizes the changed transactions between both the shipboard and shore-side environments.

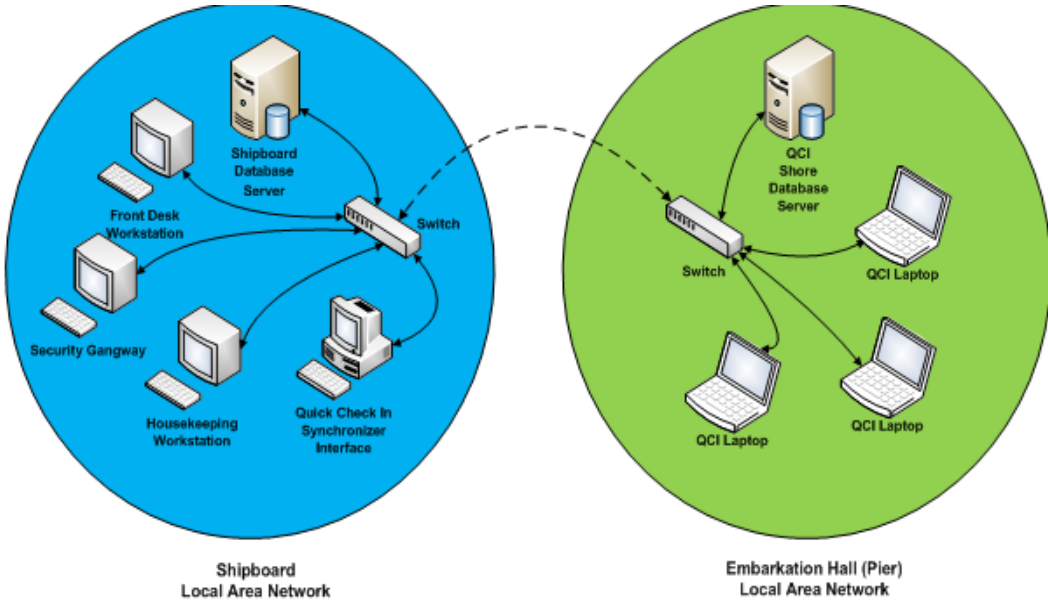
Before the ship arrives at the pier for embarkation, the responsible person in charge onboard the ship starts up and connects the QCI Shore database server to the shipboard network. The QCI Sync Interface is then invoked to perform the backup and restore database activities as illustrated in below diagram.



Once the backup and restore database activities completes, the QCI Shore database server must be shut down in a proper manner before relocating the server to the pier Embarkation Hall.



At the pier-side, a network connection from the shipboard network to the pier network must be established before starting up and connecting the QCI Shore database server to the pier network. The synchronization between the ship and the QCI Shore database is activated from the QCI Sync Interface on the shipboard.



2 Environment Setup

Below diagram illustrates the data flow for QCI Offline Check In environment at the shore-side.

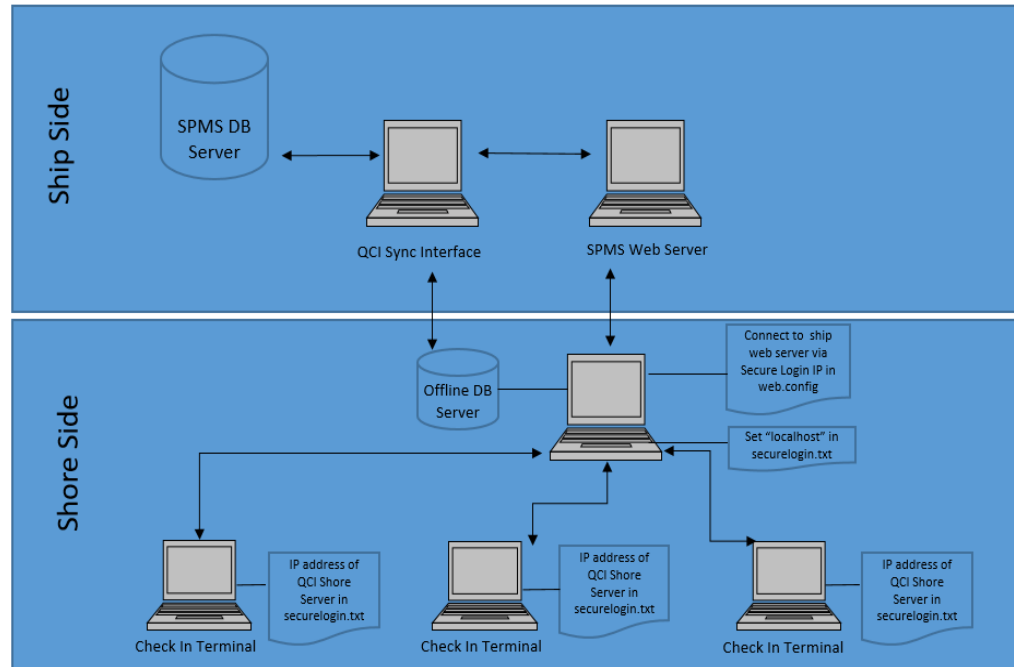


Figure 2-1 - Environment Setup

Environment of PC running QCI Sync Interface

- The interface computer must be pre-installed with Oracle Full Client installation that allows the QCI Sync Interface access to Oracle import and export utility.
- Ensure the connection to the ship database is established. If they are not, create the instance to connect the QCI Sync Interface running on shipside and connects to ShipDB. The Connection Name of the ship database is FIDELIO and points to the database service name (SID) 'FIDELIO'.
- Establish the database connection to shore database. The Connection Name of the shore database is QCISHORE and point to database SID 'QCISHORE'.
- Client PC will obtained 'OHCSecurity.par' from ship IIS Web Server when connected.

Environment of QCI Shore Database Server

- The server must be pre-installed with Oracle Database Server 12c and ODAC Installation. The version of Oracle Database Edition of the QCI Shore database and

Ship database must be identical. For example, if the ship is running on Oracle 12c then the shore QCI database must also run on Oracle 12c.

- Create a blank QCISHORE database that has an existing Fidelio user. Both the ship and the shore QCISHORE database password must be identical. If a different password is used, the connection will show 'Disconnected'.
- Ensure the the database connection to shore database is established. The Connection Name of the Shore Database (ShoreDB) must be the same as the Ship Database (ShipDB). For example; the Connection Name of ShoreDB is FIDELIO and is pointing to database SID 'QCISHORE'.
- The server must be pre-installed with SPMS Web Service. Define the IP of ship's web service at SecureLogin, web.config file. This will then obtain the encryption password (OHCSecurity.par) from ship's web service when connected

```
<configuration>
  <appSettings>
    <add key="Server" value="fidelio"/>
    <add key="DB Transaction Timeout" value="60"/>
    <add key="Debug" value="False"/>
    <add key=
    <add key=
    <add key=
    <add key="ProductClassesFile" value="C:\temp\FEL\AL Product Classes.txt" />
    <add key="NoneRefundableCreditMaxCount" value="5"/>
    <add key="SecureLogin" value="1.2.3"/>
  </appSettings>
```

- The server must be pre-installed with OHC SPMS. Run OHC Advanced Quick Check In and connect to shore database. The securelogin.txt must point to QCI Shore Database Server's web server. This will obtain the encryption password (OHCSecurity.par) from ship's web service and store in QCI Shore Database Server's Web Server.

Environment of PC running OHC Advanced Quick Check In at shore

- The server must be pre-installed with Oracle 12c Full Client and ODAC Installation.
- Ensure the database connection to shore database is established. The SID of the Shore Database (ShoreDB) must be the same as the Ship Database (ShipDB). For example; the SID of ShoreDB is FIDELIO and points to QCISHORE database.
- The server must be pre-installed with OHC SPMS. Run OHC Advanced Quick Check In and connect to shore database. The securelogin.txt must point to QCI Shore Database Server's web server in order to obtain encryption password (OHCSecurity.par) at shore.

Note: Before you perform a new **Start Offline Mode**, remove the OHCSecurity.par in QCI Shore Server if that exist and restart the IIS. Ensure the OHCSecurity.par at all check in terminal are removed too.

3 System Parameters

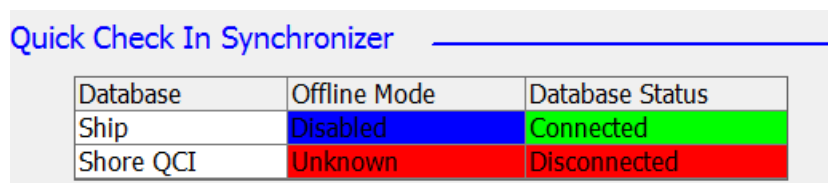
This section describes the **Parameters** available to QCI Sync module and is accessible through **Administration module, System Setup, Parameter, General** group. These parameters must be configured before running the QCI Sync Interface.

PAR Name	PAR Value	Description
QCI Offline DB Terminate	24	Disallow the QCI Office DB to run if it is older than x hour specify in the parameter value. The default value is 24 hours.
QCI Offline DB Warning	12	Define when to prompt a warning message when the QCI Offline DB is older than x hour. The default value is 12 hours.
Pax BCard Track2 Length	16	The length of the 'BoardCC' coded on Track 2. The value must be > 15.
QCI Sync Active Warning	12	Prompt a warning message when the QCI Offline DB is running more than x hours. The default value is 12 hours.

4 QCI Sync Interface

The QCI Sync Interface is an application that connects and synchronizes the Shiplside database with the Shoreside database, with its database mode and connection statuses for both the database shown on screen. Apart from that, the synchronization progress is also shown in the Messages tab of the interface.

At the program start up, the application checks both the database status, followed by the state of the database, whether it is in 'Offline' or 'Unknown' mode before synchronization commences. The status of the ShipDB and the Shore QCI database are shown at the top section of the screen. See below table for explanation of the status.



The screenshot shows a window titled "Quick Check In Synchronizer" with a table containing the following data:

Database	Offline Mode	Database Status
Ship	Disabled	Connected
Shore QCI	Unknown	Disconnected

Figure 4-1 - QCI Sync Mode

Table 4-1 - QCI Sync Modes

Offline Mode	Database Status	Description
Unknown	Disconnected	The QCI Sync Interface is disconnected from the Shore QCI database, possibly due to a network issue, user 'FIDELIO' does not exist or the Oracle Database Listener has not started and results to the interface unable to determine the Offline Mode. The message "Getting Shore QCI DB Status, please wait..." appears when the interface tries to reconnect to the QCI Shore database every x seconds.
Disabled	Connected	The QCI Sync Interface is connected to the Ship and the Shore QCI database has Offline Mode as Disabled. The synchronization is not able to start and the message "Off-line mode not yet enable cannot sync" appears.
Enabled	Connected	The QCI Sync Interface is connected to the Ship and the Shore QCI database has Offline Mode as Enabled. This indicates the synchronization has started.
Invalid	Invalid	The QCI Sync Interface is connected directly to the Shore QCI database. The system prompts message 'Ship DB and Shore DB is the same'.

Configuring the Interface

This section describes the settings available in the Settings tab of QCI Sync Interface. To configure the interface, launch the QCI Sync Interface, check the appropriate check box in the Settings tab, and then click **Apply** to save the changes.

These settings are saved to the OHCSettings.par file in C:\Public Document\Oracle Hospitality Cruise folder.

The screenshot shows the 'Settings' tab of the QCI Sync Interface. The 'Offline Database' is set to 'SHORE' and the 'Synchronization Interval in Second' is '10'. The 'Backup DB Filename' is 'C:\TEMP\SHORE.dmp'. There are several checkboxes for backup and restore options, with 'Validate the charset between server and offline DB' checked. At the bottom, there are two instruction boxes: 'Step 1' (Start Offline Mode procedure) and 'Step 2' (Stop Offline Mode). Buttons for 'Start Offline Mode procedure', 'Stop Offline Mode', and 'Apply' are visible.

Figure 4-2 - QCI Sync Settings

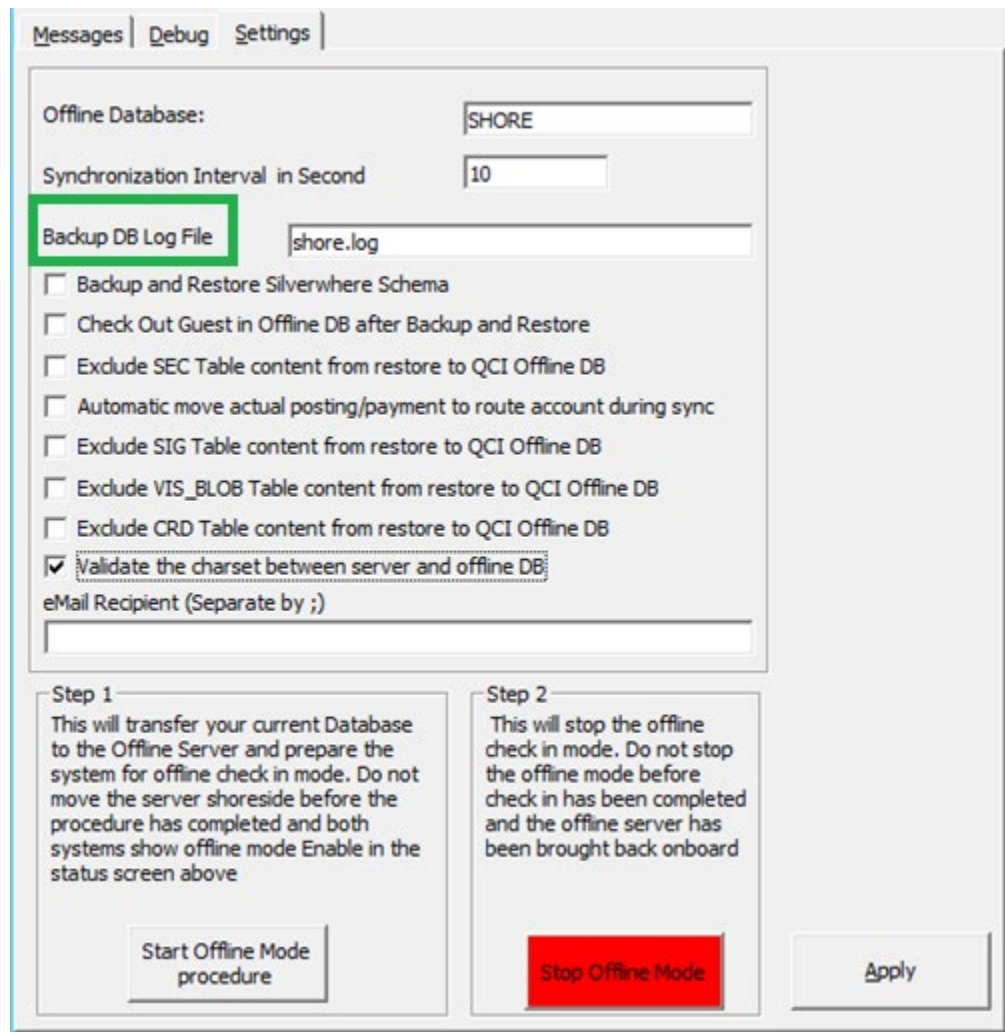


Figure 4-3 - QCI Sync Settings if TDE is used

Table 4-2 – QCI Sync Settings

Parameter	Description
Offline Database	Define the SID of the QCI Shore database and it must be identical to the one created in Oracle Net Manager.
Synchronization Interval in Second	Define the interval time when the synchronization process starts; At every x second between the ship and the QCI shore database. The default value is ten (10) seconds.

Parameter	Description
Backup DB Filename	<p>Define the ship database backup filename. The same backup file is used for both the backup and restores processes. The user must define the full path name where the backup file resides and the filename extension must be .dmp. For example, C:\Shipname.dmp.</p> <p>When TDE is used, the field name changed to Backup DB Log File. You should provide only the file name excluding the full path, for example; backup. This file name will be used as data import log file.</p>
Backup and Restore Silverwhere Schema	<p>Enables the interface to backup and restore the SilverWhere dining schema (BKSTG_DINING) from the ship database to the QCI Shore database and enable passenger's board card to be printed with dining details. The SilverWhere dining schema is imported once and no update is required from the ship to the QCI shore database.</p>
Check Out Guest in Offline DB after Backup and Restore	<p>Enables the interface to automatically check out all previous cruise passenger's reservations in the QCI Shore database, due to the backup and restore process that was not performed before the actual embarkation day. For instance, user enabled the QCI Sync Interface using the last backup and restore.</p>
Exclude SEC Table content from restore to QCI Offline DB	<p>Excludes the pictures from the ship to the QCI Shore database when restoring from backup and restore process. The time taken to backup and restore takes longer when this feature is checked.</p>
Automatic move actual posting/payment to route account during sync	<p>Enables the interface to move actual posting and payment automatically to routed account when the Offline server is synched. The process commences once the database synchronization completes.</p>
Exclude SIG Table content from restore to QCI Offline DB	<p>Excludes the credit card signature captured when restoring from ship to QCI Shore database during backup and restore process. The time taken to backup and restore takes longer when the feature is checked.</p>
Exclude VIS_BLOB Table content from restore to QCI Offline DB	<p>Excludes the Travel Document image when restoring from ship to QCI Shore database during backup and restore process. The time taken to backup and restore takes longer when the feature is checked.</p>

Parameter	Description
Exclude CRD Table content from restore to QCI Offline DB	Exclude the credit card records when restoring data from ship to QCI Shore database during backup and restore process. In the Guest Info screen, the payment method shows 'Credit Card' without the card details. This is in compliance with the Payment Card Industry (PCI) standards.
Validate the charset between server and offline DB	Verifies both the ship and shore database to ensure it has the same charset before you are allowed to proceed. The system prompts a message "Ship DB charset is xxx – shore DB charset is xxx. They do not match. Please inform Oracle Hospitality Cruise support so these can be adjusted. This is an informational message only and will not impact your current sync process".
eMail Recipient	Defines the system administrator's email address for notification to be sent when an error occurs during the synchronization process. The notification email is sent after every third synchronization. This requires the email server to be setup in the Administration module, Parameter, 'Promo', 'SMTP Server IP Address' .

5 Start Offline Mode

The Information Technology (IT) Officer is responsible for switching on the QCI Shore database server and connects to the SPMS local area network before the ship arrives at the port for a new cruise embarkation.

1. At the QCI Sync Interface PC, run the QCI Sync application.
2. Ensure both the ship and QCI Shore database status are as per below:
 - Database Status shows '*Connected*'
 - Offline Mode shows '*Disabled*'
 - Messages show '*Offline mode not yet enable cannot sync*'

The screenshot shows the 'Quick Check In Synchronizer' application window. It features a table with three columns: Database, Offline Mode, and Database Status. Below the table are tabs for Messages, Debug, and Settings, and a log table with Action and Description columns.

Database	Offline Mode	Database Status
Ship	Disabled	Connected
Shore QCI	Disabled	Connected

Action	Description
	Interface Started 12/6/2016 8:42:33 AM
Shore->	Getting Shore QCI DB Status, please wait....
Shore->Ship	Offline mode not yet enable cannot sync

Figure 5-1 - QCI Sync Mode

When the Ship or Shore QCI Database Offline Mode status shows **Enabled**, then the database mode must be stopped first, before clicking the **Start Offline Mode Procedure**. Otherwise, the system prompts an error message 'Please stop the Offline Mode first before continue'.

To stop the database mode, click the **Stop Offline Mode** located at the bottom section of the **Settings** tab to refresh the shore database to a clean state.

3. On the interface **Settings** tab, click the **Start Offline Mode Procedure** button. Commencement of the backup process is indicated in the **Messages** tab as shown below.

The screenshot shows the 'Messages' tab with a log of actions. The 'Ship' action is highlighted in blue.

Shore->Ship	Offline mode not yet enable cannot sync
	User Press Start Offline Mode Procedure
Ship	Backup Ship DB to c:\temp\qcishore.dmp.2

Figure 5-2 - Back Up Process Indicator

Note: If TDE applies, the system does not backup the database.

4. If the check box **Backup and Restore Silverwhere Schema** is checked, you are required to enter the Silverwhere Schema password at the prompt, and then click **Confirm** to continue.

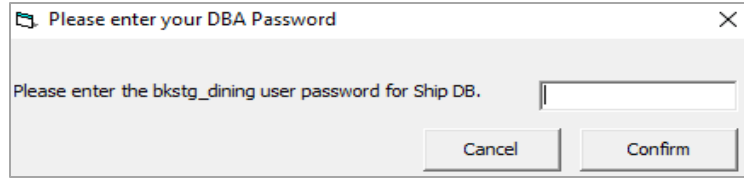


Figure 5-3 - SilverWhere Schema Password Prompt

6 Synchronization Process

This section describes the synchronization process that takes place in chronological order during the backup of the shipboard database in the current state, and then restore the backup to the QCI shore database. The process differs if TDE is applied. See process listed in [Table 6-2 - Synchronization Process on DB using TDE](#).

Table 6-1 - Standard Synchronization Process

Process	Description of Synchronization Tasks
Process 1	Performs the ship's database first backup routine on database schema only. The backup file refers to "QCISHORE.dmp.2".
Process 2	After the first backup routine completes, the interface then drops the QCI Shore database "FIDELIO" object and then the BKSTG_DINING" user. The interface waits for approximately 120 seconds for the QCI Shore database user "FIDELIO" to disconnect before the backup process begin.
Process 3	The interface creates all necessary triggers (TRIGGER_NAME like 'TR_QCI%') on the ship database for Offline Mode enabled. At this point, the ship database Offline Mode status change to "Enabled". All reservation changes made on the ship database from this point are updated to the CHG table for synchronization at a later stage.
Process 4	Perform ship's database second backup routine on database data and it excludes some non-required tables such as POS, MIB, and others. The backup file refers to "QCISHORE.dmp.1".
Process 5	Perform ship's database third backup routine that only contains VIS data and XDOC data without blog contents. The third backup file name is QCISHORE.dmp.1.VIS and QCISHORE.dmp.1.XDOC.
Process 6	Perform ship's database fourth backup routine on "BKSTG_DINING" user data if user 'BKSTG_DINING' exists in ship database. The fourth backup file name is QCISHORE.dmp.3.
Process 7	At the end of the ship database data backup routines, the command prompt window shall close automatically.
Process 8	Perform the first (1 st) database restore routine on "FIDELIO" database data. (filename=QCISHORE.dmp.1). During the restore routine, the command prompt window opens, showing the restoration progress and closes when the process completes.
Process 9	Perform the second (2 nd) database restore routine on "FIDELIO" data table VIS and XDOC (filename=QCISHORE.dmp.1.VIS and QCISHORE.dmp.1.XDOC). During the restore routine, the command prompt window opens, showing the restoration progress and closes when the process completes.

Process	Description of Synchronization Tasks
Process 10	Perform the third (3 rd) database restore routine on "FIDELIO" database structure (filename= <i>QCISHORE.dmp.2</i>). During the restore routine, the command prompt window opens, showing the restoration progress and closes when the process completes.
Process 11	After completing all the restoration on "FIDELIO" schema, the interface performs the fourth database restore routine for user "BKSTG_DINING" data to the QCI shore database. (filename= <i>QCISHORE.dmp.3</i>). This process only applicable when the check box "Backup and Restore Silverwhere Schema" is checked.
Process 12	After the database restoration completes, the interface then updates the last backup date and time to the QCI Shore database parameter "QCI Offline DB Backup Date" and "QCI Offline DB Backup Date Server". For example, 20090306172359.
Process 13	All guests in the QCI Shore database are checked out if the checkbox "Check Out Guest in Offline DB after Backup and Restore" is checked in the Settings tab.
Process 14	<p>If option "Automatic move actual posting to route account during sync" is checked, when user enabled the routing at shore-side database, the posting and payment auto route to the payer when routing information is sync to ship database.</p> <p>If option "Automatic move actual posting to route account during sync" is un-checked, when user enabled the routing at shore-side database, only the routing information is sync to ship database. The program allows routing the posting and payment to payer while synchronizing the routing information from shore to ship.</p>
Process 15	Creates all necessary triggers and sequences and then disable all interfaces such as PBX, ITV, DR, VIP, ADPI and Door Lock Interfaces parameters in the QCI shore database.
Process 16	The QCI Shore database offline mode is "ENABLED" and the message "SPMS DB already ready with offline embarkation" appears in the Messages tab.

Process	Description of Synchronization Tasks
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Process 17 The system prompts a QCISync dialog box indicating the system is ready for Offline Mode. Click **OK** to close the dialog box.

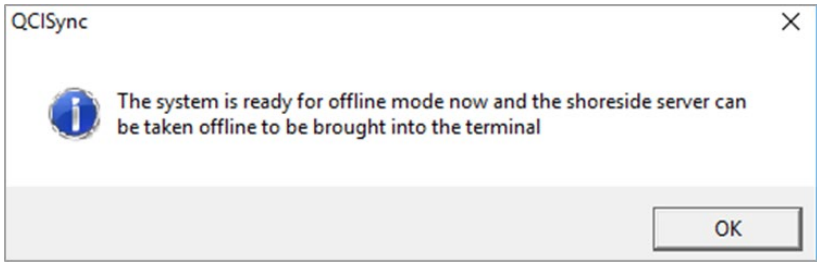


Figure 6-1 - QCISync Prompt

Process 18 The system disables all parameters in the Settings tab and a dimmed 'Locked' is shown on screen when the Offline Mode is ready.

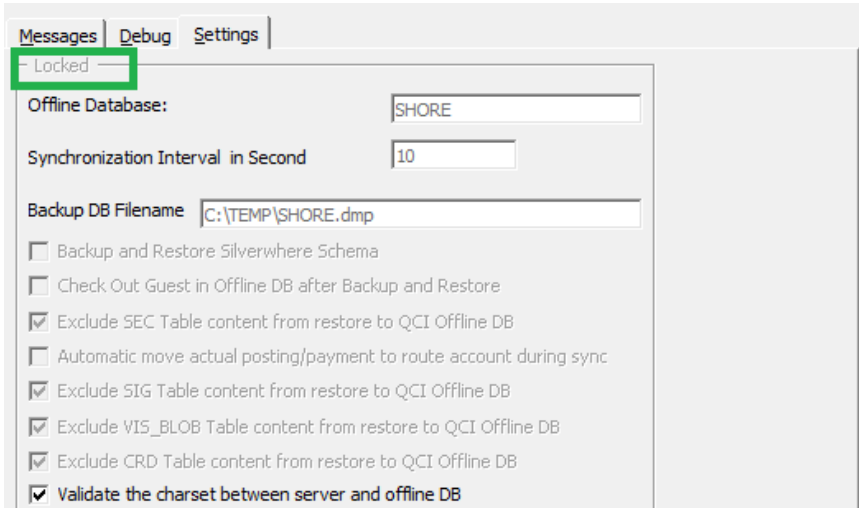


Figure 6-2 - Locked Settings Tab

Synchronization Process for DB using TDE

The synchronization process for a database that uses TDE differs and are lesser from the standard process, and they are listed below.

Table 6-2 - Synchronization Process on DB using TDE

Process	Description of Synchronization Tasks on DB using TDE
Process 1	The interface drops the QCI Shore database "FIDELIO" object and then the "BKSTG_DINING" user. The interface waits for approximately 120 seconds for the QCI Shore database user "FIDELIO" to disconnect before the backup process begin.

Process	Description of Synchronization Tasks on DB using TDE
Process 2	The interface creates all necessary triggers (TRIGGER_NAME like 'TR_QCI%') on the ship database for Offline Mode enabled. At this point, the ship database Offline Mode status change to "Enabled". All reservation changes made on the ship database from this point are updated to the CHG table for synchronization at a later stage.
Process 3	QCI Shore database performs the first database import routine on "FIDELIO" data schema only. During the import routine, the command prompt window opens, showing the import progress and closes when the process completes.
Process 4	QCI Shore database performs the second data import routine on "FIDELIO" data table VIS and XDOC without blob contents. During the data import routine, the command prompt window opens, showing the import progress and closes when the process completes.
Process 5	QCI Shore database perform the third data import routine on "FIDELIO" database structure. During the import routine, the command prompt window opens, showing the import progress and closes when the process completes.
Process 6	After completing all the restoration on "FIDELIO" schema, the interface performs the fourth database import routine for user "BKSTG_DINING" data to the QCI shore database. This process only applicable when the check box "Backup and Restore Silverwhere Schema" is checked.
Process 7	After the database restoration completes, the interface then updates the last backup date and time to the QCI Shore database parameter "QCI Offline DB Backup Date" and "QCI Offline DB Backup Date Server". For example, 20090306172359.
Process 8	All guests in the QCI Shore database are checked out if the checkbox "Check Out Guest in Offline DB after Backup and Restore" is checked in the Settings tab.
Process 9	If option "Automatic move actual posting to route account during sync" is checked, when user enabled the routing at shore-side database, the posting and payment auto route to payer when routing information is sync to ship database. If option "Automatic move actual posting to route account during sync" is un-checked, when user enabled the routing at shore-side database, only the routing information is sync to ship database. Program allows routing the posting and payment to payer while synchronizing the routing information from shore to ship.
Process 10	Creates all necessary triggers and sequences and then disable all interfaces such as PBX, ITV, DR, VIP, ADPI and Door Lock Interfaces parameters in the QCI shore database.

Process	Description of Synchronization Tasks on DB using TDE
---------	--

Process 11	The QCI Shore database offline mode is "ENABLED" and the message "SPMS DB already ready with offline embarkation" appears in the Messages tab.
------------	--

Process 12	The system prompts a QCISync dialog box indicating the system is ready for Offline Mode. Click OK to close the dialog box.
------------	--

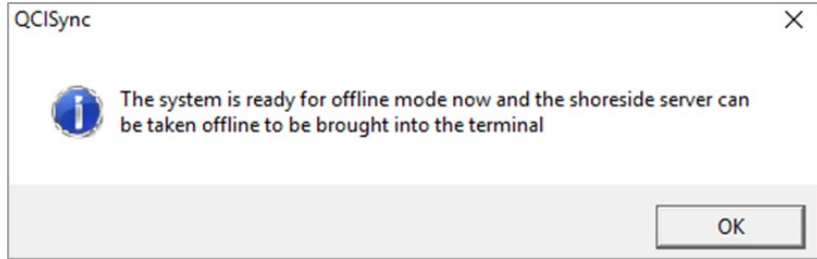


Figure 6-3 - QCISync Prompt

Process 13	The system disables all parameters in the Settings tab and a dimmed 'Locked' is shown on screen when the Offline Mode is ready.
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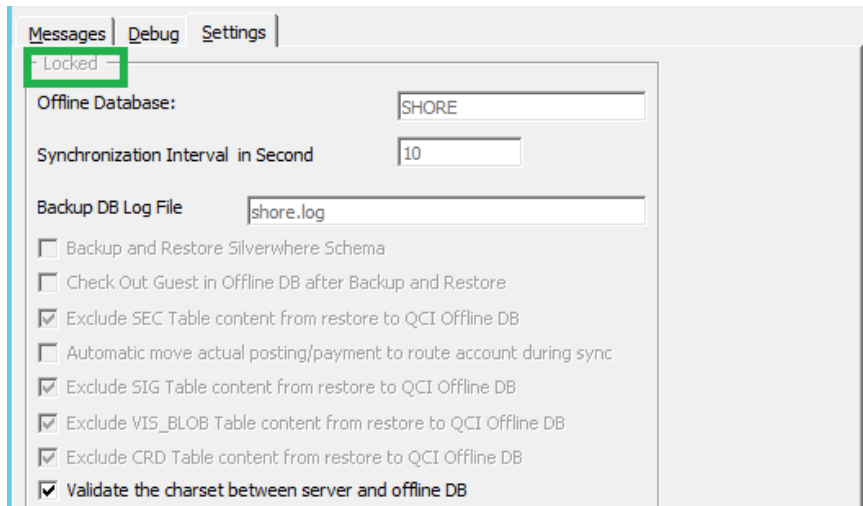


Figure 6-4 - Locked Settings Tab

Below are some example of records that were added from the QCI Shore database to the ship database or vice versa.

- The system indicates the number of remaining records to process, updated or skip during synchronization in the Messages tab.

Quick Check In Synchronizer

Database	Offline Mode	Database Status
Ship	Enabled	Connected
Shore QCI	Enabled	Connected

Messages | Debug | Settings

Remaining 11438

Action	Description
	Interface Started 13/09/2014 10:59:22 PM
Shore->	Getting Shore QCI DB Status, please wait....
Shore->Ship	0 record(s) to add to Ship DB
	4205 column value to update to Ship DB
	4205 column value to update to Ship DB-Done,AddNew-0,Update-4205,Delete-0,Skip-0,
	8410 column value to update to Shore QCI DB
	8410 column value to update to Shore QCI DB-Done,AddNew-0,Update-8410,Delete-0,S

Figure 6-5 – No of Records Processed Messages Tab

- The synchronization processes every five pictures data (SEC records) per batch and is only applicable when adding new SEC record from Shore to Ship. Messages shown in Messages tab are 'x value Update to Ship DB' when updating of SEC from shore to ship and 'Adding new record to shore' when a new record is added in Ship DB and transfer to shore DB. Any changes made to the SEC table from the ship will not be transferred to shore database.

Shore->Ship	0 record(s) to add to Ship DB
	5 sec record to add into Ship DB
	5 sec record to add into Ship DB
	5 sec record to add into Ship DB
	5 sec record to add into Ship DB
	4 sec record to add into Ship DB
Shore->Shin	0 record(s) to add to Shin DB

Figure 6-6 - No. of Pictures Records Processed

- The QCI Sync process exclude below data by default when synchronizing the shipboard database to the offline database:
 - Fleet Management System (FMS) data
 - Material Management System (MMS) data
 - Payroll data such as ADC, ADP, ADS, ADT, ADU, COH, COS, CTR, CTT, DDT, DPL, PAY, PCY, PGD, PGE, PGL, SED, SGT, SLB, SPD, SPO, SPP, SPT, SSH.
 - ResOnline data and Crew Management System (CMS) data such as RSP, RSL, RSD, FCCMSMSGs, CMSCHG, CMSRSL, CMSRSP, CMSRSD, FMS_TRANSFER, CHG_MOBILE_IN, CMS_UPL, CMS_UPL_RSP.
 - Data from table starts with 'X' for example, XAPP, XCET, XCTY, XDET, XMVW, XPDF, XSCP, XTIM, XUAF, XUSP, XUSR, XUST, XVEN, XDOC, with the exception of XDOC_GROUP < 12
- The QCI Sync does not synchronize the credit card (CCA) record to the offline database. When obtaining the credit card in offline mode, the QCI Sync Interface checks if the parameter 'Card Interface Name' is 'Enable' in the ship database. The

CCA record then is created in the ship database if the parameter is enabled. Otherwise, the Synchronization interface only synchronizes the credit card registration (CRD) record.

- When the QCI Shore database server is ready for transfer from the ship to the terminal, the IT Officer then shut down the QCI server and relocate the server to the terminal for embarkation preparation.
- After the QCI Shore database server has shut down, the interface for QCI Shore database status then indicates as “Disconnected” and the message “Shore QCI DB is offline, cannot sync” appears in the Messages tab. The message “Resetting connection” indicates the interface continue to check and attempt to reconnect the database. This is due the interface application were not running or closed without pressing the ‘Stop Offline Mode’
- Once you have transferred the QCI Shore database server to the terminal, start up and connect to the shore network, the Shore QCI Database Status changes to ‘Connected’ within a few minutes. If the terminal does not have network access to the ShipDB, the IT Officer is required to shut down the Shore QCI database server and transfer the server back to the ship at the end of the pier embarkation, before connecting the shore Offline Database Server to the shipboard network.

The QCI Sync Interface starts to synchronize the ship and shore QCI database once a connection is established.

Below is the Offline Mode Notification that may prompt when the program is running a database in QCI Offline Mode and the QCI Shore database parameter settings are:

- QCI Offline DB Warning = 12
- QCI Offline DB Terminate = 24

- | | |
|----------------|--|
| Notification 1 | The system prompts message ‘The QCI offline DB is older than 12 hours’ when running the QCI program with date time older than the client computer date time by 12 hours and clicking OK closes the program. |
| Notification 2 | When the QCI Synchronization interface is ‘Enabled’ then the QCI program opens. Otherwise, the message prompt ‘QCI Offline Sync is not enabled, cannot proceed.’ and clicking OK closes the program. |
| Notification 3 | The system prompts a message ‘The QCI offline DB is older than 24 hours, program will terminate now.’ when running the QCI program date/time is older than the client computer date time by 24 hours and clicking OK closes the program. |

Below is the Offline Mode Notification that may prompt when the program is running on a database that is in QCI Offline Mode and the QCI Shore database parameter 'QCI Sync Active Warning =12'.

- Notification 1 The system prompts message '*QCI Sync have been running for more than 14 hours, please call IT.*' when these applications are launch and running; Management, Administrator, Crew, and others with date time older than the client computer date time by 12 hours. Clicking **OK** allows you to proceed.
- Notification 2 The system prompts message '*The record had been sync to server, cannot edit, please retry.*' when you add travel document in shore-side database while the record is being synchronized over to the ship database.
- Notification 3 The system prompts '*This application is connected to Quick Check In Offline database. Please take note that any changes made in this application might not synchronize back to ship database. The Quick Check In Offline database is only work with Advance Quick Check In and Quick Check In application.*' when an application other than AQCI is launched.
- Notification 4 When the connection drops while processing transfer data, the application stops processing the record and prompt a message '*QCISHORE DB is offline or Ship DB is down*'. The application continues to process the records when the connection is restored.
- Notification 5 If QCI Sync retries to synchronize those invalid records when user press the '**Stop Offline Mode**', the application prompts a message "*There is error sync 1 record(s), do you want to continue? Click Yes will Ignore and Continue, No - Contact Admin to fix the invalid record in CHG table.*" and ignores the invalid record or fix the records before stopping the Offline mode.
- Notification 6 The application continues to retry the invalid records (CHG records) and send an email alert after every three retries. The system then displays Message '*eMail Send Successful to xxx@xxxxx.com*'.
- Notification 7 The system does not allow multiple instances running on a different workstation and prompt message '*OHC QCI Sync.exe is running at workstation xxx*'.

7 Log Messages

All messages logged at log file are in the following format:

<timestamp><location><message>

For example: <2018-09-11 00:45:11>Ship SELECT sys_date, sys_cruise from asys

Log Message during data sync

Initialization - QCI Sync interface started

- Start<HT>Interface Started - (<version number>)(<work station>)(<IP address>) 9/11/2018 12:45:05 AM

Sync Reservation Records

- Shore->Ship<HT> 3 record(s) to add to Ship DB
Notes: There are 3 new reservation found at shore. System detects new reservation by running select * from RES where res_id >= 900000000 at shore db
- Ship-><HT> Adding RES record
Notes: System is creating reservation at shipside. It will sync record in UXP, RES,VIS, SEC and CRD
- Ship->insert into QCI (qci_ship_res_acc, qci_shore_res_acc, qci_is_resid) values(1623496,900000536,1)
Notes: Insert new IDs into QCI table at ship DB. This table links ship and shore reservation records
- <HT>ResAcc - 1714877 sync to Ship DB
Notes: New reservation record with ID 1714877 is created at ship DB

Sync Posting Records

- <HT>Shore->select * from POS where pos_buyer > 0 and pos_id >= 900000000
Notes: QCI Sync checks number of new records found in POS table at shore DB. If record is found, it will sync the record over to ship DB

Sync Changes

- Ship->select * from CHG where chg_table <> 'LOG' order by chg_id
Notes: Load changes in CHG table at ship and shore DB. It skips log message

- Same Update Found, remove old value -
0,key=UXPXP_A_POS_DEBIT1703845(17654617)
Notes: Same update found in CHG tables. Old value = chg_value; key = chg_table, chg_column and chg_record_id. QCI Sync compares CHG records at shore and ship DB. Concatenation of 3 columns - chg_table, chg_column and chg_record_id is used in this comparison. Old value will be removed
- <HT> 775 column value to update to Ship DB
Notes: There are 775 of changes found in shore.
- Ship->update VIS_TEXT set vis_number = NULL where vis_id = 1384415(17784727) or
- Ship->update UXP set uxp_h_repeater = '0' where uxp_a_id = 1707539(17784736) or
- Ship->update SEC set sec_size = '29754' where sec_id = 431206(17784769)
Notes: updating changes from shore DB to ship DB
- Ship->select sec_image from SEC where sec_id = 431208
Notes: System sync image in sec_image at SEC table
- <HT>Update Skip for RES->RES_EMB_PC->1617592->TO_DATE('2018-09-11 03:31:25', 'YYYY-MM-DD HH24:MI:SS')->9/10/2018 3:31:25 PM->9/10/2018 9:26:32 PM
Notes: QCI Sync skips the update if modify date (9/10/2018 3:31:25 PM) is less than record's last modified date (9/10/2018 9:26:32 PM)

Error

- Error<HT>Shore->UpdateChg\Line#\2253\ORA-12899: value too large for column "FIDELIO"."UXP"."UXP_A_CITY" (actual: 31, maximum: 30)<CR><LF>chg_id = 17834060, chg_table = UXP, chg_column = ALL, chg_record_id = 1714162, chg_value = , chg_moddate = 9/10/2018 11:51:13 AM
Notes: We have to make sure columns in both shore and ship database have the same length
- <HT> 232 column value to update to Shore QCI DB-Done,AddNew-230,Update--228,Delete-0,Skip-0,Error-230
Note: Summary of records after sync is complete. Data sync will start again after n seconds, it is based on the setting at the interface.

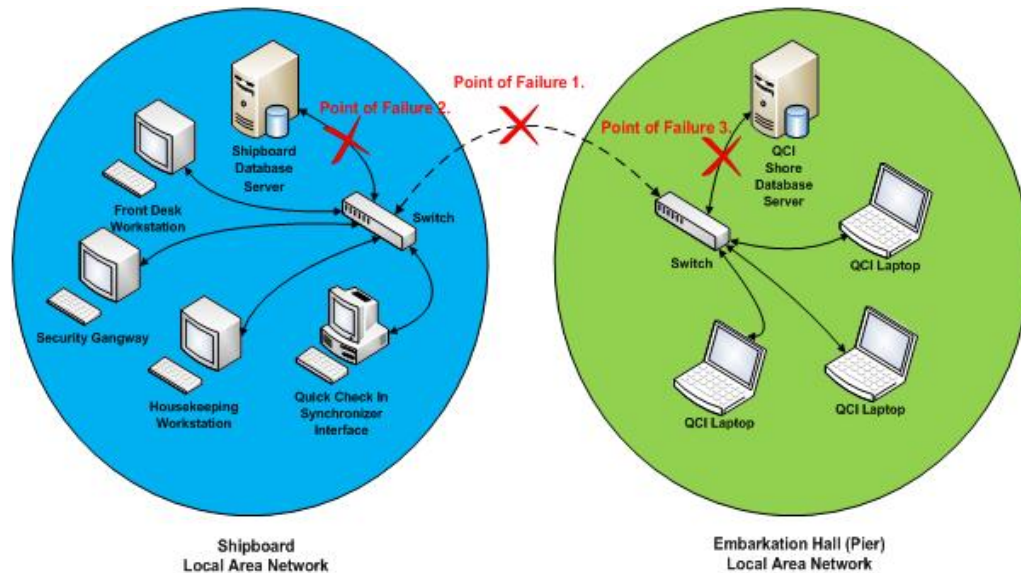
8 Stop Offline Mode

At the end of the pier embarkation, both the shipboard and the QCI Shore database are synchronized. If no activities appear in the Messages tab, the IT Officer can then proceed to stop the Offline Mode process.

1. At the Settings tab, click **Stop Offline Mode**.
2. The system prompts '*Are you sure you want to stop the Offline Mode. You should only stop the Offline Mode when all embarkation is finished.*' Click **Yes** to stop the offline mode process.
3. The security login dialog box opens and you are required to provide a valid user name and the password. Click **Login** to continue.
4. When one of the Quick Check-In clients remains connected to the shore QCI database, the system prompts an error message in the Messages tab with the workstation/source name that has the application open and terminates the **Stop Offline Mode Procedure**. The IT Officer must close the application and then restart the **Stop Offline Mode Procedure** again.
5. The interface starts to remove the offline triggers from the QCI Shore database and the ship database when the process begins and setting the Offline Mode to *Disabled* for the ship and shore QCI. At this point, you may then close the QCI Sync Interface.

9 Troubleshooting

This section describes the failure possibilities that you may encounter during embarkation day.



- Failure 1

Network connection lost between the shipboard database and the shore-side QCI database.

- The database synchronization between the ship and the QCI Shore database has stopped.
- Check and ensure the Oracle Database Listener has started and user 'FIDELIO' and password exist in the database schema.
- This does not affect the ship operations and the shore embarkation operation. All the reservation changes made on both databases are logged to CHG table for synchronization at a later stage.
- The interface tries to reconnect to the shore QCI database every number of seconds, depending on the time interval setup on the interface and synchronization resume once the network connection is restored.

- Failure 2

The Ship database server network cable disconnected or database service has stopped.

- The database synchronization between the ship and the QCI Shore database has stopped.
- This does not affect the shore embarkation operation and all the reservation changes are logged to CHG table to be synchronized later. The shipboard

operation is affected due to the lost connection from the shipboard database server.

- The error message popup on QCI Synchronizer Interface is "ORA-03114: not connected to ORACLE". The error message popup on ship workstation is "ORA-03113: end-of-file on communication channel".

- Failure 3

QCI Shore database server network cable is disconnected or database service has stopped.

- The synchronization between the ship and the QCI Shore database has stopped. The shipboard operation is not affected and all the reservation changes are logged in the CHG table for synchronization at a later.
- This affects the shore embarkation operation due to the lost connection from the QCI Shore database server.
- The error message popup on QCI workstation is "ORA-03113: end-of-file on communication channel".

- Failure 4

One of the DMP failed to restore.

- When the program tries to restore the 'BKSTG_DINING' schema, one of the DMP is missing due to certain reason, the import log show 'IMP-00037: Character set marker unknown' and 'IMP-00000: Import terminated unsuccessfully'.
- This error is written to the QCISyncLog.
- The 'Start QCI Offline Mode' process aborts.

- Failure 5

Failed to run Database Installer or Tools Encryption Key Manager.

- The QCI Sync is shut down, possibly preformed using End Task Program but Offline Mode is still shown 'Enabled'.
- You are not allowed to run the DB Installer or Change Encryption Key. A message prompt: 'QCI Sync is running, please stop QCI Sync first'.
- You are required to run QCI Sync to do Stop Offline Mode.

- Failure 6

QCI Sync returned 'Error sending to DR'

- The application tries to send a check-in status to an offline Dining Interface.
- Verify that the Dining Interface is running.

- Failure 7:

QCI Sync hang

-
- Run the 1st script below to find out which session id could possibly lock the database and then the 2nd script to kill that session id.

```
select b.SID||', '||b.SERIAL#  
sessionID,b.USERNAME,b.LOCKWAIT,b.STATUS,b.SERVER,B.SCHEMANAME  
,B.OSUSER,B.PROCESS,B.PROGRAM,B.TYPE,B.SQL_EXEC_START,  
a.TERMINAL,A.PROGRAM processProgram  
from v$session b, v$process a  
where b.paddr = a.addr;
```

```
ALTER SYSTEM KILL SESSION '&1' IMMEDIATE;
```