EAGLE® Provisioning Application Processor (EPAP) Release 12.1 Feature Notice

Feature Notice

910-5715-001 Revision A
April 2009

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RoHS 5/6 - As of July 1, 2006, all products that comprise new installations shipped to European Union member countries will comply with the EU Directive 2002/95/EC "RoHS" (Restriction of Hazardous Substances). The exemption for lead-based solder described in the Annex will be exercised. RoHS 5/6 compliant components will have unique part numbers as reflected in the associated hardware and installation manuals.

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Patents

This product is covered by one or more of the following U.S. and foreign patents:

U.S. Patent Numbers:

5,732,213; 5,953,404; 6,115,746; 6,167,129; 6,324,183; 6,327,350; 6,456,845; 6,606,379; 6,639,981; 6,647,113; 6,662,017; 6,735,441; 6,745,041; 6,765,990; 6,795,546; 6,819,932; 6,836,477; 6,839,423; 6,885,872; 6,901,262; 6,914,973; 6,940,866; 6,944,184; 6,954,526;6,954,794; 6,959,076; 6,965,592; 6,967,956; 6,968,048; 6,970,542; 6,987,781; 6,987,849; 6,990,089; 6,990,347; 6,993,038; 7,002,988; 7,020,707; 7,031,340; 7,035,239; 7,035,387; 7,043,000; 7,043,001; 7,043,002; 7,046,667; 7,050,456; 7,050,562; 7,054,422; 7,068,773; 7,072,678; 7,075,331; 7,079,524; 7,088,728; 7,092,505; 7,108,468; 7,110,780; 7,113,581; 7,113,781; 7,117,411; 7,123,710; 7,127,057; 7,133,420; 7,136,477; 7,139,388; 7,145,875; 7,146,181; 7,155,206; 7,155,243; 7,155,505; 7,155,512; 7,181,194; 7,190,702; 7,190,772; 7,190,959; 7,197,036; 7,206,394; 7,215,748; 7,219,264; 7,222,192; 7,227,927; 7,231,024; 7,242,695; 7,254,391; 7,260,086; 7,260,207; 7,283,969; 7,286,516; 7,286,647; 7,286,839; 7,295,579; 7,299,050; 7,301,910; 7,304,957; 7,318,091; 7,319,857; 7,327,670

Foreign Patent Numbers:

EP1062792; EP1308054; EP1247378; EP1303994; EP1252788; EP1161819; EP1177660; EP1169829; EP1135905; EP1364520; EP1192758; EP1240772; EP1173969; CA2352246

Ordering Information

Your Tekelec Sales Representative can provide you with information about how to order additional discs.

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Feature Notice

Introduction

Feature Notices are distributed to customers with each new release of software.

The *Feature Notice* includes a brief feature overview, lists new hardware required if any, provides the hardware baseline for this release, and explains how to find the *Release Notice* and other customer documentation on the Customer Support Site for the EAGLE Provisioning Application Processor (EPAP) Release 12.1 (see Locate Product Documentation on the Customer Support Site).

New Features for EPAP 12.1

EPAP 12.1 contains the TIF Number Substitution - EPAP feature.

Important Operational Changes

New or changed Error Messages are listed here. There are no new Alarms.

Error Messages

Table 1-1. Error Messages - TIF Number Substitution

Response ID Code	Error Message	New?	Used by Command
1047	PDBI_DN_NOT_FOUND	Y	`ent_sub` `upd_sub`
1048	PDBI_MAX_ASSOCIATIONS	Y	`ent_sub` `upd_sub`
1049	PDBI_UNRESOLVED_DEPENDENCY	Y	`ent_sub` `dlt_sub`
1050	PDBI_INCOMPATIBLE_ST	Y	`ent_sub` `upd_sub`

Compatibility

EPAP 12.1 is fully compatible with EAGLE 5 ISS Release 40.3 and 41.0. The Compatibility Matrix – EPAP 12.1 table identifies the compatibility of EPAP 12.1 with other products

NOTE: The EAGLE 5 ISS must be upgraded to a compatible release before the EPAP is upgraded to 12.1.

Table 1-2. Compatibility Matrix - EPAP 12.1

Product	Release	Compatibility
EAGLE® 5 ISS	39.2	NC
	40.0	NC
	40.1	NC
	40.3	FC
	41.0	FC

Legend:

FC - Fully Compatible

PC- Partially Compatible (Compatible but not fully functional — feature dependent)

NC - Not Compatible

N/A - Not Applicable

TIF Number Substitution

The Triggerless ISUP Framework (TIF) Number Substitution feature allows called party and calling party numbers on an incoming Initial Address Message (IAM) to be substituted with associated numbers from the EPAP on the outgoing IAM.

When an IAM is received, a lookup is performed on the called party number (CdPN) or calling party number (CgPN) in the RTDB database. If a successful retrieval of the called party directory number (DN) occurs, then the CdPN is substituted in the outgoing IAM. If a successful retrieval of the calling party DN occurs, the CgPN is substituted in the outgoing IAM.

Number substitution requires that a number is available for substitution and that the conditions for substituting a number have been met. It is expected that most customers will want to substitute specific numbers each time. To achieve this, each subscriber entry (DN) must point to subscriber data for another DN.

Hardware Requirements

None.

Limitations

Only number substitution entries (public DNs, private DNs and private DN Blocks) may reference another DN entry.

In networks where only CgPN substitution is used, a private DN can only point to a public DN. Also, when only CgPN substitution is used, a block of DNs can be used to point to a single public DN. The allowed relationships are:

- DN (private) <--> DN (public)

  Substitutes one private network DN with a public DN, and a public DN with a private DN. This is referred to as the “2DN” solution in CALA.

- DN (private) --> DN (public)

  Allows blocking or substitution of specific DNs (usually for network security or billing reasons).

- DN Block (private) -->DN (public)

  Allows blocking or substitution of large continuous ranges of DNs (usually for network security, or billing reasons).

- DN (public) --> DN (private)

  Allows substitution of public DNs of locally routable numbers (such as 1-800+ to a local number). Usually, this is applied to called numbers.

- DN Block (public) -->DN (private)

  Allows blocking or substitution of continuous ranges of DNs. A range of non-geographic numbers may all translate to a single in-network private number.

These relationships, except DN (private) <--> DN (public), allow multiple entries to point to a single entry. Several private numbers may all get the same public entry (all numbers from VoIP originators are hidden), or several public numbers may get the same private number (such as 1- 800+ numbers where several numbers are routed to the same call server).

An arbitrary number of DN and DN Blocks can number-substitute to the same DN. This DN, called the NSDN, cannot substitute to any number. The only exception is called a subscriber pair.

A subscriber pair is two DNs that number-substitute to each other. No other number can substitute to either DN in this pair.

DN Blocks can number-substitute to a DN. However, no number can substitute to a DN Block.

Only DN and DN Blocks with the public-subscriber type can be linked to a private DN by number substitution. Likewise, only private DN and DN Blocks can be linked to a public DN.

Subscriber type is set when the NSDN is defined and number substitution is created. It cannot be changed while the number-substitution relationship persists.

There are two ways a DN or DN Block can be removed from number substitution:

- Directly, if it has an NSDN. It may be updated with ‘nsdn none’. This update must be performed on each DN in the case of a subscriber pair.
- Indirectly, if it does not have an NSDN. All the DN and DN Blocks that substitute to it are updated with ‘nsdn none’.

A DN cannot be deleted while other records refer to it by number substitution.

A DN or DN Block with NSD is limited to having one NE (sp, rn, vms, grn).

A DN or DN Block with two NE (sp, rn, vms, grn) and ASD cannot have NSDN.

These DNs cannot substitute to another number.

Alarms

None.

Commands

The following PDBI commands are enhanced to support the TIF Number Substitution feature.

NOTE: The `st` parameter will be present only if that the record is private or involved in number substitution.

`ent_sub` – two new parameters are added.

- st (Optional) - The subscriber type for created DNs.

  Values: a decimal number in the following range:

  — 0 – public (default = public)

  — 1 – private

- **`nsdn`** (Optional) A Number Substitution DN (specified in international format).

  Values: a string with 5 to 15 characters where each character must be a number from 0 to F.

`upd_sub` – two new parameters are added.

- st (Optional) - The subscriber type for created DNs.

  Values: a decimal number in the following range:

  — 0 – public (default = public)

  — 1 – private

- **`nsdn`** (Optional) A Number Substitution DN (specified in international format).

  Values: a string with 5 to 15 characters where each character must be a number from 0 to F.

`dlt_sub` – two new parameters are added.

If any DN is associated with another DN through number substitution, these DNs will remain unless they meet two requirements: 1) both are owned by the IMSI, 2) no other records refer to them by number substitution.

- st (Optional) - The subscriber type for created DNs.

  Values: a decimal number in the following range:

  — 0 – public (default = public)

  — 1 – private

- **`nsdn`** (Optional) A Number Substitution DN (specified in international format).

  Values: a string with 5 to 15 characters where each character must be a number from 0 to F.

Feature Control Requirements

There are no feature control requirements identified for this feature.

Related Publications

For information about additional publications that are related to this document, refer to the *Related Publications* document. The *Related Publications* document is published as a part of the *Release Documentation* and is also published as a separate document on the Tekelec Customer Support Site.

Locate Product Documentation on the Customer Support Site

Access to Tekelec's Customer Support site is restricted to current Tekelec customers only. This section describes how to log into the Tekelec Customer Support site and locate a document. Viewing the document requires Adobe Acrobat Reader, which can be downloaded at www.adobe.com.

1. Log into the Tekelec **new** Customer Support site at support.tekelec.com .

   NOTE: If you have not registered for this new site, click the Register Here link. Have your customer number available. The response time for registration requests is 24 to 48 hours.

2. Click the **Product Support** tab.
3. Use the Search field to locate a document by its part number, release number, document name, or document type. The Search field accepts both full and partial entries.
4. Click a subject folder to browse through a list of related files.
5. To download a file to your location, right-click the file name and select **Save Target As**.

Customer Training

Tekelec offers a variety of technical training courses designed to provide the knowledge and experience required to properly provision, administer, operate, and maintain the EAGLE 5 ISS. To enroll in any of the courses or for schedule information, contact the Tekelec Training Center at (919) 460-3064 or E-mail **eagletrain@tekelec.com**.

A complete list and schedule of open enrollment can be found at **www.tekelec.com**.

Customer Care Center

The Tekelec Customer Care Center is your initial point of contact for all product support needs. A representative takes your call or email, creates a Customer Service Request (CSR) and directs your requests to the Tekelec Technical Assistance Center (TAC). Each CSR includes an individual tracking number. Together with TAC Engineers, the representative will help you resolve your request.

The Customer Care Center is available 24 hours a day, 7 days a week, 365 days a year, and is linked to TAC Engineers around the globe.

Tekelec TAC Engineers are available to provide solutions to your technical questions and issues 7 days a week, 24 hours a day. After a CSR is issued, the TAC Engineer determines the classification of the trouble. If a critical problem exists, emergency procedures are initiated. If the problem is not critical, normal support procedures apply. A primary Technical Engineer is assigned to work on the CSR and provide a solution to the problem. The CSR is closed when the problem is resolved.

Tekelec Technical Assistance Centers are located around the globe in the following locations:

Tekelec - Global

Email (All Regions): support@tekelec.com

- **USA and Canada**

  Phone:

  1-888-FOR-TKLC or 1-888-367-8552 (toll-free, within continental USA and Canada)

  1-919-460-2150 (outside continental USA and Canada)

  TAC Regional Support Office Hours:

  8:00 a.m. through 5:00 p.m. (GMT minus 5 hours), Monday through Friday, excluding holidays

- **Central and Latin America (CALA)**

  Phone:

  USA access code +1-800-658-5454, then 1-888-FOR-TKLC or 1-888-367-8552 (toll-free)

  TAC Regional Support Office Hours (except Brazil):

  10:00 a.m. through 7:00 p.m. (GMT minus 6 hours), Monday through Friday, excluding holidays

  — **Argentina**

    Phone:

    0-800-555-5246 (toll-free)

  — **Brazil**

    Phone:

    0-800-891-4341 (toll-free)

    TAC Regional Support Office Hours:

    8:30 a.m. through 6:30 p.m. (GMT minus 3 hours), Monday through Friday, excluding holidays

  — **Chile**

    Phone:

    1230-020-555-5468

  — **Columbia**

    Phone:

    01-800-912-0537

  — **Dominican Republic**

    Phone:

    1-888-367-8552

  — **Mexico**

    Phone:

001-888-367-8552

— **Peru**

Phone:

0800-53-087

— **Puerto Rico**

Phone:

1-888-367-8552 (1-888-FOR-TKLC)

— **Venezuela**

Phone:

0800-176-6497

- **Europe, Middle East, and Africa**

— **Signaling**

Phone:

+44 1784 467 804 (within UK)

TAC Regional Support Office Hours:

8:00 a.m. through 7:00 p.m. (GMT), Monday through Friday, excluding holidays

— **Software Solutions**

Phone:

+33 3 89 33 54 00

TAC Regional Support Office Hours:

8:00 a.m. through 7:00 p.m. (GMT), Monday through Friday, excluding holidays

- **Asia**

— **India**

Phone:

+91 124 436 8552 or +91 124 436 8553

TAC Regional Support Office Hours:

10:00 a.m. through 7:00 p.m. (GMT plus 5 1/2 hours), Monday through Saturday, excluding holidays

— **Singapore**

Phone:

+65 6796 2288

TAC Regional Support Office Hours:

9:00 a.m. through 6:00 p.m. (GMT plus 8 hours), Monday through Friday, excluding holidays

Emergency Response

In the event of a critical service situation, emergency response is offered by the Tekelec Customer Care Center 24 hours a day, 7 days a week. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with an EAGLE 5 ISS that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical problems affect service and/or system operation resulting in:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with the Tekelec Customer Care Center.

Glossary

E

EPAP	EAGLE Provisioning Application Processor

I

ISS	Integrated Signaling System

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