

# uBR10012-basissequentie

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## Inleiding

Dit document beschrijft de laars van de reeks van Cisco uBR10000 Series Universele breedbandrouter van de Performance Routing Engine (PRE) naar de radiofrequentie (RF), LAN, WAN en timing, communicatie en controle plus (TCC+) kaarten.

## Voorwaarden

### Vereisten

Lezers van dit document zouden kennis moeten hebben van deze onderwerpen:

- Basis Cisco-routerarchitectuur
- Cisco IOS® Software-opdrachtregelinterface

### Gebruikte componenten

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- Cisco uBR10012 universele breedbandrouter
- Cisco IOS-software voor de uBR10000 Series (UBR10K-P6-M)

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u de potentiële impact van elke opdracht begrijpen.

### Conventies

Raadpleeg [Cisco Technical Tips Conventions](#) (Conventies voor technische tips van Cisco) voor meer informatie over documentconventies.

## PRE Boot Sequence

De laars sequentie van PRE heeft deze verschillende stappen:

1. Laad de hulp.

c10k-eboot-mz.120-16.6.ST1

Dit ondersteunt geen lijnkaarten; alleen de Fast Ethernet (FE) interface in de PRE is bruikbaar.

2. De hoofdafbeelding laden.

ubr10k-p6-mz.122-1.XF  
ubr10k-k8p6-mz.122-1.XF

Elk van deze types lijnkaarten bekijkt PRE voor de  
firmware:KabellijnkaartTCC+broodroosterGigabit EthernetOptische carriers 12 (OC-12) on-  
service (POS)

Deze uitvoer toont de eigenlijke bewegingsvolgorde en de logberichten:

```
System Bootstrap, Version 12.0(9r)SL2, RELEASE SOFTWARE (fc1)
!--- Bootstrap version. Copyright (c) 2000 by cisco Systems, Inc. Reset Reason Register =
RESET_REASON_RESET_REG (0x76) !--- Reason for reload: RESET. C10000 platform with 524288 Kbytes
of main memory Self decompressing the image : #####
##### Self decompressing the image :
##### Self decompressing the image :
##### Self decompressing the image :
##### Self decompressing the image :
##### Self decompressing the image :
##### Self decompressing the image :
##### [OK] Restricted Rights Legend Use,
duplication, or disclosure by the Government is subject to restrictions as set forth in
subparagraph (c) of the Commercial Computer Software - Restricted Rights clause at FAR sec.
52.227-19 and subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software
clause at DFARS sec. 252.227-7013. cisco Systems, Inc. 170 West Tasman Drive San Jose,
California 95134-1706 Cisco Internetwork Operating System Software IOS (tm) 10000 Software
(UBR10K-P6-M), Version 12.2(1)XF, EARLY DEPLOYMENT RELEASE SOFTWARE (fc1) !--- Main image. TAC
Support: http://www.cisco.com/cgi-bin/ibld/view.pl?i=support Copyright (c) 1986-2001 by cisco
Systems, Inc. Compiled Fri 18-May-01 16:15 by ccal Image text-base: 0x60008960, data-base:
0x612E0000 cisco uBR10000 (PRE-RP) processor with 393215K/131072K bytes of memory. !---
Processor type. Processor board ID TBA05100542 R7000 CPU at 262Mhz, Implementation 39, Rev 2.1,
256KB L2, 2048KB L3 Cache Backplane version 1.0, 8 slot Last reset from register reset Toaster
processor tmc0 is running. Toaster processor tmc1 is running. 1 Ethernet/IEEE 802.3 interface(s)
1 FastEthernet/IEEE 802.3 interface(s) 509K bytes of non-volatile configuration memory. 46976K
bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes). 32768K bytes of Flash internal SIMM
(Sector size 256KB). 00:00:15: Downloading Microcode: file=system:pxf/c10k102-3.ucode,
version=102.3(40.4), description=Experimental Software created Wed 31-Jan-01 16:22 by clauer in
view clauer-omega_dev !--- Microcode for Parallel eXpress Forwarding (PXF) engine. 00:00:16:
%SYS-7-NV_BLOCK_INIT: Initalized the geometry of nvram 00:00:22: %LINK-3-UPDOWN: Interface
Ethernet0/0/0, changed state to up !--- 10Base2 interface. 00:00:22: %LINK-5-CHANGED: Interface
FastEthernet0/0/0, changed state to reset !--- Management FE interface. !--- Each of these lines
of output appear on one line: 00:00:23: %UBR10000-5-USFREQCHG: Interface Cable6/1/0 Port U0,
frequency changed to 34.992 MHz 00:00:23: %UBR10000-5-UPDOWN: Interface Cable6/1/0 Port U0,
changed state to down 00:00:23: %UBR10000-5-UPDOWN: Interface Cable6/1/0 Port U1, changed state
```

```

to down 00:00:23: %UBR10000-5-UPDOWN: Interface Cable6/1/0 Port U2, changed state to down
00:00:23: %UBR10000-5-UPDOWN: Interface Cable6/1/0 Port U3, changed state to down 00:00:24:
%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/0/0, changed state to up 00:00:24:
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0/0, changed state to down
00:00:25: %LINK-5-CHANGED: Interface POS2/0/0, changed state to administratively down 00:00:25:
%LINK-5-CHANGED: Interface GigabitEthernet4/0/0, changed state to administratively down
00:00:26: %LINEPROTO-5-UPDOWN: Line protocol on Interface POS2/0/0, changed state to down
00:00:26: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet4/0/0, changed state to
down 00:00:29: !!pxf clients started, forwarding code operational!! !--- The PFX engine
microcode is decompressed and executed. 00:00:30: %SYS-5-RESTART: System restarted -- Cisco
Internetwork Operating System Software IOS (tm) 10000 Software (UBR10K-P6-M), Version 12.2(1)XF,
EARLY DEPLOYMENT RELEASE SOFTWARE (fc1) TAC Support: http://www.cisco.com/cgi-
bin/ibld/view.pl?i=support Copyright (c) 1986-2001 by cisco Systems, Inc. Compiled Fri 18-May-01
16:15 by ccai 00:00:30: %SYS-6-BOOTTIME: Time taken to reboot after reload = 349 seconds !---
The time taken to boot after the reload initiated. 00:00:31: %LINK-3-UPDOWN: Interface
FastEthernet0/0/0, changed state to up 00:00:32: %LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/0/0, changed state to up 00:00:34: %IPCOIR-5-CARD_DETECTED: Card type 2cable-mc28
(0x254) in slot 6/1 !--- RF card registration request received. 00:00:34: %IPCOIR-5-
CARD_DETECTED: Card type 2cable-mc28 (0x254) in slot 7/0 !--- RF card registration request
received. 00:00:34: %IPCOIR-5-CARD_LOADING: Loading card in slot 6/1 !--- TFTP is used to
transfer the RF card microcode. 00:00:34: %IPCOIR-5-CARD_LOADING: Loading card in slot 7/0 !---
TFTP is used to transfer the RF card microcode. 00:00:34: %IPCOIR-5-CARD_DETECTED: Card type
2cable-tccplus (0x2AF) in slot 1/1 !--- TCC+ registration request received. 00:00:34: %IPCOIR-5-
CARD_DETECTED: Card type loc12pos-1 (0x164) in slot 2/0 !--- LAN to WAN registration received.
00:00:34: %IPCOIR-5-CARD_DETECTED: Card type lgigetherne-1 (0x166) in slot 4/0 !--- LAN to WAN
registration received. 00:00:34: %IPCOIR-2-CARD_UP_DOWN: Card in slot 1/1 is up. Notifying
2cable-tccplus driver. 00:00:34: %IPCOIR-2-CARD_UP_DOWN: Card in slot 2/0 is up. Notifying
loc12pos-1 driver. 00:00:34: %UBR10KTCC-2-ACTIVE_TCC: TCCplus card 1/1 is active with Local
oscillator as clock reference 00:00:35: %IPCOIR-2-CARD_UP_DOWN: Card in slot 4/0 is up.
Notifying lgigetherne-1 driver. 00:00:35: %C10KGE-6-GBIC_OK: Interface GigabitEthernet4/0/0,
1000BASE-SX Gigabit Interface Converter (GBIC) inserted

```

## RF-lijkaartopstart

De laars sequentie van de RF lijkaart heeft deze verschillende stappen:

1. ROM monitor (ROMmon) ladingen de laars in de lijkaart.
2. Opstarthelper stuurt het versienummer van de software en het kaarttype.
3. PRE downloads van het beeld dat overeenkomt met het kaarttype.
4. Het Cisco IOS-softwarebeeld wordt gedecomprimeerd en uitgevoerd.
5. De Bariuminterface wordt ingesteld zodat de gegevens kunnen worden doorgegeven aan de PRE.

```
brubeck# debug ipc events
```

```
Special Events debugging is on
```

```

*Aug 1 05:12:10.596: IPC: Registration request for seat 'clc_6_1'
!--- The RF line card requests registration with the software version !--- number and the line
card type. *Aug 1 05:12:10.604: IPC: Got an open port request for port 0x10008 *Aug 1
05:12:10.604: IPC: Got an open port request for port 0x10009 1wld: %IPCOIR-5-CARD_DETECTED: Card
type 2cable-mc28 (0x254) in slot 6/1 !--- The card type is detected. 1wld: %IPCOIR-2-
CARD_UP_DOWN: Card in slot 6/1 is up. Notifying 2cable-mc28 driver. !--- Microcode for the RF
line card. SLOT 6/1: 00:00:16: %IPCGRP-6-UCODEVER: Reported microcode version, 990227862. SLOT
6/1: 00:00:16: %IPCGRP-6-INTENBDISAB: Interface disabled <REMOVED> !--- The main image is
downloaded, decompressed, and executed. SLOT 6/1: 00:00:19: %IPCGRP-6-BARENBDISAB: Barium
interface enabled !--- Enable Barium interface. 1wld: %LINK-3-UPDOWN: Interface Cable6/1/1,
changed state to up SLOT 6/1: 00:00:20: %LINK-3-UPDOWN: Interface Cable6/1/1, changed state to
up SLOT 6/1: 00:00:20: %LINK-3-UPDOWN: Interface Barium3/0, changed state to up !--- The Barium
interface is set to up.

```

```

lwld: %LINEPROTO-5-UPDOWN: Line protocol on Interface Cable6/1/1,
      changed state to up
lwld: %LINEPROTO-5-UPDOWN: Line protocol on Interface Cable6/1/0,
      changed state to up
SLOT 6/1: 00:00:21: %LINEPROTO-5-UPDOWN: Line protocol on Interface Barium3/0,
      changed state to up
!--- The Barium line protocol is up and can now pass data to the PRE.

```

De computer blijft het versienummer van de software en het kaarttype als een overlevingsscherm verzenden. Als de microcode op PRE is bijgewerkt, wordt de nieuwe microcode gedownload en wordt de upgrade automatisch uitgevoerd.

## Opstarten van LAN of WAN-kaart

De laars reeks van een LAN of WAN kaart heeft deze verschillende stappen:

1. De lijnkaart vraagt om registratie met behulp van het versienummer van de software en het kaarttype.
2. PRE downloads van het beeld dat overeenkomt met het kaarttype.
3. Het Cisco IOS-softwarebeeld wordt gedecomprimeerd en uitgevoerd.

```
brubeck# debug ipc events
```

```

Special Events debugging is on
*Aug 1 05:08:01.496: IPC: Registration request for seat
      'C10K Line Card slot 2/0'
!--- The LAN or WAN card requests registration with the software !--- version and the card type.
*Aug 1 05:08:01.500: IPC: Got an open port request for port 0x10008 lwld: %IPCOIR-5-
CARD_DETECTED: Card type loc12pos-1 (0x164) in slot 2/0 !--- The card type is detected. lwld:
%IPCOIR-5-CARD_LOADING: Loading card in slot 2/0 !--- TFTP is used to transfer the microcode to
the line card. lwld: %C10K-5-LC_NOTICE: Slot[2/0] loc12pos-1 Image Downloaded...Booting... !---
The image is decompressed and the code is executed.

```

## TCC+ Card Boot-sequentie

De laars reeks van een kaart TCC+ heeft deze verschillende stappen:

1. De TCC+-kaart vraagt om registratie met behulp van het versienummer van de software en het kaarttype.
2. PRE downloads van het beeld dat overeenkomt met het kaarttype.
3. Het Cisco IOS-softwarebeeld wordt gedecomprimeerd en uitgevoerd

```
brubeck# debug ipc events
```

```

Special Events debugging is on
*Aug 1 07:00:40.751: IPC: Registration request for seat
      'C10K Line Card slot 1/1'
!--- The TCC+ card requests registration. *Aug 1 07:00:40.755: IPC: Got an open port request for
port 0x10008 lwld: %IPCOIR-5-CARD_DETECTED: Card type 2cable-tccplus (0x2AF) in slot 1/1 !---
The card type is detected. lwld: %IPCOIR-5-CARD_LOADING: Loading card in slot 1/1 !--- TFTP is
used to transfer the microcode to the TCC+ card. lwld: %C10K-5-LC_NOTICE: Slot[1/1] utility-card
Image Downloaded...Booting... !--- The image is decompressed and the code is executed. lwld:

```

%IPCOIR-5-CARD\_DETECTED: Card type 2cable-tccplus (0x2AF) in slot 1/1 1wld: %IPCOIR-2-CARD\_UP\_DOWN: Card in slot 1/1 is up. Notifying 2cable-tccplus driver. 1wld: %UBR10KTCC-2-ACTIVE\_TCC: TCCplus card 1/1 is active with Local oscillator as clock reference *!--- The card is active and reports its clock source.*

## [Gerelateerde informatie](#)

- [Ondersteuning van breedbandkabeltechnologie](#)
- [Cisco uBR10012 universele breedbandrouter](#)
- [Cisco uBR10000 Series universele breedbandrouter release-opmerkingen](#)
- [Technische ondersteuning - Cisco-systemen](#)