Oracle® Communications
Network Charging and Control
ACS Provisioning Interface Commands
Release 5.0.1

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About This Document

Scope
The scope of this document includes all the information required to configure the Provisioning Interface commands.

Audience
The audience for this document includes system administrators responsible for the monitoring, maintenance, and configuration of the Oracle Communications Network Charging and Control IN applications.

Prerequisites
A solid understanding of UNIX and a familiarity with IN concepts are an essential prerequisite for safely using the information contained in this technical guide.

Although it is not a prerequisite to using this guide, familiarity with the target platform would be an advantage.

This manual describes system tasks that should only be carried out by suitably trained operators.

Related documents
The following documents are related to this document:

- Oracle Communications Network Charging and Control Provisioning Interface User's and Technical Guide
- Oracle Communications Network Charging and Control Virtual Private Network User's Guide
- Oracle Communications Network Charging and Control CCS Provisioning Interface Commands
# Document Conventions

## Typographical Conventions

The following terms and typographical conventions are used in the Oracle Communications Network Charging and Control (NCC) documentation.

<table>
<thead>
<tr>
<th>Formatting convention</th>
<th>Type of information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Special Bold</strong></td>
<td>Items you must select, such as names of tabs. Names of database tables and fields.</td>
</tr>
<tr>
<td><strong>Italics</strong></td>
<td>Name of a document, chapter, topic or other publication. Emphasis within text.</td>
</tr>
<tr>
<td><strong>Button</strong></td>
<td>The name of a button to click or a key to press. <strong>Example:</strong> To close the window, either click <strong>Close</strong>, or press <strong>Esc</strong>.</td>
</tr>
<tr>
<td><strong>Key+Key</strong></td>
<td>Key combinations for which the user must press and hold down one key and then press another. <strong>Example:</strong> <strong>Ctrl+P</strong>, or <strong>Alt+F4</strong>.</td>
</tr>
<tr>
<td><strong>Monospace</strong></td>
<td>Examples of code or standard output.</td>
</tr>
<tr>
<td><strong>Monospace Bold</strong></td>
<td>Text that you must enter.</td>
</tr>
<tr>
<td><strong>variable</strong></td>
<td>Used to indicate variables or text that should be replaced.</td>
</tr>
<tr>
<td><strong>menu option &gt; menu option &gt;</strong></td>
<td>Used to indicate the cascading menu option to be selected, or the location path of a file. <strong>Example:</strong> <strong>Operator Functions &gt; Report Functions</strong> <strong>Example:</strong> <em>/IN/html/SMS/Helptext/</em></td>
</tr>
<tr>
<td><strong>hypertext link</strong></td>
<td>Used to indicate a hypertext link on an HTML page.</td>
</tr>
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</table>

Specialized terms and acronyms are defined in the **Glossary** at the end of this guide.
Overview

Introduction

The provisioning interface (PI) uses TCP/IP-based UNIX sockets to receive provisioning commands and parameters. These are translated into SQL commands that update prepaid application tables of the SMF and E2BE Oracle databases. This chapter defines the rules and packages required to translate the provisioning commands into SQL commands.

In this chapter

This chapter contains the following topics.

Command List

**ACS PI Command List**

The following table lists the ACS PI functions and their corresponding commands. To use these commands, the piAcsSms package must be installed.

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<td>Query a CLI using ACS Numbers</td>
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<td>Add a service number and associated control plan for a customer.</td>
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<tr>
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<td>ACSSNM=QRY</td>
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<tr>
<td>Delete a service number and associated control plan for a customer.</td>
<td>ACSSNM=DEL</td>
</tr>
<tr>
<td>Add a termination number for a customer.</td>
<td>ACSTNM=ADD</td>
</tr>
<tr>
<td>Query a termination number for a customer.</td>
<td>ACSTNM=QRY</td>
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<tr>
<td>Delete a termination number for a customer.</td>
<td>ACSTNM=DEL</td>
</tr>
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</table>
Overview

Introduction

This chapter describes the available PI commands for provisioning CLI and Profile entries on the SMS. These commands are added by the piAcsSms package. For installation details, see the PI Technical Guide.

In this chapter

This chapter contains the following topics.

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Delete a CLI from ACS Numbers  4
Query a CLI using ACS Numbers  5
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Querying an ACS Customer by Using PI  7
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Deleting Customer Termination Numbers by Using PI  17
Managing FCI Data by Using PI  17

Add CLI to ACS Numbers

Description

Add a CLI to ACS Numbers. If the CLI does not exist, it will be added. If the CLI already exists, it will be updated. The allowed numbers list will be set in the ACS Allowed Numbers. A control plan will be scheduled for the CLI.

Required parameters

Here are the required parameters for this command.

CLI

Syntax:        CLI=num
Description:   CLI for the subscriber.
Format:        18-digit number (greater than 0)
Example:      CLI=1234567
CALLPLAN

Syntax: CALLPLAN=cp
Description: The name of the control plan for the service.
Format: 50 character string
Example: CALLPLAN=CP2

Optional parameters

ACSCLI=ADD accepts the following parameters.

Optional parameters

Syntax: ALLOWED="cell|cell|..."
Description: The list of CELLs to add.
Format: "CELL1|CELL2|..."
Note: Format of cell is a 15-digit number, (zero padded):
MSCID (MarketID=6 digitsSwitchNum=3 digits) +ServingCellID=6 digits.
MSCID is an optional part of the CELL
Example: ALLOWED="123456789012345|223456789012345"

Logic and constraints

The following rules apply when using the ACSCLI=ADD command:

- The CALLPLAN must exist.
- The ALLOWED list is a pipe ("|") separated list of up to 100 CELLs.
- If CLI exists, it will be updated with new data.
- If ALLOWED is not supplied, the number list will be ignored (IGNORE flag set).

Success return

ACSCLI=ADD:ACK;

Error return

See PI Command Errors (on page 20) for a description of each error.

Delete a CLI from ACS Numbers

Description

Delete a CLI from ACS Numbers. The control plan is unscheduled for the CLI, and the CLI is removed.

Required parameter

Here is the required parameter for this command.
CLI

Syntax: CLI=num
Description: CLI for the subscriber.
Format: 18-digit number (greater than 0)
Example: CLI=1234567

Optional parameters

There are no optional parameters.

Logic and constraints

The following rules apply when using the ACSCLI=DEL command:
- CLI must exist.

Success return

ACSCLI=DEL:ACK;

Error return - del cli - 34540

See PI Command Errors (on page 20) for a description of each error.

Query a CLI using ACS Numbers

Description

Query a CLI using ACS Numbers.

Returns back the allowed CELLs for a given subscriber in ACS Numbers. No changes are made to the running system.

Required parameter

Here is the required parameter for this command.

CLI

Syntax: CLI=num
Description: CLI for the subscriber.
Format: 18-digit number (greater than 0)
Example: CLI=1234567

Optional parameters

There are no optional parameters.

Logic and constraints

The following rules apply when using the ACSCLI=QRY command:
Chapter 2

- CLI must exist.

Success return

ACSCLI=QRY:ACK:ALLOWED=CELL1|CELL2|...

Note: No carriage returns are returned.

Error return


See PI Command Errors (on page 20) for a description of each error.

Adding an ACS Customer by Using PI

About Adding an ACS Customer by Using PI

Use the PI ACSCST=ADD command to add an ACS customer to the database. After successfully adding a customer, the PI returns this message:

ACSCST=ADD:ACK;

If unsuccessful, then the PI may return these error codes: 136, 137, 138, 141, or 142.

Required parameters

Here are the required parameters for this command.

CUSTOMER

Syntax: CUSTOMER=name
Description: The name of the customer to add.
Type: String
Optionality: Required.
Allowed: A string of up to 50 characters.
Example: CUSTOMER=Customer A

PARENT

Syntax: PARENT=string
Description: The name of the customer's parent customer.
Type: String
Optionality: Required if the RESELLER_FLAG is set to A. The parent customer must be a reseller.
Optional if the RESELLER_FLAG is set to N or null.
If RESELLER_FLAG is set to R, then you cannot set the parent customer.
Allowed: A string of up to 50 characters.
Example: PARENT=Customer A

Optional parameters

ACSCST=ADD accepts the following optional parameters.
DESCRIPTION

Syntax: DESCRIPTION=string
Description: The customer’s description.
Type: String
Optionality: Optional.
Allowed: A string of up to 2000 characters.
Example: DESCRIPTION=A customer description

CUSTOMER_REFERENCE

Syntax: CUSTOMER_REFERENCE=string
Description: The customer reference ID.
Type: String
Optionality: Optional
Allowed: A string of up to 749 characters.
Example: CUSTOMER_REFERENCE=CRX001A

TELCO_MANAGED

Syntax: TELCO_MANAGED=Y|N
Description: Specifies whether the customer is managed by the operator.
Type: Boolean
Optionality: Optional (default used if not set).
Allowed: Y – The customer is managed by the operator.
N – The customer is not managed by the operator.
Default: Y
Example: TELCO_MANAGED=N

RESELLER_FLAG

Syntax: RESELLER_FLAG=N|R|A
Description: Defines whether or not the customer is a reseller or an agent.
Type: String
Optionality: Optional (default used if not set).
Allowed: N – The customer is not a reseller or an agent.
R – The customer is a reseller.
A – The customer is an agent.
Default: N
Example: RESELLER_FLAG=N

Querying an ACS Customer by Using PI

About Querying an ACS Customer by Using PI

Use the ACSCST=QRY PI command to query the database for the details of the specified ACS customer. After successfully performing a customer query, the PI returns this message:

ACSCST=QRY:ACK:
CUSTOMER=name, DESCRIPTION=customer_description, CUSTOMER_REFERENCE=customer_reference, TELCO_MAN=Y|N, RESELLER_FLAG=N|R|A, [PARENT=parent_name]

Where:

- *name* is the name of the customer.
- *customer_description* is the description for the customer.
- *customer_reference* is the customer reference ID.
- *parent_name* is name of the customer’s parent. No value is returned when the operator is the customer’s parent.

If the PI fails to find the specified customer, then the PI returns error code 118

**Required parameter**

Here is the required parameter for this command.

**CUSTOMER**

*Syntax*: `CUSTOMER=name`

*Description*: The name of an existing customer.

*Type*: String

*Optionality*: Required.

*Allowed*: A string of up to 50 characters.

*Example*: `CUSTOMER=Customer A`

**Change a Profile Entry**

**Description**

Change or delete a profile entry.

**Required parameters**

Here are the required parameters for this command.

**TABLE**

*Syntax*: `TABLE=table`

*Description*: The table of the profile.

*Type*: 30-character string

*Example*: `TABLE=ACS_PROFILE_DETAILS`

**ID**

*Syntax*: `ID=id`

*Description*: The ID of the row.

*Type*: Integer

*Example*: `ID=45`

**TAG**

*Syntax*: `TAG=tag_id`

*Description*: The profile tag.
Type: Hex or String
Allowed: Either a hexadecimal value prefixed by 0x, for example, 0x123ABC or a pre-defined name corresponding to PROFILE_TAG_NAME in the ACS_PROFILE_DETAILS table.
Default: HEX
Notes: If TAG is:
- A predefined name, any specified TYPE is ignored.
- A hexadecimal value, and TYPE is omitted, the value will be returned as hexadecimal data.
- Omitted, a hex dump of the whole profile is returned.
Example: TAG=0x123ABC

Optional parameters

ACSPFLL=CHG accepts the following parameters.

PROFILE_COL
Syntax: PROFILE_COL=column_name
Description: The name of the profile column.
Type: String
Optionality: Optional (default used if omitted).
Allowed: DEFAULT
Default: PROFILE
Notes: A valid profile column in TABLE.
Example: PROFILE_COL=CLI

ID_COL
Syntax: ID_COL=id_col_name
Description: The name of the ID column.
Type: String
Optionality: Optional (default used if omitted).
Allowed: ID
Default: ID
Notes: A valid column in TABLE containing unique ID.
Example: ID_COL=ID

TYPE
Syntax: TYPE=tag_type
Description: The type of the tag.
Type: String
Optionality: Optional (default used if omitted).
Allowed: Valid options are:
- STRING string value
- DATE date value
- INTEGER 32-bit signed integer value
- HEX raw hexadecimal data
TN 

Default: HEX
Notes: 
Example: TYPE=DATE

VALUE

Syntax: VALUE=val
Description: The value of the tag.
Type: Defined by the TYPE parameter.
Optionality: Optional
Allowed: 
Default: If VALUE is not specified, any existing profile tag will be deleted.
Notes: For TYPE = TN, the VALUE format:
- Must contain only numeric digits
- First character is interpreted as a TN type
- TN type has range 0-5
- TN has max length 33 characters (including TN type)

Examples:
VALUE=12345 Integer type
VALUE=Monday String type
VALUE=2009010112345 Date type (YYYYMMDDHHMMSS)
VALUE=0x123ABC Hex type
VALUE=12345 TN type

Logic and constraints

The following rules apply when using the ACSPFL=CHG command:
- The TABLE must exist.

Success return

ACSPFL=CHG:ACK;

Error return

See PI Command Errors (on page 20) for a description of each error.

Query a Profile Entry

Description

Query a profile entry.

Required parameters

Here are the required parameters for this command.
TABLE
Syntax: \( \text{TABLE}=\text{table} \)
Description: The table of the profile.
Type: 30-character string
Example: \( \text{TABLE} = \text{ACS_PROFILE_DETAILS} \)

ID
Syntax: \( \text{ID}=\text{id} \)
Description: The ID of the row.
Type: Integer
Example: \( \text{ID} = 45 \)

Optional parameters
ACSPFL=QRY accepts the following parameters.

PROFILE_COL
Syntax: \( \text{PROFILE}_\text{COL}=\text{column}_\text{name} \)
Description: The name of the profile column.
Type: String
Optionality: Optional (default used if omitted).
Allowed:
Default: \( \text{PROFILE} \)
Notes: A valid profile column in \( \text{TABLE} \).
Example: \( \text{PROFILE}_\text{COL} = \text{CLI} \)

ID_COL
Syntax: \( \text{ID}_\text{COL}=\text{id}_\text{col}_\text{name} \)
Description: The name of the ID column.
Type: String
Optionality: Optional (default used if omitted).
Allowed: ID
Default: ID
Notes: A valid column in \( \text{TABLE} \) containing unique ID.
Example: \( \text{ID}_\text{COL} = \text{ID} \)

TAG
Syntax: \( \text{TAG}=\text{tag}_\text{id} \)
Description: The profile tag.
Type: Hex or String
Allowed: Either a hexadecimal value prefixed by 0x, for example, 0x123ABC or a predefined name corresponding to \( \text{PROFILE}_\text{TAG}_\text{NAME} \) in the ACS_PROFILE_DETAILS table.
Default: HEX
Notes: If TAG is:

- A predefined name, any specified TYPE is ignored.
- A hexadecimal value, and TYPE is omitted, the value will be returned as hexadecimal data.
- Omitted, a hex dump of the whole profile is returned.

Example: TAG=0x123ABC

TYPE

Syntax: TYPE=tag_type

Description: The type of the tag.

Type: String

Optionality: Optional (default used if omitted).

Allowed: Valid options are:

- STRING string value
- DATE date value
- INTEGER 32-bit signed integer value
- HEX raw hexadecimal data
- TN telephone number

Default: HEX

Notes:

Example: TYPE=DATE

Logic and constraints

The following rules apply when using the ACSPFL=QRY command:

- The TABLE must exist.

Success return

If TAG was specified:

- ACSPFL=QRY:ACK:TAG=tag,VALUE=value;
- ACSPFL=QRY:ACK:TAG=tag; If the tag does not exist.

If TAG was not specified:

- ACSPFL=QRY:ACK:
  TAG=hex tag,VALUE=hex value[, 
  TAG=hex tag,VALUE=hex value[, ...

Note: No carriage returns are returned.

If the TYPE is DATE, the VALUE format is "YYYYDDMMHHMSS".

Error codes


See P1 Command Errors (on page 20) for a description of each error.
Adding Customer Service Numbers by Using PI

About Adding Customer Service Numbers by Using PI

Use the ACSSNM=ADD PI command to add a service number for a specified ACS customer. You can also use this command to add a scheduled control plan to the service number. After successfully adding a service number for a customer, the PI returns this message:

ACSSNM=ADD:ACK;

If unsuccessful, then the PI may return any of the following error codes: 118, 140, 141, or 143.

Required parameters

Here are the required parameters for this command.

CUSTOMER

| Syntax:       | CUSTOMER=name |
| Description:  | The name of an existing customer. |
| Type:         | String |
| Optionality:  | Required. |
| Allowed:      | A string of up to 50 characters. |
| Example:      | CUSTOMER=Customer A |

SERVICE_NUMBER

| Syntax:       | SERVICE_NUMBER=string |
| Description:  | The service number to add or delete. |
| Type:         | String |
| Optionality:  | Required. |
| Allowed:      | A string of up to 32 characters. Valid characters are 0–9, A–F, *, #. |
| Example:      | SERVICE_NUMBER=115 |

Optional parameter

ACSSSN=ADD accepts the following optional parameter.

CONTROLPLAN

| Syntax:       | CONTROLPLAN=string |
| Description:  | The control plan name. |
| Type:         | String |
| Optionality:  | Optional |
| Allowed:      | A string of up to 50 characters. |
| Example:      | CONTROLPLAN=Control Plan 2 |
Chapter 2

Querying Customer Service Numbers by Using PI

About Querying Customer Service Numbers by Using PI

Use the ACSSNM=QRY PI command to query the database for the details of the service numbers allocated to a specified ACS customer. After successfully performing a service number query, the PI returns this message:

```
ACSSNM=QRY:ACK;
    CUSTOMER=name, SERVICE_NUMBER=n[,SERVICE_NUMBER=n][,...]
```

Where:

- `name` is the name of the customer.
- `n` is a service number allocated to the customer.

If unsuccessful, then the PI may return either of the following error codes: 118 or 141.

Required parameter

Here is the required parameter for this command.

**CUSTOMER**

**Syntax:** `CUSTOMER=name`

**Description:** The name of an existing customer.

**Type:** String

**Optionality:** Required.

**Allowed:** A string of up to 50 characters.

**Example:** `CUSTOMER=Customer A`

Deleting Customer Service Numbers by Using PI

About Deleting Customer Service Numbers by Using PI

Use the ACSSNM=DEL PI command to delete a service number for a specified ACS customer. After successfully deleting a service number, the PI returns this message:

```
ACSSNM=DEL:ACK;
```

If unsuccessful, then the PI may return either of the following error codes: 118 or 141.

Required parameters

Here are the required parameters for this command.

**CUSTOMER**

**Syntax:** `CUSTOMER=name`

**Description:** The name of an existing customer.

**Type:** String

**Optionality:** Required.

**Allowed:** A string of up to 50 characters.

**Example:** `CUSTOMER=Customer A`
SERVICE_NUMBER
Syntax: SERVICE_NUMBER=string
Description: The service number to add or delete.
Type: String
Optionality: Required.
Allowed: A string of up to 32 characters. Valid characters are 0–9, A–F, *, #.
Example: SERVICE_NUMBER=115

Adding Customer Termination Numbers by Using PI

About Adding Customer Termination Numbers by Using PI

Use the PI ACSTNM=ADD command to add termination numbers to a specified ACS customer.
To add a single termination number for a customer specify, only the CUSTOMER (on page 8) and PREFIX (on page 15) parameters.
To add a range of termination numbers for a customer, specify all the parameters. You specify the range by using a combination of the PREFIX, MIN_LENGTH (on page 16) and MAX_LENGTH (on page 16) parameters. For example, you could specify the following range:
PREFIX=01473, MIN_LENGTH=6, MAX_LENGTH=10
The resulting termination number range would be: 01473XYYYY
Where X is a digit that must be present in the termination number, and Y is a digit that may be present up to MAX_LENGTH.
After successfully adding termination numbers for a customer, the PI returns this message:
ACSTNM=ADD:ACK;
If unsuccessful, then the termination numbers are not added and the PI may return any of the following error codes: 118, 130, 131, 132, 133, 139, or 141.

Required parameters

Here are the required parameters for this command.

CUSTOMER
Syntax: CUSTOMER=\textit{name}
Description: The name of an existing customer.
Type: String
Optionality: Required.
Allowed: A string of up to 50 characters.
Example: CUSTOMER=Customer A

PREFIX
Syntax: PREFIX=\textit{string}
Description: The termination number prefix to add or delete.
Type: String
Optionality: Required.
Allowed: A string of up to 32 characters. Valid characters are 0–9, A–F, *, #.
Example: PREFIX=0179
Optional parameters

ACSTNM=ADD accepts the following optional parameters.

**MIN_LENGTH**

Syntax: `MIN_LENGTH=integer`

Description: The minimum length for the termination number.

Type: Integer

Optionality: Optional (default used if not set).

Allowed: A value that is not less than the PREFIX length and not greater than 32.

Default: PREFIX length

Example: `MIN_LENGTH=4`

**MAX_LENGTH**

Syntax: `MAX_LENGTH=integer`

Description: The maximum length for the termination number.

Type: Integer

Optionality: Optional (default used if not set).

Allowed: A value that is not less than MIN_LENGTH and not greater than 32.

Default: PREFIX length plus one (1), or 32 if the PREFIX length is 32.

Example: `MAX_LENGTH=10`

Querying Customer Termination Numbers by Using PI

About Querying Customer Termination Numbers by Using PI

Use the ACSTNM=QRY PI command to query the database for the details of the termination numbers assigned to a specified ACS customer. After successfully performing a termination number query, the PI returns this message:

```
ACSTNM=QRY:ACK:
    CUSTOMER=name, TERMINATION_NUMBER=n[,TERMINATION_NUMBER=n[,...]]
```

Where:

- `name` is the name of the customer.
- `n` is a valid termination number for the customer.

If unsuccessful, then the PI may return the following error codes: 118 or 141.

Required parameters

Here are the required parameters for this command.

**CUSTOMER**

Syntax: `CUSTOMER=name`

Description: The name of an existing customer.

Type: String

Optionality: Required.

Allowed: A string of up to 50 characters.

Example: `CUSTOMER=Customer A`
PREFIX

Syntax:  
PREFIX=string

Description:  
The termination number prefix to add or delete.

Type:  
String

Optionality:  
Required.

Allowed:  
A string of up to 32 characters. Valid characters are 0–9, A–F, *, #.

Example:  
PREFIX=0179

Deleting Customer Termination Numbers by Using PI

About Deleting Customer Termination Numbers by Using PI

Use the ACSTNM=DEL PI command to delete a termination number prefix for a specified ACS customer. After successfully deleting a termination number prefix, the PI returns this message:

ACSTNM=DEL:ACK;
If unsuccessful, then the PI may return any of the following error codes: 118, 134, or 141.

Required parameter

Here is the required parameter for this command.

CUSTOMER

Syntax:  
CUSTOMER=name

Description:  
The name of an existing customer.

Type:  
String

Optionality:  
Required.

Allowed:  
A string of up to 50 characters.

Example:  
CUSTOMER=Customer A

Managing FCI Data by Using PI

About Managing FCI Data by Using PI

Use the ACSPFL=CHG PI command to update the furnish charging information (FCI) data held in the following profile tags in the ACS service number profile block:

- FCI Country Code
- FCI On
- FCI Service Code

For more information about using ACSPFL=CHG, see Change a Profile Entry (on page 8).

Use the ACSPFL=QRY PI command to query the FCI data for a customer. For more information, see Query a Profile Entry (on page 10).

For more information about profile blocks and profile tags, see the discussion on the main components of ACS in NCC Advanced Control Services Technical Guide.
Overview

Introduction
This chapter explains the error codes for PI commands.

In this chapter

This chapter contains the following topics.
PI Chassis Errors
PI Command Errors

PI Chassis Errors

Format
NACK:Code-Message;
Example: ACSCLI=QRY:NACK:70-TOO MANY SESSIONS

Error list
This table describes the PI Chassis error codes.

<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>TOO MANY SESSIONS</td>
<td>All PI sessions are in use.</td>
</tr>
<tr>
<td>71</td>
<td>LOGON SYNTAX ERROR</td>
<td>The login string was incorrectly formatted.</td>
</tr>
<tr>
<td>72</td>
<td>INVALID LOGON - username, password</td>
<td>Invalid username and/or password</td>
</tr>
<tr>
<td>73</td>
<td>INVALID LOGON - user not allowed on this port</td>
<td>The user attempted to log in to the wrong PI port.</td>
</tr>
<tr>
<td>74</td>
<td>INVALID LOGON - host</td>
<td>The PI client is unknown.</td>
</tr>
<tr>
<td>75</td>
<td>UNKNOWN COMMAND</td>
<td>Client sent an unknown command.</td>
</tr>
<tr>
<td>76</td>
<td>USER DOES NOT HAVE SUFFICIENT SECURITY</td>
<td>The user's security level is less than the command's security level.</td>
</tr>
<tr>
<td>77</td>
<td>SYNSTAMP NOT FOUND</td>
<td>Synstamps are turned on, but the client did not send one.</td>
</tr>
<tr>
<td>78</td>
<td>SYNSTAMP NOT VALID</td>
<td>Synstamps are turned on, but the synstamp sent by the client is invalid.</td>
</tr>
</tbody>
</table>
| 79   | INVALID OR MISSING CHECKSUM                       | Checksums are turned on, but the client is one of the following:  

  - Did not send one  
  - It was invalid  


### PI Command Errors

**Format**

\[
\text{Command: NACK: Code–Message: value;}
\]

**Example:** ACSCLI=QRY:NACK:104–CLI does not exist:91234566

*Message* can contain any characters, other than semi-colon.

In the message, *value* will be replaced with a suitable value by the command.

**Error list**

This table lists the PI error codes, error messages and associated PI commands.

<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Commands</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>text</td>
<td>All commands</td>
</tr>
<tr>
<td></td>
<td>Where the <em>text</em> contains the details of the error. This error is used to report any other errors that are not defined below.</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Badly formatted parameter <em>parameter</em></td>
<td>All commands</td>
</tr>
<tr>
<td></td>
<td>Where <em>parameter</em> is the name of the parameter causing the error.</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>CALLPLAN does not exist <em>control_plan</em></td>
<td>ACSCLI=ADD</td>
</tr>
<tr>
<td></td>
<td>Where <em>control_plan</em> is an invalid control plan name.</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Message</td>
<td>Commands</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| 104  | CLI does not exist cli  
Where cli is an invalid CLI number. | ACSCLI=DEL  
ACSCLI=QRY |
| 105  | No required parameters | All commands |
| 106  | Too many numbers in ALLOWED list | ACSCLI=ADD |
| 107  | Invalid action action  
Where action is an invalid command action. | All commands |
| 108  | SQL write error | ACSCLI=ADD  
ACSCLI=DEL |
| 109  | SQL read error | ACSCLI=ADD  
ACSCLI=DEL  
ACSCLI=QRY |
| 110  | Internal error encoding profile | ACSCLI=ADD  
ACSCLI=DEL  
ACSPFL=CHG |
| 111  | TABLE does not exist table_name  
Where table_name is an invalid database table name. | ACSPFL=CHG  
ACSPFL=QRY |
| 112  | ID_COLUMN does not exist column_name  
Where column_name is an invalid column name for the specified table. | ACSPFL=CHG  
ACSPFL=QRY |
| 113  | ID does not exist id  
Where id is invalid. | ACSPFL=CHG  
ACSPFL=QRY |
| 114  | PROFILE_COLUMN does not exist column_name  
Where column_name is an invalid column name for the profile. | ACSPFL=CHG  
ACSPFL=QRY |
| 115  | TAG does not exist tag_name  
Where tag_name is an invalid name for the specified profile tag. | ACSPFL=CHG  
ACSPFL=QRY |
| 116  | TYPE is not valid type_name  
Where type_name is an invalid profile type. | ACSPFL=CHG  
ACSPFL=QRY |
| 117  | VALUE is not valid value  
Where value is an invalid value for the specified profile tag. | ACSPFL=CHG  
ACSPFL=QRY |
| 118  | Customer not found.  
This error is reported when the value specified in CUSTOMER is not a valid ACS customer. | ACSCST=QRY  
ACSSNM=ADD  
ACSSNM=QRY  
ACSSNM=DEL  
ACSTNM=ADD  
ACSTNM=QRY  
ACSTNM=DEL  
ACSTNM=QRY  
ACSTNM=QRY  
ACSTNM=QRY  
ACSTNM=QRY |
<p>| 130  | Invalid termination prefix. | ACSTNM=ADD |
| 131  | Invalid minimum termination length. | ACSTNM=ADD |
| 132  | Invalid maximum termination length. | ACSTNM=ADD |
| 133  | Overlapping termination ranges not allowed. | ACSTNM=ADD |
| 134  | Termination number or range does not exist. | ACSTNM=DEL |
| 135  | Service number not found for customer. | ACSSNM=DEL |</p>
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Commands</th>
</tr>
</thead>
<tbody>
<tr>
<td>136</td>
<td>Parent customer not found.</td>
<td>ACSCST=ADD</td>
</tr>
<tr>
<td>137</td>
<td>Reseller cannot have a parent customer.</td>
<td>ACSCST=ADD</td>
</tr>
<tr>
<td>138</td>
<td>Reseller cannot have a parent customer.</td>
<td>ACSCST=ADD</td>
</tr>
<tr>
<td>139</td>
<td>Minimum termination number length greater than maximum termination number length.</td>
<td>ACSTNM=ADD</td>
</tr>
<tr>
<td>141</td>
<td>Duplicate service numbers not allowed.</td>
<td>ACSCST=ADD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACSSNM=ADD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACSSNM=QRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACSSNM=DEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACSTNM=ADD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACSTNM=QRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACSTNM=DEL</td>
</tr>
<tr>
<td>142</td>
<td>Customer already exists.</td>
<td>ACSCST=ADD</td>
</tr>
<tr>
<td>143</td>
<td>Invalid service number.</td>
<td>ACSSNM=ADD</td>
</tr>
</tbody>
</table>
**NCC Glossary of Terms**

**ACS**
Advanced Control Services configuration platform.

**ANI**
Automatic Number Identification - Term used in the USA by long-distance carriers for CLI.

**CCS**
1) Charging Control Services (or Prepaid Charging) component.
2) Common Channel Signalling. A signalling system used in telephone networks that separates signalling information from user data.

**CLI**
Calling Line Identification - the telephone number of the caller. Also referred to as ANI.

**DTMF**
Dual Tone Multi-Frequency - system used by touch tone telephones where one high and one low frequency, or tone, is assigned to each touch tone button on the phone.

**E2BE**
Code used to designate some components and path locations used by the UBE.

**FCI**
Furnish Charging Information. An INAP operation sent from ACS to the SSP to control the contents of EDRs produced by the SSP.

**GUI**
Graphical User Interface

**HTML**
HyperText Markup Language, a small application of SGML used on the World Wide Web.
It defines a very simple class of report-style documents, with section headings, paragraphs, lists, tables, and illustrations, with a few informational and presentational items, and some hypertext and multimedia.

**IN**
Intelligent Network

**INAP**
Intelligent Network Application Part - a protocol offering real time communication between IN elements.
IP
1) Internet Protocol
2) Intelligent Peripheral - This is a node in an Intelligent Network containing a Specialized Resource Function (SRF).

MIN
Mobile Identification Number, also known as an MSID.

MSID
Mobile Subscriber Identification, also known as an MIN.

Oracle
Oracle Corporation

PI
Provisioning Interface - used for bulk database updates/configuration instead of GUI based configuration.

SGML

SLC
Service Logic Controller (formerly UAS).

SMS
Depending on context, can be:
- Short Message Service
- Service Management System platform
- NCC Service Management System application

SQL
Structured Query Language - a database query language.

SRF
Specialized Resource Function - This is a node on an IN which can connect to both the SSP and the SLC and delivers additional special resources into the call, mostly related to voice data, for example play voice announcements or collect DTMF tones from the user. Can be present on an SSP or an Intelligent Peripheral (IP).

SSP
Service Switching Point
TCP
Transmit Control Protocol. This is a reliable octet streaming protocol used by the majority of applications on the Internet. It provides a connection-oriented, full-duplex, point to point service between hosts.
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