

TOSHIBA
Leading Innovation >>>

Ultimate InnService for Strata™ CIX
GENERAL DESCRIPTION

Ultimate InnService and Toshiba Strata™ CIX
Integrated with your Property Management System



Ultimate!
SOFTWARE THAT MAKES CONTACT

Hospitality Industry Solutions

Ultimate InnService For Strata™ CIX

Release 6.0

Hospitality Industry Solutions
General Description

July 2017

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I. SALES SUPPORT & CONTACT INFORMATION

Dear Toshiba Dealer,

Because the customer keeps or purchases a new Property Management System elsewhere, you will appreciate how easy it is to sell, install, and maintain the InnService system.

- *Ultimate!* Software Products, providers of the InnService software, assists you with pricing configurations and demonstrations for your prospects.

- To schedule InnService training for your staff or to schedule customer demonstrations call 1-262-789-9609 (1), CindyO@uspnet.com, Cindy Ovokaitys, InnService National & International Sales Manager

- *Ultimate!* Software Products, Inc. co-installs with your technicians. Your team handles the programming of the Strata CIX. *Ultimate!* handles the InnService software installation and assists in communication with the hotel property management system vendor.

- For co-installation appointments call 1-262-789-9609 (2), Jim Hahn, InnService Installation Programmer

- After the installation, *Ultimate!* Software Products, Inc. performs remote maintenance and offers a post warranty service policy available to your customer.

Key contacts and phone numbers for use by our TOSHIBA dealers are as follows:

- | | |
|--|---|
| • <i>InnService Sales Demonstrations or Training</i> | <i>262-789-9609 (1 for Cindy Ovokaitys) cindyo@uspnet.com or 262-789-9649 Demo Hot Line</i> |
| • <i>Website</i> | <i>www.ToshibaHotel.com</i> |
| • <i>Co-Installation Appointments</i> | <i>262-789-9609 (2 for Jim Hahn)</i> |
| • <i>Software Activation line</i> | <i>262-784-2312</i> |
| • <i>InnService Technical Support</i> | <i>262-789-9616 or techsupport@uspnet.com</i> |
| • <i>Other Ultimate! Software Products sales or info</i> | <i>262-789-9654 (ask for Roy Catron) or sales@uspnet.com</i> |

Besides Ultimate InnService for Strata™ CIX, *Ultimate!* has developed many applications for hundreds of dealers over the past fifteen years. Many of these applications are sold nationwide via TOSHIBA'S vast dealer network. A few examples of other products are: Ultimate Call Accounting, On Deck, Echo, OnTime4Class, Smoke Signal, Spark, Attention Shoppers, Ultimate Mobility, Ultimate Caregiver, and the TOSHIBA Ultimate Communicator. Contact Roy Catron (262) 789-9654 for more information.

II. THE TOSHIBA DIFFERENCE

Because Toshiba has a National Accounts program and a National Dealer Support network, customers have the opportunity to purchase the dependability of the Toshiba system and also have a local presence for service and support. *Ultimate!* Software Products serves as an extension to the Toshiba dealer team to help meet customer needs!



III. DEFINITIONS

A **Property Management System (PMS)** is a computer program that handles the business operations of a hotel or motel. It is the lifeblood of their business. To generate a customer's bill, information is passed to it from the telephone system along with other systems. The property management system also takes reservations, does registration, displays which rooms are vacant, occupied, cleaned, and not cleaned and performs a variety of other functions.

Ultimate InnService for Strata™ CIX is a comprehensive and cost-effective hotel/motel application for Strata™ CIX systems. It integrates the Toshiba telephone system with a customer's new or existing property management system.

Due to costs involved, a smaller sized hotel/motel might not purchase or install a property management system. If this is the case, Ultimate InnService for Strata™ CIX includes **a user interface** and can be used instead.

Ultimate Call Accounting Software is bundled with Ultimate InnService for Strata™ CIX. Call Accounting takes data from the phone system regarding incoming and outgoing traffic and organizes this data into useful reports and troubleshooting tools.

Spark is an additional software program *Ultimate!* Software Products has developed that brings assistance to the hospitality industry. With a simple keystroke on a computer, Spark would allow the front desk staff to text message a guest waiting for a room on his/her cell phone and give notification when the room is ready. If there is a restaurant, Spark can be used to text message a cell phone as to when one's table is ready. This allows guests flexibility to walk around or return to their room as they wait. With the group send feature on Spark, many employees can be text messaged at one time. This is especially helpful if looking for a fill-in employee should someone call in sick. Replies from guests or staff return to a pre-assigned e-mail address. For more information about Spark or for pricing, contact Cindy Ovokaitys or Roy Catron at (262) 789-9609.

IV. INNSERVICE SYSTEM CAPACITIES & CONFIGURATIONS

There are four different size configurations of InnService; small, medium, large, and resort (multiple CIX cabinets/multiple sites networked.) As the following diagram outlines, in addition to size, the system is configured for either a) InnService with integration of both the customer’s property management system and the Toshiba Voice Mail (iES16, iES32, Enterprise Server, MicroMAS or MAS) b) InnService with integration of the customer’s property management system or c) InnService:

| | | | | |
|--|------------------------------|---------------------------------|---------------------------------|--|
| InnService with integration of both the customer’s property management system and the Toshiba voice mail system (iES16, iES32, Enterprise Server, Micro MAS or MAS) | Small (0-75 Rooms) | Medium (76-300 Rooms) | Large (301-900 Rooms) | Resort (< 1800 Rooms Multiple CIX cabinets/multiple sites networked) |
| InnService with integration of customer’s property management system | Small (0-75 Rooms) | Medium (76-300 Rooms) | Large (301-900 Rooms) | Resort (< 1800 Rooms Multiple CIX cabinets/multiple sites networked) |
| InnService | Small (0-75 Rooms) | Medium (76-300 Rooms) | Large (301-900 Rooms) | Resort (< 1800 Rooms multiple CIX cabinets/multiple sites networked) |

Note: There is a limit of up to 4-digit extension numbers

V. INNSERVICE FEATURES

A. SUMMARY

In addition to serving as an integration bridge, a hotel/motel manager, the guests, and the front desk staff will appreciate the plentiful, valuable features InnService provides to help them:

- **Manage business telecommunication expenses (*InnService includes Ultimate Call Accounting Software*)**
 - Line traffic studies – *indicates if the property has too many or too few lines*
 - Monthly phone bill reports – *helps to budget and complete profitability studies*
 - Real and alternative rate reports – *provides a snapshot of cost versus profit of telephone operating expenses*
 - Track guest calls – *helps in billing back for long distance, internet, and local calls*
 - Detail Reports – *may be chronological, or be indexed by Department/Extension or Account Code*
 - Frequently Dialed Numbers Report – *A frequently dialed numbers report is a report that will list up to ninety-nine numbers dialed with number of occurrences. The report may display numbers dialed, numbers received, or both combined.*

- **Manage guest services**
 - Room status report – *helps staff quickly identify vacant rooms*
 - Wake-up call report – *documents that a wake-up call was attempted, made and acknowledged by the guest*
 - Personalize the wake-up call message – *new recording every day if you desire*
 - Provide for cash deposit – *prepaid calls are allowed for local and long distance calls*

- Automatically activates a voice mailbox as a guest checks-in & automatically clears a voice mail box as a guest checks-out – *seamless check-in and check-out procedures*
- **Optimize Front Desk Operations**
 - Real time alerts – *notifies the front desk and other predefined location of 911 calls and the extensions requesting help*
 - Room status indicators for clean, occupied, needs repair or cleaning – *automates the check-in process*
 - Wake-up call alerts – triggers a front desk alert in case a wake-up call has not had a response from the guest – *provides better customer service*
 - Restrict dialing patterns – *while the room is cleaned, repaired or awaiting the next guest*
 - Telephone calls are posted to the PMS automatically
- **Increase Guest Satisfaction**
 - One or more* wake-up calls can be made for each room – *helps guests avoid missed appointments*
 - Local and long distance calls are priced real-time – *no waiting at the checkout counter for a report to be run.*
 - Voice messages cleared on check-out – *guests do not need to remember to delete messages before checking out*
 - Guests can set, change, and verify their own wake-up call

*If set from InnService Front Desk

B. AVAILABLE FEATURES PER CONFIGURATION

The following diagram outlines the features available for each configuration:

| Feature: | InnService with Voice Mail (with or without PMS Integration): | InnService without Voice Mail (with or without PMS Integration): |
|----------|---|--|
|----------|---|--|

Manage Business Telecommunication Expenses

| | | |
|-----------------------------------|----------|----------|
| Line traffic studies | X | X |
| Monthly phone bill reports | X | X |
| Real and alternative rate reports | X | X |
| Track guest calls | X | X |

Manage employee use and/or abuse

| | | |
|--|----------|----------|
| InnService Call Accounting – Detail Reports | X | X |
|--|----------|----------|

Manage guest services

| | | |
|--|----------|----------|
| Room status report | X | X |
| Wake-up call report | X | |
| Personalize the wake-up call message | X | |
| Provide for cash deposit | X | X |
| Automatically activates voice mailbox as guests check-in & automatically clears voice mail box as guests check-out | X | |

Optimize Front Desk Operations

| | | |
|--|------------|------------|
| Real time alerts | X | X |
| Room status indicators for clean, occupied, needs repair or cleaning | X | X* |
| Wake-up call alerts | X | |
| Restrict dialing patterns | X | X |
| E-mail messages for system operational status (SMDR) | O** | O** |

Increase Guest Satisfaction

| | | |
|--|----------|----------|
| Wake-up calls can be made from the front desk | X | |
| Guests can set, change, and verify their own wake-up calls | X | |
| Local and long distance calls are priced real-time. | X | X |
| Voice messages cleared on check-out | X | |

***Staff may set room status indicators from the guest rooms if InnService uses voice mail. Otherwise, it is set through the Front Desk Screen.**

**** Optional, if on the network with e-mail capability and if programmed.**

VI. InnService Property Management System Interface Overview

InnService is interfaced with a customer's property management system in any serial or TCP/IP combination. For a complete list of standard interface technical specifications, see appendix A.

InnService integrates with such property management systems as MICROS, Springer Miller, Lodgical Solution, InnQuest, SoftBrands, Multi-Systems, RedSky, Galaxy, Brilliant, Choice, and Execu/Tech Systems along with some twenty other software systems serving the Hospitality Industry.

MICROS has assigned an integration part number for InnService installations. The MICROS™ FIAS Integration Part Number is PN5001-286-GD.

VII. INNSERVICE TECHNICAL SPECIFICATIONS

- Toshiba release 3 or later for the Strata CTX or CIX 100, 200, or 670
- (Optional – see pg 7-8) Voice Mail iES16, iES32 Enterprise, MicroMAS, or MAS
- Station Message Detail Recording for Call Accounting (PIOU, BIOU, RSIU, or BSIS or Release 4.0+)

PC REQUIREMENTS:

(InnService requires a PC DEDICATED solely for InnService. This PC is not included with InnService.)

- One dedicated PC running Windows® 7, 8, 2003, 2008, XP or Vista operating system with a Pentium 4 CPU or later
- Up to three RS-232 serial communications ports (1 for SMDR unless using TCP/IP, 2 for Property Management System unless using Micro-Opera or Fidelio PMS with FIAS Interface or Lodgical Solution PMS)
- Multimedia (Sound card)
- Internet access for installation and service support
- At least 500 MB of hard drive space required and at least 256 MB of RAM
- Remote Access to PC with PcAnywhere, www.gotomypc.com, www.logmein.com, or UltraVNC (required to assist with Tech Support)
- Printer (optional)
- Monitor
- Uninterruptible Power Supply
- Network Card

VIII. INNSERVICE CALL ACCOUNTING

A. OVERVIEW

InnService Call Accounting

InnService Call Accounting takes data from the phone system regarding incoming and outgoing traffic and organizes this data into useful reports and troubleshooting tools. Following is a quick overview of Database maintenance and reports, the key elements of InnService Call Accounting.

Database

The Database section of Maintenance allows for grouping and labeling of circuit groups, account codes, departments and extensions.

Account Codes

Names may be associated to 2000 account codes. Names will be displayed in reports using an account code index or the enhanced report format.

Circuit Groups

There are 200 groups available to sort up to 2000 circuits. Each of these groups may mirror the phone system or be divided to suit your needs. The ability to save data, send to communicator, default pricing and other pricing options is present in each circuit group.

Department/Extension

There are 255 departments available to sort up to 8000 extensions. Each department and extension may be assigned its own name. Names are displayed in phone directory reports and template reports that use the Department/Extension index.

Reports

InnService Call Accounting provides 50 customizable template reports, 3 phone directory reports, and a traffic study report.

Template

There are 50 customizable reports that can be defined by an assortment of filters and 5 report formats.

Detail

Detail Reports may be chronological, or be indexed by Department/Extension or Account Code. There is also an enhanced report where the account code is replaced by the account code name.

Summary

Summary Reports may be chronological or indexed by Department/Extension or Account Code. There is a traffic summary report, which gives traffic study stats for a range of dates.

Frequency

Frequency reports are bar graphs where the horizontal axis is either call time or call count. The vertical axis may be any of the following.

- Area code
- Account code
- Call Type
- Carrier
- Circuit group
- Circuit number
- Cost
- Day of Week
- Department
- Duration
- Extension
- Port Number
- Rate Band
- Time of Day
- State/Province

Frequently Dialed Numbers

A frequently dialed numbers report is a report that will list up to ninety-nine numbers dialed with number of occurrences. The report may display numbers dialed, numbers received, or both combined.

Audit Detail

An audit detail report is the same as a detail report with an option to clear records after the report is compiled. Audit reports are commonly used in the hospitality business.

Traffic Study

The traffic study is a report that shows how busy the telephone system is over ten minute increments throughout the day. This report is used to determine if a system has enough capacity for the traffic going through it.

Phone Directory

The phone directory report displays a list of extension numbers, extension names, and department names; it can be sorted by any of these items.

Automated

Any of the 50 template reports can be automated to print to a printer on a daily, weekly, or monthly basis.

B. FEATURES

Alternate Rates

A second set of rates may be set up, and accessed by reports to replace the primary set of rates.

Caller-ID Reports

Reports can be produced with Caller-ID numbers, which are collected from incoming traffic. Some telephone systems collect ANI or DNIS numbers instead of or in addition to Caller-ID.

Echo Call Records to File

When initiated for Tech Support purposes, raw SMDR data and processed data are recorded in a text file.

Export Report to File

A no-headers report will print out a fixed-length-field format report without headers, which can be imported into various database or spreadsheet programs.

Fixed Cost report

You may run a report with a fixed per minute rate for incoming and outgoing calls without affecting the standard or alternate rates.

International Pricing

Ultimate InnService Call Accounting includes default Sprint pricing for International Calls based on country codes.

PMS HOBIC Format

There are 6 standard HOBIC formats available in InnService Call Accounting.

PMS Protocols

There are a variety of protocols used before and/or after sending the HOBIC String, including Acknowledge, Negative Acknowledge, Check Sum, Line Feed, Start of Text, and End of Text.

Pricing Customization

Pricing may be customized beyond the pricing wizard, including 10-digit locals, circuit groups, long distance pick codes, area codes and office codes.

Property Management System Integration

There are 15 different interfaces built in for PMS.

Quick Start Pricing Wizard

The pricing wizard feature allows for quick pricing setup. 7-digit locals are priced at one rate while 10-digit long distance calls are priced at another per minute rate.

Re-index Database

Ultimate InnService Call Accounting has the built in ability to repair the indexed database when broken index links occur over time. Closing the program improperly or power loss to the computer causes broken index links.

Real Time Data Collection

Data is received and processed each time a call is completed. This allows reports to be run on demand without doing lengthy preprocessing of batch data.

Recalculate Report Cost

Reports may have the cost recalculated to register changes that are made to the pricing structure.

Report Display

Reports may be posted to a display screen, text file, or printer.

Security

Three levels of administrative passwords are provided to protect system data, allow functionality of reports, and perform minor data maintenance.

Sizable Display

The main window can be reduced in size to half, quarter or minimal.

C. LISTS AND TABLES

This section is comprised of data to answer any remaining questions the customer may have pertaining to Ultimate InnService Call Accounting.

Saved Call Record Data

Call Record Data is comprised of items collected from raw SMDR and stored in the Database.

Duration

Duration is the length of time from initiating the call to the termination of the call.

Date/Time

SMDR date and time is not used. The time and date are retrieved from the computer each time a record is received; this provides a greater degree of accuracy.

Transfer Flag

When SMDR indicates that a call is transferred, that call is flagged. The transfer flag allows InnService Call Accounting to isolate those records from a report.

Extension

Extension is the station number that received or placed a call.

Circuit Number

This is the trunk number that handled the call.

Number Dialed/Received

For outbound traffic this is the number that was dialed. For incoming calls this is the caller-ID, ANI or DNIS. (Digits Only)

Account Code

This is the code entered by the user during the call.

D. SOFTWARE LIMITS

Database

| | |
|--|------|
| Account Codes (up to 12 digits per code) | 2000 |
| Circuits (up to 8 digits per circuit number) | 2000 |
| Circuit Groups | 200 |
| Departments | 255 |
| Extensions (up to 7 digits per extension) | 8000 |
| Phone Number Exceptions (per Table) | 36 |
| Phone Number Exception Tables | 10 |
| Pseudo Extensions | 10 |

Reports

| | |
|-------------------------|----|
| Total Reports | 54 |
| Customizable Reports | 50 |
| Phone Directory reports | 3 |
| Traffic Study Report | 1 |
| Report Filters | 31 |

Pricing

| | |
|------------------------|-----|
| Area Code Tables | 30 |
| Exception Tables | 200 |
| Long Distance Services | 30 |
| Rate Bands | 150 |

Hard Drive usage based on number of call records

| Call Records | Drive Space Needed |
|--------------|--------------------|
| 1 Million | 104 MB |
| 5 Million | 520 MB |
| 10 Million | 1040 MB |
| 20 Million | 2000 MB (2 GB) |

E. AUTO REPORTS

When selecting an auto report to run daily, weekly or monthly a settings option will be available to determine destinations. The report can be generated to any one, two, or all three of the following destination choices:

Printer –will print to the windows default printer (local or network.)

File – will print to a text file in the InnService Call Accounting directory pre defined file names (report1.txt through report50.txt.) New reports will overwrite any existing files.

E-mail – will e-mail report to the enter address or distribution list name entered.

Pressing the default button will set the auto report options to printer only. Optional software is available for custom timing and delivery options are needed.

F. PROPERTY MANAGEMENT ALERT

For use with PMS types 1,4,5,9,13,15,16. An alert will be triggered when InnService Call Accounting has not received an acknowledge response to enquiries spanning over 5 minutes. The alert consists of 3 warnings

- ✓ An e-mail to distribution list named 'PMS Error',
- ✓ The status bar indicator 'PMS=ON' will flash red and black every 5 seconds,
- ✓ The system sound 'Exclamation' will sound every 5 seconds.

The menu item 'PMS FILE' under features will be active and start to display records that have not been processed by the PMS. When InnService Call Accounting starts receiving acknowledgments from the PMS the sound and the flashing indicators will stop, but the PMS Log File will remain active until the PMS has processed all calls.

(See Appendix B for Ultimate Call Accounting Property Management System Interface)

G. REQUIREMENTS FOR E-MAIL OPTIONS

E-mails can be sent using either SMTP or Microsoft Outlook. If using Microsoft Outlook, it needs to be installed and running on the InnService Call Accounting computer with a valid e-mail account that has the ability to send outgoing e-mail traffic. If there are problems sending out the e-mails, copies of the e-mail will be saved in the drafts folder of Outlook.

NOTE: Outlook Express does not work with *Ultimate!* Products.

H. BANDWIDTH USAGE IN A CENTRALIZED INNSERVICE CALL ACCOUNTING APPLICATION

The following statistics apply to network bandwidth usage by Centralized InnService Call Accounting:

- a call record is produced whenever a call is completed or transferred
- each call record sent over the network is 136 bytes long
- each call record is sent to the Ultimate! Communicator Server before being retransmitted to the central site, doubling the amount of data per transaction to 272 bytes
- assuming a heavy call traffic scenario of 10,000 call records in an 8-hour period, this works out to an average bandwidth usage of 2.6 MB per 8 hours or 755 bps (bits per second)
- on a 100 Mbps LAN, this would be less than one part in 100,000 bandwidth usage
- on a 24-channel T1 with each channel at 64 Kbps, this would amount to about one part in 2,000 or 0.05%

Appendix A. - Ultimate InnService Property Management System Interface

(Attention PMS Vendors: InnService uses Hitachi™ HCX 5000 emulation or MICROS™ FIAS integration)

Overview

A PMS (Property Management System) is software specifically for the lodging industry. Although the InnService system has integrated hotel/motel features, including check-in/check-out operations, wake-up calls and reports, a PMS provides additional features that are used in larger properties. The PMSI (PMS Interface) allows lodging customers to use a PMS in conjunction with InnService.

The standard dual-port PMSI, which uses two RS-232 ports for the communication of data with the PMS, is provided:

Dual-port PMSI

The dual-port PMSI uses two RS-232 ports for the communication of data. The links over the RS-232 ports are:

- The PMS or HC (House Computer) link
“House” information including check-in/check-out, wake-up, room status messages, etc., is transmitted over this link.
- The PMS-HOBIC or CA (Call Accounting) link
Call record information is transmitted over this link.

PMS-Link Messages

The PMS link is bidirectional (half-duplex) and uses an ENQ/ACK communications protocol.

Protocol over the PMS-Link

< > placed around letters in the following illustrations of InnService system/PMS communications indicates single ASCII characters.

Sequence and timing is the same for messages sent by the InnService system and those sent by the PMS.

Normal transmission InnService system to PMS

The sequence of events in normal transmission is as follows:

- InnService system sends an ENQ character
- PMS should acknowledge (ACK)
- The InnService system attempts a data transfer, which follows the sequence presented in Figure 1.
- PMS should acknowledge (ACK) within a specified time period.
- Once the response time has elapsed, the InnService system times out and resends data.
- After the InnService system receives an ACK from the PMS, a data transfer is attempted which follows the sequence presented in Figure 1.

- When a positive acknowledgment is received from the PMS, the data transfer is considered successful.

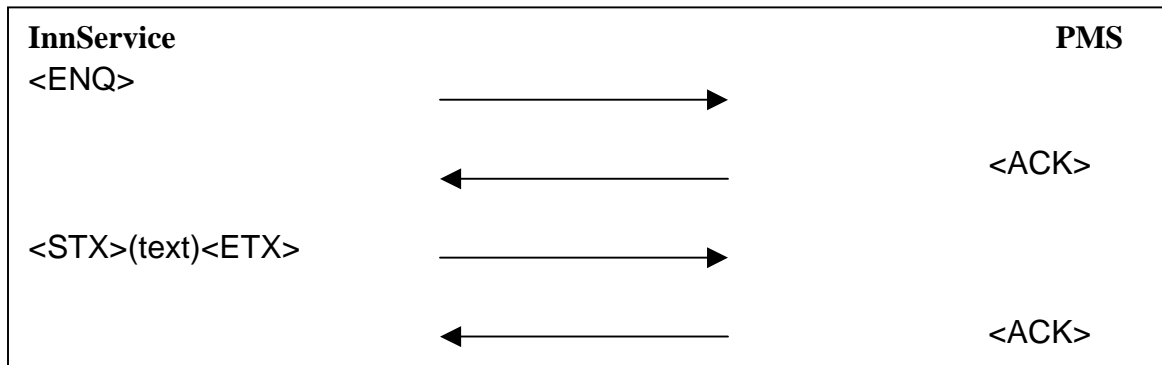


Figure 1 - Normal Transmission

InnService system receives NAK

When the InnService system receives a NAK (Negative Acknowledgement) from the PMS, it tries to send the data message again up to three times, as shown in Figure 2. If all attempts are unsuccessful, the InnService system assumes the PMS to be out of service.

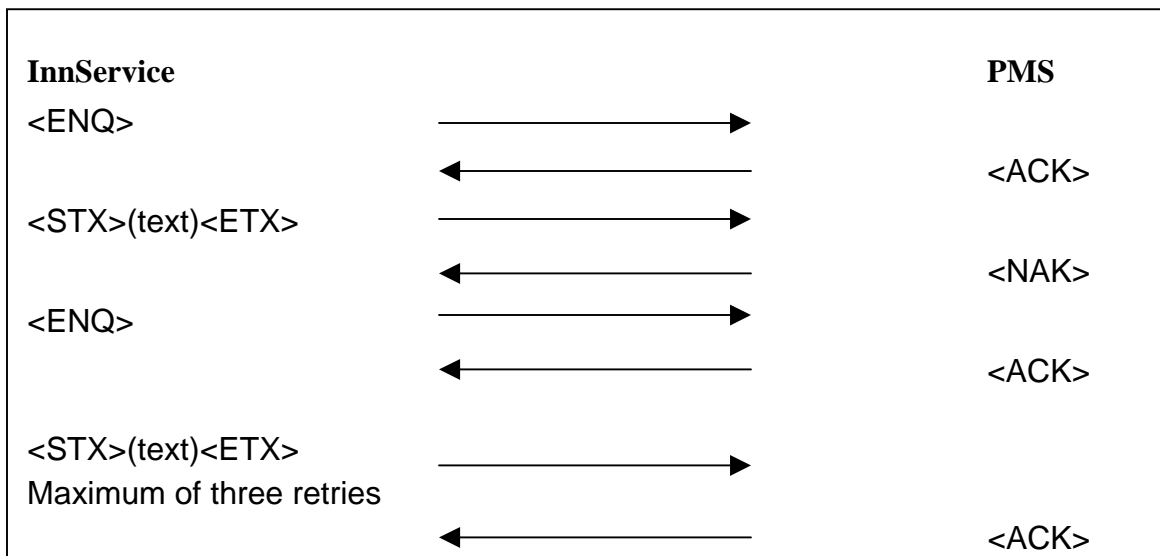


Figure 2 - PMS Sends NAK

No response from PMS

If the InnService system receives no response, it attempts to resend the data message three times beginning with the <ENQ> sequence. If three successive no-response timeouts occur, the InnService system assumes the PMS is out of service.

Transmission from PMS to InnService system

The transmission of data messages from the PMS to the InnService system is the same as transmission from the InnService system to PMS.

Normal data transmission from PMS to InnService system

Figure 3 shows the sequence of events for normal data transmission from the PMS to the INNSERVICE system.

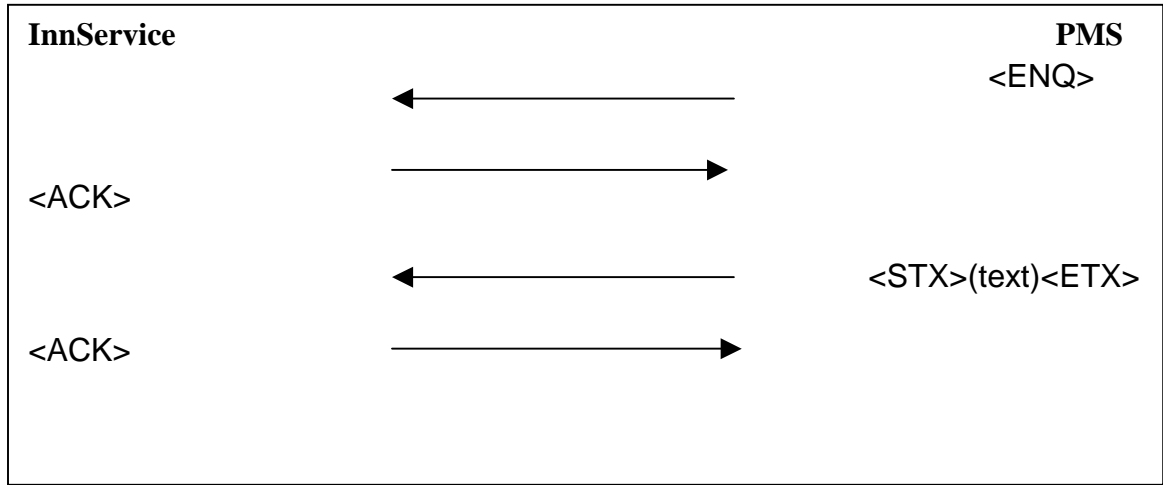


Figure 3 - Normal Transmission from PMS

PMS-link messages

The following PMS-link messages are sent over the dual-port PMSI:

- Check-in/check-out messages
- Edit message
- Room status message
- Message waiting message
- Station restriction message
- Do not disturb message
- Fault recovery messages

If the PMS-link messages listed above and described in the following pages have more than 12 characters, they require a BCC (Block Check Character).

Anytime the InnService system sends a message to the PMS, it expects a response of ACK or NAK.

Figure 4 is an illustration of the general format for PMS-link messages.

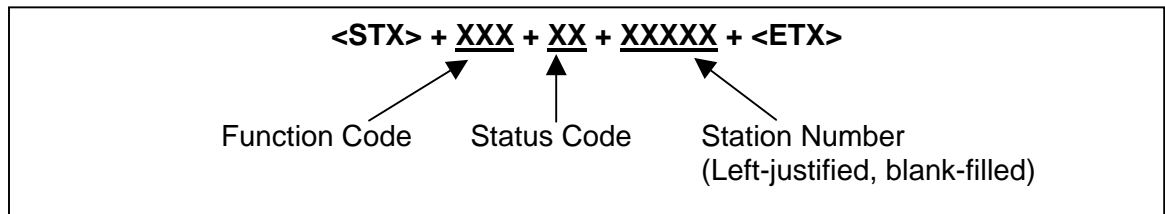


Figure 4 - PMS-Link General Message Format

Message fields

The fields of PMS-link messages include:

- <STX>: ASCII start-of-text character
- Function code: Alpha characters representing the operation that was performed
- Status code: The state of the operation (which is represented by the function code)
- Station number: The phone/room number affected by the operation
- <ETX>: ASCII end-of-text character

Check-in/Check-out Message

When a PMS is used with an InnService system, check-in/check-out operations are performed at the PMS terminal. The PMS sends the check-in and check-out messages to the InnService system, which processes and stores them in its database according to its checkin/checkout procedure. Figure 5 is an illustration of the check-in/check-out message sent to the InnService system.

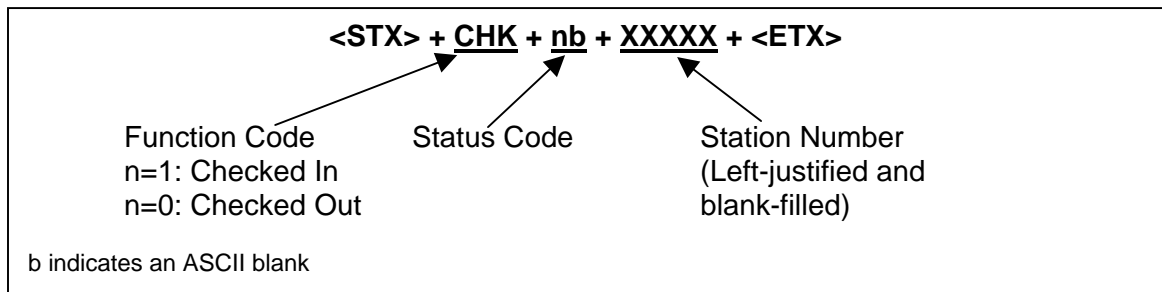


Figure 5 Format of Check-in/Check-out Message

Check-in message with name

A name may be included in a check-in message to the InnService system for the calling name display feature, which is available for Digital Telephone Sets with a display. The format of the check-in message with name is illustrated in Figure 6.

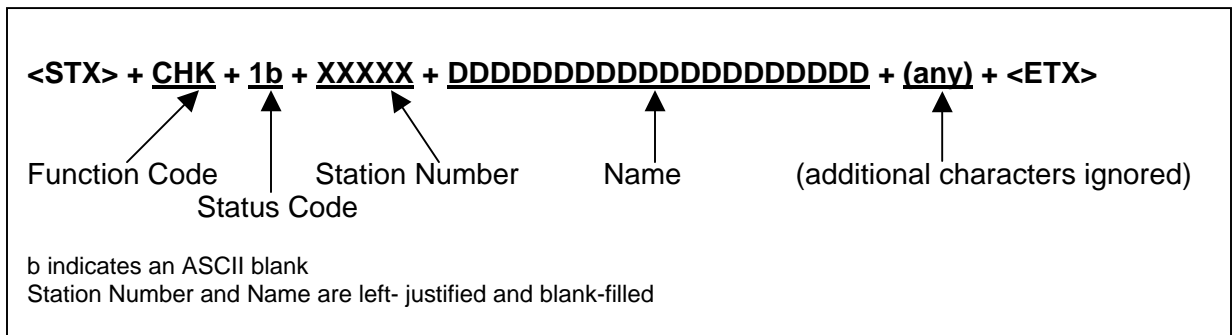


Figure 6 Format of Check-in Message with Name

Function code and status code

The function and status codes in this instance would be CHK and 1, respectively. Null characters cannot be sent in place of function code, status code, or station number fields.

Name field

A name may consist of up to twenty characters. The first character of the name field must be a letter of the alphabet. The rest can be either alpha or numeric characters. A blank should be used between last name and first name.

Edit Message

If the PMS has editing capability, a name change may be sent to the InnService system using the edit message, as illustrated in Figure 7. This eliminates the need to perform a check-out and repeat the check-in when a name change must be made. Note: InnService ignores An Edit message on a checked-out room.

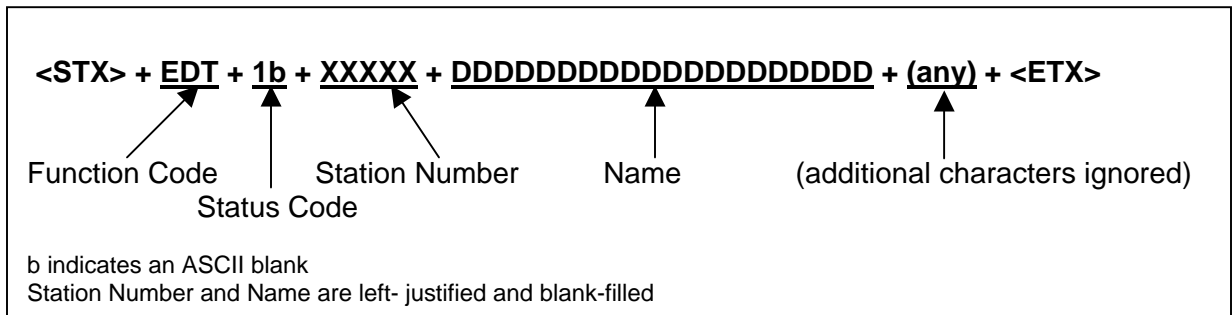


Figure 7 - Format of Edit Message

Room Status Message

Room status messages are sent from the InnService system to the PMS whenever a member of the housekeeping staff enters a room status code from a room phone (iES 16, iES32, or Enterprise Software voice mail integration is required). Room status codes are single digits ranging from 1 through 9. The meaning of each code is defined by the PMS. Figure 8 shows the format of the room status message.

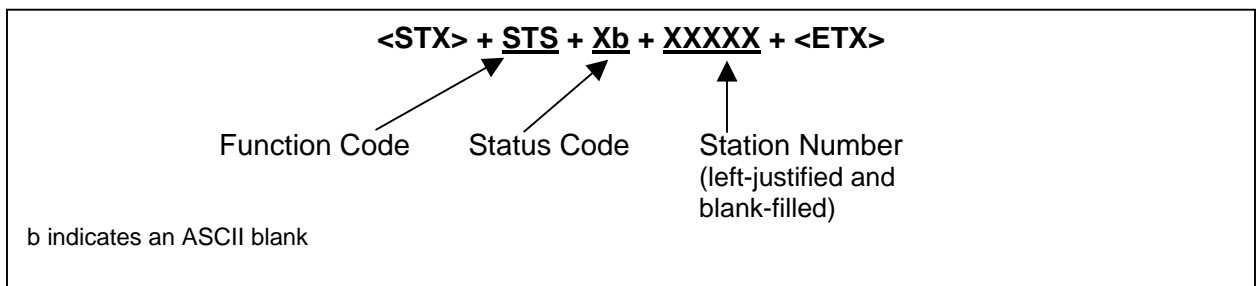


Figure 8 - Format of Room Status Message

Entering Room Status Codes

The housekeeping staff may enter room status codes directly from room phones. Figure 9 shows the dialing sequence for entering status code 1 (which is the usual code for "clean" status).

| Dial digits | Voice Prompt |
|------------------------------|---|
| NNN (VM pilot number) | To play your messages, press 1.... |
| 7 | Enter authorization code. Finish by pressing pound. |
| 622# | Enter room status codes. Finish by pressing pound. |
| 1*# | You entered "one, star". If this is correct, press 1... |
| 1 | Thank you. |

Figure 9 - Entering Room Status Code 1

Other status codes can be entered in the same way, and multiple status codes may be entered at the same time. Note that * (star) must be dialed after the status code(s).

Station Restriction Message

Station restrictions can be imposed on guest phones from the PMS system. The InnService system can receive station restriction messages from the PMS. Station restrictions give hotels the flexibility of offering unlimited calling capabilities to guests who furnish credit card numbers and of restricting those who pay for rooms in cash at check-in. The latter group can be allowed to make local calls but barred from making long-distance calls. Consequently, loss of revenue due to unpaid telephone charges is reduced.

Restricting at the PMS

To set the restriction level for a station, the PMS sends a station restriction message to the InnService system as shown in Figure 10.

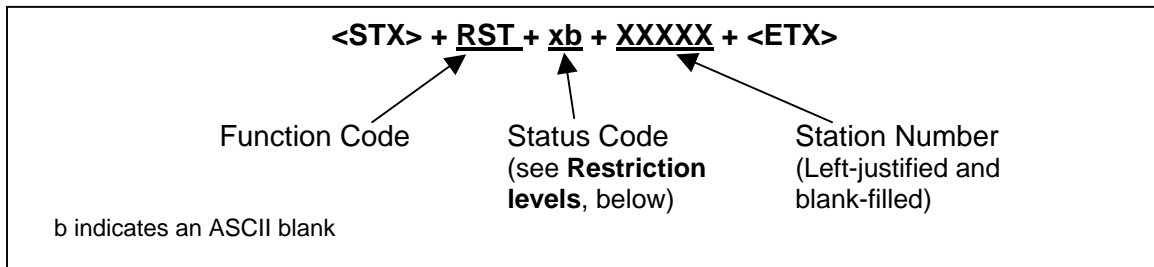


Figure 10 - Station Restriction Message Format

Restriction levels

There are four station restriction levels:

- 0 No calls are restricted.
 - 1 All types of external (outgoing) calls are restricted except emergency (911) calls.
 - 2 All direct-dial toll calls are restricted. Guests with call restriction level 2 can make operator-assisted toll calls and local calls.
 - 3 All calls are restricted except for local calls.
- Internal and incoming calls are allowed for any level of call restriction.

PMS-forced initialization

InnService assumes that a PMS can detect InnService system failures by noting the absence of activity on the PMSI or protocol timeouts. When the PMS determines that the InnService system is operational again, the PMS can send a GRS message to initialize the InnService system. This procedure is illustrated in Figure 11.

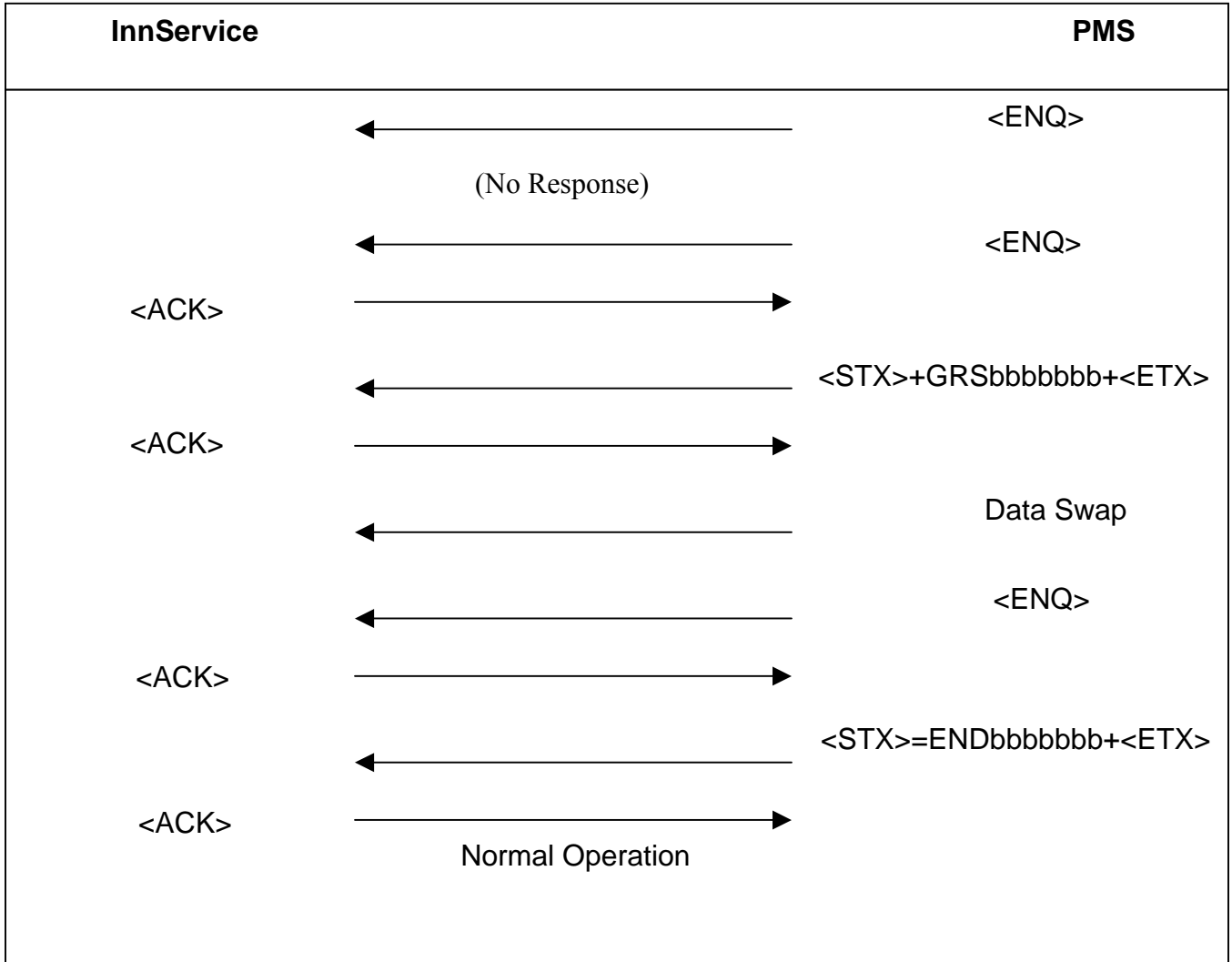


Figure 11-PMS Forced Initialization

Appendix B. - Call Accounting Property Management System Interface

(Attention PMS Vendors: Ultimate Call Accounting uses HOBIC Serial or TCP/IP integration)

This chapter discusses:

- Append Call Records
- Property Management System (PMS)

To access either, select “Features” in the main menu: selecting PMS, Figure 2 will be displayed.

Property Management System (PMS)

This feature once set up will do the following. When a call record comes in and is processed, it will be transformed into a selected PMS format and sent out the selected com port via a serial connection to a PMS which will then process the data.

Property Management System (PMS)

Enable PMS Active Department: [all departments]

PMS Selection

- 1. <ENQ/ACK><STX><HOBIC 1><ETX><BCC><ACK>
- 2. <HOBIC 1><Call Flag><CR><LF><ACK>
- 3. <HOBIC 1><Call Flag><CR><LF>
- 4. <ENQ/ACK><STX><HOBIC 1><Call Flag><ETX><BCC><ACK>
- 5. <Xon><Homes Format><CR><LF>
- 6. <Micros Format><CR><Y/N>
- 7. <STX><HOBIC 1><ETX>
- 8. <STX><HOBIC 1><ETX><BCC>
- 9. <ENQ/ACK><STX><HOBIC 2><Call Flag><ETX><BCC>
- 10. <HOBIC 1><CR><LF><CR><LF>
- 11. <HOBIC 3><CR>
- 12. <LF><HOBIC 2><Call Flag><FF>
- 13. <Xon><HOBIC 4><Call Flag><CR>
- 14. <STX><HOBIC 5><ETX><BCC>
- 15. <ENQ/ACK><STX><HOBIC 6><ETX><BCC><ACK>
- 16. <ENQ/ACK><STX><HOBIC 7><ETX><BCC><ACK>
- 17. <STX><HOBIC 8><ETX>
- 18. <Custom HOBIC>

Port

Com Port: [NONE]

Baud Rate: [300,E,7,1]

OK

Figure 12

Required Hardware

In order to use Call Accounting to send information to the PMS, the following hardware is required.

- One available serial port besides the serial ports for the modem, source for SMDR, and *Ultimate!* Communicator.
- Serial cable to be connected between the call accounting computer and the PMS system. (Refer to PMS documentation for type of cable)

Note: Serial port for *Ultimate!* Communicator is needed only when using Communicator with Call Accounting on the same computer.

Setup

The screen shown in Figure 7.1 is the main PMS setting screen. The other screen used is the General Settings Screen.

- **Hardware Setup**
Hardware settings for PMS are found in the General Settings screen. This is where the settings for PMS port and PMS baud rate are set.
- **Active Department**
This option has two settings. The default is 'all departments' and the other option is a specific department. The purpose of this option is that if only information from a select number of extensions are desired then that group of extensions can be placed in a single department and that department can be selected as the active department.
- **Type of PMS**
Call Accounting supports 13 different types of PMS record formats. To decide which one fits the PMS requirements refer to section 7.1.4. Click on the circle next to the selected format. Only one may be selected at any one time.
- **Enable PMS**
Click on the box titled 'Enable PMS'. Once selected, Call Accounting will start sending relevant information to the PMS. Once this box is selected, changes to PMS port, PMS baud Rate, or PMS type will not be allowed.

Troubleshooting

- **Serial Port**
The serial port designated for PMS doesn't appear to be working. To check this temporarily switch over the SMDR cable to this port and change the settings to reflect this. If SMDR call records are being received the com port is functional and the problem may lie in the serial cable being used. If call records are not being received the supplier of the computer needs to have the serial port repaired or replaced.
- **Transmission of PMS record**
The PMS system is either receiving incorrect data or no data at all. To check this problem it is possible to emulate the PMS by connecting with a null modem cable call accounting to a laptop running a terminal program. This way all characters being sent from call accounting can be seen. Note: Special characters will show up as single pictorial characters such as hearts or faces. To emulate an acknowledge character press <CTRL><F> on the laptop.

Available PMS Types

Following are descriptions for the 13 PMS record formats. Special Characters are defined in section 7.1.5 and the HOBIC record formats are defined in more detail in section 7.1.6.

- Type 1** Call Accounting sends an <ENQ> to the PMS and waits for a response in the form of an <ACK> or <NAK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the <ENQ> again. When an <ACK> is received Call Accounting will send the HOBIC Record as an <STX><HOBIC 1 Format><ETX><BCC>. Call accounting will then wait for an <ACK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the HOBIC Record again. When an <ACK> is received the process is complete.
- Type 2** Call Accounting sends HOBIC Record as <HOBIC 1 Format><Call Flag><CR><LF> to PMS. Call Accounting will then wait for an <ACK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the HOBIC Record again. When an <ACK> is received the process is complete.
- Type 3** Call Accounting sends HOBIC Record as <HOBIC 1 Format><Call Flag><CR><LF> to PMS.
- Type 4** Call Accounting sends an <ENQ> to the PMS and waits for a response in the form of an <ACK> or <NAK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the <ENQ> again. When an <ACK> is received Call Accounting will send the HOBIC Record as an <STX><HOBIC 1 Format><call Flag><ETX><BCC>. Call accounting will then wait for an <ACK>. If a <NAK> is received or no response is

- received within 30 seconds Call Accounting will send the HOBIC Record again. When an **<ACK>** is received the process is complete.
- Type 5** Once an **<Xon>** is received from the PMS Call Accounting will start processing records (this only happens once). Call Accounting will send the record as **<Homes Format><CR><LF>**.
- Type 6** Call Accounting sends record as **<Micros Format><CR>** to PMS. Call Accounting will then wait for an **<ACK>**. If a **<NAK>** is received or no response is received within 30 seconds Call Accounting will send the record again. When an **<ACK>** is received the process is complete. Note: This PMS substitutes an 'ay' for an **<ACK>** and an 'an' for a **<NAK>**.
- Type 7** Call Accounting sends HOBIC Record as **<STX><HOBIC 1 Format><ETX>** to PMS.
- Type 8** Call Accounting sends HOBIC Record as **<STX><HOBIC 1 Format><ETX><BCC>** to PMS.
- Type 9** Call Accounting sends an **<ENQ>** to the PMS and waits for a response in the form of an **<ACK>** or **<NAK>**. If a **<NAK>** is received or no response is received within 30 seconds Call Accounting will send the **<ENQ>** again. When an **<ACK>** is received Call Accounting will send the HOBIC Record as an **<STX><HOBIC 2 Format><Call Flag><ETX><BCC>**.
- Type 10** Call Accounting sends HOBIC Record as **<HOBIC 1 Format><CR><LF><CR><LF>** to PMS.
- Type 11** Call Accounting sends HOBIC Record as **<HOBIC 3 Format><CR>** to PMS.
- Type 12** Call Accounting sends HOBIC Record as **<LF><HOBIC 2 Format><Call Flag><FF>** to PMS.
- Type 13** once an **<Xon>** is received from the PMS, Call Accounting will start processing records (this only happens once). Call Accounting will send the HOBIC Record as **<HOBIC 4 Format><Call Flag><CR>**.

7.1.5 Glossary of PMS Codes

- <ACK>** Acknowledge character sent from the PMS.
- <BCC>** Check Sum Character.
- <CR>** Carriage Return Character.
- ** Delete Character.
- <ENQ>** Enquire Character sent to PMS.
- <ETX>** End of Text Character
- <FF>** Form Feed Character
- <LF>** Line Feed Character
- <NAK>** Negative acknowledge character sent from the PMS.
- <STX>** Start of Text Character
- <Xon>** Protocol for selected PMS.
- <Y/N>** PMS for type 6 does not use **<ACK>** or **<NAK>** it sends 'ay' for acknowledge and 'an' for negative acknowledge.

Available PMS Record Formats

HOBIC 1/HOBIC 4 Formats

| Description | Position | Notes |
|-----------------|----------|--|
| Sequence Number | 1-4 | Incremental Number |
| Hotel ID | 6-8 | Type 1 is set at '000' Type 4 is set at 'LEH' |
| Date | 10-14 | MM/DD |
| Extension | 16-19 | Up to 4 digits |
| Time | 21-25 | HH:MM |
| Duration | 27-30 | 0 to 999 minutes |
| \$ | 32 | |
| Cost | 33-38 | Max Cost is 999.99 |
| Number Dialed | 40-51 | 12 digits max |
| Call Flag | 53 | If present returns L for local calls |

HOBIC 2 Format

| Description | Position | Notes |
|---------------|----------|--------------------------------------|
| Hotel ID | 1-5 | Type is set at 'A AAA' |
| Date | 7-11 | MM/DD |
| Extension | 13-16 | Up to 4 digits |
| Time | 18-22 | HH:MM |
| Duration | 24-27 | 0 to 999 minutes |
| \$ | 29 | |
| Cost | 30-35 | Max Cost is 999.99 |
| Number Dialed | 37-48 | 12 digits max |
| Call Flag | 50 | If present returns L for local calls |

HOBIC 3 Format

| Description | Position | Notes |
|---------------|----------|--------------------|
| Date | 1-6 | MM/DD |
| Time | 8-12 | HH:MM |
| Number Dialed | 14-25 | 12 digits max |
| Extension | 43-45 | Up to 3 digits |
| \$ | 58 | |
| Cost | 59-64 | Max Cost is 999.99 |

Micros Format

| Description | Position | Notes |
|---------------|----------|--|
| Hotel ID | 1-4 | Id is set as 'ac01' |
| Extension | 5-8 | Up to 4 digits |
| Cost | 9-13 | Max Cost is 999.99 (no decimal point or dollar sign) |
| Number Dialed | 14-23 | Up to 10 digits (no dashes) |

Homes Format

| Description | Position | Notes |
|---------------|----------|-------------------------------------|
| Date | 10-14 | MM/DD |
| Extension | 16-19 | Up to 4 digits |
| Time | 21-25 | HH:MM |
| Duration | 28-30 | Reported in minutes |
| Cost | 33-38 | Max Cost is 999.99 (no dollar sign) |
| Number Dialed | 44-55 | Up to 12 digits |



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