TITLE: DCS TSAPI Release 3.3 DATE: October 21, 1997 ISSUED BY: Product Department

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STA is pleased to announce the addition of ANI (Automatic Number Identification) and TSAPI (Telephony Services Application Programming Interface) to DCS Release 3 feature package. This new version is DCS Release Version 3.3.

The General Description booklet and the General Description section of the Technical Manual have been upgraded to include these new features.

DCS RELEASE 3.3 OVERVIEW

1. COMPUTER TELEPHONY INTEGRATION using TSAPI

DCS Release 3.3 supports TSAPI (Telephony Services Application Programming Interface). This is Novell's standard for providing third party call control on a LAN based network. This allows third party applications written to the TSAPI standards to operate on a Novell server running Netware Telephony Services.

TSAPI requires that a SIM be connected to the LAN to support communication between the LAN and the DCS RLS 3.3 system. Installation of the SIM is covered in the DCS Technical Manual, part 6 of the Installation Section. MMC # 311 and MMC#804 are use to program the SIM for use as the CTI-TSAPI link. The SIM is the physical hardware link to the Novell LAN. In addition to hardware there must be software installed on the LAN. The DCS PBX Driver NLM must be loaded onto the Novell File Server. A certified Novell Administrator or Engineer is required to load the PBX Driver on the LAN. This proprietary DCS Software Package can be ordered through STA Customer Service Department.

See the Computer Telephony Integration Technical Manual for additional information regarding installation and setup of the TSAPI feature. This manual is available to students that successfully complete the Samsung CTI certification class.

In the near future Samsung will provide another PBX Driver that will communicate with LANs running Windows NT.

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2. **ANI (Automatic Number Identification)**

ANI (Automatic Number Identification) is a feature offered by some telephone service providers that provides the calling party's telephone number. This service is only available on E&M Tie Lines on a T1, digital trunk. ANI is similar to Caller Identification (CID) but the format and information of the calling person is different. CID uses FSK signaling and ANI uses DTMF signaling. Usually, with ANI, a calling party's identity is the Listed Directory Number (LDN) unless a separate bill-to-number has been specified, (in which case the bill-to-number will be sent). Along with the ANI digits you also receive DNIS digits with a separator digit. The DNIS digits are used in MMC #714 to tell the DCS where to route the call. Note that ANI does not provide calling party NAME, only the number. The DCS can provide calling number to name translation table (MMC 728 Caller ID/ANI).

The signaling format used in the DCS RLS 3.3 ANI information is DTMF digits sent from the telephone service provider during call setup. The early signaling method for ANI calls was Multifrequency or (MF) which is not used in most of today's private telephone systems. ANI is now primarily used as a CID type service on digital trunk groups (eg. T1) provided by today's telephone service providers. The ANI and DNIS features require DTMF receivers (either analog or DSP) to translate the digits received. Care should be taken to properly grade the DCS system as explained in Installation Section, part 10, titled "Grading the system for DTMF Receiver Operation".

The DCS will treat a DNIS number just like a DID number (e.g. DID Number and Name Translations via MMC 714). The DCS will treat the ANI information much like CID information received over analog trunks. Programming the Caller ID / ANI Translation Table (MMC 728) will allow a NAME to be attached to the ANI number received. The DCS will then pass this NAME and ANI number along to each keyset handling the call.

The following MMCs have been *modified* to reflect ANI and or TSAPI features:

MMC 102 CALL FORWARD MMC 119 CID / ANI Display MMC 312 Allow CID / ANI

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MMC 414	CID / ANI Trunk Assignments
MMC 608	CID / ANI Review Block Assignment (default changed from 10 per
MMC 714 MMC 728	keyset to 0 per keyset) Number and Name Translation CID / ANI Translation Table Assignments

The following *new* MMC has been added:

MMC 420 ANI / DNIS Options, used to define the format of ANI and DNIS digits that are received.

ADDITIONAL NOTES: Due to the possibility of CID and ANI being in use at the same time on the DCS RLS 3.3 system, the translation table size affecting these services have been increased. The following list shows MMC table size increases.

MMC 714 Number and Name Translation MMC 728 CID/ ANI Translation Table

200 entries increased to 500 entries 250 entries increased to 350 entries



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DCS SOFTWARE VERSION COMPATIBILITY

DCS ROM software versions 3.1 and 3.2 are compatible with DCS 97.04.24 V3.1 CPM and LPM. DCS 3.3 software requires 3.3 ROM, CPM and LPM. The DCS AA software card 96.01.16 V2.5 is compatible with the DCS release 3.1, 3.2 and 3.3 ROM, CPM and LPM softwares. Please refer to the compatibility chart below.

DCS SOFTWARE TABLE OF COMPATIBILITY						
RELEASE 3						

ROM	РСММС	СРМ	LPM	T1	AA
97.04.25 V3.1	PC30424.EXE	97.04.24 V3.1	97.04.24 V3.1	96.11.09 V2.3	96.01.16 V2.5
97.06.17 V3.2	PC32081.EXE	97.04.24 V3.1	97.04.24 V3.1	97.04.24 V3.1	96.01.16 V2.3
97.10.01 V3.3	97.10.01 V3.3	97.10.01 V3.3	97.10.01 V3.3	97.06.02 V2.3	96.01.16 V2.3

PC30424.EXE converts DCS RLS 2 version 2.3 to RLS 3 version 3.1 PC32081.EXE converts all previous DCS Release 2 and release 3.1 versions to 3.2.

PC31001.EXE converts all previous DCS Release 2, Release 3.1 and 3.2 versions to DCS Release 3 version 3.3.

ADDITIONAL ENHANCEMENTS

1. FORWARD DND

This new feature is a combination of the call forwarding and the Do Not Disturb features. Forward Do Not Disturb immediately forwards calls to the programmed destination when the DND or One Time DND feature is activated. The destination can be set using MMC 102 by dialing 607 and entering the destination number. Forward DND will apply ONLY when DND is set at the station. When DND is canceled the Forward

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DND will no longer apply and any forwarding that was in effect prior to the station being placed in DND will still be in effect.

NOTE: This station feature will be included in a future printing of the keyset and SLT user guides.

2. **OFF HOOK TIMER CHANGE**

The Off-hook selection timer has to be modified to allow for "immediate" off hook select to a trunk. In some applications with modems or contact manager programs the minimum timer expiration of 1 second was causing some dialing problem. The off hook select timer range (MMC 501) has been changed from 1 to 255 seconds range to 0 to 255 seconds. A "0" entry allows the DCS to dial the trunk access code without delay (i.e. 9 or 80). MMC 307 assigns the trunk access code and the number to be dialed if desired.

FEATURE REMINDER

REMINDER ABOUT DNIS FEATURE 1.

The DCS currently supports DNIS but it was not widely promoted in the Product Literature. This mailing includes this feature in the General Description section of the Technical Manual. Future brochures will include both ANI and DNIS in the system feature list.

DNIS (Dialed Number Identification Service) is a feature of telephone service providers that converts the 10 or 11 digit dialed number to a 3 to 5 digit number that is sent to the DCS. DNIS is normally provided via E&M tie line service. DNIS service allows flexibility by being able to allow several different listed telephone numbers reach the same destination. This flexibility can be increased in the DCS by using the DID Number and Name Translation Tables (MMC 714) which will then allow multiple DNIS calls to be routed to the same station or to selected stations and have a name displayed so the call can be answered correctly. DNIS is supported in DCS RLS 2 and above.