

# Sequenza di avvio uBR10012

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## Introduzione

In questo documento viene descritta la sequenza di avvio del router a banda larga universale Cisco serie uBR1000 dal Performance Routing Engine (PRE) alle schede a radiofrequenza (RF), LAN, WAN e Timing, Communications e Control Plus (TCC+).

## Prerequisiti

### Requisiti

Questo documento è utile per conoscere i seguenti argomenti:

- Architettura di base dei router Cisco
- Interfaccia della riga di comando del software Cisco IOS®

### Componenti usati

Le informazioni fornite in questo documento si basano sulle seguenti versioni software e hardware:

- Cisco uBR10012 Universal Broadband Router
- Software Cisco IOS per la serie uBR1000 (UBR10K-P6-M)

Le informazioni discusse in questo documento fanno riferimento a dispositivi usati in uno specifico ambiente di emulazione. Su tutti i dispositivi menzionati nel documento la configurazione è stata ripristinata ai valori predefiniti. Se la rete è operativa, valutare attentamente eventuali conseguenze derivanti dall'uso dei comandi.

### Convenzioni



```

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 (fcl) 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 Line Card Boot Sequence

La sequenza di avvio della scheda di linea RF prevede i seguenti passaggi:

1. ROM Monitor (ROMmon) carica l'helper di avvio nella scheda di linea.
2. L'assistente all'avvio invia il numero di versione del software e il tipo di scheda.
3. PRE scarica l'immagine corrispondente al tipo di scheda.
4. L'immagine software Cisco IOS viene decompressa ed eseguita.
5. L'interfaccia Barium è configurata in modo che i dati possano essere trasferiti al 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 lwld: %IPCOIR-5-CARD_DETECTED: Card
type 2cable-mc28 (0x254) in slot 6/1 !--- The card type is detected. lwld: %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. lwld: %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
```

```
lwd: %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.
```

L'helper di avvio continua a inviare il numero di versione del software e il tipo di scheda come keepalive. Se il microcodice viene aggiornato nell'ambiente PRE, il nuovo microcodice viene scaricato e l'aggiornamento viene eseguito automaticamente.

## Sequenza di avvio della scheda LAN o WAN

La sequenza di avvio di una scheda LAN o WAN prevede i seguenti passaggi:

1. La scheda di linea richiede la registrazione utilizzando il numero di versione del software e il tipo di scheda.
2. PRE scarica l'immagine corrispondente al tipo di scheda.
3. L'immagine software Cisco IOS viene decompressa ed eseguita.

```
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 lwd: %IPCOIR-5-  
CARD_DETECTED: Card type loc12pos-1 (0x164) in slot 2/0 !--- The card type is detected. lwd:  
%IPCOIR-5-CARD_LOADING: Loading card in slot 2/0 !--- TFTP is used to transfer the microcode to  
the line card. lwd: %C10K-5-LC_NOTICE: Slot[2/0] loc12pos-1 Image Downloaded...Booting... !---  
The image is decompressed and the code is executed.
```

## Sequenza di avvio scheda TCC+

La sequenza di avvio di una scheda TCC+ prevede i seguenti passaggi:

1. La scheda TCC+ richiede la registrazione utilizzando il numero di versione del software e il tipo di scheda.
2. PRE scarica l'immagine corrispondente al tipo di scheda.
3. L'immagine software Cisco IOS viene decompressa ed eseguita

```
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 lwd: %IPCOIR-5-CARD_DETECTED: Card type 2cable-tccplus (0x2AF) in slot 1/1 !---  
The card type is detected. lwd: %IPCOIR-5-CARD_LOADING: Loading card in slot 1/1 !--- TFTP is  
used to transfer the microcode to the TCC+ card. lwd: %C10K-5-LC_NOTICE: Slot[1/1] utility-card  
Image Downloaded...Booting... !--- The image is decompressed and the code is executed. lwd:  
%IPCOIR-5-CARD_DETECTED: Card type 2cable-tccplus (0x2AF) in slot 1/1 lwd: %IPCOIR-2-  
CARD_UP_DOWN: Card in slot 1/1 is up. Notifying 2cable-tccplus driver. lwd: %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.*

## **Informazioni correlate**

- [Supporto della tecnologia via cavo a banda larga](#)
- [Cisco uBR10012 Universal Broadband Router](#)
- [Note sulla release del router a banda larga universale Cisco serie uBR1000](#)
- [Supporto tecnico – Cisco Systems](#)