

Diva Server Adapters
Installation Guide

Diva Server Karten
Installationsanleitung

Adaptadores Diva Server
Guía de Instalación



COPYRIGHT NOTICE AND LEGAL DISCLAIMER

Copyright © 1999-2007 Eicon Networks Corporation. All Rights Reserved. You may not reproduce this document in whole or in part without permission in writing from Eicon Networks Corporation.

All contents of this document are subject to change without notice and do not represent a commitment on the part of Eicon Networks Corporation. Reasonable effort is made to ensure the accuracy of the information contained in the document. However, due to ongoing product improvements and revisions, Eicon Networks Corporation does not warrant the accuracy of this information and cannot accept responsibility for errors or omissions that may be contained in this document. It is possible that the use or implementation of any one of the concepts, applications, or ideas described in this document, in marketing collateral produced by or on web pages maintained by Eicon Networks Corporation or its subsidiaries may infringe one or more patents or other intellectual property rights owned by third parties. Eicon Networks Corporation does not provide any intellectual property licenses with the sale of Eicon Networks products other than a license to use such product in accordance with intellectual property owned or validly licensed by Eicon Networks Corporation or its subsidiaries. More detailed information about such intellectual property is available from Eicon Networks Corporation's legal department at 9800 Cavendish Blvd., Montreal, Quebec, Canada H4M 2V9. The software referred to in this document is provided under a Software License Agreement. Refer to the Software License Agreement for complete details governing the use of the software.

Eicon Networks Corporation encourages all users of its products to procure all necessary intellectual property licenses required to implement any concepts or applications and does not condone or encourage any intellectual property infringement and disclaims any responsibility related thereto. These intellectual property licenses may differ from country to country and it is the responsibility of those who develop the concepts or applications to be aware of and comply with different national license requirements.

Please be aware that in the United States, the use of the Eicon Diva Server digital board to route facsimile transmissions using DID is likely to infringe certain claims of U.S. Patent Nos. 5,488,651 and 5,291,546 owned by Cantata Technology Inc.

All names, products, and services mentioned herein are the trademarks or registered trademarks of their respective organizations and are the sole property of their respective owners. Eicon, Eicon Networks, Diva, Diva ISDN, Diva Server, and Connecting People to Information are registered trademarks or trademarks of Eicon Networks Corporation or its subsidiaries.

To contact Eicon Customer Support, refer to the **Customers Services** section on page 58 or visit our web site at www.eicon.com.

Eicon Networks Corporation License Agreement for use of software

This is an Agreement between you, the Company, and your Affiliates (referred to in some instances as "You" and in other instances as "Company") and all your Authorized Users and Eicon Networks Corporation ("Eicon").

YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE INSTALLING OR DOWNLOADING THE SOFTWARE. IF YOU AGREE WITH THESE TERMS YOU MAY PROCEED WITH THE DOWNLOAD OR INSTALLATION OF THE SOFTWARE. IF YOU DO NOT AGREE WITH THESE TERMS, PLEASE RETURN THE PACKAGE IN "AS NEW" CONDITION (INCLUDING DOCUMENTATION AND BINDERS OR OTHER CONTAINERS) AND YOUR MONEY WILL BE REFUNDED. DOWNLOADING OR INSTALLING THE SOFTWARE CONSTITUTES YOUR ACCEPTANCE OF THESE TERMS AND CONDITIONS. YOU ASSUME RESPONSIBILITY FOR THE SELECTION OF THE PROGRAM TO ACHIEVE YOUR INTENDED RESULTS, AND FOR THE INSTALLATION, USE, AND RESULTS OBTAINED FROM THE PACKAGE.

Copyright

The enclosed Software ("Program") and documents are owned by Eicon Networks Corporation ("Eicon") and its suppliers and are protected by copyright laws and international treaty provisions. Therefore, You and your Authorized Users must treat the Program and documentation like any other copyrighted material except as expressly permitted in this License Agreement.

License

Under the terms and conditions of this License Agreement:

- You may install and use one copy of the Program on a single-user computer, file server, or on a workstation of a local area network, and only in conjunction with a legally acquired Eicon hardware or software product;
- The primary Authorized User on the computer on which the "Program" is installed may make a second copy for his/her exclusive use on either a home or portable computer;
- You may copy the Program into any machine readable or printed form for backup or modification purposes in support of your use of one copy of the Program;
- You may make one copy of Eicon's documentation provided that all copyright notices contained within the documentation are retained;
- You may modify the Program and/or merge it into another Program for your use in one computer; (any portion of this Program will continue to be subject to the terms and conditions of this Agreement);
- You may transfer the Program, documentation and the license to another eligible party within your Company if the other party agrees to accept the terms and conditions of this Agreement. If You transfer the Program and documentation, You must at the same time either transfer all copies whether in printed or machine readable form to the same party or destroy any copies not transferred; this includes all modifications and portions of the Program contained in or merged into other Programs;
- You must reproduce and include the copyright notice on any copy, modification or portion of the Program merged into another Program;
- You may not rent or lease the Program. You may not reverse engineer, decompile or disassemble the Program. You may not use, copy, modify or transfer the Program and documentation, or any copy, modification or merged portion, in whole or in part, except as expressly provided for in this License Agreement;

- If You transfer possession of any copy, modification or merged portion of the Program or documentation to another party in any way other than as expressly permitted in this License Agreement, this license is automatically terminated.

Upgrades

If the Program is provided as an upgrade and the upgrade is an upgrade from another software product licensed to You and Your Authorized Users by Eicon, the upgrade is governed by the License Agreement earlier provided with that software product package and the present License Agreement does not grant you additional license(s).

Term

The license is effective until terminated. You may terminate it at any time by destroying the Program and documentation together with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any terms or conditions of this Agreement. You agree upon such termination to destroy the Program and documentation together with all copies, modifications and merged portions in any form.

Limited Warranty

The only warranty Eicon makes is that the medium on which the Program is recorded will be replaced without charge if Eicon, in good faith, determines that it was defective in materials or workmanship and if returned to your supplier with a copy of your receipt within ninety (90) days from the date you received it. Eicon offers no warranty for your reproduction of the Program. This Limited Warranty is void if failure of the Program has resulted from accident, misuse, abuse, or misapplication.

Customer Remedies

Eicon's entire liability and You and Your Authorized Users exclusive remedy shall be, at Eicon's option, either (a) return of the price paid or (b) repair or replacement of the Program that does not meet the above Limited Warranty. Any replacement Program will be warranted for the remainder of the original Warranty period.

No Other Warranties

Eicon disclaims all other warranties, either expressed or implied, including but not limited to implied warranties or merchantability and fitness for a particular purpose and the warranty against latent defects, with respect to the Program and the accompanying documentation. This limited warranty gives You specific legal rights. You may have others, which may vary from jurisdiction to jurisdiction.

No Liability for Consequential Damage

In no event shall Eicon or its suppliers be liable for any damages whatsoever (including without limitation, damages for loss of business profits, business interruption, loss of information, or other pecuniary loss and indirect, consequential, incidental, economic, or punitive damages) arising out of the use of or inability to use this Program, even if Eicon has been advised of the possibility of such damages. As some jurisdictions do not allow the exclusion or limitation for certain damages, some of the above limitations may not apply to You or your Authorized Users.

Limit of Liability

Eicon's entire aggregate liability under any provision of this agreement shall be limited to the amount actually paid by You for the affected Program.

Right to Audit

If this Program is licensed for use in a Company, your Company agrees to keep all usual and proper records and books of accounts and all usual proper entries relating to each reproduction and Authorized User of the Program during the term of this Agreement and for a period of three (3) years thereafter. During this period, Eicon may cause an audit to be made of the applicable records in order to verify Your compliance with this Agreement and prompt adjustment shall be made to compensate for any errors or omissions disclosed by such audit. Any such audit shall be conducted by an independent certified public accountant selected by Eicon and shall be conducted during the regular business hours at Your offices and in such a manner as not to interfere with Your normal business activities. Any such audit shall be paid for by Eicon unless material discrepancies are disclosed. For such purposes, "material discrepancies" shall mean three percent (3%) or more of the Authorized Users within the Company. If material discrepancies are disclosed, Your Company agrees to pay Eicon for the costs associated with the audit as well as the license fees for the additional Authorized Users. In no event shall audits be made more frequently than semi-annually unless the immediately preceding audit disclosed a material discrepancy.

Supplementary Software

Any Supplementary Software provided with the Eicon Program referred to in this License Agreement is provided "as is" with no warranty of any kind.

U.S. Government Restricted Rights

The Program and documentation are provided with RESTRICTED RIGHTS. Use, duplication or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph c) 1) ii) of The Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraph c) 1) and 2) of the Commercial Computer Software-Restricted Rights at 48 CFR52.227-19, as applicable.

Governing Law

This Agreement shall be construed and controlled by the laws in force in the Province of Quebec, Canada.

Contractor/ manufacturer is:

EICON NETWORKS CORPORATION.

9800 Cavendish Blvd., Montreal, Quebec, Canada H4M 2V9

This Agreement has been drafted in English at the express wish of the parties. Ce contrat a été rédigé en anglais à la demande expresse des parties.

Eicon Networks Corporation End user Warranty Statement

Unless your rights have been modified through the direct agreement between Eicon Networks Corporation ("EICON") and EICON's direct customer through whom you purchased your EICON Product your warranty rights are set out in full as follows:

Warranty for Software Products: The only warranty EICON makes is that the medium on which the program is recorded will be replaced without charge if EICON, acting reasonably, determines that it was defective in materials or workmanship and if returned to EICON with a copy of BUYER's receipt within ninety (90) days from the date BUYER received it. EICON offers no warranty for the installation of the program even if it has provided assistance to BUYER in making such installation. This Limited Warranty is void if failure of the program has resulted from accident, misuse, abuse or misapplication. EICON'S ENTIRE LIABILITY AND BUYER'S EXCLUSIVE REMEDY SHALL BE, AT EICON'S OPTION, EITHER (A) RETURN OF THE PRICE PAID OR (B) REPAIR OR REPLACEMENT OF THE PROGRAM THAT DOES NOT MEET THIS WARRANTY. ANY REPLACEMENT PROGRAM WILL BE WARRANTED FOR THE REMAINDER OF THE ORIGINAL WARRANTY PERIOD.

Warranty for Hardware Products: EICON warrants that at the time of delivery the hardware Products supplied hereunder will be free from defects in material and workmanship. The warranty will be for EICON's standard warranty period for the Product you have purchased as at the date of EICON's shipment of the Product. Standard warranty periods for specific Products are set out at www.eicon.com. In no event shall the EICON warranty be shorter than the legal minimum warranty period required for such Product in the country of purchase. All warranties are subject to the BUYER registering the Product at <http://www.eicon.com/register>. This warranty is void if the defect has resulted from accident, misuse, abuse or misapplication. Any hardware Product which becomes defective during the warranty period and is returned to EICON's Authorized Service Center with a Return Material Authorization (RMA) number (which must be obtained from EICON before any return) within thirty (30) days after discovery of the defect with a written description of the defect will be repaired or replaced at EICON's option. Freight charges will be paid by EICON only for shipment back to BUYER.

No Other Warranties: EICON DISCLAIMS AND BUYER WAIVES ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY AGAINST LATENT DEFECTS, WITH RESPECT TO ANY EICON PRODUCT.

No Liability for Damages: IN NO EVENT SHALL EICON OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, INTERRUPTION OF ACTIVITIES, LOSS OF INFORMATION OR OTHER PECUNIARY LOSS AND DIRECT OR INDIRECT, CONSEQUENTIAL, INCIDENTAL, ECONOMIC OR PUNITIVE DAMAGES) ARISING OUT OF THE USE OF OR INABILITY TO USE ANY EICON PRODUCT OR DUE TO THE FAULT OR NEGLIGENCE OF EICON OR THOSE FOR WHICH IT IS RESPONSIBLE AT LAW, EVEN IF EICON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. (NOTE: SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CERTAIN DAMAGES AND ACCORDINGLY THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO BUYER.)

Limitation of Liability: EICON AND ITS AFFILIATES AND SUPPLIERS' LIABILITY TO YOU UNDER ANY CIRCUMSTANCES, IN THE AGGREGATE FOR ALL CAUSES OF ACTION, SHALL BE LIMITED TO THE AMOUNTS ACTUALLY PAID BY YOU FOR THE SPECIFIC PRODUCT WHICH IS THE OBJECT OF THE CLAIM. YOU RELEASE EICON, ITS AFFILIATES AND ITS SUPPLIERS FROM ALL AMOUNTS IN EXCESS OF THE LIMITATION.

Additional Exclusions: EICON will have no obligation to make repairs or replacements necessitated by your fault or negligence, improper or unauthorized use of the product, repairs or modifications made without EICON's prior written approval or by causes beyond the control of EICON, including, but not limited to, power or air conditioning failure, acts of God, improper interface with other units, or malfunction of any equipment or software used with the EICON Product(s).

Contents

English

Introduction	11
General Safety Instructions	14
Ordering Your Analog Line in North America.....	16
Line Provisioning and Configuration for Diva Server PRI Adapters	17
Ordering Your ISDN PRI or T1 Line in North America	18
Before You Start.....	21
Installation.....	22
Troubleshooting	36
Technical Specifications.....	40
International Regulatory Information.....	46
International approvals	55
Suppliers Declaration of Conformity	56
Customer Services	57
Your Eicon Networks Adapter and The WEEE Directive	59

Deutsch

Einführung	61
Allgemeine Sicherheitshinweise	64
Vorbereitungen	66
Installation.....	67
Problemlösung.....	79
Technische Daten	83

Zulassungsinformationen	89
Kundendienst.....	90
Ihre Eicon Networks Karte und die WEEE Richtlinie.....	92
Español	
Introducción	93
Instrucciones de Seguridad.....	96
Preparativos	98
Instalación	99
Problemas y Soluciones.....	112
Datos Técnicos.....	116
Datos Sobre la Homologación.....	122
Soporte Técnico	123
Su Adaptador Eicon Networks y la Directiva WEEE	125

Introduction

Eicon Networks' Diva Server adapters provide high-speed digital or analog connections to support a variety of network applications. This installation guide describes how to physically install and connect your Diva Server adapter, it provides information about the adapter's technical specifications and gives an overview of the available online documentation.

Note: The Eicon brand will change to Dialogic in all relevant documents during 2007.

Supported Diva Server adapters

The Diva Server product range comprises the following adapters:

ISDN BRI adapters

Diva Server BRI adapters are high-performance, partly active PC-based server adapters that provide digital, analog, and GSM connections over an ISDN line.

- Diva Server 2FX
- Diva Server BRI-2M 2.0
- Diva Server 4BRI-8M 2.0
- Diva Server V-BRI-2
- Diva Server V-4BRI-8

ISDN PRI, E1, and T1 adapters

These powerful adapters are active server adapters which provide both digital and analog connectivity for the ISDN Primary Rate Interface (PRI), E1, and T1 lines.

Diva Server T1/PRI:

- Diva Server T1/PRI
- Diva Server T1/PRI-4M
- Diva Server T1/PRI-8M
- Diva Server T1/PRI-24M

Diva Server PRI 2.0:

- Diva Server PRI-0M
- Diva Server PRI-4M
- Diva Server PRI-8M
- Diva Server PRI-30M

Diva Server PRI 3.0:

- Diva Server PRI/E1/T1-CTI
- Diva Server PRI/E1/T1-8
- Diva Server PRI/T1-24
- Diva Server PRI/E1-30

Diva Server V-PRI:

- Diva Server V-PRI/T1-24
- Diva Server V-PRI/E1-30

Diva Server PRI PCIe:

- Diva Server PRI/E1/T1-CTI PCIe
- Diva Server PRI/T1-24 PCIe
- Diva Server PRI/E1-30 PCIe

Diva Server V-PRI PCIe:

- Diva Server V-PRI/T1-24 PCIe
- Diva Server V-PRI/E1-30 PCIe

Multiport ISDN PRI, E1, and T1 adapters

The Diva Server multiport adapters are exceptionally powerful PC-based telephony adapters that provide rich media processing capabilities for up to 120 voice channels over E1 interfaces or up to 96 voice channels over T1 interfaces.

- Diva Server V-2PRI/E1/T1
- Diva Server V-4PRI/E1/T1

Analog adapters

Diva Server Analog communication adapters offer standard RJ-10 or RJ-45 interfaces to connect to public and private switching systems. Since they provide high-performance media processing functions, they enhance the overall system performance and lower implementation cost.

- Diva Server Analog-2P
- Diva Server Analog-4P
- Diva Server Analog-8P
- Diva Server V-Analog-4P
- Diva Server V-Analog-8P

Supported operating systems

Diva Server adapters support the following operating systems:

- Microsoft Windows® Server 2003
- Microsoft Windows XP
- Microsoft Windows 2000
- Linux®

Note: You can install your Diva Server BRI and V-BRI adapter on a computer with Microsoft Small Business Server (SBS). For the Microsoft Small Business Server version 4.5 and 2000, you can find the required drivers and documentation on the Microsoft Small Business Server CD-ROM.

Diva Server online documentation

Diva Server online documentation is available on the Diva Server Software Suite CD-ROM and/or the Eicon Networks web site. The online documentation describes the installation and configuration of Diva Server software. For more information about documentation on the Diva Server Software Suite CD-ROM, see below. For documentation on the web visit our **Eicon Manuals and Documentation** site at: <http://www.eicon.com/worldwide/support/docs.htm> where you can select the desired documentation for your Eicon Networks product.

Diva Server Software Suite CD-ROM

Documentation for the above mentioned Microsoft Windows operating systems is available on the Diva Server Software Suite CD-ROM. For Linux, documentation is available on the Eicon Networks web site. See page 14 for more information.

The Diva Server Software Suite CD-ROM includes comprehensive online reference guides in Adobe® Acrobat® portable document format (PDF) and Microsoft HTML help files in CHM format.

Your Diva Server Software Suite CD-ROM also includes readme files. The readme files contain the most up-to-date information which did not make it into other manuals.

Note: To view and print the online reference guides properly, you must use Acrobat Reader version 3.0 or later. You can install the Acrobat Reader from your Diva Server Software Suite CD-ROM.

To install Acrobat Reader under a Windows operating system:

1. Insert your Diva Server Software Suite CD-ROM into your CD-ROM drive. The front end will start automatically. If the front end fails to start, double-click `SETUP.EXE` in the root folder on the CD-ROM.
2. At the Welcome screen, click the **Bonus Software** button.
3. From the presented screen, you can install Acrobat Reader.

To view a PDF manual under a Windows operating system:

1. Insert your Diva Server Software Suite CD-ROM into your CD-ROM drive. The front end will start automatically. If the front end fails to start, double-click `SETUP.EXE` in the root folder on the CD-ROM.
2. At the Welcome screen, click **Documentation**.
3. From the presented screen, you can view the available PDF documentation for your hardware and software.
4. To view an online manual, double-click the manual you wish to read.

To view an online help under a Windows operating system:

1. Insert your Diva Server Software Suite CD-ROM into your CD-ROM drive. The front end will start automatically. If the front end fails to start, double-click `SETUP.EXE` in the root folder on the CD-ROM.
2. At the Welcome screen, click **Browse this CD**.
3. Click the following folders: **driver > i386 > ENGLISH**.
4. To view an online help file, double-click the CHM-file you wish to read.

General Safety Instructions

Use the following safety instructions to help ensure your own personal safety and to help protect your computer, adapter, and working environment from potential damage.

WARNING All Diva Server Adapters



All computers that have Diva Server adapters installed must comply with the country specific safety regulations, such as CE or FCC, to avoid serious personal injuries and damage to your computer, your adapter, or both.

Before you install your Diva Server adapter or remove the cover from your computer for any reason, disconnect the ISDN or analog cable from the ISDN, analog network, E1, or T1 line, to avoid personal injuries and damage to your computer, your adapter, or both.

Proper installation of the adapter requires that it is screwed to the metal backplate of the PC. This ensures proper grounding that is necessary for your safety.

Diva Server ISDN

PRI and BRI signals can have telephone network voltages (TNV). Therefore, ISDN BRI, PRI, E1, and T1 lines should be installed and maintained by service personnel only. It may be hazardous if your computer is not properly plugged in and grounded. This applies particularly to users in North America and Australia.

Diva Server T1/PRI, PRI, V-2PRI, V-4PRI

Diva Server V-2PRI and V-4PRI, and all versions of Diva Server T1/PRI and PRI 2.0 adapters may need approximately 20 Watts of power.

If you have installed several adapters in your system, make sure that the power supply will not be overloaded when you install your Diva Server adapter, to avoid personal injuries and damage to your computer, your adapter, or both.

Make also sure that your PC provides sufficient cooling to avoid damage on your adapter.

IMPORTANT Diva Server ISDN



All Diva Server ISDN adapters have been tested and found to comply with the Electromagnetic compatibility, Safety, and Network connection regulations within the European Union, North America, and other major territories. Read the regulatory information in the section **Regulatory Information** on page 46 before installing and using your adapter.

Diva Server V-2PRI, V-4PRI, PRI PCIe

A proper functioning of Diva Server V-2PRI, V-4PRI, and PRI PCIe adapters is guaranteed only if it is operated within the permitted temperature range, see page 40 for more information. If the temperature is exceeded, a trace file with the temperature information will be created.

Diva Server Analog

Use only certified telecommunications cables with No. 26 AWG (American Wire Gauge) or higher with this equipment to ensure proper functioning of the adapter.

Ordering Your Analog Line in North America

This chapter will assist you in ordering an analog line for your Diva Server Analog adapter.

Line types

Diva Server Analog adapters can be configured to support a standard analog line. Specify the following requirements when you place your order:

- Standard analog line
- Loop start line
- Dial type: Diva Server Analog adapters support tone and pulse dialing. It is recommended to specify tone as the dial type.

Connecting to a PBX

In most installations, the analog line is connected to a PBX instead of the Diva Server Analog adapter. If this is the case and you wish to do DTMF collection through the PBX, you need to configure the sequence on the PBX as follows:

- Ring voltage
- 500 ms pause
- Routing through DTMF
- 500 ms pause
- Open the call path

Line Provisioning and Configuration for Diva Server PRI Adapters

During the software installation, select the switch type as specified by your service provider, e.g. Euro-ISDN (ETSI). This will set all line parameters to a default value that is the most common value for the respective switch type.

In some countries the parameter value is different than the default. For the Euro-ISDN (ETSI) switch type for example, the CRC 4 mode is normally on, so the default will set the parameter **CRC 4 Mode** to **ON**. However, the CRC setting needs to be **OFF** for Energis lines in the UK and Telecom Eireann lines in the Republic of Ireland. Normally, lines in France, Belgium, and the Netherlands are also provisioned with the CRC 4 mode OFF.

Please make sure that you configure the value as required by your service provider. For detailed information see the Diva Server Configuration Manager Online Help (DSMain.chm) for Windows operating systems and the Diva Server for Linux Reference Guide for Linux.

Note: Your service provider will deactivate your line if you connect to it with wrong settings. Always contact your service provider to ask for your line to be reactivated before testing with new settings.

Ordering Your ISDN PRI or T1 Line in North America

This chapter will assist you in ordering an ISDN PRI or a T1 line for your Diva Server PRI adapter. It provides recommended settings for a number of the configuration settings on Diva Server PRI adapters. You should specify these settings when you order your line from your service provider.

Line types

The Diva Server PRI adapters can be configured to support an ISDN PRI line or a T1 line.

ISDN PRI

In North America and Japan, an ISDN PRI line typically supports 23 B-channels and one D-channel. PRI configurations are used to receive multiple, simultaneous ISDN calls from analog-modem and digital-services dial-in traffic. Another common use of ISDN PRI is to connect a PBX (Private Branch Exchange) to a central office switch.

Channelized T1 (robbed-bit signaling)

Robbed-bit signaling, which uses bits from specified frames in the user data channel for signaling, fits into the in-band signaling category. In this scenario, bits are 'robbed' from each channel for signaling purposes, as opposed to ISDN PRI (out-of-band signaling) which dedicates a specific channel (D-channel) to signaling.

Connecting to a PBX

In some installations, the PRI or T1 line is connected to a PBX instead of the Diva Server PRI adapter. In these cases, you must correctly configure the PBX to communicate with the Diva Server PRI adapter.

Provisioning an ISDN PRI connection

This section explains how to order an ISDN PRI line for your Diva Server PRI adapter.

What to order

Specify the following requirements when you place your order:

- 23 B-channels + 1 D-channel
- D-channel on channel 24 (timeslot 24). Do not order NFAS (non-facility associated signaling service), which enables you to use channel 24 as a data-carrying B-channel.
- Layer 1 line code is B8ZS with ESF (Extended SuperFraming).
- Data rate of 1.544 Mbps
- 64 kbps clear channel service, which ensures that calls will not be routed over 56 kbps channels.
- Companding type is μ -law
- A CSU is not required (Diva supplies the function of the CSU internally). However, you can connect to a CSU if present.
- A DSU is not required (Diva supplies the function of the DSU internally).
- The T1 interface number must be 0.
- The D-channel must be specified as the terminal endpoint identifier (TEI) 0.
- If the switch type is AT&T/Lucent, request that allocation of channels for incoming calls is in descending order, high to low (23 to 1).

Information to obtain when ordering

Obtain the following information when you place your order. You will need this information to properly configure your Diva Server PRI adapter.

- The type of ISDN switch your line is connected to.
- Directory or phone number assigned to the PRI line.
- Line build out setting (LBO). Only if you are going to use the Diva Server's on-board CSU.
- Number of DNIS (Dialed Number Identification Service) digits provided by your service provider. Normally, you can choose between four, seven, or ten digits.

Provisioning a channelized T1 connection (robbed-bit)

This section explains how to order a T1 line that uses robbed-bit signaling for your Diva Server PRI adapter.

What to order

Specify the following when you place your order:

- Switched T1 service for 56 kbps voice calls
- No multichannel services (switchtec 384/H0 or 1536/H11)
- Extended SuperFrame (ESF)
- B8ZS line encoding
- Wink Start E&M signaling
- DTMF dialing
- Answer supervision required for outgoing calls
- A CSU is not required (Diva supplies the function of the CSU internally). However, you can connect to a CSU if present.
- A DSU is not required (Diva supplies the function of the DSU internally).

Information to obtain when ordering

Obtain the following information when you place your order. You will need this information to properly configure your Diva Server PRI adapter.

- The type of ISDN switch your line is connected to.
- Directory number assigned to the T1 line.
- Number of DNIS (Dialed Number Identification Service) digits provided by your service provider. Normally, you can choose between four, seven, or ten digits.

Before You Start

Before you start, make sure you have the items you need to install your Diva Server adapter and the corresponding software.

Item	Description
Computer	Your computer must have: <ul style="list-style-type: none"> • a free PCI slot for PCI bus adapters (for Diva Server V-2PRI and V-4PRI according to PCI 2.2) • a free PCIe x1 slot, 1.0a compliant for PCIe bus adapters. Other slot sizes, e.g. x4, x8, x16 can be used if supported by the BIOS and the operating system. • an installed operating system: <ul style="list-style-type: none"> Windows Server 2003, Windows XP, Windows 2000, Linux • at least 15 MB of free hard-disk space for the software
Diva Server ISDN adapter package	This includes: <ul style="list-style-type: none"> • Diva Server ISDN adapter • cable(s) needed to connect to your ISDN BRI, ISDN PRI, E1, or T1 line • Diva Server Software Suite CD-ROM • Diva Server Adapters Installation Guide
Diva Server Analog adapter package	This includes: <ul style="list-style-type: none"> • Diva Server Analog adapter • cables to connect to your analog line • Diva Server Analog-8P and V-Analog-8P: four cables with dongle • Diva Server Software Suite CD-ROM • Diva Server Adapters Installation Guide
ISDN Basic Rate Interface (BRI), Primary Rate Interface (PRI), channelized E1 or T1 interface, or analog interface	The lines are installed by your service provider. Make sure that you get the appropriate line(s) for your adapter. <p>Note: In some countries, you might need a network terminating device (NT1).</p>
Information about your line	Your service provider has to provide the following information: <ul style="list-style-type: none"> • switch type: This usually depends on your geographic location. Common switch types include Euro-ISDN DSS1 (used in Europe), 1TR6 (used mainly in PBXs in Germany), NI-1 (used in North America), and 5ESS (used in North America). • Phone numbers for each ISDN, T1, or analog line • <i>North America only:</i> Service Profile Identifiers (SPIDs) for each ISDN BRI line

Installation

This chapter will assist you in installing your Diva Server adapter and connecting it to your ISDN BRI, ISDN PRI, E1, T1, or analog line.

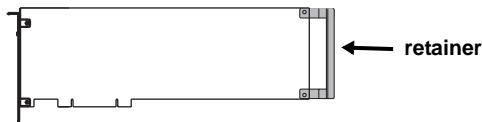
You need to complete the following three procedures to use your Diva Server adapter properly:

- (A) Insert your Diva Server adapter into your computer as described below.
- (B) Connect your Diva Server adapter as described on page 24.
- (C) Install your Diva Server adapter software as described on page 35.

Note: You may need your computer's manual during the installation of your adapter.

(A) Insert your Diva Server adapter into your computer

1. For your safety, disconnect all technical and peripheral devices and all energy sources from the computer,
2. Drain static electricity from your body by touching the metal chassis (the unpainted metal at the back of your computer).
3. Remove the ISDN cable, if present, and the power cord from your computer.
4. Remove the cover of the computer as described in your computer's manual.
5. Locate a PCI or PCIe slot in your computer.
6. If there is a metal plate at the end of the slot, remove the screw or loosen the clip and remove the metal plate. Keep the screw for fastening your adapter.
7. If your adapter comes with a retainer, and space does not permit the use of the retainer, simply remove it before you insert the adapter. The retainer is only an installation aid and does not add functionality to the adapter.



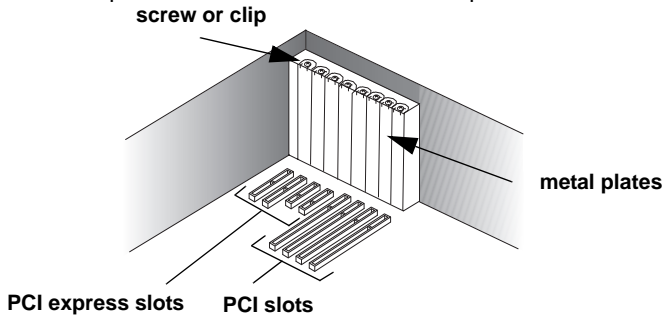
8. Before you insert your adapter, read the following safety instruction:

CAUTION: To avoid damaging your hardware, insert the adapter only into a PCI or PCIe slot, according to your adapter type. Inserting the adapter into any other type of slot can damage your adapter, your computer, or both.



Firmly insert the adapter into the selected slot. Make sure that the adapter does not touch the CPU, memory modules, or other parts on the motherboard.

Note: Additionally to the PCI bus, Diva Server V-2PRI and V-4PRI adapters have a H.100 bus on the board. The H.100 bus is not operational; therefore, only insert the adapter with the PCI bus into the computer.



9. Firmly secure the adapter with the screw or clip.

WARNING: For your safety, make sure that the adapter's bracket is properly secured to the PC's chassis by fastening the adapter with the screw or clip. This will ensure proper grounding and avoid personal injuries and damage to your computer, your adapter, or both.



10. Replace the cover of the computer as described in your computer's manual.

(B) Connect your Diva Server adapter

How you connect your adapter depends on the type of Diva Server adapter you have:

- To connect a Diva Server BRI adapter, follow the instructions below.
- To connect a Diva Server PRI adapter, follow the instructions on page 26.
- To connect a Diva Server Analog adapter, follow the instructions on page 30.

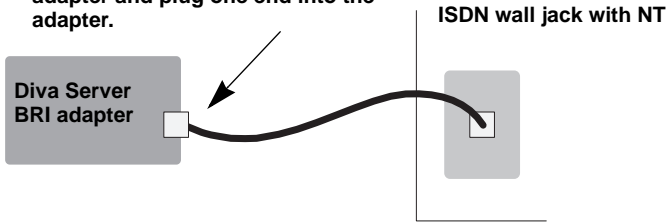
Connect your Diva Server BRI adapter

Note: If you plan to use your Diva Server BRI adapter as network termination for back-to-back operation or connection to PBX networks, go to page 25.

In Europe and most countries worldwide:

In Europe as well as most countries except North America and Japan, connect your ISDN line using the cable included with your Diva Server adapter.

1. Take the cable included with the adapter and plug one end into the adapter.



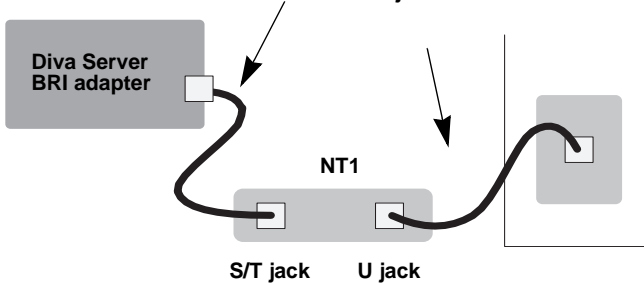
2. Plug the other end into the ISDN wall jack.

In North America, Japan and some other countries:

In North America, Japan and a few other countries, you need an NT1 to connect your ISDN line. You can order an NT1 from Eicon Networks or from another supplier. Make sure that a power supply is available for the NT1 of this line. Usually, a PBX is installed in the same area as the NT1 and the service provider can use the power supply of the PBX for the ISDN line as well. If this is not the case, you have to order a combo device from your service provider. This device consists of an installation rack into which an NT1 module and a power supply module is mounted.

1. Take the cable included with the adapter and plug one end into the adapter.

3. Take the cable included with the NT1 and plug one end into the ISDN wall jack.

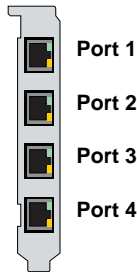


2. Plug the other end into the S/T jack.

4. Plug the other end into the U jack.

Note for Diva Server 4BRI and V-4BRI:

The Diva Server 4BRI and V-4BRI adapters have four ports for connecting to four separate ISDN BRI lines. Connect all four cables as described above. You can use any port; typically, you must specify the port number during software configuration. The port numbers are shown below. The diagram is oriented with the edge connector pointing downwards.



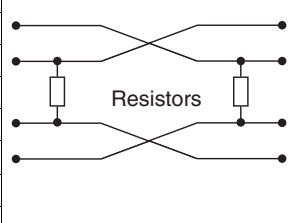
Connecting Diva Server BRI adapters in NT mode:

The Diva Server software enables you to configure Diva Server BRI adapters as network termination (NT). This means your adapter can serve as an NT for PBXs, for example, when coupling PBXs with the Q-Sig protocol, and it can be used for back-to-back operation.

When connecting the adapter to a PBX that acts as terminal equipment and therefore requires an NT to provide a clocking signal, configure the adapter as an NT. Wire the adapter to the PBX as shown in the diagram on page 26 by applying the appropriate assignment at the PBX connectors. Use the required termination resistors.

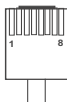
When using two Diva Server adapters in back-to-back operation, configure one adapter as an NT and the other one as terminal equipment (TE). Connect the adapters using a crossover cable. The cable wiring must correspond to the diagram below and the cable must have the required termination resistors.

Pole (contact) assignments for 8-pole connections (plugs and jacks):

Pins on RJ45	TE Side		Wiring	NT Side	
	Wire	Signals		Wire	Signals
1	not used				
2	not used				
3	2a	TX +		1a	TX +
4	1a	RX +		2a	RX +
5	1b	RX -		2b	RX -
6	2b	TX -		1b	TX -
7	not used				
8	not used				

Termination resistors
100 Ohm, 5%

Note: Looking at the RJ45 connector with the exposed connector pins facing you, the pins are numbered from 1 to 8 from left to right (as shown below).



Connect your Diva Server PRI adapter

Note: Diva Server PRI adapters have a built-in CSU (channel service unit) to protect the adapters from damage due to power surges. However, you can also use an external CSU, which allows you to test your ISDN PRI, E1, or T1 line.

Use one of the cables included with the adapter. The cable you use depends on how you want to apply your adapter:

- RJ45 to RJ45 for connection to an ISDN PRI, E1, or T1 line with an RJ45 jack or for connection as network termination to a PBX.
- RJ45 to open-ended cables for connection to your ISDN PRI, E1, or T1 line with open-ended wire connections or for back-to-back connection.

If the ISDN PRI or T1 line is installed with an RJ45 jack:

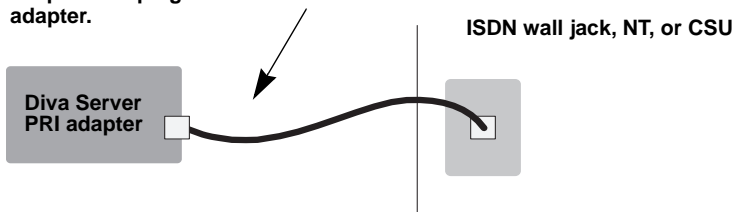
Use the supplied RJ45 to RJ45 cable:

Diva Server PRI Adapter	Signals	RJ45 Terminal
Pin 1	Receive + (RX +)	Pin 1
Pin 2	Receive - (RX -)	Pin 2
Pin 4	Transmit + (TX +)	Pin 4
Pin 5	Transmit - (TX -)	Pin 5
shielded plug	overall shielded	shielded plug

Note: For E1 Mode with 75 Ohm impedance, use an external 75 Ohm Balun Adapter. You can purchase such an adapter from specialized stores.

Connect your ISDN PRI, E1, or T1 line as shown:

1. Take the cable included with the adapter and plug one end into the adapter.



2. Plug the other end into the NT, CSU, or wall jack.

Note for all Diva Server V-2PRI/E1/T1 and V-4PRI/E1/T1 adapters:

Diva Server V-2PRI adapters have two ports and Diva Server V-4PRI adapters have four ports for connecting to two or four separate ISDN PRI, E1, or T1 lines. Connect all two or four cables as described above. You can use any port; typically, you must specify the port number during software configuration. The port numbers are shown on the next page. The diagram is oriented with the edge connector pointing downwards.

Diva Server V-2PRI/E1/T1



Diva Server V-4PRI/E1/T1



If the Diva Server PRI adapter in NT mode is connected to a PBX:

The Diva Server software enables you to configure Diva Server PRI adapters as network termination (NT). This means your adapter can serve as an NT for PBXs that act as terminal equipment and therefore requires an NT to provide a clocking signal. For example, the Diva Server adapter can act as an NT when coupling PBXs with the Q-Sig protocol.

When connecting the adapter to a PBX that acts as TE, configure the adapter as an NT. Wire it to the PBX as shown in the diagram on page 29 and apply the appropriate assignment at the PBX connectors.

If the ISDN PRI, E1, or T1 line uses open-ended wire connections:

In some cases, you are required to connect to your network termination using the open-ended connectors. The transmission (TX) leads and the receiving (RX) leads are identified by color; transmission leads are blue and white-blue, receiving leads are orange and white-orange.

Use the supplied RJ45 to open ends cable:

Diva Server PRI Adapter	Signals	Open Ends
Pin 1	Receive + (RX +)	white-orange
Pin 2	Receive - (RX -)	orange
Pin 4	Transmit + (TX +)	white-blue
Pin 5	Transmit - (TX -)	blue
shielded plug	overall shielded	shield

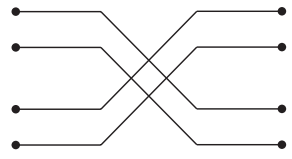
Make sure to connect the transmission leads of your Diva Server PRI adapter to the receiving connectors of the network termination and the receiving leads of your Diva Server PRI adapter to the transmission connectors of the network termination.

Note: If the adapter is not properly connected to the ISDN PRI, E1, or T1 line, a layer 1 warning light appears on the NT, the adapter, the external CSU, and at the switching center of the network provider. The network provider might then deactivate the line. If this occurs, you must contact your network provider to reactivate your line.

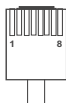
If the Diva Server PRI adapter is run in back-to-back mode:

The Diva Server software enables you to configure Diva Server PRI adapters as network termination (NT). This means you can use two Diva Server adapters in back-to-back operation.

When using Diva Server adapters back-to-back, configure one adapter as an NT and the other one as TE. Connect the adapters with a crossover cable. You can build your own crossover cable using the open-ended cable supplied with your Diva Server PRI adapter. Just crimp the open end according to the NT-side assignment shown in this diagram:

	TE Side		NT Side	
Pins on RJ45	Signals	Wiring	Signals	
1	RX +		RX +	
2	RX -		RX -	
3	not used			
4	TX +		TX +	
5	TX -		TX -	
6	not used			
7	not used			
8	not used			

Note: Looking at the RJ45 connector with the exposed connector pins facing you, the pins are numbered from 1 to 8 from left to right (as shown below).



Connect your Diva Server Analog adapter

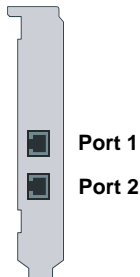
Use the cables included with the adapter. How you connect your adapter depends on the adapter type:

- To connect a Diva Server Analog-2P adapter follow the instructions below.
- To connect a Diva Server Analog-4P or Diva Server V-Analog-4P adapter follow the instructions on page 32.
- To connect a Diva Server Analog-8P or Diva Server V-Analog-8P follow the instructions on page 33.

Important: Use only certified telecommunications cables with No. 26 AWG (American Wire Gauge) or higher with this equipment to ensure proper functioning of the adapter.

Div a Server Analog-2P adapter:

The Diva Server Analog-2P adapters have two RJ10 ports for connecting two separate analog lines. You can use any port; typically, you must specify the port number during software configuration. The port numbers are shown below. The diagram is oriented with the edge connector pointing downwards.



Connect your Diva Server Analog-2P adapter as follows:

1. Take the two cables included with the adapter and plug the RJ10 connectors into the adapter.



2. Plug the RJ11 connectors into the wall jack or PBX.

Contact assignments (plugs and jacks):

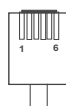
RJ10	Signals	RJ11
Pin 2	Ring	Pin 3
Pin 3	Tip	Pin 4

Note: Looking at the RJ10 and RJ11 connector with the exposed connector pins facing you, the pins are numbered from 1 to 4 and 1 to 6 from left to right as shown below.

RJ10 connector



RJ11 connector



Diva Server Analog-4P or Diva Server V-Analog-4P adapter:

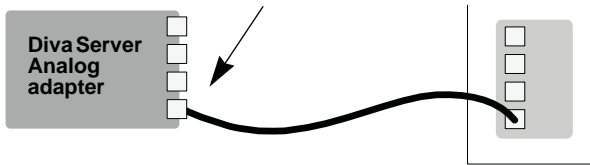
The Diva Server Analog-4P and V-Analog-4P adapters have four RJ10 ports for connecting four separate analog lines. You can use any port; typically, you must specify the port number during software configuration. The port numbers are shown below. The diagram is oriented with the edge connector pointing downwards.



Connect your Diva Server Analog-4P or V-Analog-4P adapter as follows:

1. Take the four cables included with the adapter and plug the RJ10 connectors into the adapter.

Wall jack or PBX



2. Plug the RJ11 connectors into the wall jack or PBX.

Contact assignments (plugs and jacks):

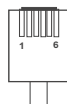
RJ10	Signals	RJ11
Pin 2	Ring	Pin 3
Pin 3	Tip	Pin 4

Note: Looking at the RJ10 and RJ11 connector with the exposed connector pins facing you, the pins are numbered from 1 to 4 and 1 to 6 from left to right as shown below.

RJ10 connector



RJ11 connector



Diva Server Analog-8P or Diva Server V-Analog-8P adapter:

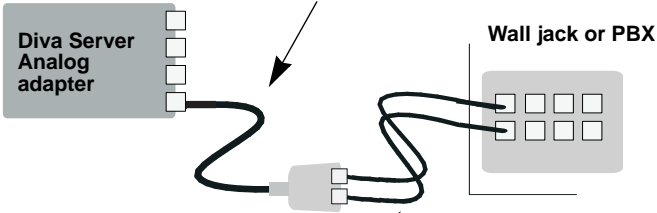
The Diva Server Analog-8P and V-Analog-8P adapters have four RJ45 ports for connecting four dongles. The dongles have two ports each for connecting two separate analog lines; therefore, you can connect to up to eight analog lines. You can use any port; typically, you must specify the port number during software configuration. The port numbers are shown below. The diagram is oriented with the edge connector pointing downwards.



- Port 1 and Port 2**
- Port 3 and Port 4**
- Port 5 and Port 6**
- Port 7 and Port 8**

Connect your Diva Server Analog-8 or V-Analog-8P adapter as follows:

1. Take the four cables with the dongle and plug the RJ45 connectors into the adapter.



2. Take the eight cables and plug the RJ10 connectors into the dongle. The jack labeled with 'A' corresponds to the ports 1,3,5, and 7. The jack labeled with 'B' corresponds to the ports 2,4,6, and 8.

3. Plug the RJ11 connectors into the wall jack or PBX.

Contact assignments (plugs and jacks):

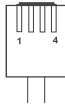
RJ45	Signals	Dongle with RJ10 jacks		RJ11
Pin 1	Ring	Port A	Pin 2	Pin 3
Pin 2	Tip		Pin 3	Pin 4
Pin 7	Tip	Port B	Pin 3	Pin 4
Pin 8	Ring		Pin 2	Pin 3

Note: Looking at the RJ45, RJ10, and RJ11 connectors with the exposed connector pins facing you, the pins are numbered from 1 to 8, 1 to 4, and 1 to 6 from left to right as shown below.

RJ45 connector



RJ10 connector



RJ11 connector



(C) Install your Diva Server adapter software

To install the Diva Server adapter software, see the online reference guides on the Diva Server Software Suite CD-ROM or on the Eicon Web site.

Operating System	Reference Guides	CD-ROM	Web
Windows® Server 2003 Windows XP Windows 2000	Diva Server for Windows Reference Guide	✓	✓
Linux®	Diva Server for Linux Reference Guide		✓

For more information on available online documentation see the section **Diva Server Online Documentation** on page 12.

Troubleshooting

If you are having problems with your adapter or with the corresponding software, the following suggestions can help you diagnose and solve the problems. If these suggestions do not work for you, try the suggestions described in the online reference guides or in the help files for the corresponding software, or those on the Help Web (see page 57).

Using Diva Server Line Test

(under Windows 2000, Windows XP, and Windows Server 2003)

Diva Server Line Test allows you to quickly verify that your Diva Server adapter and analog, ISDN, E1, or channelized T1 line are working properly.

To open Diva Server Line Test click:

Start > Programs > Diva Server for Windows > Diva Server Line Test.

Diva Server Line Test offers the following tests:

- **Line Check:** Performs a quick check of your Diva Server Software installation and the physical connection.
- **Hardware Test:** Performs a test only of the controller.
- **Phone/Loop:** Performs basic inband or outband phone tests, to verify the connection to other telephones or to itself.
- **Call Transfer:** Performs different call transfers tests, with the option to choose the transfer type.
- **Fax:** Performs basic inbound or outbound fax tests.

For more information about the tests of Diva Server Line Test, see Diva Server Line Test Online Help (DSLinetest.chm).

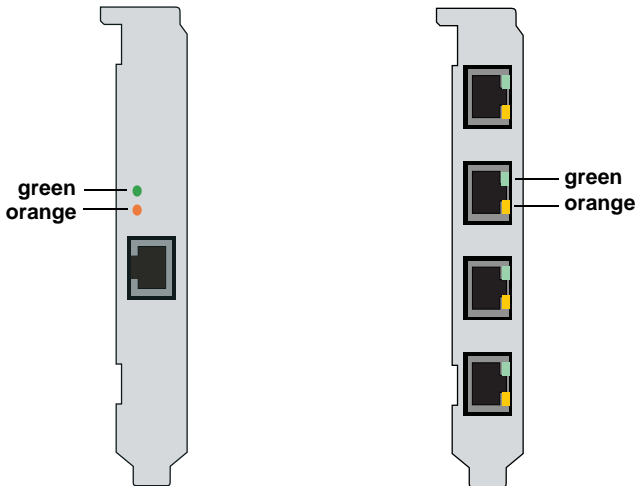
Checking the status LEDs of Diva Server ISDN adapters

Diva Server 2FX, Diva Server BRI 2.0, and Diva Server V-BRI adapters

Diva Server 2FX, BRI, and V-BRI adapters have two LEDs as shown:

Diva Server 2FX
Diva Server BRI-2M 2.0
Diva Server V-BRI-2

Diva Server 4BRI-8M 2.0
Diva Server V-4BRI-8



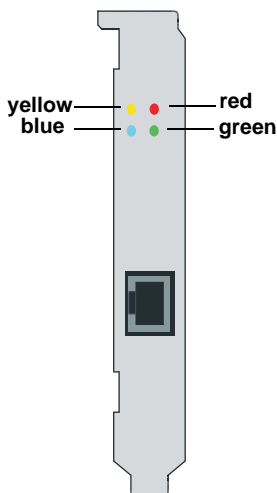
The table below describes the function of the LEDs:

Color	Status	Description
green	off	Layer 1 is not active.
	lit	Layer 1 is active. The cabling and the connection to the ISDN work properly.
orange	off	Layer 2 is not active.
	lit	Layer 2, i.e. the D-channel, is active. In Europe, the status of the D-channel depends on the switch configuration; the LED might remain lit for the duration of the call or it might remain lit continuously. In North America, the D-channel is always active and, as such, the LED remains lit.

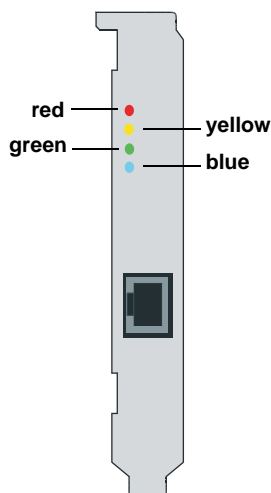
Diva Server PRI 2.0, Diva Server T1/PRI, Diva Server PRI 3.0, and Diva Server V-PRI adapters

Diva Server PRI 2.0, T1/PRI, PRI 3.0, and V-PRI adapters have four LEDs as shown:

Diva Server PRI 2.0
Diva Server T1/PRI



Diva Server PRI 3.0
Diva Server V-PRI
Diva Server PRI PCIe

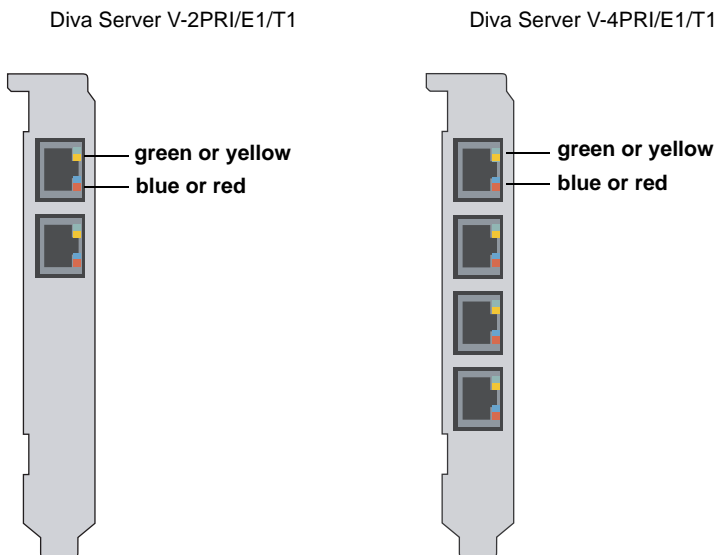


The table below describes the function of each LED:

Color	Status	Description
yellow	off	Normal operation.
	lit	Remote site is experiencing synchronization problems (if a remote alarm/yellow alarm is detected).
red	off	Normal operation.
	lit	The receiver does not detect a signal (loss of signal/red alarm).
blue	off	Normal operation.
	lit	Received frames are not synchronized properly (alarm indication signal/blue alarm).
green	off	Layer 2 is not active. Check your layer 2 configuration, i.e. switch type, switch etc.
	lit	Layer 2 is active. If your adapter works properly, layer 2 is always active.

Diva Server V-2PRI and Diva Server V-4PRI

Diva Server V-2PRI and V-4PRI adapters have two multifunctional LEDs for each port as shown:



The table below describes the function of each LED:

Color	Status	Description
green	off	Layer 2 is not active. Check your layer 2 configuration, i.e. switch type, switch etc.
	lit	Layer 2 is active. If your adapter works properly, layer 2 is always active.
yellow	off	Normal operation.
	lit	Remote site is experiencing synchronization problems (if a remote alarm/yellow alarm is detected).
red	off	Normal operation.
	lit	The receiver does not detect a signal (loss of signal/red alarm).
blue	off	Normal operation.
	lit	Received frames are not synchronized properly (alarm indication signal/blue alarm).

Technical Specifications

Environmental requirements:

- Operating temperature: 10 degrees C to 50 degrees C
- Maximum tolerance in voltage fluctuation: according to the respective PCI specification (PCI/PCIe)

	Diva Server BRI-2M 2.0 Diva Server V-BRI-2	Diva Server 4BRI-8M 2.0 Diva Server V-4BRI-8
Bus type	PCI (3.3/5.0 V)	
CPU	32 Bit RISC CPU, 100 MHz	
Memory	8 MB SDRAM	16 MB SDRAM
IRQ levels	Allocated by PC BIOS	
I/O base addr. (hex)		
Shared memory range	8 MB	16 MB (memory) 64 Kbyte (local registers)
DSPs	2 ADSP 2185	8 ADSP 2185
Dimensions in mm (length x height)		
PCB	167.52 x 64.41	174.63 x 106.68
Low profile bracket	181.36 x 80.06	
Bracket	181.36 x 120.88	187.84 x 126.37
Data transfer in kbps		
B-channels	2 x 64	4 x 2 x 64
D-channels	1 x 16	4 x 16
Plug&Play	yes	
Power safe mode		
Ports	Female RJ45 (ISDN BRI)	4 x Female RJ45 (ISDN BRI)
Physical interfaces	ISDN basic rate interface	4 x ISDN basic rate interface
Power requirements	0.33 A @ +5 V typ.	0.58 A @ +5 V typ.

	Diva Server 2FX
Bus type	PCI (3.3/5.0 V)
CPU	32 Bit RISC CPU, 133 MHz
Memory	8 MB SDRAM
IRQ levels	Allocated by PC BIOS
I/O base addr. (hex)	
Shared memory range	8 MB
DSPs	none
Dimensions in mm (length x height)	
PCB	167.52 x 64.41
Low profile bracket	181.36 x 80.06
Bracket	181.36 x 120.88
Data transfer in kbps	
B-channels	2 x 64
D-channel	1 x 64
Plug&Play	yes
Power safe mode	
Port	Female RJ45 (ISDN BRI)
Physical interface	ISDN basic rate interface
Power requirements	0.3 A @ +5 V typ.

	Diva Server PRI 2.0 Diva Server T1/PRI	Diva Server PRI 3.0 Diva Server V-PRI
Bus type	PCI (3.3/5.0 V)	
CPU	64 Bit RISC CPU, 180 MHz	32 Bit RISC CPU, 300 MHz
Memory	8 MB SDRAM	64 MB SDRAM
IRQ levels	Allocated by PC BIOS	
I/O base addr. (hex)		
Shared memory range	8 MB	
DSPs	either 2, 4, 8, 24, or 30 ADSPs 2185 according to model	either 2, 10, 24, or 31 ADSPs 2185 according to model
Dimensions in mm	PRI-0M and T1/PRI-0M:	PRI/E1/T1-CTI, PRI/E1/T1-8:
PCB	174.63 x 106.68	
Bracket	187.84 x 126.37	
Dimensions in mm (length x height)	PRI and T1/PRI with DSPs:	PRI/T1-24, PRI/E1-30, V-PRI:
PCB	312.00 x 106.68	
Bracket and retainer	352.17 x 126.37	
Data transfer in kbps		
B-channels	23 or 30 x 64	
D-channel (PRI)	1 x 64	
Channelized T1	24 x 56	
Plug&Play	yes	
Power safe mode		
Port	Female RJ45 (ISDN PRI)	
Physical interface	ISDN primary rate interface or channelized T1 interface	
Power requirements	PRI-30M 2.0: 2.2 A @ +5 V typ. 3.4 A @ +5 V max. T1/PRI-24M: 1.7 A @ +5 V typ.	PRI/E1/T1-CTI: 0.58 A @ +5 V typ. 1.70 A @ +5 V max. PRI/E1/T1-8: 0.65 A @ +5 V typ. 2.00 A @ +5 V max. PRI/T1-24, V-PRI/T1: 0.92 A @ +5 V typ. 2.60 A @ +5 V max. PRI/E1-30, V-PRI/E1: 0.97 A @ +5 V typ. 2.70 A @ +5 V max.

	Diva Server V-2PRI/E1/T1	Diva Server V-4PRI/E1/T1
Bus type	PCI (3.3/5.0 V)	
CPU	64 Bit RISC CPU, 466 MHz	
Memory	64 MB SDRAM	
IRQ levels	Allocated by PC BIOS	
I/O base addr. (hex)		
Shared memory range	8 MB	
DSPs	10 ADSPs-BF533	20 ADSPs-BF533
Dimensions in mm (length x height)		
PCB	312.00 x 106.68	
Bracket and retainer	352.17 x 126.37	
Data transfer in kbps		
B-channels	2 x 23 x 64 or 2 x 30 x 64	4 x 23 x 64 or 4 x 30 x 64
D-channels (PRI)	2 x 64	4 x 64
Channelized T1	2 x 24 x 56	4 x 24 x 56
Plug&Play	yes	
Power safe mode		
Ports	2 x Female RJ45 (ISDN PRI)	4 x Female RJ45 (ISDN PRI)
Physical interfaces	2 x ISDN primary rate interface or 2 x channelized T1 interface	4 x ISDN primary rate interface or 4 x channelized T1 interface
Power requirements	3.0 A @ +3.3 V typ. 4.9 A @ +3.3 V max. 0.02 A @ +5 V typ. 0.04 A @ +5 V max.	5.5 A @ +3.3 V typ. 6.5 A @ +3.3 V max. 0.04 A @ +5 V typ. 0.08 A @ +5 V max.

	Diva Server PRI PCIe Diva Server V-PRI PCIe
Bus type	PCIe 1.0a x1 lane (3.3/12 V)
CPU	32 Bit RISC CPU, 300 MHz
Memory	64 MB SDRAM
IRQ levels	Allocated by PC BIOS
I/O base addr. (hex)	
Shared memory range	8 MB
DSPs	either 2, 24, or 31 ADSPs 2185
Dimensions in mm (length x height)	PRI/E1/T1-CTI PCIe:
PCB	167.52 x 64.41
Low profile bracket	181.36 x 80.06
Bracket	181.36 x 120.88
Dimensions in mm	PRI/T1-24 PCIe, PRI/E1-30 PCIe, V-PRI PCIe:
PCB	312.00 x 106.68
Bracket and retainer	352.17 x 126.37
Data transfer in kbps	
B-channels	23 or 30 x 64
D-channel (PRI)	1 x 64
Channelized T1	24 x 56
Plug&Play	yes
Power safe mode	
Port	Female RJ45 (ISDN PRI)
Physical interface	Primary rate interface or channelized T1 interface
Power requirements	PRI/E1/T1-CTI PCIe: 0.96 A @ +3.3 V typ. 0.04 A @ +12 V typ. PRI/T1-24 PCIe, V-PRI/T1-24 PCIe: 2.1 A @ +3.3 V typ. 0.03 A @ +12 V typ. PRI/E1-30 PCIe, V-PRI/E1-30 PCIe: 2.3 A @ +3.3 V typ. 0.03 A @ +12 V typ.

	Diva Server Analog-2P	Diva Server Analog-4P Diva Server Analog-8P Diva Server V-Analog-4P Diva Server V-Analog-8P
Bus type	PCI (3.3/5.0 V)	
CPU	32 Bit RISC CPU, 100 MHz	
Memory	16 MB SDRAM	
IRQ levels	Allocated by PC BIOS	
I/O base addr. (hex)		
Shared memory range	16 MB (memory) 64 Kbyte (local registers)	
DSPs	either 2, 4, or 8 ADSP 2185 according to model	
Dimensions in mm (length x height)		
PCB	167.52 x 64.41	312.00 x 106.68
Low profile bracket	181.36 x 80.06	
Bracket	181.36 x 120.88	
Bracket and retainer		352.17 x 126.37
Data transfer in kbps	max. 2, 4, or 8 x 56 according to model	
Plug&Play	yes	
Power safe mode		
Ports	2 RJ10 jacks	Analog-4P and V-Analog-4P: 4 RJ10 jacks Analog-8P and V-Analog-8P: 4 RJ45 jacks
Physical interfaces	2, 4, or 8 x analog interface V.90 according to model	
Power requirements	0.34 A @ +5 V typ.	Analog-4P and V-Analog-4P: 0.45 A @ +5 V typ. Analog-8P and V-Analog-8P: 0.5 A @ +5 V typ.

International Regulatory Information

Regulatory Information for the USA

WARNING: Changes or modifications to this unit not expressly approved by Eicon Networks Corporation could void the user's authority to operate the equipment.



FCC Declaration of Conformity



We:

Eicon Networks
Parkway Centre II
2805 N. Dallas Parkway
Suite 200
Plano, TX 75093
(972) 473-4500
Fax: (972) 473-4510

Declare under our sole legal responsibility that the products listed below to which this declaration relates, are in conformity with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Part 68 Notice

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of this equipment is a label that contains, among other information, a FCC part 68 registration number or a product identifier in the format US: AAAEQ##TXXXX. If requested, this information must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible.

Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact us for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

This unit contains no user-serviceable parts. Connection to party lines is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Diva Server Basic Rate Interface (BRI) adapters:

	Facility Interface code	Digital Reg. code	Service Order code	USOC Jack Type
Without Fax option	02IS5	XD	6.0N	N/A
With Fax option	02IS5	XD	6.0P	N/A

Diva Server Primary Rate Interface (PRI) adapters:

Facility Interface code	Digital Reg. code	Service Order code	USOC Jack Type
04DU9-1SN	DD	6.0F	RJ48-C

Diva Server Analog adapters:

	REN	USOC Jack Type
Diva Server Analog-2P	0.2B	RJ11-C
Diva Server Analog-4P, Diva Server V-Analog-4P	0.2B	RJ11-C
Diva Server Analog-8P, Diva Server V-Analog-8P	0.2B	RJ11-C

Suppliers Declaration of Conformity

Eicon Network's declaration of conformity can be viewed at:

www.dialogic.com/declarations

Regulatory Information for Canada

NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

The Ringer Equivalence Number is an indication of the maximum number of devices allowed.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

WARNING: For your safety, follow these steps before you remove the cover from your PC:



1. Turn off the power to your PC and all peripheral devices.
2. Disconnect the power cable.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

For their own protection, users should ensure that any electrical ground connections of the power utility, telephone lines and internal metallic water pipe system are connected together. This precaution is particularly important in rural areas.

WARNING: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.



This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Eicon Network's declaration of conformity can be viewed at:

www.dialogic.com/declarations

Regulatory Information for Europe



EU Declaration of Conformity

Eicon Networks Corporation declares that this equipment is in compliance with the Radio and Telecommunication Terminal Equipment directive 1999/5/EC with requirements covering the Electromagnetic Compatibility Directive 89/336/EEC and the Low Voltage Directive 2006/95/EC. A detailed declaration of conformity for this product can be found at:

<http://www.eicon.com/worldwide/about/declarations/default.htm>

CS: Eicon Networks tímto prohlašuje, že tento ITE je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

DA: Undertegnede Eicon Networks erklærer herved, at følgende udstyr ITE overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

DE: Hiermit erklärt Eicon Networks, dass sich das Gerät ITE in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen relevanten Bestimmungen der Richtlinie 1999/5/EG befindet.

EL: ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Eicon Networks ΔΗΛΩΝΕΙ ΟΤΙ *ΙΤΕ* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

EN: Hereby, Eicon Networks, declares that this ITE is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

ES: Por medio de la presente Eicon Networks declara que el ITE cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/EC.

ET: Käesolevaga kinnitab Eicon Networks seadme ITE vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

FI: Eicon Networks vakuuttaa täten että ITE tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

FR: Par la présente Eicon Networks déclare que l'appareil ITE est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

HU: Alulírott, Eicon Networks nyilatkozom, hogy a ITE megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.

IC: Hér með lýsir Eicon Networks yfir því að ITE er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

IT: Con la presente Eicon Networks dichiara che questo ITE è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

LT: Šiuo Eicon Networks deklaruoja, kad šis ITE atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

LV: Ar šo Eicon Networks deklarē, ka ITE atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

MT: Hawnhekk, Eicon Networks, jiddikjara li dan ITE jikkonforma mal-ħtigijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

NL: Hierbij verklaart Eicon Networks dat het toestel ITE in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

NO: Eicon Networks erklærer herved at utstyret ITE er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

PL: Eicon Networks niniejszym oświadcza, że ITE spełnia wszystkie istotne wymagania i odpowiednie ustalenia dyrektywy 1999/5/EC.

PT: Eicon Networks declara que este ITE está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

SL: Eicon Networks izjavlja, da je ta ITE v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

SK: Eicon Networks týmto vyhlasuje, že ITE spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

SV: Härmed intygar Eicon Networks att denna ITE står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Power consumption

WARNING: Check that power supply will not be overloaded. Maximum power consumption of the board is stated in the section **Technical Specifications** on page 40. The user should check that the total power drawn by the host computer, the Diva Server adapter and any other peripherals, must not exceed the capability of the host Power Supply Unit. The Diva Server adapter does not draw power from the ISDN network.



User/Installer instructions

Diva Server adapter communications board (internal models only)

Important safety considerations when installing into a host computer system

WARNING: The telephones cord(s) must remain disconnected from the telecommunications system until the adapter has been properly installed within the host which provides the necessary protection of the operator.



Proper installation of the telecommunication card requires that the adapter is screwed to the metal backplate of the PC. This ensures proper grounding, which is necessary for your safety.

If it is subsequently desired to open the host equipment for any reason, the telephones cord(s) must be disconnected prior to effecting access to the telecommunications adapter.

WARNING: Never install telephone jacks in wet locations.



Never touch non-insulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

Use caution when installing or modifying telephone lines.

Installation within a spare slot position

WARNING: It is essential that, when other option cards are introduced which use or generate a hazardous voltage, the minimum creepages and clearances specified in the table below are maintained. Suitable user protection to ensure compliance with EN 60950 should be present on the card. A hazardous voltage is one which exceeds 42.4 V peak a.c or 60 V d.c. If you have any doubt, seek advice from a competent engineer before installing other adapters into the host equipment.



The equipment must be installed such that with the exception of the connections to the host, clearance and creepage distances shown in the table below are maintained between the adapter and any other assemblies which use or generate a voltage shown in the table below.

Clearance X mm	Creepage Y mm	Voltage used or generated by other parts of the host or expansion card Vrms or Vdc
2.0	2.4 (3.8)	up to 50
2.6	3.0 (4.8)	up to 125
4.0	5.0 (8.0)	up to 250
4.0	6.4 (10.0)	up to 300

The larger distance shown in brackets applies where the local environment within the host is subject to conductive pollution or dry non-conductive pollution which could become conductive due to condensation. Failure to maintain these minimum distances would invalidate the approval.

The clearance distance X is the shortest distance in air between two points. The creepage path Y (along surfaces) is the shortest distance between the same two points.

Regulatory Information for Australia

WARNING: This customer equipment is to be installed and maintained by service personnel as defined by AS/NZS 3260 Clause 1.2.14.3 Service Personnel. It may be hazardous if your computer is not properly plugged in and grounded.



IMPORTANT: This equipment will be inoperable when mains power fails.



-
- This customer equipment shall only be installed in a PC that requires the use of a tool to gain access to internal parts (e.g. this customer equipment must not be installed in a PC with a 'flip lid').
 - Proper installation of the Diva Server adapter requires that it is screwed to the metal backplate of the computer. This ensures proper grounding, which is necessary for safety purposes.
 - This customer equipment may only be installed in host equipment where there is at least 2 mm of air gap between the customer equipment and adjacent boards (PCBs).
 - Only compliant line cord set(s) shall be used as replacements with this customer equipment.

International approvals

To receive detailed approval information, send a request specifying the product name and the relevant countries to the following E-mail address:
certification@eicon.com

All Diva Server adapters are certified in Europe (CE mark) and North America (FCC and Industry Canada).

Approval in Europe includes only countries that accept European Union approval (CE mark): Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and United Kingdom.

Some other countries in Eastern Europe and the Mediterranean region also accept the CE-mark. If you are unsure, please check with your equipment supplier, service provider or regulatory authority for confirmation.

Japan approvals

Product	Certificate Number
Diva Server BRI-2M 2.0 Diva Server V-BRI-2	CD-02-0870JP
Diva Server 4BRI-8M 2.0 Diva Server V-4BRI-8	C01-0472JP L01-0152
Diva Server T1/PRI-24M	C01-0537JP L01-0179
Diva Server PRI/E1/T1-CTI Diva Server PRI/E1/T1-8	CD05-0558001
Diva Server PRI/T1-24 Diva Server PRI/T1-24 PCIe	CD05-0557001
Diva Server V-2PRI	CD06-0488001
Diva Server V-4PRI	CD06-0489001
Diva Server Analog-4P Diva Server Analog-8P Diva Server V-Analog-4P Diva Server V-Analog-8P	A05-0055003

Russia approvals



Diva Server Analog-4P, Diva Server V-Analog-4P, Diva Server Analog-8P, and Diva Server V-Analog-8P adapters comply with Gost-R certification.

Suppliers Declaration of Conformity

The suppliers declaration of conformity are updated constantly. You can find a complete list of all available suppliers declarations of conformity under www.dialogic.com/declarations.

Customer Services

Eicon Networks provides various possibilities to obtain technical support for your Eicon Networks product. We recommend that you contact your Eicon Networks supplier first. If your supplier is not able to solve the problem, visit our help web with its detailed information about a variety of topics. In the unusual case that the information on the help web cannot help you fix the problem contact our Customer Support.

Eicon Networks supplier

To obtain technical support for Eicon Networks products contact your Eicon Networks supplier. A debug trace created with Diva Server tools may help you or your supplier to find out the reason for your problem. For Windows operating systems see the Diva Server Diagnostics Online Help DIVATRACE.chm on your Diva Server Software Suite CD-ROM for more information about creating traces. For Linux, the Diva Server for Linux Reference Guide contains helpful information about traces.

Eicon Networks Help Web

If your supplier was not able to help you to solve the problem visit our Help Web. It contains detailed information on:

- Installation and upgrade of Diva Server drivers, configuration scenarios, and applications.
- Diagnostic and testing utilities.
- Basic issues, error messages and how to resolve them.
- 'How to' guides and wizards.
- Online training for ISDN, Diva Server API, and X.25 primarily 1st level technical support people, but much of the course is also suitable for a non-technical audience.

Visit our Help Web at www.eicon.com/support/ema.

Eicon Networks Customer Support

If the information on the Help Web was not sufficient to help you to solve the problem, contact our Customer Support.

Customer Support may probably need:

- A debug trace. For Windows see Diva Server Diagnostics Online Help DIVATRACE.chm and for Linux see Diva Server for Linux Reference Guide.
- Or a copy of your active configuration if you use a Windows operating system. See Diva Server Configuration Manager Online Help DiSrvCfg.chm.

See www.eicon.com/support/contact.asp for details on how to contact us.

Comments

If you wish to make comments about your Diva Server adapter or the corresponding software, address them by e-mail to: diva.server@eicon.com.

Your Eicon Networks Adapter and The WEEE Directive

In August 2005, the European Union Directive on Waste Electrical and Electronic Equipment (2002/96/EC) and its amendment (2003/108/EC), collectively known as the WEEE Directive, came into force throughout most of the European Union. This Eicon Networks product comes within the scope of the WEEE Directive.

We are confident that this product will provide you with many years of reliable service. Moreover, we are pleased to advise you that Eicon Networks warrants this product, as detailed in **Eicon Networks Corporation License Agreement for use of software** on page 2 of this guide and provides a fee based repair service when the product is out of warranty. However, a time will come when the product will no longer meet your needs or will become uneconomic to repair. It is at that stage that we ask for your co-operation in recycling this product in the spirit of the WEEE directive.

Eicon Networks has taken great care to minimize the environmental burden of this product by careful design, and manufacturing it under an Environmental Management System, registered to ISO 14001. The requirements of ISO 14001 are similar to and as rigorous as the requirements of ISO 9001, Quality Management Systems with which you may be more familiar. We ask you to help us to ensure that the environmental burden of this product is minimized when it is of no further use to you by recycling it.

Like all electrical and electronic equipment, including televisions and computers, it may contain small amounts of materials which could lead to environmental damage. To minimize any environmental damage we ask you to have this product recycled by:

- bringing it to the recycling collection point in your company
- by handing it into the store where you are purchasing the replacement
- by delivering it to a local bring-center in your area

No charge can be imposed on you for this recycling service in the European Union, as Eicon Networks has paid for recycling this product when it was placed on the market. These are requirements of the WEEE directive.

We thank you in advance for your co-operation and working with Eicon Networks in protecting our environment.



Please do not dispose of this product through municipal or general waste, recycle it.



Einführung

Mit Eicon Networks Diva Server Karten können Sie über ISDN-Basisanschlüsse (S_0), Primärmultiplexanschlüsse (S_{2M}) oder Analoganschlüsse schnellste Verbindungen für eine Vielzahl von Anwendungen realisieren. Diese Installationsanleitung beschreibt die Installation und den Anschluss Ihrer Diva Server Karte, liefert technische Daten der Karte und gibt einen Überblick über die verfügbare Online-Dokumentation.

Hinweis: Die Marke Eicon wird im Verlauf von 2007 in allen relevanten Dokument in Dialogic geändert.

Unterstützte Diva Server Karten

Die Diva Server Produktpalette beinhaltet die folgenden Diva Server Karten:

ISDN BRI Karten

Eicons Diva Server BRI sind leistungsstarke und zum Teil aktive ISDN-Karten für den ISDN-Basisanschluss (BRI). Die Karten unterstützen sowohl analoge als auch digitale Gegenstellen.

- Diva Server 2FX
- Diva Server BRI-2M 2.0
- Diva Server 4BRI-8M 2.0
- Diva Server V-BRI-2
- Diva Server V-4BRI-8

ISDN PRI- und E1-Karten

Diese Karten sind zum Teil aktive Hochleistungs-ISDN-Karten für den ISDN-Primärmultiplexanschluss (PRI) und können sowohl für digitale als auch für analoge Dienste eingesetzt werden.

Divas Server PRI 2.0:

- Diva Server PRI-0M
- Diva Server PRI-4M
- Diva Server PRI-8M
- Diva Server PRI-30M

Divas Server PRI 3.0:

- Diva Server PRI/E1/T1-CTI
- Diva Server PRI/E1/T1-8
- Diva Server PRI/E1-30

Divas Server V-PRI:

- Diva Server V-PRI/E1-30

Divas Server PRI PCIe:

- Diva Server PRI/E1/T1-CTI PCIe
- Diva Server PRI/E1-30 PCIe

Divas Server V-PRI PCIe:

- Diva Server V-PRI/E1-30 PCIe

Multiport ISDN PRI- und E1-Karten

Die Multiportkarten sind leistungsfähige PC-basierte Telefoniekarten. Sie stellen Rich Media Processing Funktionalitäten für bis zu 120 Sprachkanäle über bis zu vier ISDN PRI- (E1) Schnittstellen bereit.

- Diva Server V-2PRI/E1/T1
- Diva Server V-4PRI/E1/T1

Analogkarten

Die Analogkarten können über RJ 10- oder RJ 45-Standardanschlüsse an analoge Telefonanlagen oder das öffentliche analoge Netz angeschlossen werden. Aufgrund von High-Performance Media Processing Funktionalitäten verbessert die Diva Server Analog die Systemleistung.

- Diva Server Analog-2P
- Diva Server V-Analog-4P
- Diva Server Analog-4P
- Diva Server V-Analog-8P
- Diva Server Analog-8P

Unterstützte Betriebssysteme

Diva Server Karten unterstützen die folgenden Betriebssysteme:

- Microsoft Windows® Server 2003
- Microsoft Windows XP
- Microsoft Windows 2000
- Linux®

Hinweis: Die Diva Server BRI and V-BRI können Sie zusätzlich in einem Computer mit dem Betriebssystem Microsoft Small Business Server (SBS) einsetzen. Die Software und Dokumentation für die Microsoft Small Business Server Version 4.5 und 2000 finden Sie auf der entsprechenden Microsoft Small Business Server CD-ROM.

Diva Server Online-Dokumentation

Diva Server Online-Dokumentation ist auf der Diva Server Software Suite CD-ROM und/oder auf der Eicon Networks Internetseite verfügbar. Die Online-Dokumentation beschreibt die Installation und Konfiguration der Diva Server Software. Die Internetseite von Eicon Networks bietet Ihnen eine große Auswahl an Online-Dokumentation zu allen unterstützten Betriebssystemen unter: <http://www.eicon.com/worldwide/support/docs.htm>.

Diva Server Software Suite CD-ROM

Ihre Diva Server Software Suite CD-ROM enthält umfassende Online-Benutzerhandbücher im PDF-Format von Adobe® Acrobat® und Microsoft HTML-Hilfen im CHM-Format für die oben genannten Windows Betriebssysteme. Die Dokumentation für Linux finden Sie auf der Eicon Internetseite. Für weitere Informationen sehen Sie Seite 62.

Zusätzlich enthält Ihre Diva Server Software Suite CD-ROM README-Dateien. Diese Dateien stellen aktuelle Informationen bereit, die nicht mehr in die Handbücher aufgenommen werden konnten.

Hinweis: Zum korrekten Anzeigen und Drucken der Online-Handbücher müssen Sie die Acrobat Reader Version 3.0 oder eine neuere Version verwenden. Sie können den Acrobat Reader von Ihrer Diva Server Software Suite CD-ROM installieren.

So installieren Sie den Adobe Acrobat Reader unter Windows:

1. Legen Sie Ihre Diva Server Software Suite CD-ROM in das CD-ROM-Laufwerk ein. Die CD-ROM wird automatisch gestartet. Falls der automatische Start fehlschlägt, doppelklicken Sie im Root-Verzeichnis Ihrer CD-ROM auf `SETUP.EXE`.
2. Klicken Sie im Begrüßungsdialog auf **Bonus Software**.
3. Im folgenden Dialogfenster können Sie den Acrobat Reader installieren.

So zeigen Sie ein PDF-Handbuch unter Windows an:

1. Legen Sie Ihre Diva Server Software Suite CD-ROM in das CD-ROM-Laufwerk Ihres Computers ein. Falls der automatische Start fehlschlägt, doppelklicken Sie im Root-Verzeichnis Ihrer CD-ROM auf `SETUP.EXE`.
2. Klicken Sie im Begrüßungsdialog auf **Dokumentation**.
3. Im folgenden Dialogfenster wird Ihnen die Dokumentation zur Hard- und Software angezeigt.
4. Zum Öffnen eines Handbuches doppelklicken Sie auf den entsprechenden Link.

So zeigen Sie eine Online-Hilfe unter Windows an:

1. Legen Sie Ihre Diva Server Software Suite CD-ROM in das CD-ROM-Laufwerk Ihres Computers ein. Falls der automatische Start fehlschlägt, doppelklicken Sie im Root-Verzeichnis Ihrer CD-ROM auf `SETUP.EXE`.
2. Klicken Sie im Begrüßungsdialog auf **Inhalt der CD**.
3. Klicken Sie auf die folgenden Ordner: **driver** > **i386** > **DEUTSCH**.
4. Zum Öffnen einer Online-Hilfe doppelklicken Sie auf die entsprechende CHM-Datei.

Allgemeine Sicherheitshinweise

Die folgenden Sicherheitshinweise dienen Ihrer persönlichen Sicherheit und schützen den Computer und die Karte sowie die Arbeitsumgebung vor möglichen Schäden.

WARNUNG Alle Diva Server Karten



Computer, in denen Eicon Diva Server Karten eingesetzt werden, müssen den CE-Richtlinien entsprechen, um Gesundheitsschäden und Schäden am Computer und an der Karte zu vermeiden.

Ziehen Sie das analoge oder ISDN-Kabel aus dem Computer, bevor Sie das Gehäuse Ihres Computers für die Installation Ihrer Diva Server Karte oder aus einem anderen Grund abnehmen, um Gesundheits- und Materialschäden zu vermeiden.

Achten Sie darauf, die Metallschiene der Diva Server Karte zu verschrauben, so dass sie fest mit dem Computergehäuse verbunden ist. Dadurch wird die richtige Erdung sichergestellt und somit Gesundheits- und Materialschäden vermieden.

Diva Server PRI, V-2PRI und V-4PRI

Die Diva Server V-2PRI und V-4PRI und alle Versionen der Diva Server PRI 2.0 können ca. 20 Watt Leistung benötigen. Wenn Sie mehrere Karten in Ihrem System installiert haben, kann die Stromversorgung überlastet werden. Stellen Sie sicher, dass die Stromversorgung nicht überlastet wird und dass Ihr Computer ausreichende Kühlung gewährleistet, um Gesundheits- und Materialschäden zu vermeiden.

WICHTIG



Diva Server ISDN

Alle Eicon Diva Server ISDN-Karten wurden getestet und entsprechen bezüglich der elektromagnetischen Verträglichkeit, der Sicherheit und der Kompatibilität der ISDN-Schnittstelle den Richtlinien in der EU, in Nordamerika und in anderen wichtigen Wirtschaftsräumen. Lesen Sie die entsprechenden Informationen im Kapitel **Zulassungsinformationen** auf Seite 89, bevor Sie die Karte installieren und einsetzen.

Diva Server V-2PRI, V-4PRI und PRI PCIe

Die korrekte Funktionsweise der Diva Server V-2PRI, V-4PRI und PRI PCIe kann nur gewährleistet werden, wenn die Karten innerhalb der zugelassenen Betriebstemperatur eingesetzt werden, siehe Seite 83. Wird die Temperatur überschritten, erstellt das System eine Trace-Datei mit den Informationen über die Betriebstemperatur.

Diva Server Analog

Benutzen Sie nur Kabel mit American Wire Gauge (AWG) Nr. 26 oder höher, um ein korrektes Funktionieren zu gewährleisten.

Vorbereitungen

Stellen Sie zunächst sicher, dass alle erforderlichen Komponenten zur Installation Ihrer Diva Server Karte und der Software bereitliegen:

Komponente	Beschreibung
Computer	<p>Ihr Computer muss verfügen über:</p> <ul style="list-style-type: none"> • einen freien PCI-Steckplatz für PCI-Bus Karten (für Diva Server V-2PRI und V-4PRI gemäß PCI 2.2) • einen freien PCIe-Steckplatz x1, 1.0a kompatibel für PCIe-Bus Karten Andere Steckplätze, z. B. x4, x8, x16 können genutzt werden, wenn sie vom BIOS und vom Betriebssystem unterstützt werden. • ein installiertes Betriebssystem: Windows Server 2003, Windows XP, Windows 2000, Linux • mindestens 15 MB freien Speicherplatz auf der Festplatte für die Software
Lieferumfang der Diva Server ISDN-Karte	<p>Der Lieferumfang Ihrer Diva Server ISDN-Karte enthält folgende Komponenten:</p> <ul style="list-style-type: none"> • Diva Server ISDN-Karte • ein oder mehrere benötigte ISDN RJ-45 Verbindungskabel • Diva Server Software Suite CD-ROM • Diva Server Karten Installationsanleitung
Lieferumfang der Diva Server Analog	<p>Der Lieferumfang Ihrer Diva Server Analog enthält folgende Komponenten:</p> <ul style="list-style-type: none"> • Diva Server Analog • Verbindungskabel zum Anschluss an die Analogleitung • Diva Server Analog-8P und V-Analog-8P: vier Kabel mit Dual-Adapter • Diva Server Software Suite CD-ROM • Diva Server Karten Installationsanleitung
ISDN-Basis- (S ₀), Primärmultiplexanschluss (S _{2M}) oder Analoganschluss	<p>Die Anschlüsse werden von der zuständigen Telefongesellschaft eingericht.</p> <p>Achten Sie darauf, dass Sie den/die zu Ihrer Diva Server Karte passenden Anschluss/Anschlüsse erhalten.</p>
Informationen zum Anschluss	<p>Ihre Telefongesellschaft muss die folgenden Informationen bereitstellen:</p> <ul style="list-style-type: none"> • ISDN- oder analoge Rufnummern für jede Leitung • ISDN-Übertragungsprotokoll (D-Kanal-Protokoll): Das Protokoll ist normalerweise abhängig von der Region. Beispiele für gebräuchliche Übertragungsprotokolle sind: Euro-ISDN DSS1 (wird in Europa verwendet und auch als ETSI-Standard bezeichnet), 1TR6 (wird hauptsächlich in digitalen Nebenstellenanlagen in Deutschland verwendet).

Installation

Dieser Abschnitt beschreibt die Installation Ihrer Diva Server Karte und das Anschließen an die Leitung.

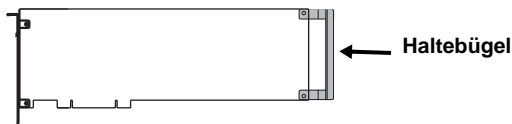
Führen Sie die folgenden Schritte durch, um Ihre Diva Server Karte erfolgreich einzusetzen:

- (A) Die Diva Server Karte in Ihren Computer einstecken, wie unten beschrieben.
- (B) Die Diva Server Karte anschließen, wie auf Seite 68 beschrieben.
- (C) Die Diva Server Software installieren, wie auf Seite 78 beschrieben.

Hinweis: Halten Sie Ihr Computer-Handbuch während der Installation der Karte bereit.

(A) Die Diva Server Karte in Ihren Computer einstecken

1. Schalten Sie den Computer und alle Peripheriegeräte aus und ziehen Sie von allen Geräten den Stecker, um Verletzungen zu vermeiden.
2. Entladen Sie die statische Aufladung Ihres Körpers, indem Sie das Metallgehäuse berühren (die nicht-lackierte Rückseite des Computer-Gehäuses).
3. Ziehen Sie das ISDN-Kabel, wenn vorhanden, und das Netzkabel vom Computer ab.
4. Nehmen Sie die Abdeckung des Computers ab (siehe Computer-Handbuch).
5. Suchen Sie in Ihrem Computer einen freien PCI- oder PCIe-Steckplatz.
6. Lösen Sie die Schraube oder lockern Sie den Clip. Achten Sie darauf, die Schraube nicht zu verlieren. Entfernen Sie ggf. die hintere Metallschiene des Steckplatzes.
7. Wenn Ihre Diva Server Karte einen Haltebügel hat und dieser bei der Installation stört, können Sie ihn auch abmontieren. Er ist lediglich eine Installationshilfe und trägt nicht zum Funktionieren der Karte bei.



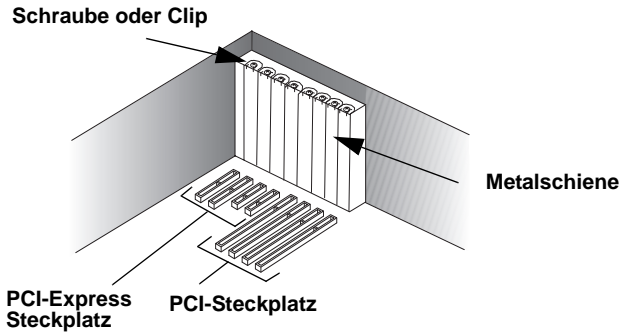
8. Bevor Sie die Karte in den Steckplatz einsetzen, lesen Sie folgenden Sicherheitshinweis:

VORSICHT: Damit keine Hardwareschäden auftreten, dürfen Sie die Karte, je nach Typ, nur in einen PCI- oder PCIe-Steckplatz einsetzen. Wenn Sie eine Karte in einen Steckplatz anderen Typs einsetzen, können die Karte, der Computer oder beide beschädigt werden.



9. Setzen Sie die Karte in den Steckplatz ein. Stellen Sie sicher, dass die Karte weder die CPU, noch die Speichermodule oder andere Bauteile auf der Hauptplatine berührt.

Hinweis: Die Diva Server V-2PRI und V-4PRI haben zusätzlich zum PCI-Bus einen H.100-Bus auf der Karte, der nicht betriebsbereit ist. Setzen Sie Ihre Karte nur mit dem PCI-Bus in einen PCI-Steckplatz ein.



10. Befestigen Sie die Karte mit der Schraube oder dem Clip, damit sie fest mit dem Gehäuse des Computers verbunden ist.

VORSICHT: Achten Sie darauf, die Metallschiene der Diva Server Karte zu verschrauben, so dass sie fest mit dem Computergehäuse verbunden ist. Dadurch wird die richtige Erdung sichergestellt und somit Verletzungen und Schäden am Computer und der Diva Server Karte vermieden.



11. Bringen Sie die Abdeckung des Computers wieder an (siehe Computer-Handbuch).

(B) Die Diva Server Karte anschließen

Das Anschließen der Karte ist abhängig vom Kartentyp:

- Wenn Sie eine Diva Server BRI anschließen, folgen Sie den Anweisungen auf Seite 69.
- Wenn Sie eine Diva Server PRI anschließen, folgen Sie den Anweisungen auf Seite 71.
- Wenn Sie eine Diva Server Analog anschließen, folgen Sie den Anweisungen auf Seite 74.

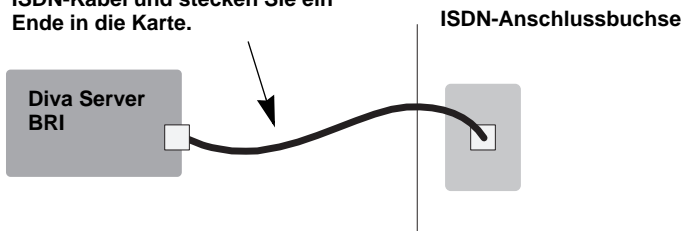
Anschließen einer Diva Server BRI

Hinweis: Wenn Sie Ihre Diva Server BRI als Master für TK-Anlagen oder als Netzabschluss für den Back-to-Back Betrieb einsetzen möchten, sehen Sie Seite 70.

In Europa und den meisten Ländern weltweit:

In Europa und den meisten anderen Ländern außer Nordamerika und Japan kann die ISDN-Karte mit dem mitgelieferten Kabel direkt an die ISDN-Leitung angeschlossen werden.

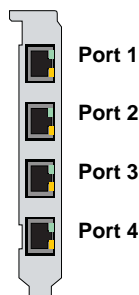
1. Nehmen Sie das mitgelieferte ISDN-Kabel und stecken Sie ein Ende in die Karte.



2. Stecken Sie das andere Ende des Kabels in die ISDN-Anschlussbuchse.

Hinweis für Diva Server 4BRI und V-4BRI:

Die Diva Server 4BRI und V-4BRI haben vier Ports zum Anschließen an vier separate ISDN-Basisanschlüsse. Schließen Sie die vier mitgelieferten Kabel an, wie in der Abbildung oben beschrieben. Sie können beliebige Ports verwenden, müssen in der Regel aber die Port-Nummer während der Software-Konfiguration angeben. Sehen Sie unten die Port-Nummern. In der Abbildung weist der Kartensteckverbinder nach unten.



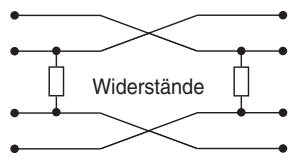
Diva Server BRI Karten als Netzabschluss anschließen:

Die Diva Server Software bietet die Möglichkeit, Diva Server BRI Karten als Netzabschluss (NT) zu betreiben. Der NT-Modus ermöglicht den Einsatz von Diva Server Karten als Master bei der Kopplung von TK-Anlagen, z. B. Kopplung von TK-Anlagen mit Q-Sig. Außerdem ermöglicht er, zwei Diva Server Karten im Back-to-Back Betrieb einzusetzen.

Wenn Sie die Diva Server Karte an eine TK-Anlage anschließen, die als Endgerät (TE) agiert und daher einen Netzabschluss erfordert, der die Taktung generiert, konfigurieren Sie die Diva Server Karte als Netzabschluss. Schließen Sie die Karte an die TK-Anlage an, wie im Diagramm unten dargestellt. Nehmen Sie hierzu die entsprechende Anschlussbelegung an der TK-Anlage vor. Verwenden Sie die erforderlichen Abschlusswiderstände.

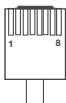
Wenn Sie zwei Diva Server Karten im Back-to-Back Betrieb einsetzen, konfigurieren Sie eine Karte als NT und die andere als TE. Verbinden Sie die Karten mit einem gekreuzten Kabel. Die Kabelbelegung und die erforderlichen Abschlusswiderstände können Sie dem Diagramm unten entnehmen.

Pol- (Kontakt-) Belegung für 8-polige Verbindungen (Stecker und Buchsen):

	TE			NT		
Pins auf RJ-45	Draht	Signal	Verdrahtung	Draht	Signal	
1 nicht verwendet						
2 nicht verwendet						
3	2a	TX +			1a	TX +
4	1a	RX +			2a	RX +
5	1b	RX -			2b	RX -
6	2b	TX -			1b	TX -
7 nicht verwendet						
8 nicht verwendet						

Abschlusswiderstände
100 Ohm, 5%

Hinweis: Pin 1 befindet sich links (siehe Abbildung unten), wenn Sie den RJ-45 Stecker mit dem Kabel nach unten, den Pins zu Ihnen und der Lasche von Ihnen weg gerichtet betrachten.



Anschließen einer Diva Server PRI

Hinweis: Ihre Diva Server PRI hat eine eingebaute CSU (Channel Service Unit), die sie vor Beschädigungen durch Stromstöße schützt. Sie können jedoch auch eine zusätzliche externe CSU benutzen, die Ihnen die Überprüfung Ihrer ISDN-Leitung ermöglicht.

Verwenden Sie eines der mitgelieferten Kabel, um Ihre Diva Server PRI anzuschließen. Das Anschlusskabel wird in zwei Varianten geliefert. Welches Kabel Sie benutzen, hängt davon ab, wie Sie Ihre Diva Server PRI einsetzen:

- RJ-45 zu RJ-45: zum Anschluss an eine ISDN-Leitung mit RJ-45 Buchse und zum Einsatz als Master für eine TK-Anlage.
- RJ-45 zum offenen Kabelende: zur selbstdefinierten Leitungsbelegung entsprechend dem verwendeten NT und zum Einsatz im Back-to-Back Betrieb.

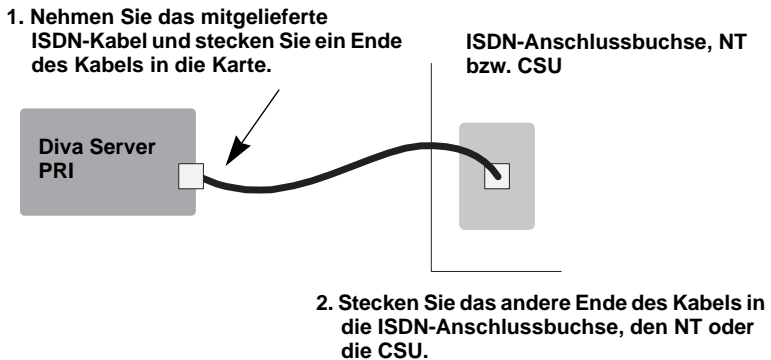
Wenn die ISDN-Leitung mit einer RJ-45 Buchse installiert ist:

Verwenden Sie das mitgelieferte Kabel mit RJ-45 Steckern auf beiden Seiten:

Divaserver PRI	Signal	RJ-45 Stecker
Pin 1	Receive + (RX +)	Pin 1
Pin 2	Receive - (RX -)	Pin 2
Pin 4	Transmit + (TX +)	Pin 4
Pin 5	Transmit - (TX -)	Pin 5
abgeschirmter Stecker	völlig abgeschirmt	abgeschirmter Stecker

Hinweis: Verwenden Sie für den E1 Modus mit 75 Ohm Impedanz einen externen 75 Ohm Balun-Adapter. Sie können einen solchen Adapter in Fachgeschäften erwerben.

Schließen Sie Ihre Diva Server PRI wie unten dargestellt an das ISDN an.



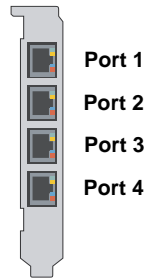
Hinweis für alle Diva Server V-2PRI/E1/T1 und V-4PRI/E1/T1:

Die Diva Server V-2PRI hat zwei Ports und die Diva Server V-4PRI hat vier Ports zum Anschließen an vier separate ISDN-Primärmultiplexanschlüsse. Schließen Sie die mitgelieferten Kabel an, wie in der Abbildung auf Seite 71 beschrieben. Sie können beliebige Ports verwenden, müssen in der Regel aber die Port-Nummer während der Software-Konfiguration angeben. Sehen Sie unten die Port-Nummern. In der Abbildung weist der Kartensteckverbinder nach unten.

Diva Server V-2PRI/E1/T1



Diva Server V-4PRI/E1/T1



DEUTSCH

Wenn die Diva Server PRI als NT an eine TK-Anlage angeschlossen wird:

Die Diva Server Software bietet die Möglichkeit, Diva Server Karten als Netzabschluss (NT) einzusetzen. Dies ermöglicht den Einsatz von Diva Server PRI als Master bei der Kopplung von TK-Anlagen z. B. mit dem Q-Sig Protokoll.

Konfigurieren Sie die Diva Server Karte als Netzabschluss, wenn Sie die Diva Server Karte an eine TK-Anlage anschließen, die als Endgerät (TE) agiert und daher einen Netzabschluss zum Generieren der Taktung erfordert. Schließen Sie die Karte an die TK-Anlage an, wie im Diagramm auf Seite 73 dargestellt. Nehmen Sie hierzu die entsprechende Anschlussbelegung an der TK-Anlage vor.

Wenn der NT offene Drahtanschlüsse benutzt:

In einigen Fällen müssen Sie Ihre Diva Server PRI an einen NT mit offenen Verbindungen anschließen. Die Sende- (TX) und Empfangsleitungen (RX) sind durch die Farbe der Leitungen gekennzeichnet; Sendeleitungen sind blau und weiß-blau, Empfangsleitungen sind orange und weiß-orange.

Verwenden Sie das mitgelieferte ISDN-Kabel mit offenen Kabelenden:

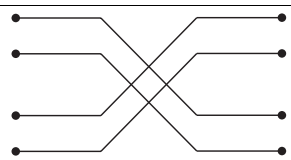
Diva Server PRI	Signal	Offene Enden
Pin 1	Receive + (RX +)	weiß-orange
Pin 2	Receive - (RX -)	orange
Pin 4	Transmit + (TX +)	blau
Pin 5	Transmit - (TX -)	weiß-blau
abgeschirmter Stecker	völlig abgeschirmt	Abschirmung

Stellen Sie sicher, dass die Sendeleitungen Ihrer Diva Server PRI an die Empfangsanschlüsse des NTs und die Empfangsleitungen Ihrer Diva Server PRI an die Sendeanschlüsse des NTs angeschlossen werden.

Hinweis: Wenn Ihre Diva Server PRI nicht richtig am ISDN angeschlossen ist, leuchtet sowohl am NT als auch in der Vermittlungsstelle der zuständigen Telefongesellschaft eine Schicht 1 Warnlampe auf. Wenn Sie eine externe CSU verwenden, leuchtet auch eine Warnlampe an der CSU auf. Die Leitung wird daraufhin möglicherweise von der Telefongesellschaft deaktiviert und muss manuell wieder von der Telefongesellschaft aktiviert werden. Zu diesem Zweck sollten Sie die Störungsstelle der zuständigen Telefongesellschaft informieren.

Wenn die Diva Server PRI im Back-to-Back Betrieb eingesetzt wird:

Die Diva Server Software bietet die Möglichkeit, Diva Server Karten als Netzabschluss (NT) einzusetzen. Dies ermöglicht Ihnen, zwei Diva Server Karten im Back-to-Back Betrieb zu verwenden. Hierzu konfigurieren Sie eine Karte als Netzabschluss (NT) und die andere als Endgerät (TE). Verbinden Sie die Karten mit einem gekreuzten Kabel. Sie können ein solches Kabel herstellen, indem Sie das mitgelieferte ISDN-Kabel mit offenen Kabelenden benutzen und das offene Ende entsprechend der Pin-Belegung für den NT-Modus terminieren, wie in der folgenden Tabelle dargestellt:

	TE	Verdrahtung	NT	
Pins auf dem RJ-45	Signal		Signal	
1	RX +		RX +	
2	RX -		RX -	
3 nicht verwendet				
4	TX +		TX +	
5	TX -		TX -	
6 nicht verwendet				
7 nicht verwendet				
8 nicht verwendet				

Hinweis: Pin 1 befindet sich links (siehe Abbildung unten), wenn Sie den RJ-45 Stecker mit dem Kabel nach unten, den Pins zu Ihnen und der Lasche von Ihnen weg gerichtet betrachten.



Anschließen einer Diva Server Analog

Verwenden Sie die mitgelieferten Kabel, um Ihre Diva Server Analog anzuschließen. Das Anschließen der Karte hängt vom Kartentyp ab:

- Wenn Sie eine Diva Server Analog-2P anschließen, folgen Sie den nachfolgenden Anweisungen.
- Wenn Sie eine Diva Server Analog-4P oder eine Diva Server V-Analog-4P anschließen, folgen Sie den Anweisungen auf Seite 75.
- Wenn Sie eine Diva Server Analog-8P oder eine Diva Server V-Analog-8P anschließen, folgen Sie den Anweisungen auf Seite 76.

Wichtig: Benutzen Sie nur Kabel mit mindestens Nr. 26 AWG (American Wire Gauge).

Divas Server Analog-2P:

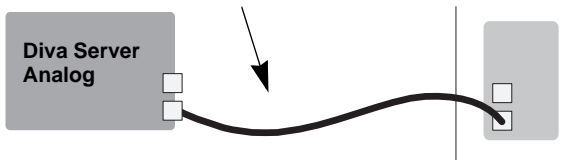
Die Diva Server Analog-2P hat zwei RJ-10 Ports zum Anschließen an zwei separate Analoganschlüsse. Sie können beliebige Ports verwenden, müssen in der Regel aber die Port-Nummer während der Softwarekonfiguration angeben. Sehen Sie unten die Port-Nummern. In der Abbildung weist der Kartensteckverbinder nach unten.



Schließen Sie die Diva Server Analog-2P wie folgt an:

1. Nehmen Sie die zwei mitgelieferten Kabel und stecken Sie die RJ-10 Stecker in die Ports der Analogkarte.

TAE-Anschlussbuchsen
oder Telefonanlage



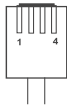
2. Stecken Sie die RJ-11 Stecker in die TAE-Buchsen oder Telefonanlage.

Kontaktbelegung (Stecker und Buchsen):

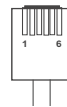
RJ-10	Signal	RJ-11
Pin 2	Ring	Pin 3
Pin 3	Tip	Pin 4

Hinweis: Pin 1 befindet sich links (siehe Abbildung unten), wenn Sie den RJ-10 oder RJ-11 Stecker mit dem Kabel nach unten, den Pins zu Ihnen und der Lasche von Ihnen weg gerichtet betrachten.

RJ-10 Stecker

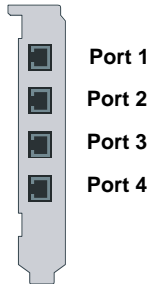


RJ-11 Stecker



Diva Server Analog-4P und Diva Server V-Analog-4P:

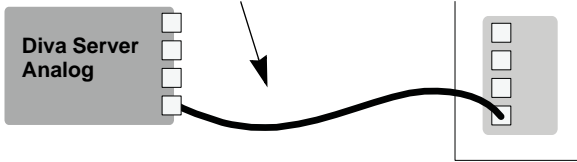
Die Diva Server Analog-4P oder V-Analog-4P hat vier RJ-10 Ports zum Anschließen an vier separate Analoganschlüsse. Sie können beliebige Ports verwenden, müssen in der Regel aber die Port-Nummer während der Softwarekonfiguration angeben. Sehen Sie unten die Port-Nummern. In der Abbildung weist der Kartensteckverbinder nach unten.



Schließen Sie die Diva Server Analog-4P oder V-Analog-4P wie folgt an:

1. Nehmen Sie die vier mitgelieferten Kabel und stecken Sie die RJ-10 Stecker in die Ports der Analogkarte.

TAE-Anschlussbuchsen oder Telefonanlage



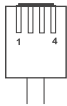
2. Stecken Sie die RJ-11 Stecker in die TAE-Buchsen oder Telefonanlage.

Kontaktbelegung (Stecker und Buchsen):

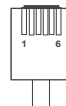
RJ-10	Signal	RJ-11
Pin 2	Ring	Pin 3
Pin 3	Tip	Pin 4

Hinweis: Pin 1 befindet sich links (siehe Abbildung unten), wenn Sie den RJ-10 oder RJ-11 Stecker mit dem Kabel nach unten, den Pins zu Ihnen und der Lasche von Ihnen weg gerichtet betrachten.

RJ-10 Stecker

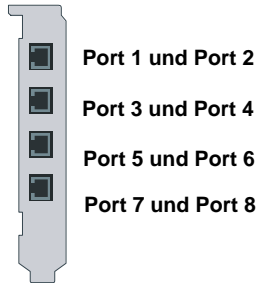


RJ-11 Stecker



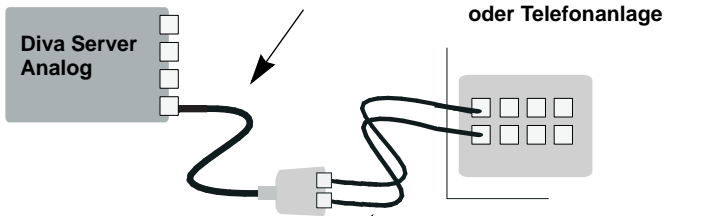
Divas Server Analog-8P und Divas Server V-Analog-8P:

Die Diva Server Analog-8P oder V-Analog-8P hat vier RJ-45 Ports zum Anschließen an vier RJ-45/RJ-10 Adapter, die je zwei RJ-10 Buchsen haben. Somit repräsentiert jeder Port auf der Karte zwei Ports an der TAE-Anschlussbuchse oder Telefonanlage. Sie können beliebige Ports verwenden, müssen in der Regel aber die Port-Nummer während der Softwarekonfiguration angeben. Sehen Sie unten die Port-Nummern. In der Abbildung weist der Kartensteckverbinder nach unten.



Schließen Sie Ihre Diva Server Analog-8P oder V-Analog-8P wie folgt an:

1. Nehmen Sie die vier mitgelieferten Kabel mit Dual-Adapter und stecken Sie die RJ-45 Stecker in die Analogkarte.



2. Nehmen Sie die acht mitgelieferten Kabel und stecken die RJ-10 Stecker in den Dual-Adapter. Wobei Buchse „A“ den Ports 1,3,5 und 7 entspricht und Buchse „B“ den Ports 2,4,6 und 8.

3. Stecken Sie die RJ-11 Stecker in die TAE-Buchsen oder Telefonanlage.

Kontaktbelegung (Stecker und Buchsen):

RJ-45	Signal	Dual-Adapter mit RJ-10 Buchsen		RJ-11
Pin 1	Ring	Buchse A	Pin 2	Pin 3
Pin 2	Tip		Pin 3	Pin 4
Pin 7	Tip	Buchse B	Pin 3	Pin 4
Pin 8	Ring		Pin 2	Pin 3

Hinweis: Pin 1 befindet sich links (siehe Abbildung unten), wenn Sie den RJ-45, RJ-10 oder RJ-11 Stecker mit dem Kabel nach unten, den Pins zu Ihnen und der Lasche von Ihnen weg gerichtet betrachten.

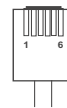
RJ-45 Stecker



RJ-10 Stecker



RJ-11 Stecker



(C) Die Diva Server Software installieren

Informationen zur Installation der Software für Ihre Diva Server Karte finden Sie in der Online-Dokumentation auf der Diva Server Software Suite CD-ROM oder auf der Eicon Networks Internetseite.

Betriebssystem	Dokumentation	CD-ROM	Internet
Windows® Server 2003 Windows XP Windows 2000	Diva Server for Windows Reference Guide (englisch)	✓	✓
Linux®	Diva Server for Linux Reference Guide (englisch)		✓

Weitere Informationen zur verfügbaren Online-Dokumentation finden Sie im Abschnitt **Diva Server Online-Dokumentation** auf Seite 62.

Problemlösung

Die folgenden Hinweise helfen bei der Diagnose und beim Beheben von Fehlern, die mit der Karte oder der dazugehörigen Software auftreten können. Reichen diese Hinweise zur Fehlerbehebung nicht aus, finden Sie im Online Reference Guide (auf Englisch) oder in der Online-Hilfe zur jeweiligen Software und im Help Web (siehe Seite 90) weitere Informationen.

Diva Server Line Test (Anschlussstest)

(unter Windows 2000, Windows XP und Windows 2003)

Mit dem Diva Server Line Test Tool können Sie Ihre Diva Server Karte und Ihren Analog- oder ISDN-Anschluss überprüfen.

Zum Öffnen von Diva Server Anschlussstest klicken Sie auf **Start > Programme > Diva Server for Windows > Diva Server Line Test**.

Sie können folgende Tests durchführen:

- **Anschluss:** Dieser Test überprüft, ob eine Verbindung zur Gegenstelle aufgebaut werden kann.
- **Hardware:** Dieser Test überprüft die Controller auf der Diva Server Karte.
- **Telefon/Loop:** Der Telefon-/Looptest führt einen Ruf zu einem anderen Telefon oder zum eigenen Anschluss durch.
- **Rufweiterleitung:** Dieser Test führt Rufweiterleitungen durch. Dabei kann die Art der Rufweiterleitung ausgewählt werden.
- **Fax:** Mit diesem Test können Sie Testfaxe senden oder empfangen.

Für weitere Informationen sehen Sie die Diva Server Line Test Online-Hilfe (DSLTest.chm).

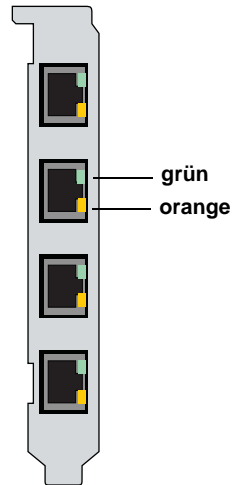
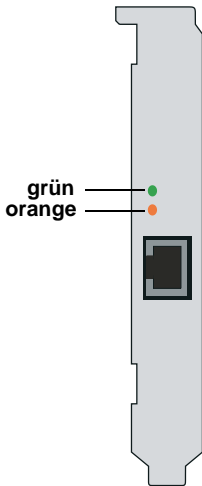
Überprüfen der Status-LEDs der Diva Server ISDN-Karten

Divas Server 2FX, Divas Server BRI 2.0 und Divas Server V-BRI

Die Divas Server 2FX, BRI und V-BRI haben zwei Status-LEDs, siehe unten:

Divas Server 2FX
Divas Server BRI-2M 2.0
Divas Server V-BRI-2

Divas Server 4BRI-8M 2.0
Divas Server V-4BRI-8



DEUTSCH

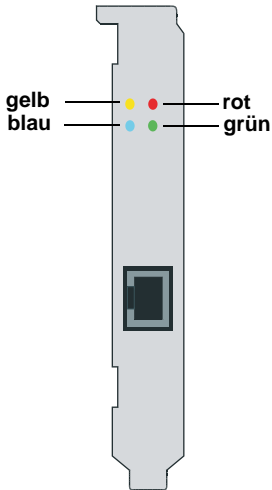
Die untenstehende Tabelle beschreibt die Funktion der LEDs:

Farbe	Status	Beschreibung
grün	aus	Schicht 1 ist nicht aktiv.
	an	Schicht 1 ist aktiv. Die Verkabelung und die Verbindung zum ISDN funktionieren fehlerfrei.
orange	aus	Schicht 2, der D-Kanal, ist nicht aktiv.
	an	Schicht 2, der D-Kanal, ist aktiv. In Europa ist der Status des D-Kanals von der Protokollkonfiguration abhängig. Die LED leuchtet entweder nur solange die Verbindung steht oder dauerhaft.

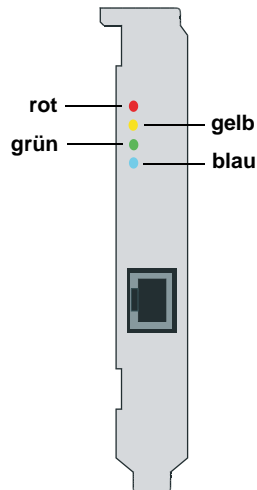
Diva Server PRI 2.0, Diva Server PRI 3.0 und Diva Server V-PRI

Diva Server PRI 2.0, PRI 3.0 und V-PRI haben vier LEDs, siehe unten:

Diva Server PRI 2.0



Diva Server PRI 3.0
Diva Server V-PRI
Diva Server PRI PCIe



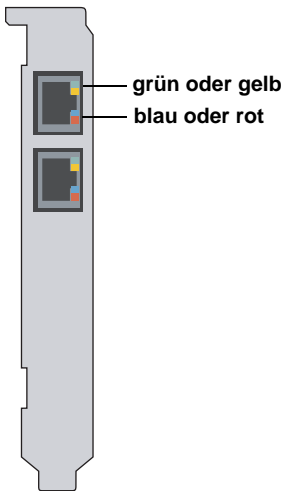
Die untenstehende Tabelle beschreibt die Funktion jeder LED:

Farbe	Status	Beschreibung
gelb	aus	Normaler Betrieb.
	an	Die entfernte Station hat Synchronisationsprobleme. (remote alarm / yellow alarm)
rot	aus	Normaler Betrieb.
	an	Der Empfänger nimmt kein Signal auf. (loss of signal / red alarm)
blau	aus	Normaler Betrieb.
	an	Die empfangenen Rahmen sind nicht korrekt synchronisiert. (alarm indication signal / blue alarm)
grün	aus	Schicht 2 ist nicht aktiv. Überprüfen Sie Ihre Schicht 2 Konfiguration, d. h. D-Kanal-Protokoll, Telefonanlage, etc.
	an	Schicht 2 ist aktiv. Wenn Ihre Diva Server PRI korrekt funktioniert, ist die Schicht 2 permanent aktiv.

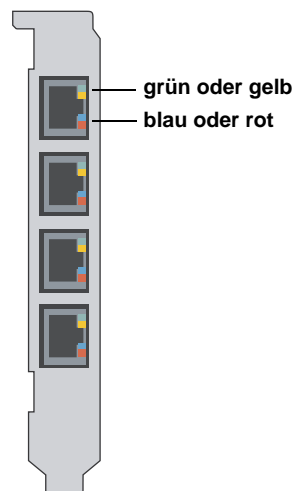
Diva Server V-2PRI und Diva Server V-4PRI

Diva Server V-2PRI und V-4PRI haben pro Port zwei Multifunktions-LEDs, siehe unten:

Diva Server V-2PRI/E1/T1



Diva Server V-4PRI/E1/T1



DEUTSCH

Die untenstehende Tabelle beschreibt die Funktion jeder LED:

Farbe	Status	Beschreibung
gelb	aus	Normaler Betrieb.
	an	Die entfernte Station hat Synchronisationsprobleme. (remote alarm / yellow alarm)
rot	aus	Normaler Betrieb.
	an	Der Empfänger nimmt kein Signal auf. (loss of signal / red alarm)
blau	aus	Normaler Betrieb.
	an	Die empfangenen Rahmen sind nicht korrekt synchronisiert. (alarm indication signal / blue alarm)
grün	aus	Schicht 2 ist nicht aktiv. Überprüfen Sie Ihre Schicht 2 Konfiguration, d. h. D-Kanal-Protokoll, Telefonanlage, etc.
	an	Schicht 2 ist aktiv. Wenn Ihre Diva Server PRI korrekt funktioniert, ist die Schicht 2 permanent aktiv.

Technische Daten

Umgebungsbedingungen:

- Betriebstemperatur: 10°C bis 50°C
- Maximal zulässige Spannungsschwankung: gemäß der entsprechenden PCI Spezifikation (PCI/PCIe)

	Diva Server BRI-2M 2.0 Diva Server V-BRI-2	Diva Server 4BRI-8M 2.0 Diva Server V-4BRI-8
Busformat	PCI (3,3/5,0 V)	
Prozessor	32 Bit RISC CPU, 100 MHz	
Speicher auf der Karte	8 MB SDRAM	16 MB SDRAM
IRQs (Interrupt Request Level)	Vom PC BIOS zugewiesen	
I/O-Basisadressen (hex)		
Gemeinsamer Speicher	8 MB	16 MB (Speicher) 64 KB (lokale Register)
DSPs	2 ADSP 2185	8 ADSP 2185
Abmessungen in mm (Länge x Höhe)		
Platine	167.52 x 64.41	174.63 x 106.68
Low Profile Metallschiene	181.36 x 80.06	
Metallschiene	181.36 x 120.88	187.84 x 126.37
Datenübertragungsrate in kBit/s		
B-Kanäle	2 x 64	4 x 2 x 64
D-Kanäle	1 x 16	4 x 16
Plug&Play	ja	
Stromsparmodus		
Anschlussbuchsen	1 x RJ-45 (ISDN S ₀)	4 x RJ-45 (ISDN S ₀)
Anschlussart	ISDN S ₀ -Anschluss	4 parallele S ₀ -Anschlüsse
Stromverbrauch	0,33 A @ +5 V typ.	0,58 A @ +5 V typ.

	Diva Server 2FX
Busformat	PCI (3,3/5,0 V)
Prozessor	32 Bit RISC CPU, 133 MHz
Speicher auf der Karte	8 MB SDRAM
IRQs (Interrupt Request Level)	Vom PC BIOS zugewiesen
I/O-Basisadressen (hex)	
Gemeinsamer Speicher	8 MB
DSPs	nein
Abmessungen in mm (Länge x Höhe)	
Platine	167.52 x 64.41
Low Profile Metallschiene	181.36 x 80.06
Metallschiene	181.36 x 120.88
Datenübertragungsrate in kBit/s	
B-Kanäle	2 x 64
D-Kanal	1 x 16
Plug&Play	ja
Stromsparmodus	
Anschlussbuchse	1 x RJ-45 (ISDN S ₀)
Anschlussart	ISDN S ₀ -Anschluss
Stromverbrauch	0,3 A @ +5 V typ.

	Diva Server PRI 2.0	Diva Server PRI 3.0 Diva Server V-PRI
Busformat	PCI (3,3/5,0 V)	
Prozessor	64 Bit RISC CPU, 180 MHz	32 Bit RISC CPU, 300 MHz
Speicher auf der Karte	8 MB SDRAM	64 MB SDRAM
IRQs (Interrupt Request Level)	Vom PC BIOS zugewiesen	
I/O-Basisadressen (hex)		
Gemeinsamer Speicher	8 MB	
DSPs	2, 4, 8 oder 30 ADSP 2185 je nach Modell	2, 10 oder 31 ADSP 2185 je nach Modell
Abmessungen in mm (Länge x Höhe)	PRI-0M:	PRI/E1/T1-CTI, PRI/E1/T1-8:
Platine	174.63 x 106.68	
Metallschiene	187.84 x 126.37	
Abmessungen in mm	PRI-4M, PRI-8M, PRI-30M:	PRI/E1-30, V-PRI:
Platine	312.00 x 106.68	
Metallschiene und Haltebügel	352.17 x 126.37	
Datenübertragungsrate in kBit/s		
B-Kanäle	23 oder 30 x 64	
D-Kanal	1 x 64	
Plug&Play	ja	
Stromsparmodus		
Anschlussbuchse	1 x RJ-45 (ISDN S _{2M})	
Anschlussart	ISDN S _{2M} -Anschluss	
Stromverbrauch	PRI-30M: 2,2 A @ +5 V typ. 3,4 A @ +5 V max.	PRI/E1/T1-CTI: 0,58 A @ +5 V typ. 1,70 A @ +5 V max. PRI/E1/T1-8: 0,65 A @ +5 V typ. 2,00 A @ +5 V max. PRI/E1-30, V-PRI: 0,97 A @ +5 V typ. 2,70 A @ +5 V max.

	Diva Server V-2PRI/E1/T1	Diva Server V-4PRI/E1/T1
Busformat	PCI (3,3/5,0 V)	
Prozessor	64 Bit RISC CPU, 466 MHz	
Speicher auf der Karte	64 MB SDRAM	
IRQs (Interrupt Request Level)	Vom PC BIOS zugewiesen	
I/O-Basisadressen (hex)		
Gemeinsamer Speicher	8 MB	
DSPs	10 ADSP-BF533	20 ADSP-BF533
Abmessungen in mm (Länge x Höhe)		
Platine	312.00 x 106.68	
Metallschiene und Haltebügel	352.17 x 126.37	
Datenübertragungsrate in kBit/s		
B-Kanäle	2 x 23 x 64 oder 2 x 30 x 64	4 x 23 x 64 oder 4 x 30 x 64
D-Kanäle	2 x 64	4 x 64
Plug&Play	ja	
Stromsparmodus		
Anschlussbuchsen	2 x RJ-45 (ISDN S _{2M})	4 x RJ-45 (ISDN S _{2M})
Anschlussart	2 parallele ISDN S _{2M} -Anschlüsse	4 parallele ISDN S _{2M} -Anschlüsse
Stromverbrauch	3,0 A @ +3,3 V typ. 4,9 A @ +3,3 V max. 0,02 A @ +5 V typ. 0,04 A @ +5 V max.	5,5 A @ +3,3 V typ. 6,5 A @ +3,3 V max. 0,04 A @ +5 V typ. 0,08 A @ +5 V max.

	Diva Server PRI PCIe Diva Server V-PRI PCIe
Busformat	PCIe 1.0a x1 Lane (3,3/12 V)
Prozessor	32 Bit RISC CPU, 300 MHz
Speicher auf der Karte	64 MB SDRAM
IRQs (Interrupt Request Level)	Vom PC BIOS zugewiesen
I/O-Basisadressen (hex)	
Gemeinsamer Speicher	8 MB
DSPs	8 oder 31 ADSP 2185
Abmessungen in mm (Länge x Höhe)	PRI/E1/T1-CTI PCIe
Platine	167.52 x 64.41
Low Profile Metallschiene	181.36 x 80.06
Metallschiene	181.36 x 120.88
Abmessungen in mm	PRI/E1-30 PCIe, V-PRI PCIe:
Platine	312,00 x 106,68
Metallschiene und Haltebügel	352,17 x 126,37
Datenübertragungsrate in kBit/s	
B-Kanäle	30 x 64
D-Kanal	1 x 64
Plug&Play	ja
Stromsparmodus	
Anschlussbuchse	1 x RJ-45 (ISDN S _{2M})
Anschlussart	ISDN S _{2M} -Anschluss
Stromverbrauch	PRI/E1/T1 PCIe: 0,96 A @ +3,3 V typ. 0,04 A @ +12 V typ. PRI/E1-30 PCIe, V-PRI PCIe 2,3 A @ +3,3 V typ. 0,03 A @ +12 V typ.

	Diva Server Analog-2P	Diva Server Analog-4P Diva Server V-Analog-4P Diva Server Analog-8P Diva Server V-Analog-8P
Busformat	PCI (3,3/5,0 V)	
Prozessor	32 Bit RISC CPU, 100 MHz	
Speicher auf der Karte	16 MB SDRAM	
IRQs (Interrupt Request Level)	Vom PC BIOS zugewiesen	
I/O-Basisadressen (hex)		
Gemeinsamer Speicher	16 MB (Speicher) 64 KB (lokale Register)	
DSPs	2, 4 oder 8 ADSP 2185 je nach Kartentyp	
Abmessungen in mm (Länge x Höhe)		
Platine	167,52 x 64,41	312,00 x 106,68
Low Profile Metallschiene	181,63 x 80,06	
Metallschiene	181,63 x 120,88	
Metallschiene und Haltebügel		352,17 x 126,37
Datenübertragungsrate in kBit/s	max. 2, 4 oder 8 x 56 je nach Modell	
Plug&Play	ja	
Stromsparmmodus		
Anschlussbuchsen	2 x RJ-10	Analog-4P und V-Analog-4P: 4 x RJ-10 Analog-8P und V-Analog-8P: 4 x RJ-45
Anschlussart	2, 4 oder 8 x analoge V.90 Schnittstelle je nach Kartentyp	
Stromverbrauch	0,34 A @ +5 V typ.	Analog-4P und V-Analog-4P: 0,45 A @ +5 V typ. Analog-8P und V-Analog-8P: 0,5 A @ +5 V typ.

Zulassungsinformationen

Eicon Networks Corporation erklärt, dass diese Telekommunikationsendeinrichtungen den grundlegenden Anforderungen und anderen relevanten Bestimmungen der Richtlinie 1999/5/EG entspricht.

Internationale Zulassungen

Diva Server Karten sind in Europa (CE Kennzeichnung) und in Nordamerika (FCC und Industry Canada) zertifiziert.

Die Zertifizierung in Europa beinhaltet nur die Länder, die das Zulassungskennzeichen der Europäischen Union (CE Kennzeichnung) akzeptieren: Belgien, Dänemark, Deutschland, Estland, Finnland, Frankreich, Griechenland, Großbritannien, Irland, Island, Italien, Lettland, Litauen, Luxemburg, Niederlande, Norwegen, Österreich, Polen, Portugal, Schweden, Schweiz, Slowakei, Slowenien, Spanien, Tschechische Republik, Ungarn und Zypern.

Einige osteuropäische Länder und Mittelmeer-Länder akzeptieren das CE-Kennzeichen ebenfalls. Wenn Sie sich nicht sicher sind, wenden Sie sich an Ihren Fachhändler, die zuständige Telefongesellschaft oder die Zulassungsbehörde.

Wenn Sie ausführliche Zulassungsinformationen benötigen, senden Sie eine E-mail mit Angaben zu Ihrer Diva Server Karte und den relevanten Ländern an folgende Adresse:

certification@eicon.com

Kundendienst

Eicon Networks stellt Ihnen verschiedene Möglichkeiten zur Verfügung, technischen Support zu erhalten. Falls beim Betrieb Ihrer Karte Probleme auftreten sollten, wenden Sie sich zuerst an Ihren Fachhändler. Wenn der Fachhändler Ihnen nicht weiterhelfen kann, besuchen Sie unser Help Web, auf dem Sie detaillierte Informationen zu den unterschiedlichsten Themenbereichen finden. Für den unwahrscheinlichen Fall, dass Ihnen das Help Web nicht die benötigten Informationen liefert, kontaktieren Sie den Eicon Networks Kundendienst.

Eicon Networks Fachhändler

Wenn Sie technischen Support benötigen, wenden Sie sich an Ihren Fachhändler. Wenn Sie beim Betrieb der Karte Probleme haben sollten, dann erstellen Sie ein Debug-Trace. Diese Informationen können Ihnen bzw. Ihrem Fachhändler helfen, die Fehlerquelle rasch zu bestimmen. Wenn Sie Ihre Karte unter einem Windows-Betriebssystem einsetzen, sehen Sie die Diva Server Diagnose Online-Hilfe DIVATRACE.chm auf Ihrer Diva Server for Windows Software CD-ROM für Informationen über das Aufzeichnen von Fehlermeldungen. Wenn Sie Linux verwenden, finden Sie hilfreiche Informationen dazu im Diva Server for Linux Reference Guide.

Eicon Networks Help Web

Wenn Sie zusammen mit Ihrem Fachhändler das Problem nicht beheben konnten, besuchen Sie das Eicon Networks Help Web. Es enthält detaillierte Informationen zu:

- Installation und Konfiguration der Diva Server Karten und der Software in den unterschiedlichsten Einsatzbereichen.
- Diagnose- und Testprogramme.
- Fehlerbehebungen.
- 'How to' Anleitungen und Wizards.
- Online Training zu ISDN, Diva Server API und X.25. Die Kurse richten sich in erster Linie an Kundendienstmitarbeiter des First-Level-Supports, aber viele Inhalte sind auch für einen nicht-Techniker verständlich.

Besuchen Sie das Eicon Networks Help Web unter:
www.eicon.com/support/ema.

Eicon Networks Kundendienst

Beachten Sie bei Problemen mit Ihrer Diva Server Karte und der Software die Vorschläge und Empfehlungen im Help Web, bevor Sie sich mit dem Kundendienst in Verbindung setzen.

Der Kundendienst benötigt von Ihnen ggf.:

- ein Debug-Trace. Für Windows-Betriebssystem sehen Sie die Diva Server Diagnose Online-Hilfe DIVATRACE.chm auf Ihrer Diva Server for Windows Software CD-ROM. Für Linux sehen Sie den Diva Server for Linux Reference Guide.
- oder eine Kopie Ihrer aktiven Konfiguration, wenn Sie Ihre Karte unter Windows einsetzen. Sehen Sie dazu die Diva Server Konfigurationsmanager Online-Hilfe DiSrvCfg.chm.

Zur Kontaktaufnahme mit dem Kundendienst von Eicon Networks sehen Sie www.eicon.com/support/contact.asp.

Anmerkungen

Wenn Sie Anmerkungen zu Ihrer Diva Server Karte oder Diva Server Software haben, schicken Sie bitte eine e-mail an: diva.server@eicon.com.

Ihre Eicon Networks Karte und die WEEE Richtlinie

Im August 2005 trat die Richtlinie 2002/96/EG über Elektro- und Elektronik-Altgeräte (WEEE) und deren Ergänzung 2003/108/EG in den meisten Ländern der Europäischen Union in Kraft. Diese Richtlinie gilt auch für das von Ihnen erworbene Eicon Networks Produkt.

Wir sind überzeugt, dass Ihnen unser Produkt über viele Jahre zuverlässige Dienste leisten wird. Und es freut uns, Ihnen mitteilen zu dürfen, dass Eicon Networks für dieses Produkt eine Garantie gewährt - wie unter **Eicon Networks Corporation License Agreement for use of software** auf Seite 2 in dieser Installationsanleitung beschrieben. Auch nach Ablauf der Garantiezeit, bieten wir Ihnen eine Reparatur an, die dann aber kostenpflichtig ist.

Wenn das Produkt, nach vielen Jahren des erfolgreichen Einsatzes, nicht mehr Ihren Ansprüchen gerecht werden sollte oder die Reparaturkosten zu hoch sein sollten, bitten wir Sie, es nicht über den Hausmüll zu entsorgen sondern einer Verwertung zuzuführen, da die Materialien wiederverwertet werden können.

Eicon Networks hat viel Zeit in Design und Herstellung der Karte gemäß ISO 14001, Umweltmanagementsysteme, investiert, um die Umweltbelastung so gering wie möglich zu halten. Die Anforderungen der ISO 14001 sind denen der ISO 9001, Qualitätsmanagementsysteme, sehr ähnlich und durchaus genauso anspruchsvoll.

Wie alle elektrischen und elektronischen Produkte, einschließlich Fernsehgeräte und Computer, kann diese Karte einen geringen Anteil an Werkstoffen enthalten, die Umweltschäden hervorrufen können. Um solche Schäden zu vermeiden, bitten wir Sie eine der folgenden Möglichkeiten der Entsorgung zu nutzen:

- bei der Sammelstelle Ihrer Firma,
- bei einer lokalen Wertstoffannahmestelle oder
- bei Kartenneukauf, alte Karte dort zurückgeben, wo Sie die neue erwerben.

Für das Entsorgen der Karte innerhalb der Europäischen Union fallen für Sie keine Kosten an, da wir, mit Markteinführung der Karte, für die Entsorgung bezahlt haben. Das sind die Anforderungen der WEEE Richtlinie.

Wir danken Ihnen im Voraus für Ihre Mitarbeit und Ihre Unterstützung beim Schutz der Umwelt.



**Bitte nicht in den Müll werfen,
sondern umweltgerecht
entsorgen.**

Introducción

Los adaptadores Diva Server de Eicon Networks permiten establecer enlaces de alta velocidad a través de accesos básicos RDSI (S₀), accesos primarios (S_{2M}) o accesos analógicos para una gran variedad de aplicaciones. Esta guía de instalación describe como instalar y conectar físicamente su adaptador Diva Server, provee datos técnicos y una vista general de la documentación online.

Nota: La marca Eicon será cambiado a Dialogic durante el año 2007 en toda la documentación relevante.

Adaptadores Diva Server disponibles

El rango de productos Diva Server abarca los siguientes adaptadores:

Adaptadores Diva Server BRI

Diva Server BRI es un adaptador RDSI para servidor que proporciona conexión tanto digital como analógica para uno o cuatro Interfaces de Acceso Básico (BRI) de la RDSI.

- Diva Server 2FX
- Diva Server BRI-2M 2.0
- Diva Server 4BRI-8M 2.0
- Diva Server V-BRI-2
- Diva Server V-4BRI-8

Adaptadores Diva Server PRI, E1 y T1

Los adaptadores de servidor aportan conectividad hasta 30 canales sobre líneas RDSI PRI (Primary Rate Interface), E1 y T1.

Diva Server PRI 2.0:

- Diva Server PRI-0M
- Diva Server PRI-4M
- Diva Server PRI-8M
- Diva Server PRI-30M

Diva Server PRI 3.0:

- Diva Server PRI/E1/T1-CTI
- Diva Server PRI/E1/T1-8
- Diva Server PRI/E1-30

Diva Server V-PRI:

- Diva Server V-PRI/E1-30

Diva Server PRI PCIe:

- Diva Server PRI/E1/T1-CTI PCIe
- Diva Server PRI/E1-30 PCIe

Diva Server V-PRI PCIe:

- Diva Server V-PRI/E1-30 PCIe

Adaptadores Diva Server PRI, E1 y T1 de puertos múltiples

Los adaptadores de puertos múltiples son adaptadores de telefonía basada en PC de gran potencia que ofrecen características avanzadas de procesamiento multimedia para 60 o 120 canales de voz a través de E1 o RDSI PRI.

- Diva Server V-2PRI/E1/T1
- Diva Server V-4PRI/E1/T1

Adaptadores Diva Server Analog

Los adaptadores Diva Server Analog son adaptadores de comunicaciones que ofrecen soporte para aplicaciones de voz, fax y acceso remoto para dos, cuatro u ocho conexiones simultáneas a través de líneas analógicas.

- Diva Server Analog-2P
- Diva Server Analog-4P
- Diva Server Analog-8P
- Diva Server V-Analog-4P
- Diva Server V-Analog-8P

Sistemas Operativos

Se puede utilizar los adaptadores Diva Server con los siguientes sistemas operativos:

- Microsoft Windows® Server 2003
- Microsoft Windows XP
- Microsoft Windows 2000
- Linux®

Nota: El adaptador Diva Server BRI and V-BRI también puede utilizarse en PCs que dispongan del sistema operativo Microsoft Small Business Server (SBS). El software y la documentación para la versión 4.5 y 2000 de Microsoft Small Business Server se encuentran en el correspondiente CD-ROM de Microsoft Small Business Server.

Diva Server Documentación Online

La documentación online se encuentra en el CD-ROM Diva Server Software Suite y/o en la página web de Eicon Networks. La documentación online describe la instalación y configuración del Diva Server software. Para más información sobre la documentación en la página web véase la página 95.

El CD-ROM Diva Server Software Suite

El CD-ROM Diva Server Software Suite contiene amplias guías online en formato PDF de Adobe® Acrobat® para los sistemas operativos Windows previamente mencionados. Además, el CD-ROM viene acompañado, para los sistemas operativos Windows, de ayudas en formato CHM usado en la ayuda de Microsoft HTML. Para el sistema operativo Linux la documentación se encuentra en la página web de Eicon. Para más información véase la página 95.

El CD-ROM Diva Server Software Suite también incluye varios archivos README que ofrecen información actualizada no incorporada en los manuales.

Nota: Para ver e imprimir correctamente las guías online, es necesario tener instalada la aplicación Acrobat Reader, versión 3.0 o superior. Se puede instalar la aplicación Acrobat Reader desde el CD-ROM Diva Server Software Suite.

Modo de instalar la aplicación Adobe Acrobat Reader bajo Windows:

1. Introduzca el CD-ROM Diva Server Software Suite en la unidad de CD-ROM. La aplicación de usuario se inicia automáticamente. De no ser así, haga un doble clic dentro del directorio raíz del CD-ROM en **SETUP . EXE**.
2. En la pantalla inicial, seleccione **Bonus Software**.
3. En la siguiente pantalla puede instalar la aplicación Acrobat Reader.

Modo de ver una guía PDF en Windows:

1. Introduzca el CD-ROM Diva Server Software Suite en la unidad de CD-ROM del PC. Si no se inicia automáticamente, haga un doble clic dentro del directorio raíz del CD-ROM en **SETUP . EXE**.
2. En la pantalla inicial, haga clic en **Documentation**.
3. A continuación puede ver la documentación del hardware y del software.
4. Para abrir una guía, haga doble clic en ella.

Modo de ver una ayuda online en Windows:

1. Introduzca el CD-ROM Diva Server Software Suite en la unidad de CD-ROM del PC. Si no se inicia automáticamente, haga un doble clic dentro del directorio raíz del CD-ROM en **SETUP . EXE**.
2. En la pantalla inicial, haga clic en **Browse this CD**.
3. Haga clic en las carpetas siguientes: **driver > i386 > ENGLISH**.
4. Para abrir una ayuda online, haga doble clic en ella.

Página web de Eicon Networks

La página web de Eicon Networks le ofrece amplias guías online para los sistemas operativos mencionados en la página 94. En la página <http://www.eicon.com/worldwide/support/docs.htm> puede seleccionar la documentación para su producto de Eicon Networks.

Instrucciones de Seguridad

Aplique las siguientes instrucciones de seguridad para garantizar su propia seguridad personal y para ayudarle a proteger el PC y su entorno de trabajo contra posibles daños.

PRECAUCIÓN Para todos los adaptadores Diva Server



Todos los PCs que tienen instalados adaptadores Diva Server, deben cumplir con las regulaciones específicas de seguridad del país, tales como la CE o FCC, para evitar daños personales y del PC y/o adaptador Diva Server.

Asegúrese de que el cable RDSI o analógico no está conectado con la RDSI o la red analógica antes de abrir la caja del PC para evitar daños personales y del PC y/o adaptador Diva Server.

Siempre coloque el tornillo en la barra metálica del adaptador Diva Server para que éste quede firmemente sujeto al chasis del PC. De este modo se garantiza una puesta a tierra correcta y se evitan posibles daños.

Adaptadores Diva Server PRI, V-2PRI y V-4PRI

Todos los adaptadores Diva Server PRI 2.0, V-2PRI y V-4PRI pueden requerir una potencia de aproximadamente 20 vatios. En caso de instalar varios adaptadores en su sistema, asegúrese de que la alimentación eléctrica no sufre sobrecargas con la instalación del adaptador Diva Server PRI. Asegúrese también de que el PC tiene suficiente ventilación para evitar daños del mismo.

IMPORTANTE Adaptadores RDSI Diva Server



Todos los adaptadores RDSI Diva Server de Eicon han sido sometidos a una prueba de funcionamiento y cumplen con todos los requisitos de compatibilidad electromagnética, seguridad y compatibilidad de la interfaz RDSI impuestos por las Directivas de la UE y por las normativas vigentes en Norteamérica y otros espacios económicos importantes. Antes de instalar y utilizar el adaptador, lea la información dada en el capítulo **Datos sobre la homologación** en la página 122.

Diva Server V-2PRI, V-4PRI y PRI PCIe

El funcionamiento adecuado de los adaptadores Diva Server V-2PRI, V-4PRI y PRI PCIe está garantizado solamente si son operados dentro del rango de temperatura permitido, veáse la página 116 para más información. Si se excede la temperatura máxima, se crea un archivo de depuración con información de las temperaturas alcanzadas.

Adaptadores Diva Server Analog

Solamente utilice cables de telecomunicación con American Wire Gauge (AWG) número 26 o superior.

Preparativos

En primer lugar, asegúrese de que tiene a mano todos los componentes necesarios para la instalación del adaptador Diva Server y del software:

Componentes	Descripción
PC	<p>El PC debe disponer de lo siguiente:</p> <ul style="list-style-type: none"> • Una ranura PCI libre para adaptadores de bus PCI (para Diva Server V-2PRI y V-4PRI según PCI 2.2) • Una ranura PCI Express x1 libre, 1.0a compatible para adaptadores de bus PCIe Se pueden usar otras ranuras de tipo PCIe, p.ej. x4, x8, x16, si son soportados por el sistema operativo. • Un sistema operativo instalado: Windows Server 2003, Windows XP, Windows 2000, Linux • Como mínimo 15 MB de memoria libre en el disco duro para el software
Adaptador RDSI Diva Server	<p>El paquete Diva Server RDSI incluye los siguientes componentes:</p> <ul style="list-style-type: none"> • Adaptador Diva Server BRI o PRI • Uno o varios cables de enlace RJ-45 RDSI • CD-ROM Diva Server Software Suite • Adaptadores Diva Server Guía de Instalación
Adaptador Diva Server Analog	<p>El paquete Diva Server Analog incluye los siguientes componentes:</p> <ul style="list-style-type: none"> • Adaptador Diva Server Analog • cables para conectar el adaptador a la línea analógica • Adaptador Diva Server Analog-8P y V-Analog-8P: cuatro cables con dispositivo • CD-ROM Diva Server Software Suite • Adaptadores Diva Server Guía de Instalación
Acceso RDSI básico (S ₀), primario (S _{2M}) o analógico	<p>Los accesos son instalados por la compañía telefónica responsable. Asegúrese de que le instalen el acceso adecuado para el adaptador Diva Server.</p>
Información sobre el acceso	<p>Su compañía telefónica debe suministrarle la siguiente información:</p> <ul style="list-style-type: none"> • Números para cada línea RDSI o analógica. • Protocolo de transmisión RDSI (protocolo de canal D): El protocolo depende normalmente de la región. El protocolo más conocido es Euro-RDSI DSS1 (se utiliza en Europa y también se denomina estándar ETSI).

Instalación

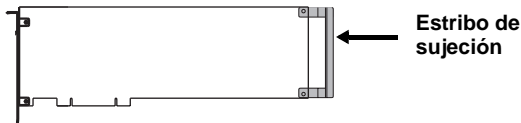
Usted debe completar los tres siguientes procedimientos, para utilizar su adaptador Diva Server apropiadamente:

- (A) Insertar el adaptador Diva Server en el PC siguiendo la descripción dada abajo.
- (B) Conectar la línea siguiendo la descripción dada en la página 101.
- (C) Instalar el software para el adaptador Diva Server siguiendo la descripción dada en la página 111.

Nota: Usted puede requerir el manual de su PC durante la instalación de su adaptador.

(A) Insertar el adaptador Diva Server en el PC

1. Desconecte el PC y todas las unidades periféricas para evitar posibles daños.
2. Elimine la carga estática de su cuerpo tocando el chasis metálico (el metal sin pintar que esta en la parte posterior del PC).
3. Desenchufe el cable RDSI y el cable de alimentación del PC.
4. Retire la cubierta exterior del PC (véase el manual del PC).
5. Busque una ranura PCI libre en el PC.
6. Si hay una placa metálica en el extremo de la ranura, retire el tornillo o afloje el clip y retire la placa metálica. Guarde el tornillo para fijar el adaptador como se describe en paso 10 en la página 100.
7. Si el adaptador tiene un estribo de sujeción, lo puede retirar si dificulta la instalación, pues sólo sirve de ayuda mecánica y no influye el funcionamiento del adaptador.



8. Antes de insertar el adaptador lea la siguiente norma de seguridad:

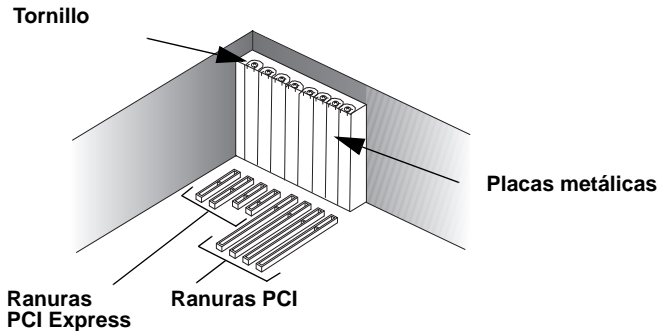
NORMA DE SEGURIDAD:



Para no dañar el hardware, es imprescindible instalar el adaptador en una ranura PCI. Si instala el adaptador en una ranura de un tipo diferente, se puede dañar el adaptador, el PC o ambos.

9. Inserte el adaptador en la ranura. Asegúrese de que el adaptador no hace contacto ni con la CPU, ni con los módulos de memoria y con ningún otro componente de la placa.

Nota: Adicionalmente al bus PCI, los adaptadores Diva Server V-2PRI y V-4PRI cuentan con un bus H.100 en la tarjeta. El bus H.100 no es operacional, por lo tanto, solamente inserte el adaptador con el bus PCI en el PC.



10. Fije el adaptador con el tornillo o el clip para que quede bien sujeto al chasis del PC.

NORMA DE SEGURIDAD: No se olvide de colocar el tornillo en la barra metálica del adaptador Diva Server para que éste quede firmemente sujeto al chasis del PC. De este modo se garantiza una puesta a tierra correcta y se evitan posibles daños.



11. Vuelva a montar la cubierta exterior del PC (véase el manual del PC).

(B) Conectar la línea

La manera de conectar su adaptador depende del tipo de adaptador Diva Server que tenga:

- Si tiene un adaptador Diva Server BRI, siga la descripción dada abajo.
- Si tiene un adaptador Diva Server PRI, siga la descripción dada en la página 103.
- Si tiene un adaptador Diva Server Analog, siga la descripción dada en la página 107.

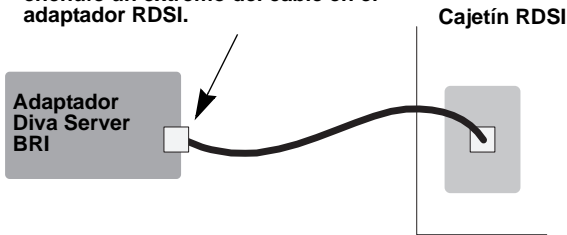
Conectar la línea RDSI básica

Nota: Si pretende utilizar su Diva Server BRI como terminación de red para su conexión a centralitas o directamente a otra Diva Server, acuda a la página 102.

En Europa y en la mayoría de los países del mundo:

En Europa y en la mayoría de los demás países del mundo, excepto Norteamérica y Japón, el adaptador se puede conectar directamente a la línea RDSI con el cable suministrado.

1. Utilice el cable RDSI suministrado y enchufe un extremo del cable en el adaptador RDSI.



2. Enchufe el otro extremo del cable en el cajetín RDSI.

Nota para adaptadores Diva Server 4BRI y Diva Server V-4BRI:

Los adaptadores Diva Server 4BRI y V-4BRI tienen cuatro puertos para conectar a cuatro accesos básicos RDSI independientes. Conecte los cuatro cables suministrados como se muestra en la figura arriba. Los puertos se pueden usar indistintamente aunque, por regla general, es necesario especificar el número de puerto a la hora de configurar el software. Observe en la figura abajo los números de puerto. En la figura, el conector de enchufe del adaptador señala hacia abajo.



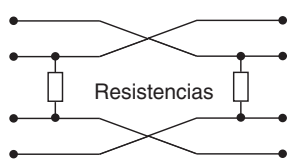
Conexión de adaptadores Diva Server BRI en modo TR:

El software Diva Server permite configurar los adaptadores Diva Server BRI como terminaciones de red (TR). Esto significa que su adaptador puede actuar como TR, por ejemplo, para interconexión de centralitas con protocolo Q-Sig o para una conexión directa a otro adaptador Diva Server.

Cuando se conecta el adaptador a una centralita que actúa como equipo terminal y, por tanto, requiere un TR que proporcione la señal de reloj, configure el adaptador como TR. Conecte el adaptador a la centralita tal como se muestra en el diagrama inferior con la asignación de conectores apropiada. Utilice las resistencias terminales necesarias.

Cuando utilice dos adaptadores Diva Server para conexión directa entre sí, configure un adaptador como TR y el otro como TE. Conecte los adaptadores con un cable cruzado. El cableado debe corresponderse al diagrama inferior y el cable debe incorporar las resistencias terminales necesarias.

Asignación de contactos para clavijas de 8 conectores:

Conectores RJ-45	Lado TE		Cableado	Lado TR		
	Hilo	Señales		Hilo	Señales	
1	no utilizado			1a	TX +	
2	no utilizado			2a	RX +	
3	2a	TX +			2b	RX -
4	1a	RX +			1b	TX -
5	1b	RX -				
6	2b	TX -				
7	no utilizado					
8	no utilizado					

Resistencias terminales
100 Ohm, 5%

Nota: Mirando el conector RJ-45 con los conectores expuestos hacia usted, se numeran de 1 a 8 de izquierda a derecha (v. fig.).



Conectar la línea primaria

Nota: El adaptador Diva Server PRI lleva integrada una CSU (Channel Service Unit) que le protege de los daños que pueden provocar los impulsos de corriente. No obstante, también puede utilizar una CSU externa que le permita controlar la línea RDSI.

Utilice uno de los cables incluidos con el adaptador. El cable a utilizar depende del uso que quiera darle:

- RJ-45 a RJ-45 para conexión a una línea RDSI PRI con conexión RJ-45 o para una conexión como terminación de red a una centralita.
- RJ-45 a cables abiertos para conexión a una línea RDSI PRI con hilos abiertos o para conexión entre dos adaptadores Diva Server.

Si el acceso RDSI tiene un cajetín RJ-45:

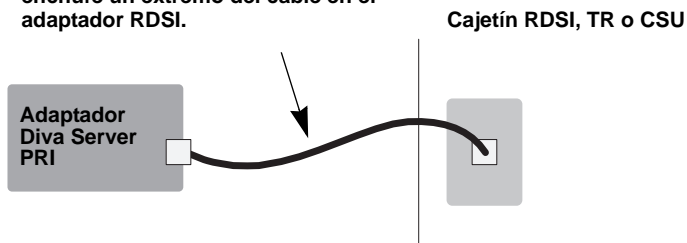
Utilice el cable con conectores RJ-45 en ambos extremos:

Adaptador Diva Server PRI	Señal	Conector RJ-45
Pin 1	Receive + (RX +)	Pin 1
Pin 2	Receive - (RX -)	Pin 2
Pin 4	Transmit + (TX +)	Pin 4
Pin 5	Transmit - (TX -)	Pin 5
Conector apantallado	Totalmente apantallado	Conector apantallado

Nota: Para el modo E1 con impedancia de 75 ohmios, utilice un adaptador Balun externo de 75 ohmios. Dicho adaptador se puede adquirir en cualquier comercio especializado.

Conecte el adaptador Diva Server PRI a la RDSI tal como se muestra en la figura.

1. Utilice el cable RDSI suministrado y enchufe un extremo del cable en el adaptador RDSI.



2. Enchufe el otro extremo del cable en el cajetín RDSI, la TR o la CSU.

Nota para los Diva Server V-2PRI/E1/T1 y Diva Server V-4PRI/E1/T1:

Los adaptadores Diva Server V-2PRI tienen dos puertos y los adaptadores Diva Server V-4PRI tienen cuatro puertos para conectar a cuatro accesos primarios RDSI independientes. Conecte los cables suministrados como se muestra en la figura de la página 104. Los puertos se pueden usar indistintamente aunque, por regla general, es necesario especificar el número de puerto a la hora de configurar el software. Observe en la figura abajo los números de puerto. En la figura, el conector de enchufe del adaptador señala hacia abajo.

Diva Server V-2PRI/E1/T1



Diva Server V-4PRI/E1/T1



Si el adaptador Diva Server PRI en modo TR está conectado a una centralita:

El software Diva Server permite configurar los adaptadores Diva Server PRI como terminaciones de red (TR). Esto significa que su adaptador puede actuar como TR para centralitas que actúan como equipo terminal y, por tanto, requieren un TR que proporcione la señal de reloj. Por ejemplo, el adaptador Diva Server puede actuar como TR en la interconexión de centralitas con protocolo Q-Sig.

Cuando se conecta el adaptador a una centralita que actúa como TE, configure el adaptador como TR. Conecte el adaptador a la centralita tal como se muestra en el diagrama de la página 106 con la asignación de conectores apropiada.

Si la TR tiene alambres sueltos:

En determinados casos hay que conectar el adaptador Diva Server PRI a una terminación de red (TR) sin cajetín. Los cables de transmisión (TX) y recepción (RX) se reconocen por sus colores; los cables de transmisión son de color azul y blanco-azul mientras que los de recepción son de color naranja y blanco-naranja.

Utilice el cable RDSI con los extremos abiertos:

Adaptador Diva Server PRI	Señal	Extremos abiertos
Pin 1	Receive + (RX +)	Blanco-naranja
Pin 2	Receive - (RX -)	Naranja
Pin 4	Transmit + (TX +)	Azul
Pin 5	Transmit - (TX -)	Blanco-azul
Conector apantallado	Totalmente apantallado	Apantallamiento

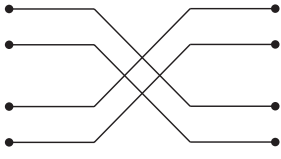
Asegúrese de que las líneas de transmisión del adaptador Diva Server PRI quedan unidas a las conexiones de recepción de la TR y las líneas de recepción del adaptador Diva Server PRI a las conexiones de transmisión de la TR.

Nota: Si el adaptador Diva Server PRI no está bien conectado a la RDSI, se ilumina un piloto de advertencia de nivel 1 tanto en la TR como en la centralita de la compañía telefónica. En caso de utilizar una CSU externa, también se ilumina un piloto de advertencia en la CSU. En dicho caso, lo más probable es que la compañía telefónica desactive la línea que después tendrá que volver a activar manualmente. Para tal finalidad, es necesario que informe al centro de averías de su compañía telefónica.

Si el adaptador Diva Server PRI va a conectarse directamente a otro adaptador:

El software Diva Server permite configurar los adaptadores Diva Server PRI como terminaciones de red (TR). Esto significa que puede utilizar dos adaptadores Diva Server para una conexión directa entre sí.

Cuando utilice dos adaptadores Diva Server para conexión directa entre sí, configure un adaptador como TR y el otro como TE. Conecte los adaptadores con un cable cruzado. Puede hacerlo usted mismo utilizando el cable abierto por uno de sus extremos suministrado con su adaptador Diva Server PRI. Conecte los hilos del extremo abierto como se describe en el lado TR del diagrama inferior:

	Lado TE		Lado TR
Conectores RJ-45	Señales	Cableado	Señales
1	RX +		RX +
2	RX -		RX -
3	no utilizado		
4	TX +		TX +
5	TX -		TX -
6	no utilizado		
7	no utilizado		
8	no utilizado		

Nota: Mirando el conector RJ-45 con los conectores expuestos hacia usted, se numeran de 1 a 8 de izquierda a derecha (v. fig.).



Conectar la línea analógica

Utilice los cables incluidos con el adaptador. La manera de conectar su adaptador depende del tipo de adaptador Diva Server que usted tenga:

- Si conecta un adaptador Diva Server Analog-2P, siga la descripción que se indica abajo.
- Si conecta un adaptador Diva Server Analog-4P o Diva Server V-Analog-4P, siga la descripción que se indica en la página 108.
- Si conecta un adaptador Diva Server Analog-8P o Diva Server V-Analog-8P, siga la descripción que se indica en la página 109.

Importante: Solamente utilice cables de telecomunicación como mínimo con número 26 AWG (American Wire Gauge).

Adaptador Diva Server Analog-2P:

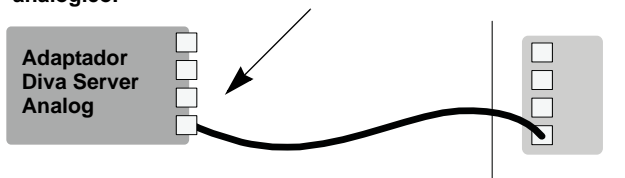
Los adaptadores Diva Server Analog-2P tienen dos puertos RJ-10 para conectar a dos accesos analógicos independientes. Los puertos se pueden usar indistintamente aunque, por regla general, es necesario especificar el número de puerto a la hora de configurar el software. Observe en la figura abajo los números de puerto. En la figura, el conector de enchufe del adaptador señala hacia abajo.



Conecte el adaptador Diva Server Analog-2P como se muestra en la figura:

1. Utilice los dos cables suministrados y enchufe los dos conectores RJ-10 en el adaptador analógico.

Cajetín analógico o centralita



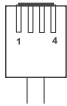
2. Enchufe los dos conectores RJ-11 en el cajetín analógico o la centralita.

Asignación de contactos:

RJ-10	Señal	RJ-11
Pin 2	Ring	Pin 3
Pin 3	Tip	Pin 4

Nota: Mirando los conectores RJ-10 y RJ-11 con los conectores expuestos hacia usted, se numeran de 1 a 4 y de 1 a 6 de izquierda a derecha (v. fig.).

conector RJ-10



conector RJ-11



Adaptador Diva Server Analog-4P o Diva Server V-Analog-4P:

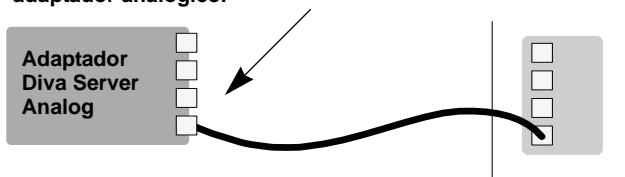
Los adaptadores Diva Server Analog-4P y V-Analog-4P tienen cuatro puertos RJ-10 para conectar a cuatro accesos analógicos independientes. Los puertos se pueden usar indistintamente aunque, por regla general, es necesario especificar el número de puerto a la hora de configurar el software. Observe en la figura abajo los números de puerto. En la figura, el conector de enchufe del adaptador señala hacia abajo.



Conecte el adaptador Diva Server Analog-4P o V-Analog-4P como se muestra en la figura:

1. Utilice los cuatro cables suministrados y enchufe los cuatro conectores RJ-10 en el adaptador analógico.

Cajetín analógico o centralita



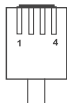
2. Enchufe los cuatro conectores RJ-11 en el cajetín analógico o la centralita.

Asignación de contactos:

RJ-10	Señal	RJ-11
Pin 2	Ring	Pin 3
Pin 3	Tip	Pin 4

Nota: Mirando los conectores RJ-10 y RJ-11 con los conectores expuestos hacia usted, se numeran de 1 a 4 y de 1 a 6 de izquierda a derecha (v. fig.).

conector RJ-10



conector RJ-11



Adaptador Diva Server Analog-8P o Diva Server V-Analog-8P:

Los adaptadores Diva Server Analog-8P y V-Analog-8P tienen cuatro puertos RJ-45 para conectar a cuatro dispositivos. Cada dispositivo tiene dos puertos. Así que un puerto del adaptador representa a dos puertos en el cajetín analógico o la centralita. Los puertos se pueden usar indistintamente aunque, por regla general, es necesario especificar el número de puerto a la hora de configurar el software. Observe en la figura abajo los números de puerto. En la figura, el conector de enchufe del adaptador señala hacia abajo.



Puerto 1 y Puerto 2

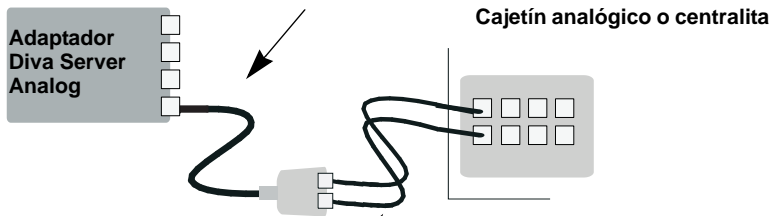
Puerto 3 y Puerto 4

Puerto 5 y Puerto 6

Puerto 7 y Puerto 8

Conecte el adaptador Diva Server Analog-8P o V-Analog-8P como se muestra en la figura:

1. Utilice los cables con dispositivo y enchufe los conectores RJ-45 en el adaptador analógico.



2. Utilice los cables RJ-10 a RJ-11 suministrados y enchufe los conectores RJ-10 en el dispositivo. Donde el puerto 'A' corresponde a los puertos 1,3,5 y 7 en el cajetín analógico o la centralita. El puerto 'B' corresponde a los puertos 2,4,6 y 8 en el cajetín analógico o la centralita.

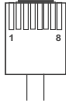
3. Enchufe los cuatro conectores RJ-11 en el cajetín analógico o la centralita.

Asignación de contactos:

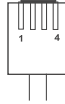
RJ-45	Señal	Dispositivo con puertos RJ-10		RJ-11
Pin 1	Ring	puerto A	Pin 2	Pin 3
Pin 2	Tip		Pin 3	Pin 4
Pin 7	Tip	puerto B	Pin 3	Pin 4
Pin 8	Ring		Pin 2	Pin 3

Nota: Mirando los conectores RJ-45, RJ-10 y RJ-11 con los conectores expuestos hacia usted, se numeran de 1 a 8, de 1 a 4 y de 1 a 6 de izquierda a derecha (v. fig.)

conector RJ-45



conector RJ-10



conector RJ-11



(C) Instalar el Software para el adaptador Diva Server

Para más información sobre la instalación del software para el adaptador Diva Server, consulte la documentación online que se encuentra en el CD-ROM Diva Server Software Suite o en la página web de Eicon Networks.

Sistema operativo	Documentación	CD-ROM	Página Web
Windows [®] Server 2003 Windows XP Windows 2000	Diva Server for Windows Reference Guide (inglés)	✓	✓
Linux [®]	Diva Server for Linux Reference Guide (inglés)		✓

Véase el capítulo **Diva Server Documentación Online** en la página 94 para más información sobre la documentación online.

Problemas y Soluciones

La siguiente información le ayudará a diagnosticar y resolver problemas relacionados con el adaptador o su software. Si los consejos dados no son suficientes para solucionar un determinado problema, consulte la guía online o la ayuda online del software utilizado así como la ayuda que se ofrece en la web (véase la página 123).

Comprobar la línea con Diva Server Line Test

(en Windows 2000, Windows XP y Windows Server 2003)

Diva Server Line Test le permite comprobar la línea, el adaptador, el cableado y el enlace con la RDSI.

Para abrir el programa seleccione:

Inicio > Programas > Diva Server for Windows > Diva Server Line Test.

Diva Server Line Test le ofrece los siguientes pruebas:

- Line Check: Comprobación de la instalación del software Diva Server y la conexión física.
- Hardware: Comprobación de los controladores del adaptador.
- Phone/Loop: Envío y recibo de llamadas telefónicas para comprobar la línea.
- Call Transfer: Tranferencias de llamadas, con la opción de seleccionar la manera de transferencia.
- Fax: Envío y recepción de facsímiles.

Para más información sobre Diva Server Line Test, véase la ayuda Diva Server Line Test Online Help (DSLIneTest.chm).

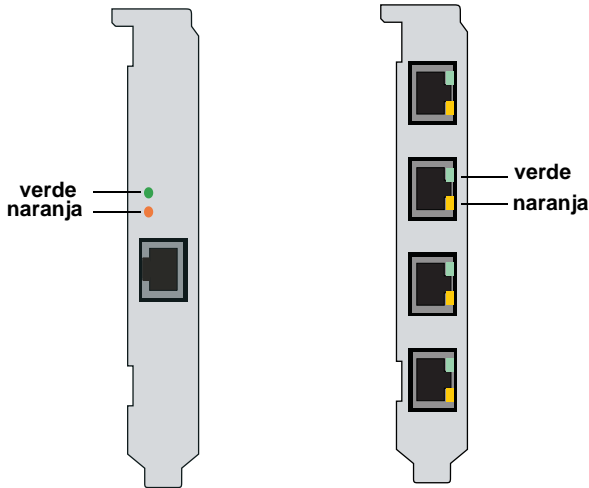
Comprobar los LEDs indicadores del estado

Adaptadores Diva Server 2FX, Diva Server BRI 2.0 y Diva Server V-BRI

Los adaptadores Diva Server 2FX, BRI y V-BRI tienen dos LEDs (véase la figura):

Divia Server 2FX
Divia Server BRI-2M 2.0
Divia Server V-BRI-2

Divia Server 4BRI-8M 2.0
Divia Server V-4BRI-8



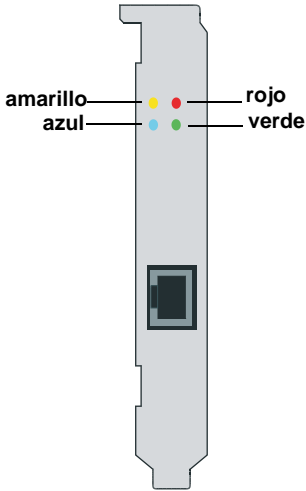
En la siguiente tabla se muestra la función de los LEDs:

Color	Estado	Descripción
verde	apagado	Nivel 1 inactivo.
	encendido	Nivel 1 activo. El cableado y el enlace con la RDSI son correctos.
naranja	apagado	Nivel 2, canal D, inactivo.
	encendido	Nivel 2, canal D, activo. En Europa el estado del canal D depende de la configuración del protocolo. El LED luce sólo mientras esté establecida la comunicación o de forma permanente.

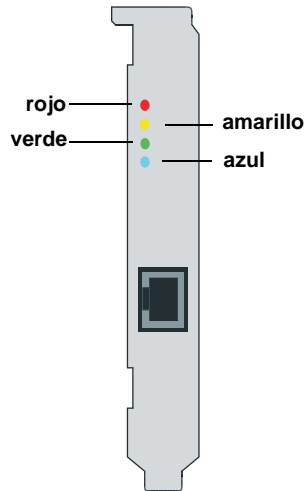
Adaptadores Diva Server PRI 2.0, Diva Server PRI 3.0 y Diva Server V-PRI

Los adaptadores Diva Server PRI 2.0, 3.0 y V-PRI tienen cuatro LEDs (véase la figura):

Diva Server PRI 2.0



Diva Server PRI 3.0
Diva Server V-PRI
Diva Server PRI PCIe



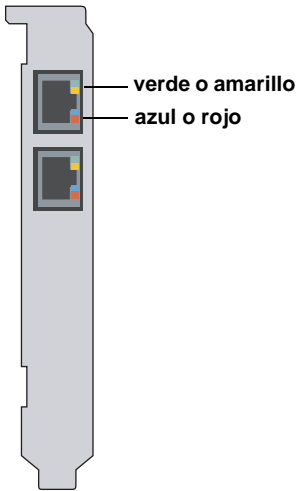
En la siguiente tabla se muestra la función de cada LED:

Color	Estado	Descripción
amarillo	apagado	Funcionamiento normal.
	encendido	La estación remota tiene problemas de sincronización (remote alarm / yellow alarm).
rojo	apagado	Funcionamiento normal.
	encendido	Al receptor no le llega ninguna señal (loss of signal / red alarm).
azul	apagado	Funcionamiento normal.
	encendido	Las tramas recibidas no están bien sincronizadas (alarm indication signal / blue alarm).
verde	apagado	Nivel 2 inactivo. Compruebe la configuración del nivel 2, es decir, el protocolo del canal D, la central telefónica, etc.
	encendido	Nivel 2 activo. El nivel 2 está activo siempre que el adaptador Diva Server PRI funcione correctamente.

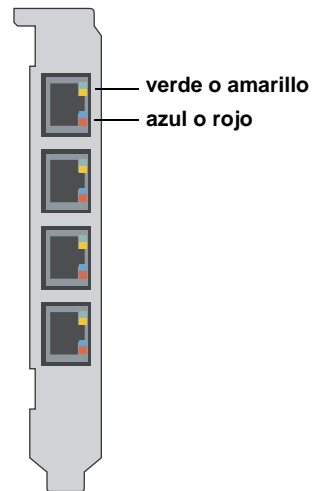
Adaptadores Diva Server V-2PRI y Diva Server V-4PRI

Los adaptadores Diva Server V-2PRI y V-4PRI tienen dos LEDs multi funcionales por puerto (véase la figura):

Divas Server V-2PRI/E1/T1



Divas Server V-4PRI/E1/T1



En la siguiente tabla se muestra la función de cada LED:

Color	Estado	Descripción
amarillo	apagado	Funcionamiento normal.
	encendido	La estación remota tiene problemas de sincronización (remote alarm / yellow alarm).
rojo	apagado	Funcionamiento normal.
	encendido	Al receptor no le llega ninguna señal (loss of signal / red alarm).
azul	apagado	Funcionamiento normal.
	encendido	Las tramas recibidas no están bien sincronizadas (alarm indication signal / blue alarm).
verde	apagado	Nivel 2 inactivo. Compruebe la configuración del nivel 2, es decir, el protocolo del canal D, la central telefónica, etc.
	encendido	Nivel 2 activo. El nivel 2 está activo siempre que el adaptador Diva Server PRI funcione correctamente.

Datos Técnicos

Condiciones de operación:

- Temperatura de servicio: 10°C a 50°C
- Máx. fluctuación de voltaje admisible: según la especificación PCI (PCI/PCIe) correspondiente

	Diva Server BRI-2M 2.0 Diva Server V-BRI-2	Diva Server 4BRI-8M 2.0 Diva Server V-4BRI-8
Tipo de bus	PCI (3,3/5,0 V)	
Procesador	32 bits RISC CPU, 100 MHz	
Memoria en el adaptador	8 MB de SDRAM	16 MB de SDRAM
IRQs (Interrupt Request Level)	Asignado por la BIOS	
Direcciones básicas I/O (hex)		
Memoria compartida	8 MB	16 MB (memoria) 64 KB (registros locales)
DSPs	2 ADSP 2185	8 ADSP 2185
Dimensiones en mm (ancho x altura)		
PCB	167,52 x 64,41	174,63 x 106,68
Barra metálica de perfil bajo	181,36 x 80,06	
barra metálica	181,36 x 120,88	187,84 x 126,37
Velocidad de transmisión de datos en kbits/s		
Canales B	2 x 64	4 x 2 x 64
Canales D	1 x 16	4 x 16
Plug&Play	sí	
Ahorro de energía		
Puerto	1 x RJ-45 (RDSI S ₀)	4 x RJ-45 (RDSI S ₀)
Interfaz físico	1 acceso RDSI S ₀	4 accesos S ₀ paralelos
Consumo de energía	0,33 A @ +5 V típ.	0,58 A @ +5 V típ.

	Diva Server 2FX
Tipo de bus	PCI (3,3/5,0 V)
Procesador	32 bits RISC CPU, 133 MHz
Memoria en el adaptador	8 MB de SDRAM
IRQs (Interrupt Request Level)	Asignado por la BIOS
Direcciones básicas I/O (hex)	
Memoria compartida	8 MB
DSPs	ninguno
Dimensiones en mm (ancho x altura)	
PCB	167,52 x 64,41
Barra metálica de perfil bajo	181,36 x 80,06
Barra metálica	181,36 x 120,88
Velocidad de transmisión de datos en kbits/s	
Canales B	2 x 64
Canal D	1 x 16
Plug&Play	sí
Ahorro de energía	
Puerto	RJ-45 (RDSI S ₀)
Interfaz físico	1 acceso RDSI S ₀
Consumo de energía	0,3 A @ +5 V típ.

	Diva Server PRI 2.0	Diva Server PRI 3.0 Diva Server V-PRI
Tipo de bus	PCI (3,3/5,0 V)	
Procesador	64 bits RISC CPU, 180 MHz	32 bits RISC CPU, 300 MHz
Memoria en el adaptador	8 MB de SDRAM	64 MB de SDRAM
IRQs (Interrupt Request Level)	Asignado por la BIOS	
Direcciones básicas I/O (hex)		
Memoria compartida	8 MB	
DSPs	2, 4, 8 o 30 ADSP 2185 según el modelo	2, 10 o 31 ADSP 2185 según el modelo
Dimensiones en mm	PRI-0M:	PRI/E1/T1-CTI, PRI/E1/T1-8:
PCB	174,63 x 106,68	
Barra metálica	187,84 x 126,37	
Dimensiones en mm (ancho x altura)	PRI-4M, PRI-8M, PRI-30M:	PRI/E1-30, V-PRI:
PCB	312,00 x 106,68	
Barra metálica y estribo de sujeción	352,17 x 126,37	
Velocidad de transmisión de datos en kbits/s		
Canales B	23 o 30 x 64	
Canal D	1 x 64	
Plug&Play	sí	
Ahorro de energía		
Puerto	RJ-45 (RDSI S _{2M})	
Interfaz físico	1 acceso RDSI S _{2M}	
Consumo de energía	PRI-30M 2.0: 2,2 A @ +5 V típ. 3,4 A @ +5 V máx.	PRI/E1/T1-CTI: 0,58 A @ +5 V típ. 1,70 A @ +5 V máx. PRI/E1/T1-8: 0,65 A @ +5 V típ. 2,00 A @ +5 V máx. PRI/E1-30, V-PRI: 0,97 A @ +5 V típ. 2,70 A @ +5 V máx.

	Diva Server V-2PRI/E1/T1	Diva Server V-4PRI/E1/T1
Tipo de bus	PCI (3,3/5,0 V)	
Procesador	64 bits RISC CPU, 466 MHz	
Memoria en el adaptador	64 MB de SDRAM	
IRQs (Interrupt Request Level)	Asignado por la BIOS	
Direcciones básicas I/O (hex)		
Memoria compartida	8 MB	
DSPs	10 ADSP-BF533	20 ADSP-BF533
Dimensiones en mm (ancho x altura)		
PCB	312,00 x 106,68	
Barra metálica y estribo de sujeción	352,17 x 126,37	
Velocidad de transmisión de datos en kbits/s		
Canales B	2 x 23 x 64 o 2 x 30 x 64	4 x 23 x 64 o 4 x 30 x 64
Canales D	2 x 64	4 x 64
Plug&Play	sí	
Ahorro de energía		
Puertos	2 x RJ-45 (RDSI S _{2M})	4 x RJ-45 (RDSI S _{2M})
Interfaz físico	2 accesos RDSI S _{2M}	4 accesos RDSI S _{2M}
Consumo de energía	3,0 A @ +3,3 V típ. 4,9 A @ +3,3 V máx. 0,02 A @ +5 V típ. 0,04 A @ +5 V máx.	5,5 A @ +3,3 V típ. 6,5 A @ +3,3 V máx. 0,04 A @ +5 V típ. 0,08 A @ +5 V máx.

	Diva Server PRI PCIe Diva Server V-PRI PCIe
Tipo de bus	PCIe 1.0a x1 Lane (3,3/12 V)
Procesador	32 bits RISC CPU, 300 MHz
Memoria en el adaptador	64 MB de SDRAM
IRQs (Interrupt Request Level)	Asignado por la BIOS
Direcciones básicas I/O (hex)	
Memoria compartida	8 MB
DSPs	8 o 31 ADSP 2185
Dimensiones en mm (ancho x altura)	PRI/E1/T1-CTI PCIe:
PCB	167,52 x 64,41
Barra metálica de perfil bajo	181,36 x 80,06
barra metálica	181,36 x 120,88
Dimensiones en mm	PRI/E1-30 PCIe, V-PRI PCIe:
PCB	312,00 x 106,68
Barra metálica y estribo de sujeción	352,17 x 126,37
Velocidad de transmisión de datos en kbits/s	
Canales B	30 x 64
Canal D	1 x 64
Plug&Play	sí
Ahorro de energía	
Puerto	RJ-45 (RDSI S _{2M})
Interfaz físico	1 acceso RDSI S _{2M}
Consumo de energía	PRI/E1/T1 PCIe: 0,96 A @ +3.3 V típ. 0,04 A @ +12 V típ. PRI/E1-30 PCIe, V-PRI PCIe: 2,3 A @ +3,3 V típ. 0,03 A @ +12 V típ.

	Diva Server Analog-2P	Diva Server Analog-4P Diva Server V-Analog-4P Diva Server Analog-8P Diva Server V-Analog-8P
Tipo de bus	PCI (3,3/5,0 V)	
Procesador	32 Bit RISC CPU, 100 MHz	
Memoria en el adaptador	16 MB SDRAM	
IRQs (Interrupt Request Level)	Asignado por la BIOS	
Direcciones básicas I/O (hex)		
Memoria compartida	16 MB (memoria) 64 KB (registros locales)	
DSPs	2 ADSP 2185	4 o 8 ADSP 2185 según modelo
Dimensiones en mm (ancho x altura)		
PCB	167,52 x 64,41	312,00 x 106,68
Barra metálica de perfil bajo	181,36 x 80,06	
Barra metálica	181,36 x 120,88	
Barra metálica y estribo de sujeción		352,17 x 126,37
Velocidad de transmisión de datos en kbits/s	max. 2, 4 u 8 x 56 kbits/s según el tipo de adaptador	
Plug&Play	sí	
Ahorro de energía		
Puertos	2 x RJ-10	Analog-4P y V-Analog-4P: 4 x RJ-10 Analog-8P y V-Analog-8P: 4 x RJ-45
Interfaz físico	2, 4, u 8 interfaces analógicos V.90 según el tipo de adaptador	
Consumo de energía	0,34 A @ +5 V típ.	Analog-4P y V-Analog-4P: 0,45 A @ +5 V típ. Analog-8P y V-Analog-8P: 0,5 A @ +5 V típ.

Datos Sobre la Homologación

Eicon Networks declara, bajo su responsabilidad, que este aparato cumple con lo dispuesto en la Directiva 99/05/CE, del Parlamento Europeo y del Consejo de 9 de marzo de 1999, transpuesta a la legislación española mediante el Real Decreto 1890/2000, de 20 de noviembre.

PER 

Firma autorizada:

Gaetan Hogue - Approval Manager - Montreal
Eicon Networks Corporation

Montreal, 12 de Junio de 2001

Homologaciones internacionales

Los adaptadores Diva Server están certificados en Europa (marca **CE**) y en Norteamérica (FCC e Industry Canada).

La certificación en Europa sólo es válida para los países que aceptan la marca de la Unión Europea (marca **CE**): Alemania, Austria, Bélgica, Chipre, Dinamarca, Eslovaquia, Eslovenia, España, Estonia, Finlandia, Gran Bretaña, Grecia, Holanda, Irlanda, Islandia, Italia, Latvia, Lituania, Luxemburgo, Noruega, Polonia, Portugal, República Checa, Suecia y Suiza.

Algunos países de Europa Oriental y del Mediterráneo también aceptan la marca CE. Si no está seguro, consulte con su proveedor, con la compañía telefónica o con la Oficina de Homologaciones.

Si necesita más información sobre la homologación, envíe un mensaje por correo electrónico indicando el adaptador Diva Server y el país relevante a la siguiente dirección:

certification@eicon.com

Soporte Técnico

Eicon Networks ofrece diferentes posibilidades de obtener soporte técnico. Le recomendamos que primeramente consulte con su proveedor de Eicon Networks. Si su proveedor no puede localizar la causa del error, visite la ayuda suministrada en la página web. En el supuesto de que usted no pudiera resolver el problema, consulte con el soporte técnico de Eicon Networks.

Proveedor de Eicon Networks

Si tiene problemas a la hora de utilizar el adaptador, cree un archivo de seguimiento de depuración (Debug Trace) con las herramientas de mantenimiento. Esta información le ayudará a usted o a su proveedor a localizar rápidamente la causa del error. Para más detalles, consulte el apartado correspondiente a las herramientas de mantenimiento que le ofrece tanto las guías online como la ayuda que acompaña al software.

Ayuda Web de Eicon Networks

En el caso de que su proveedor no puede localizar la causa del error, visite nuestro servicio de Ayuda Web en inglés. La Ayuda Web contiene:

- instrucciones detalladas para la instalación y configuración de los adaptadores Diva Server y el software en los más variados campos de aplicación.
- programas de seguimiento de depuración
- asistentes de instalación y configuración
- información muy útil para la eliminación de errores
- cursos online sobre RDSI, Diva Server API y X.25

Visite la Ayuda Web de Eicon Networks en la dirección www.eicon.com/support/ema

Soporte técnico de Eicon Networks

Si tiene problemas con el adaptador Diva Server y el software, lea detenidamente las sugerencias y recomendaciones dadas en la Ayuda Web antes de ponerse en contacto con el soporte técnico.

El soporte técnico podría necesitar:

- un seguimiento de depuración. Para más información consulte la ayuda online Diva Server Diagnostics Online Help DIVATRACE.chm para los sistemas operativos Windows, y el Diva Server for Linux Reference Guide para Linux.

- o para los sistemas operativos de Windows una copia de la configuración activa. Para más información consulte la ayuda online Diva Server Configuration Manager Online Help DiSrvCfg.chm.

Para obtener información sobre como contactarnos según el producto y el problema que tenga, por favor visite: **www.eicon.com/support/contact.asp**.

Comentarios

Si desea mandar comentarios con respecto a su adaptador Diva Server o el Diva Server Software, hagalo por mail: diva.server@eicon.com.

Su Adaptador Eicon Networks y la Directiva WEEE

Durante agosto del 2005, la Directiva 2002/96/CE sobre residuos de equipos eléctricos y electrónicos y su complemento 2003/108/CE conocidos como WEEE entró en vigor en la mayoría de los países de la Unión Europea. Este producto de Eicon Networks aplica dentro de la Directiva WEEE.

Confiamos en que este producto será de gran utilidad. Es un placer informale que Eicon Networks garantiza este producto como está descrito en **Eicon Networks Corporation License Agreement for use of software** en la página 2 de esta guía de instalación. Después del periodo de garantía le ofrecemos el servicio de reparación con cargo a usted. Si algún día este producto ya no satisface sus necesidades o los costos de reparación sean demasiado altos, le pedimos no tirarlo a la basuro sino de reciclarlo.

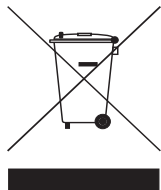
Eicon Networks invirtió mucho tiempo en el diseño y la fabricación según ISO 14001, sistema de gestión medioambiental, para la reducción de daños al medio ambiente. Los requerimientos de ISO 14001 se parecen a los de ISO 9001, sistema de gestión de calidad, y son igualmente rigurosos.

Como todos los productos eléctricos y electrónicos, incluyendo televisores y ordenadores, este producto puede contener una cantidad mínima de materiales dañinos al medioambiente. Para evitar daños ambientales, le pedimos que use los siguientes maneras de reciclaje:

- Llevar el producto al centro de recopilación de su empresa,
- Llevar el producto a la oficina de entrega para productos reciclables o
- Llevar el producto a la tienda donde comprará el nuevo producto Eicon Networks.

El reciclaje del producto dentro de la Unión Europea no causa ningún gasto ya que Eicon Networks cubrió dichos gastos para el reciclaje al lanzar el producto al mercado, como lo requiere la directiva WEEE.

Le agradecemos de antemano su co-operación y apoyo en la protección del medio ambiente.



**Por favor, no lo tire a la basura,
reciclélo.**

