



VCO/4K Tone Plan Release Notes

May 2000

These release notes describe global conformity compliances for Cisco Systems' family of open, programmable telecommunications switches. Requirements for system software, hardware, and firmware, and the software downloads for the various tone plan feature packages, are also described. Tone plan feature packages consist of a combination of the following items:

- These release notes
- A tone plan supplement—refer to "Additional Required Documentation," page 4, to ensure that you have the appropriate supplement
- Digital Tone Generator (DTG) card or five DTG PROMs specific to your tone plan; refer to Chapter 3 of the *Cisco VCO/4K Software Installation Guide* for PROM installation instructions



Note You must order your DTG or DTG PROMs separately, and in the desired quantity.

- A 3.5" diskette which contains the download files appropriate for your tone plan

Contents

These release notes contain the following sections:

- "European Community Declaration of Conformity," page 2
- "Telecommunication Equipment Approvals," page 2
- "Additional Required Documentation," page 4
- "SDS and VCO System Law," page 5
- "Card Timing Configuration," page 7
- "Software Requirements," page 8
- "Checksums and Version Numbers," page 8
- "Firmware Requirements," page 19
- "Limitations and Restrictions," page 33



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- "Obtaining Documentation," page 33
- "Obtaining Technical Assistance," page 34

European Community Declaration of Conformity

Cisco Systems, Inc. hereby declares that its family of open, programmable telecommunications switches conform to the European Community directives for electromagnetic compatibility, safety, and telecommunications equipment as described in Table 1.

Table 1 European Community Directive Compliances

Discipline	Directive	Reference
ElectroMagnetic Compatibility	89/336/EEC ¹	EN55022 EN50082-1
Safety	73/23/EEC ¹	EN60950
Telecommunication Equipment	91/263/EEC ¹	Country specific (see Table 2)

1. EEC = European Economic Community.

Telecommunication Equipment Approvals

Table 2 lists telecommunication equipment approvals on a country-by-country basis. Approved equipment encompasses the full product line of Specialty Digital Switch (SDS) and Virtual Central Office (VCO) platforms—SDS500, SDS1000, VCO/80, VCO/20, and VCO/4K.

Table 2 Telecommunication Equipment Approvals

Country	Equipment	Approving Body/Interface
Pan-Europe (EU) ¹	SDS-1000	CTR12/13, CTR4 ²
	VCO/80	Various national analog/digital
	VCO/20	
	VCO/4K	
Argentina	—	PNT0 ³
Australia	VCO/80	Australia Communications Authority
	VCO/20	TS 038, TS 014 ⁴
	VCO/4K	
Brazil	—	PNT0 ³
Canada	VCO/80	Industry Canada CS03
	VCO/20	Various analog/digital
	VCO/4K	
Chile	—	PNT0 ³
China ⁵	VCO/20	PNT0 ³
Columbia	—	PNT0 ³

Table 2 Telecommunication Equipment Approvals (continued)

Country	Equipment	Approving Body/Interface
Gabon	—	PNT0 ³
Japan	VCO/20	JATE ⁶
	VCO/4K	INS-1500 Various analog
Kazakhstan	VCO/20	PNT0 ³
Korea	VCO/80	MIC ⁷
Malaysia	—	PNT0 ³
Mexico	—	SCT ⁸ Various analog/digital
New Zealand	—	PNT0 ³
Philippines	—	PNT0 ³
Singapore	VCO/80	TAS ⁹
	VCO/20	
South Africa	N/A	PNT0 ³
Switzerland	VCO/20	BAKOM ¹⁰
	VCO/4K	
Thailand	—	PNT0 ³
United States	SDS500	FCC ¹¹
	SDS1000	
	VCO/80	
	VCO/20	
	VCO/4K	
Vietnam	—	PNT0 ³

1. Pan-Europe (European Union) includes the following countries: Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
2. CTR = Common Technical Regulation
3. PNT0 = Public Network Telecommunication Organization. PNT0 equipment approvals are not formal approvals.
4. TS = Technical Specification
5. China equipment approvals include those of Hong Kong.
6. JATE = Japan Approvals Institute for Telecommunications Equipment
7. MIC = Ministry of Information and Communication
8. SCT = Secretaria de Comunicaciones Y Transportes, Direccion General de Administracion del Espectro
9. TAS = Telecommunications Authority of Singapore
10. BAKOM = Bundesamt fur Kommunikation (translation: Federal Office for Communication)
11. FCC = U.S. Federal Communications Commission Part 68

Additional Required Documentation

Table 3 lists the tone plan supplements, which, together with these release notes and an SDS or VCO documentation set, describe the installation, configuration, and operation of tone plan feature packages on all SDS and VCO platforms. Each tone plan supplement contains country-specific information concerning particular system administration issues, R2 signaling tones, pulse code modulation (PCM) line signaling, and tone plans. Refer to "Obtaining Documentation," page 33, to order the appropriate tone plan supplement.

Table 3 also refers to firmware and software requirements—listed for each country in Table 5 through Table 43—which are contained in "Checksums and Version Numbers," page 8.

Table 3 *Tone Plan Supplements*

Supplement	Firmware and Software Requirements
Argentina	Table 5
Argentina 2	Table 6
Australia	Table 7
Belgium	Table 8
Brazil	Table 9
Chile	Table 10
China	Table 11
China 2	Table 12
China 3	Table 13
Colombia	Table 14
Colombia 2	Table 15
Finland	Table 16
France	Table 17
Gabon	Table 18
Germany	Table 19
Hong Kong	Table 20
Indonesia	Table 21
Italy	Table 22
Japan	Table 23
Japan 2	Table 24
Kazakhstan	Table 25
Korea	Table 26
Malaysia	Table 27
Mexico	Table 28
Netherlands	Table 29
New Zealand	Table 30
North America	Table 31

Table 3 *Tone Plan Supplements (continued)*

Supplement	Firmware and Software Requirements
North America 2	Table 32
Philippines	Table 33
Portugal	Table 34
Singapore	Table 35
South Africa	Table 36
Spain	Table 37
Sweden	Table 38
Switzerland	Table 39
Taiwan	Table 40
Thailand	Table 41
United Kingdom	Table 42
Vietnam	Table 43

SDS and VCO System Law

The law setting of the SDS/VCO system (also known as the law setting of the system’s backplane) varies for each tone plan. It is defined as the law setting of the tone odd/tone even firmware on the Digital Tone Generator 2 Mezzanine (DTG-2) card, or the Digital Tone Generator (DTG) card.

The North America, North America 2, Hong Kong, Japan, Japan 2, and Taiwan tone odd/tone even firmware is preconfigured with Mu-law. All other tone odd/tone even firmware are preconfigured with A-law.



Note

Users cannot modify the law settings of tone odd/tone even firmware.

Card Law Configuration

You must configure each network card and service circuit card to match the SDS/VCO system law. There are two configuration methods for assigning the proper law to cards. A hardware method is used for cards that employ either a dual in-line package (DIP) switch or a jumper strap to set the law. A software configuration method is used for cards that do not use a DIP switch or jumper strap to set the law.

Card Law Configuration with Hardware

Use the law setting instructions contained in *VCO/4K Card Technical Descriptions* for the following cards, which have either a DIP switch or jumper strap law setting requirement:

- Direct Dial Inward (DDI)
- Direct Inward Dial Card-2 (DID-2)

- Dual Tone Multifrequency Cards (DRC-8, DRC-24 and DRC-48)
- Earth/Loop Connect Trunk (ECT/LCT)
- E1 Channel Associated Signaling (E1-CAS)
- E + M Trunk (E + M)
- Four Span Programmable E1 Interface (4xE1)
- Four Span Programmable T1 Interface (4xT1)
- International E + M Trunk (E + M/DC5)
- Line Test Card-8 (LTC-8)
- Multifrequency Receiver (MRC)
- Multifrequency Transceiver Card with Compelled R2 Signaling (MFCR2)
- Subscriber Line Interface Card-2 (SLIC-2)
- Subscriber Line Interface Card for International (SLIC-INT)

If your card does not use a DIP switch or jumper strap for law setting, simply insert the card and follow the instructions contained in "Card Law Configuration with Administration Software," page 6.

Card Law Configuration with Administration Software

Service circuit cards and network cards that do not use DIP switch or jumper straps for law setting must use either the system administration's System Features screen or a configuration screen to match the card's law to the SDS/VCO system's law setting.

Card Law Configuration with System Features Screen

Use the System Features screen to configure the law setting of the following cards:

- Drop and Insert Card (D + I)
- Interface Controller Card (ICC)
- Integrated Prompt/Record Card (IPRC)



Note

If you have an IPRC and you want to use the standard IPRC prompt library, you must also use the appropriate disks to load the library. Use the disks labeled MU-LAW IPRC PROMPT LIBRARY if the law setting of the tone odd/tone even firmware on the DTG, or DTG-2 card, is set to Mu-law. Use the disks labeled A-LAW IPRC PROMPT LIBRARY if the law setting of the tone odd/tone even firmware on the DTG, or DTG-2 card, is set to A-law.

- Multipurpose Voice and Data Card Programmable T1 Interface Card (MVDC-T1)
- Service Platform Card (SPC)
- Subrate Switching Card (SSC)

MVDC-T1 cards are supported in software versions 4.x and 5.x. ICC and SPC cards are supported in software version 5.x and greater.

Cards in version 4.x systems are configured as follows:

- Select N for the Set MVDC Backplane to A-law field of the System Features screen, if the law setting of the tone odd/tone even firmware on the DTG, or DTG-2 card, is Mu-law.

- Select **Y** for the Set MVDC Backplane to A-law field of the System Features screen, if the law setting of the tone odd/tone even firmware on the DTG, or DTG-2 card, is A-law.

Cards in version 5.x systems are configured as follows:

- Select **N** for the Set System to A-law field of the System Features screen, if the law setting of the tone odd/tone even firmware on the DTG, or DTG-2 card, is Mu-law.
- Select **Y** for the Set System to A-law field of the System Features screen, if the law setting of the tone odd/tone even firmware on the DTG, or DTG-2 card, is A-law.

Card Law Configuration with Configuration Screens

Use the administration software's configuration screens to configure the law setting of the following network cards:

- E1 Primary Rate Interface (E1-PRI)
- Four Span Programmable E1 Interface (4xE1)
- Four Span Programmable T1 Interface (4xT1)
- Interface Controller Cards (ICC-T1 and ICC-E1)
- Primary Rate Interface/Non-facility Associated Signaling (PRI/N)

Refer to the *VCO/4K System Administrator's Guide* for further information on setting the law of these cards with the following configuration screens:

- ICC ISDN Span Configuration
- PRI Card Configuration
- Programmable Trunk Configuration

Card Timing Configuration

The following service circuit and network cards have 1.544-MHz/2.048-MHz jumper straps for timing configuration:

- Direct Inward Dial Card-2 (DID-2)
- E + M Trunk (E + M)
- Line Test Card-8 (LTC-8)
- Subscriber Line Interface Card-2 (SLIC-2)
- Dual Tone Multifrequency Receiver (DRC-8)
- Universal Trunk Card-2 (UTC-2)

You must set the jumper strap on these cards to 1.544 MHz for all tone plans to function properly. Refer to *VCO/4K Card Technical Descriptions* for further information on setting this jumper strap.



Note

The Network Bus Controller 3 (NBC3) card, which drives the backplane, is configured with a 1.544-MHz clock. This configuration determines and limits the strap settings.

The MF Receiver Card (MRC) has a 1.544-MHz/2.048-MHz jumper strap for timing configuration. You must set the jumper strap on this card to 2.048 MHz for all tone plans to function properly. Refer to *VCO/4K Card Technical Descriptions* for further information on setting this jumper strap.

Software Requirements

There are no tone-plan specific requirements that affect the standard V3.x, V4.x, or V5.x software. The software is designed to work on all SDS and VCO platforms and all tone plan feature packages.

Service Platform Card Downloads for V5.1 FSR00 PUN21 and Higher

CPA, Dual Tone Multi-frequency (DTMF), and MFCR2 support on the SPC is provided for certain tone plan feature packages. Refer to Table 4 for information concerning this support for your tone plan feature package. The minimum software version required for this SPC support is V5.1 FSR00 PUN21.

All SPC files reside on a 3.5" diskette. The following files are included:

- cpa.dwn¹
- cpa.nor
- cpa.spc
- cpa.sit
- cpa.ctg
- mfcr2.sim²
- mfcr2.sma²
- mfcr2.utg²
- mfcr2.spc²
- mfcr2.smt²
- dtmf.spc

1. The cpa.dwn file for the CPA card is not an SPC-associated file, but it is included on the same diskette.
2. Some countries may not have these MFCR2 download files, due to their requirements.

Checksums and Version Numbers

Table 4 describes download files and SPC support for the various tone plan feature packages. Refer to the appropriate tone plan supplement for installation instructions.

Table 4 *Tone Plan Feature Packages: CPA and SPC Support*

Country Feature Package	Download File	Checksum Value	Version
Argentina ¹	cpa.dwn	0031dd78	12.01

Table 4 Tone Plan Feature Packages: CPA and SPC Support (continued)

Country Feature Package	Download File	Checksum Value	Version
Argentina ²	cpa.dwn	0031dd78	12.01
	cpa.nor	15f6032b	3.01
	cpa.spc	02940358	3.01
	cpa.sit	00000000	3.01
	cpa.ctg	00150053	3.01
	mfc2.sim	606d07f6	3.01
	mfc2.sma	55e199cb	3.01
	mfc2.utg	00023999	3.01
	mfc2.spc	60103275	3.01
	mfc2.smt	a90e1506	3.01
	dtmf.spc	53024766	3.01
Australia	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	0031b329	35.01
	cpa.nor	00cd0a02	3.00
	cpa.spc	0294035b	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	004d0008	3.00
	dtmf.spc	53024766	3.00
Belgium	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	0030be23	14.01
	cpa.nor	060f090e	2.01
	cpa.spc	03570284	2.01
	cpa.sit	00000000	2.01
	cpa.ctg	07000600	2.01
	dtmf.spc	53024766	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	0030be23	14.01
	cpa.nor	08aa07ae	3.00
	cpa.spc	0294035d	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	00090007	3.00
	dtmf.spc	53024766	3.00
Brazil ¹	cpa.dwn	00310e87	8.06
Chile ¹	cpa.dwn	00315ba7	7.02

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
China	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	03303cf7	1.01
	cpa.nor	01851480	1.00
	cpa.spc	03570284	1.00
	cpa.sit	00000000	1.00
	cpa.ctg	29000000	1.00
	mfc2.sim	606007f6	1.00
	mfc2.sma	4c63432b	1.00
	mfc2.utg	00053999	1.00
	mfc2.spc	27341e07	1.00
	mfc2.smt	b6120303	1.00
	dtmf.spc	53024766	1.00
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	03303cf7	1.01
	cpa.nor	17f70393	3.00
	cpa.spc	02940352	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	00030015	3.00
	mfc2.sim	606d07f6	3.00
	mfc2.sma	477e327a	3.00
	mfc2.utg	00053999	3.00
	mfc2.spc	3c670a55	3.00
mfc2.smt	cb18030c	3.00	
dtmf.spc	53024766	3.00	
China 2 ¹	cpa.dwn	03303c7f	1.01

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
China 3	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	0031a430	41.01
	cpa.nor	07d71121	1.00
	cpa.spc	03570284	1.00
	cpa.sit	00000000	1.00
	cpa.ctg	3d000400	1.00
	mfc2.sim	606d07f6	1.00
	mfc2.sma	4c63432b	1.00
	mfc2.utg	00053999	1.00
	mfc2.spc	24341e07	1.00
	mfc2.smt	bd18030c	1.00
	dtmf.spc	53024766	1.00
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	0031a430	41.01
	cpa.nor	170903a4	3.00
	cpa.spc	02940353	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	0005003d	3.00
	mfc2.sim	606d07f6	3.00
	mfc2.sma	477e327a	3.00
	mfc2.utg	00053999	3.00
	mfc2.spc	3c670a55	3.00
mfc2.smt	cb18030c	3.00	
dtmf.spc	53024766	3.00	
Colombia ¹	cpa.dwn	00310663	8.60
Colombia 2 ¹	cpa.dwn	0030e2e3	19.03

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
Finland	cpa.dwn	0030f685	10.07
	cpa.nor	155d04e8	3.02
	cpa.spc	02940345	3.02
	cpa.sit	0082015e	3.02
	cpa.ctg	007d0060	3.02
	mfc2.sim	606d07f6	3.02
	mfc2.sma	7f043d26	3.02
	mfc2.utg	000b3999	3.02
	mfc2.spc	3c7b2e67	3.02
	mfc2.smt	98100103	3.02
	dtmf.spc	53024766	3.02
France	cpa.dwn	003194a8	3.30
Gabon ¹	cpa.dwn	003194a8	1.00
Germany ¹	cpa.dwn	003221f2	17.02
Hong Kong	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	003119ab	1.00
	cpa.nor	0dea0521	2.01
	cpa.spc	001a0174	2.01
	cpa.sit	00000000	2.01
	cpa.ctg	02003000	2.01
	dtmf.spc	53024766	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	003119ab	1.00
	cpa.nor	00cd0a02	3.00
	cpa.spc	0294035b	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	004d0008	3.00
	dtmf.spc	53024766	3.00

Table 4 Tone Plan Feature Packages: CPA and SPC Support (continued)

Country Feature Package	Download File	Checksum Value	Version
Indonesia ³	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.nor	16efdb60	2.01
	cpa.spc	03570284	2.01
	cpa.sit	d1d301bf	2.01
	cpa.ctg	a600a600	2.01
	dtmf.spc	53024766	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.nor	1f9f0445	3.00
	cpa.spc	0294035a	3.00
	cpa.sit	00ac015e	3.00
	cpa.ctg	004b0043	3.00
dtmf.spc	53024766	3.00	
Italy ¹	cpa.dwn	0032a35e	20.03
Japan ¹	cpa.dwn	0030c483	8.20
Japan 2	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	00313888	21.04
	cpa.nor	081502f5	2.01
	cpa.spc	03570204	2.01
	cpa.sit	00000000	2.01
	cpa.ctg	24001800	2.01
	dtmf.spc	53024766	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00313888	21.04
	cpa.nor	0cc80b80	3.00
	cpa.spc	02140350	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	002c0024	3.00
dtmf.spc	53024766	3.00	
Kazakhstan ¹	cpa.dwn	0031b2d0	43.01

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
Korea	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	00311bba	33.01
	cpa.nor	03880262	2.00
	cpa.spc	03570284	2.00
	cpa.sit	00000000	2.00
	cpa.ctg	2a003500	2.00
	mfc2.sim	606d07f6	2.00
	mfc2.sma	b646e468	2.00
	mfc2.utg	00053999	2.00
	mfc2.spc	27341203	2.00
	mfc2.smt	2f1a0106	2.00
	dtmf.spc	53024766	2.00
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00311bba	33.01
	cpa.nor	044a0035	3.00
	cpa.spc	02940351	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	002f002a	3.00
	mfc2.sim	606d07f6	3.00
	mfc2.sma	b167462a	3.00
	mfc2.utg	00053999	3.00
	mfc2.spc	3c630a59	3.00
mfc2.smt	aa1a0106	3.00	
dtmf.spc	53024766	3.00	
Malaysia ¹	cpa.dwn	0031689d	24.01

Table 4 Tone Plan Feature Packages: CPA and SPC Support (continued)

Country Feature Package	Download File	Checksum Value	Version
Mexico	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	00322410	28.01
	cpa.nor	19460cc8	2.01
	cpa.spc	03570284	2.01
	cpa.sit	015c00f1	2.01
	cpa.ctg	03001a00	2.01
	dtmf.spc	53024766	2.01
	mfc2.sim	606d07f6	2.01
	mfc2.sma	b2654b2a	2.01
	mfc2.utg	00063999	2.01
	mfc2.spc	2737100e	2.01
	mfc2.smt	130e1d02	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00322410	28.01
	cpa.nor	17ef0268	3.00
	cpa.spc	0294035c	3.00
	cpa.sit	00d20144	3.00
	cpa.ctg	000d0035	3.00
	dtmf.spc	53024766	3.00
	mfc2.sim	606d07f6	3.00
	mfc2.sma	b2654b2a	3.00
	mfc2.utg	00063999	3.00
	mfc2.spc	3c6e0a5b	3.00
mfc2.smt	1a0e1d02	3.00	
Netherlands ¹	cpa.dwn	00316ad6	8.82
New Zealand ¹	cpa.dwn	00311cd6	1.01

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
North America ⁴ North America 2 ^{4 5}	The SPC files and the cpa.dwn file for this country feature package reside on the generic software diskette. North America files residing on the generic:		
	cpa.dwn	003079f3	8.09
	cpa.nor	It is not necessary to validate North America checksums and version numbers. However, if you experience difficulties, contact the Cisco Systems Technical Assistance Center.	
	cpa.spc		
	cpa.sit		
	cpa.ctg		
	dtmf.spc		
	dtg.sim		
	dtg.spe		
	dtg.tpl		
	dtg.utg		
	mf.spc		
Philippines ¹	cpa.dwn	30cb8c	23.02
Portugal ¹	cpa.dwn	313717	38.01
Singapore	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00318ccf	22.02
	cpa.nor	085908e1	3.00
	cpa.spc	02940355	3.00
	cpa.sit	00de0162	3.00
	cpa.ctg	00000017	3.00
	mfc2.sim	606d07f6	3.00
	mfc2.sma	477e7f7a	3.00
	mfc2.utg	00023999	3.00
	mfc2.spc	3c600a55	3.00
	mfc2.smt	8d120303	3.00
	dtmf.spc	53024766	3.00
South Africa ¹	cpa.dwn	0031bb78	30.02

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
Spain	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	003212b6	33.01
	cpa.nor	06790d64	2.01
	cpa.spc	03570284	2.01
	cpa.sit	00000000	2.01
	cpa.ctg	07000300	2.01
	dtmf.spc	53024766	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	003212b6	33.01
	cpa.nor	08db03c4	3.00
	cpa.spc	0294035f	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	000b0003	3.00
	dtmf.spc	53024766	3.00
Sweden ¹	cpa.dwn	003130bd	36.01
Switzerland ¹	cpa.dwn	00322c18	27.02
Taiwan	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00307a43	37.01
	cpa.nor	07770a94	3.01
	cap.spc	0214034a	3.01
	cpa.sit	00000000	3.01
	cpa.ctg	001a0007	3.01
	dtmf.spc	53024766	3.01
	mf.spc	075a3119	3.01

Table 4 *Tone Plan Feature Packages: CPA and SPC Support (continued)*

Country Feature Package	Download File	Checksum Value	Version
Thailand	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00326033	32.01
	cpa.nor	14a3056c	3.01
	cpa.spc	0294034b	3.01
	cpa.sit	004b0144	3.01
	cpa.ctg	008100a6	3.01
	mfc2.sim	606d07f6	3.01
	mfc2.sma	5a08649d	3.01
	mfc2.utg	00023999	3.01
	mfc2.spc	60163277	3.01
	mfc2.smt	4d150e03	3.01
dtmf.spc	53024766	3.01	
United Kingdom	File names, checksums, and versions—PRE-P24 directory ² :		
	cpa.dwn	00309ef1	8.25
	cpa.nor	078f066f	2.01
	cpa.spc	03570284	2.01
	cpa.sit	00000000	2.01
	cpa.ctg	1f001b00	2.01
	dtmf.spc	53024766	2.01
	File names, checksums, and versions—POST-P24 directory ² :		
	cpa.dwn	00309ef1	8.25
	cpa.nor	0855094a	3.00
	cpa.spc	0294035e	3.00
	cpa.sit	00000000	3.00
	cpa.ctg	000a001b	3.00
	dtmf.spc	53024766	3.00
Vietnam ¹	cpa.dwn	00322f74	31.01

1. This tone plan feature package does not provide SPC support.
2. The PRE-P24 and POST-P24 directories are contained in the tone plan diskette. Refer to the appropriate tone plan supplement for further information regarding their installation and usage.
3. Indonesia CPA support is only provided on the SPC.
4. This country feature package (North America and North America 2) lists SPC versions of the DTG files in the generic software, and is supported in system software version 5.1(2) and higher.
5. The North America 2 tone plan is a slight variation of the North America tone plan, and employs SPC/CPA and SPC/MF files, as well as the single span files of CPA, SPC/CPA, and SPC/MF.

Firmware Requirements

Refer to Table 5 through Table 43 for tone plan feature package-specific information about firmware requirements and their associated checksums, version numbers, and locations. The tables are arranged alphabetically by country. Refer to the *VCO/4K Card Technical Descriptions* document for specific firmware locations.

Refer to the *Cisco VCO/4K System Software Release Notes* for firmware requirements, software download checksums, and software download version numbers, for cards which are not listed in the following tables.


Note

Contact the Cisco Systems Technical Assistance Center at 603.695.1293, if the DCC or MFCR2 firmware requirements for your country are not listed in the following tables. These cards need to have special firmware requirements, depending on the type of DTG firmware in your system, developed by Cisco Systems engineering upon your special request.

Table 5 *Argentina Firmware Requirements*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40021000024	DTG-Argentina	fe4a	16.01	U2
	40019200033	Tone Odd-Colombia	87ef	1.00	U54
		Tone Even-Colombia	8452	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40021200024	MFCR2-Argentina	656a	16.05	U2
E1-CAS	40018900024	E1-CAS/R2 (No CRC4)	1664	3.36	U23
	40014400024	CAS PROC	1e78	1.04	U85
	40012000000	32 CHAIN SETUP	cdde	1.00	U113
	40012500000	GAIN/LAW PROM	11d2	1.02	U45/53

Table 6 *Argentina 2 Firmware Requirements*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40021000024	DTG	fe4a	16.01	U2
	40019200033	Tone Odd	87ef	1.00	U54
		Tone Even	8452	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 7 Australia Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40026900033	DTG-Australia	783c	35.01	U2
	40027000033	Tone Odd-Australia	6512	35.01	U54
		Tone Even-Australia	65ba	35.01	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 8 Belgium Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40022200033	DTG-Belgium	4ef5	14.01	U2
	40023700033	Tone Odd-Belgium	c8ac	14.03	U54
		Tone Even-Belgium	5675	14.03	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
SLIC-Belgium	40025100033	SLIC	195e	14.03	U2

Table 9 Brazil Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40021800033	DTG-Brazil	e83b	1.01	U2
	40021700033	Tone Odd-Brazil	c8ae	1.00	U54
		Tone Even-Brazil	48fa	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40021600033	MFCR2-Brazil	6643	13.06	U2
E1-CAS	40022100033	E1-CAS-Brazil DBL ANS	d6b3	13.05	U23
	40014400024	CAS PROC	1e78	1.04	U85
	40012500000	32 Chan Setup	cdde	1.00	U113
	40012500000	Gain/Law PROM	11d2	1.02	U45/53

Table 10 Chile Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40018800024	DTG-Chile	e2c7	1.02	U2
	40018700000	Tone Odd-Chile	78fc	1.02	U54
		Tone Even-Chile	6e01	1.02	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40018600024	MFCR2-Chile	2902	7.02	U2
DRC-8	40006600000	DRC	c852	5.21	U2
E1-CAS	40018900024	E1-CAS/R2 No CRC4	1664	3.36	U23
	40014400024	CAS PROC	1e78	1.04	U85
	40012500000	32 Chan Setup	cdde	1.00	U113
	40012500000	Gain/Law PROM	11d2	1.02	U45/53

Table 11 China Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40017400000	DTG-China	dca5	1.00	U2
	40017500000	Tone Odd-China	a0d4	1.01	U54
		Tone Even-China	c7c6	1.01	U53
	60001700000	MAP PROM 0 LP17	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18	cce8	1.1	U37
MFCR2	40017600000	MFCR2-China	5570	6.05	U2
DRC-8	40006600000	DRC	c852	5.21	U2

Table 12 *China 2 Firmware Requirements*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40017400000	DTG-China	dca5	1.00	U2
	40027900033	Tone Odd-China	a0d4	1.01	U54
		Tone Even-China	8bf2	40.01	U53
	6000170000	MAP PROM 0 LP17	e3cc	1.1	U36
	6000180000	MAP PROM 1 LP18	cce8	1.1	U37
MFCR2	40017600000	MFCR2-China	5570	6.05	U2
DRC-8	40006600000	DRC	c852	5.21	U2

Table 13 *China 3 Firmware Requirements*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40028000033	DTG-China	ca16	41.00	U2
	40028100033	Tone Odd-China	6514	41.01	U54
		Tone Even-China	c82b	41.01	U53
	6000170000	MAP PROM 0 LP17	e3cc	1.1	U36
	6000180000	MAP PROM 0 LP18	cce8	1.1	U37
MFCR2	40017600000	MFCR2-China	5570	6.05	U2
DRC-8	40006600000	DRC	c852	5.21	U2

Table 14 Columbia Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40019100033	DTG-Colombia	d93f	1.00	U2
	40019200033	Tone Odd-Colombia	87ef	1.00	U54
		Tone Even-Colombia	8452	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40019000033	MFCR2-Colombia	54bf	8.01	U2
DRC-8	40006600000	DRC	c852	5.21	U2

Table 15 Colombia 2 Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40023200033	DTG-Colombia 2	7a8c	19.02	U2
	40023300033	Tone Odd-Colombia 2	c8ae	19.00	U54
		Tone Even-Colombia 2	6417	19.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40022800033	MFCR2-Colombia 2	b7c9	19.01	U2
DRC-8	40006600000	DRC	c852	5.21	U2
E1-CAS	40018900024	E1/CAS No CRC4	1664	3.36	U23
	40014400024	E1/CAS Processor	1e78	1.04	U85
	40012500000	32 Chan Setup	cdde	1.00	U113
	40012500000	Gain/Law PROM	11d2	1.02	U45/53

Table 16 Finland Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM 3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40020100033	DTG-Finland	e1ab	10.02	U2
	40020200033	Tone Odd-Finland	a0d6	1.00	U54
		Tone Even-Finland	917c	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40020000033	MFCR2	fdf7	8.01	U2
DID-2	40005600023	DID	10c3	1.41	U2
DRC-8	40006600000	DRC	c852	5.21	U2
SLIC-2	40006700023	SLIC	10b9	1.41	U2
UTC-2 Rev A	40006800023	UTC	f91e	6.00	U2
UTC-2 Rev B	40015400023	UTC	ecfo	6.54	U2

Table 17 France Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40022500033	DTG-France	829b	1.00	U2
	40022600033	Tone Odd-France	a0d5	1.00	U54
		Tone Even-France	e070	1.00	U53
	60001700033	MAP PROM 0 LP17	e3cc	1.1	U36
	60001800033	MAP PROM 1 LP18	cce8	1.1	U37

Table 18 Gabon Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40022500033	DTG FW–France	829b	1.00	U2
	40022600033	Tone Odd–France	a0d5	1.00	U54
		Tone Even–France	e070	1.00	U53
	60001700033	MAP PROM 0 LP87	e20a	1.1	U36
	60001800033	MAP PROM 1 LP88	cb1e	1.1	U37
MFCR2	40028300033	MFCR2–Gabon	17ef	42.01	U2

Table 19 Germany Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40023600033	DTG-Germany	e17f	17.01	U2
	40023300033	Tone Odd-Colombia Unisys	c8ae	19.02	U54
		Tone Even-Colombia Unisys	6417	19.02	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 20 Hong Kong Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40022700033	DTG-Hong Kong	7c7b	1.01	U2
	40032100033	Tone Even-Hong Kong	1317	12.00	U53
		Tone Odd-Hong Kong	0078	12.00	U54
	60001700033	MAP PROM 0 LP87	e20a	1.1	U36
	60001800033	MAP PROM 1 LP88	cb1e	1.1	U37

Table 21 Indonesia Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40029100051	DTG-Indonesia	68f9	44.01	U2
	40029200051	Tone Even-Indonesia	70c4	44.01	U53
		Tone Odd-Indonesia	a0da	44.01	U54
	60001700000	MAP PROM 0 LP17B	e3cc	44.01	U36
	60001800000	MAP PROM 1 LP18B	cce8	44.01	U37

Table 22 Italy Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40024000033	DTG-Italy	583f	20.02	U2
	40023300033	Tone Odd-Colombia Unisys	c8ae	19.00	U54
		Tone Even-Colombia Unisys	6417	19.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 23 Japan Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40014100000	DTG-Japan	9ec4	1.00	U2
	40014000000	Tone Odd-Japan	a0d5	1.00	U54
		Tone Even-Japan	ea47	1.00	U53
	60020000000	MAP PROM 0 LP17B	e104	1.1	U36
	60020100000	MAP PROM 1 LP18B	cc72	1.1	U37
DRC-8	40006600000	DRC	c852	5.21	U2
SLIC-2	40028600023	SLIC Guarded Disconnect	5b4a	21.01	U2

Table 24 Japan 2 Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40028700033	DTG-Japan	ba8e	1.00	U2
	40022900033	Tone Odd-Japan 2	da9c	21.02	U54
		Tone Even-Japan 2	76e7	21.02	U53
	60023400033	MAP PROM 0 LP108	e3ff	21.00	U36
	60023500033	MAP PROM 1 LP109	cea9	21.00	U37
DRC-8	40006600000	DRC	c852	5.21	U2
SLIC-2	40014200023	SLIC Guarded Disconnect	58b4	1.00	U2

Table 25 Kazakhstan Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40028800033	DTG-France	919e	43.01	U2

Table 25 *Kazakhstan Firmware Requirements (continued)*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
	40028900033	Tone Odd-France	c8ae	43.01	U54
		Tone Even-France	4010	43.01	U53
	60001700000	MAP PROM 0 LP87	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP88	cce8	1.1	U37
MFCR2	40029000033	MFCR2-Gabon	185c	43.01	U2

Table 26 *Korea Firmware Requirements*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40026500033	DTG-Korea	514d	33.02	U2
	40026600033	Tone Odd-Korea	650e	33.02	U54
		Tone Even-Korea	4c31	33.02	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40026700033	MFCR2-Korea	8be3	33.02	U2

Table 27 *Malaysia Firmware Requirements*

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40021900033	DTG FW	d9d9	24.01	U2
	40021700033	Tone Odd	c8ae	1.00	U54
		Tone Even	48fa	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40021100033	MFCR2	1661	4.00	U2

Table 28 Mexico Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40024500033	DTG-Mexico	2f05	23.01	U2
	40023300033	Tone Odd-Colombia Unisys	c8ae	19.00	U54
		Tone Even-Colombia Unisys	6417	19.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40024800033	MFCR2	13eb	28.01	U2

Table 29 Netherlands Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40020900033	DTG-Netherlands	f683	1.01	U2
	40020800033	Tone Odd-Netherlands	87ef	1.00	U54
		Tone Even-Netherlands	8452	1.00	U53
	60001700033	MAP PROM 0 LP87	e20a	1.1	U36
	60001800033	MAP PROM 1 LP88	cb1e	1.1	U37
DRC-8	40006600000	DRC	c852	5.21	U2
E1-CAS/ ALS70D	40020700033	E1-CAS/ALS70D	151c	2.05	U23
	40014400024	CAS PROC	1e78	1.04	U85
	40012000000	32 Chan Setup	cdde	1.00	U113
	40012500000	Gain/Law PROM	11d2	1.02	U45/53
SLIC-Netherlands	40025300033	SLIC-Netherlands	10cc	11.42	U2

Table 30 New Zealand Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM -3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	f700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34

Table 30 New Zealand Firmware Requirements (continued)

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40016400024	DTG-New Zealand	e2e4	1.04	U2
	40016600000	Tone Odd-New Zealand	a0d5	1.04	U54
		Tone Even-New Zealand	bfe8	1.04	U53
	60001700000	MAP PROM 0 LP17	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18	cce8	1.1	U37
MFCR2	40007500000	MFCR2-New Zealand	5a35	3.02	U2
DRC-8	40006600000	DRC	c852	5.21	U2

Table 31 North America Firmware Requirements (USA and Canada)

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40002600033	DTG	77ad	1.23 ²	U2
			7c30	1.25 ²	U2
	40002700033	Tone Odd	0078	2.04	U54
		Tone Even	4217	2.04	U53
	60001700033	MAP PROM 0 LP87B	e20a	1.1	U36
60001800033	MAP PROM 1 LP88B	cb1e	1.1	U37	
DCC	40005200022	DCC	a575	2.02	U2
	40005300022	LIN/PCM 0DB	69a2	1.00	U43
		LIN/PCM 3DB	ab04	1.00	U44
	40005400022	PCM/LIN Odd	afa2	1.00	U33
		PCM/LIN Even	b736	1.00	U34

Table 32 North America 2 Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	85-1450-01	DTG	de17	47.01	U2
	85-1451-01	Tone Odd	3837	47.01	U54
		Tone Even	4353	47.01	U53
	60001700033	MAP PROM 0 LP87B	e20a	1.1	U36
	60001800033	MAP PROM 1 LP88B	cb1e	1.1	U37

Table 33 Philippines Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40023400033	DTG-Philippines	e523	23.01	U2
	40023500033	Tone Odd-Philippines	a0d6	23.00	U54
		Tone Even-Philippines	e431	23.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40024900033	MFCR2-Philippines	1810	23.05	U2

Table 34 Portugal Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40027600033	DTG-Portugal	bb27	38.01	U2
	40027700033	Tone Odd-Portugal	a0da	38.01	U54
		Tone Even-Portugal	f18e	38.01	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 35 Singapore Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	4002380003	DTG-Singapore	8152	22.02	U2
	4002390003	Tone Odd-Singapore	a0d6	22.02	U54
		Tone Even-Singapore	d09a	22.02	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40024400033	MFCR2-Singapore	1601	22.05	U2

Table 36 South Africa Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40024600033	DTG-South Africa	34b3	30.01	U2
	40024700033	Tone Odd-South Africa	a0de	30.01	U54
		Tone Even-South Africa	5a7e	30.01	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 37 Spain Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40022300033	DTG-Spain	a36b	1.00	U2
	40021700033	Tone Odd-425 Hz	c8ae	1.00	U54
		Tone Even-425 Hz	48fa	1.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 38 Sweden Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40027200033	DTG-Sweden	cd6d	36.01	U2
	40027300033	Tone Odd-Sweden	a0da	36.01	U54
		Tone Even-Sweden	00ea	36.01	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 39 Switzerland Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40024100033	DTG-Switzerland	ed3e	27.01	U2
	40024200033	Tone Odd-Switzerland	c8ae	27.01	U54
		Tone Even-Switzerland	421a	27.01	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37

Table 40 Taiwan Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40027400033	DTG-Taiwan	8cc2	37.01	U2
	40027500033	Tone Odd-Taiwan	a0d6	37.01	U54
		Tone Even-Taiwan	cc54	37.01	U53
	60001700000	MAP PROM 0 LP87	e20a	1.10	U36
	60001800000	MAP PROM 0 LP88	cb1e	1.10	U37

Table 41 Thailand Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40026100033	DTG-Thailand	ba65	32.01	U2
	40019200033	Tone Odd-Thailand	a0de	32.01	U54
		Tone Even-Thailand	9a51	32.01	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 0LP18B	cce8	1.1	U37
MFCR2	40026300033	MFCR2-Thailand	864e	32.02	U2

Table 42 United Kingdom Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DCC	40005200022	DCC	a575	2.02	U2
	40008200000	LIN/PCM 0 DB-ALAW	8c2b	1.00	U43
		LIN/PCM -3 DB-ALAW	90cb	1.00	U44
	40008100000	PCM/LIN Odd-ALAW	e700	1.00	U33
		PCM/LIN Even-ALAW	f689	1.00	U34
DTG ¹	40016500024	DTG-United Kingdom	f35c	1.02	U2
	40016700000	Tone Odd-United Kingdom	2f56	1.04	U54
		Tone Even-United Kingdom	7566	1.04	U53
	60001700000	MAP PROM 0 LP17	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18	cce8	1.1	U37
DDI-UK	40013600024	DID-United Kingdom	f619	1.06	U2
	40012500000	GAIN/LAW PROM	11d2	1.02	U68
DRC-8	40006600000	DRC	c852	5.21	U2
E+M 2W	40013800024	E+M-United Kingdom	000b	1.00	U2
	40012500000	GAIN/LAW PROM	11d2	1.02	U68
E+M 4W	40013800024	E+M-United Kingdom	000b	1.00	U2
	40012500000	GAIN/LAW PROM	11d2	1.02	U68
ECT/LCT	40013200000	ECT/LCT-United Kingdom	b768	2.17	U2
SLIC-Intl.	40013700024	SLIC-United Kingdom	5cf7	1.05	U2
	40012500000	GAIN/LAW PROM	11d2	1.02	U68

Table 43 Vietnam Firmware Requirements

Card	Firmware Part Number	Firmware	Checksum	Version	Location
DTG ¹	40025400033	DTG-Vietnam	e2c5	31.01	U2
	40025500033	Tone Odd-Vietnam	c8ae	31.00	U54
		Tone Even-Vietnam	4de1	31.00	U53
	60001700000	MAP PROM 0 LP17B	e3cc	1.1	U36
	60001800000	MAP PROM 1 LP18B	cce8	1.1	U37
MFCR2	40025600033	MFCR2-Vietnam	1954	31.01	U2

1. DTG, as used in Table 5 through Table 43, refers to either the DTG card or the DTG-2 mezzanine card, which is attached to the NBC3 card.
2. Version 1.23 or 1.25 required. Version 1.25 differs by supplying an additional tone for Canadian customers (Table 31: North America Firmware Requirements).

Limitations and Restrictions

Table 44 lists the functional constraint which has been identified for tone plan implementation. Cisco Systems currently has no plans to address the following known functional constraint.

Table 44 Known Functional Constraint

DDTs Issue	Description
CSCdm30893	<p>Undefined R2 Backward Signal for Korea SPC-MFCR2: R2 backward signaling codes for MFCR2, as reported by the Outgoing Port Change of State (\$DA) report, byte offset 12, reverses nibbles, so that a 3306 backward signaling code is reported as 3360, and a 3301 backward signaling code is reported as 3310.</p> <p>This occurs in generic software V5.1 FSR00 PUN23, while using Korea's SPC-MFCR2.</p>

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