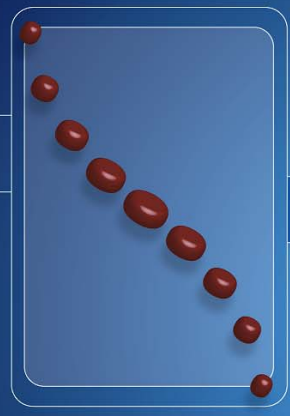

xandros

SERVER

GETTING STARTED GUIDE

Version 2

POWER WITHOUT COMPLEXITY™

Xandros Server 2 Getting Started Guide

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1 Welcome to Xandros Server

Thank you for choosing Xandros Server.

Use this document to understand, install, start, and configure Xandros Server. For information on using the server components, see the *Xandros Management Console Administrator Guide*.

What is Xandros Server

Xandros Server is a Linux operating system and suite of software to configure and manage servers and resources. You can back up user computers, establish Web sites, file servers, virtual private networks, and manage user accounts and printing, for example.

Xandros Server can be used in new or existing networks. It can be integrated into networks with Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS) servers already running. It can install into existing Windows or UNIX networks, and in UNIX-only environments, for example. Xandros Server combines an array of Linux-based server facilities with a graphical user interface similar to that in Windows Server 2000 and 2003 products. Xandros Server can be integrated into Microsoft Outlook environments for coordinated meeting scheduling, for example. It is compatible with your existing Windows domain and networking infrastructure, offering you a low cost, plug-and-play alternative to costly Windows servers.

Standard and Advanced editions are available. The Advanced edition includes more functions, such as clustering/load balancing, as well as the ability to deploy Xandros products to computers over the network and manage those computers by incorporating Xandros BridgeWays - Deployment and Management Edition components.

Features of Xandros Server

Some features of Xandros Server include:

- Easy installation
- Optional use of graphical user interface
- User-friendly wizards
- Ability to coexist with a Windows networking environment
- Xandros Management Console (xMC), a remote Microsoft Management Console (MMC)-like administration tool
- Comprehensive set of server components; add or remove components to suit your needs
- Set up Web sites, wiki sites, blog sites, time servers, file transfer protocol (FTP) sites, file servers, print servers, virtual private networks, streaming-media servers, and proxy servers, just to name a few examples
- Use Scalix Xandros Edition to manage meetings, tasks, distribution lists, and addresses among multiple users with existing applications, including Microsoft Outlook
- Access e-mail and calendars anywhere with a Web browser
- Back up user data, including Windows computers, to disk or tape
- Create certificates and use encryption for secure Web site transactions
- Create network user accounts for Linux, UNIX, and Windows computers
- Create multiple administrator accounts with different levels of privileges
- System monitor alerts administrators of critical events and minimizes downtime
- Integrated firewall
- Access the interface on a Windows computer
- Support for redundant array of independent disks (RAID)
- Support for 32 and 64-bit processors
- Support for symmetric multiprocessing (SMP), which means that multiple processors can be used in a computer to do more work and balance load
- Runs popular server applications, including JBoss, IBM WebSphere, IBM DB2, Oracle, Sun One J2EE, MySQL, LAMP, and others
- Plug-in architecture means components can be developed by third parties
- Compliant with the Linux Standard Base (LSB)

Xandros Server package

As outlined in the table, several CDs can be included.

CD	Includes
Installation CD	32 or 64-bit version
Applications CD 1	xMC for Windows BRU backup agent for Windows and Macintosh computers Windows Migration Tool Scalix Outlook connector IBM DB2 Express C Edition MySQL Oracle 10G Express Edition
Applications CD 2	*Xandros Management Console Administrator Guide* Scalix Xandros Edition Scalix Evolution connector Adobe Reader IBM Websphere Server JBoss Application Server NoMachine NX Enterprise Server SugarCRM Sun Java Runtime Environment BRU and Scalix documentation
Applications CD 3 (for 64-bit version)	Adobe Reader IBM DB2 Express C Edition MySQL Sun Java Runtime Environment
Xandros Desktop Installation CD	Included with Advanced edition

When you install Xandros Server you install Xandros OS as the operating system, a suite of desktop applications, and the server software. Desktop applications include a Web browser, e-mail client, system tools, and utilities. They include applications developed by Xandros, third-party applications, and open-source software made available by developers around the world.

Xandros provides two methods to obtain more software. First, Applications CDs are provided. Simply insert the CD into a drive to install from it. Second, more software can be installed from Xandros Networks, which is an application that accesses servers over the Internet so that you can download security updates, application updates, and new software, such as

OpenOffice.org. You update Xandros Server with Xandros Networks, and you can purchase additional server components, licenses, and other applications.

Purpose of this guide

This document provides information to understand Xandros Server, install it, access the desktop and applications, and configure Xandros Server. It is intended for network administrators, for example administrators of Windows servers who may or may not have Linux experience.

Documentation conventions

The following conventions relate to using the mouse.

When you see this...	Do this...
Click	Press the primary mouse button (usually the left mouse button)
Double-click	Quickly press the primary mouse button twice
Right-click	Press the secondary mouse button (usually the right mouse button)
Click **File ▶ New**	Click the File menu, and select the New option in the menu
Enable the **Network** check box	Click the check box beside Network to place an x or check mark inside the box
Right-click and select **Paste**	Press the right mouse button, and select the Paste command in the submenu that appears

The following conventions relate to keyboard actions.

When you see this...	Do this...
Press **Enter**	Press the Enter key on your keyboard
Press Ctrl+Shift	Press the Ctrl key and the Shift key at the same time
Type `mkdir`	Type the text mkdir using the keyboard; also indicates programming code

The following conventions relate to icons in this document.

When you see this...	It means this...
	Caution — Negative consequences to software, hardware, or files can occur
	Tip — Usually presents an alternate way to perform a task
	Note — Provides additional information

There is usually more than one way to perform a task. For example, you can click a tool bar button, select a menu item, or right-click and select a menu item.

Learning how to use Xandros Server

The table lists resources available.

Documentation	Explanation
Getting Started Guide	Provides information to understand, install, start, and configure Xandros Server (this document)
Xandros Management Console Administrator Guide	Explains the server components and how to use them
Online help	Provides instructions for using the product; excludes installation and configuration instructions
Quick Start Guide	Provides an introduction to the product

To access the Administrator Guide

1. Install it and Adobe Reader from Applications CD 2.
2. Access it by clicking **Launch ▶ Applications ▶ Server Management ▶ Xandros Management Console Administrator Guide**.

To access help within server components

- Click the **Help** button on the tool bar or press **F1**. 

To access help within other applications

- Click **Help** and select the appropriate option.

To access help for all applications

- Click **Launch** ▶ **Help**.

To access the Quick Start Guide

- On the desktop, double-click the **Quick Start Guide** icon.

Getting technical support

The table lists resources available.

Help	Description
User forums	**http://forums.xandros.com**
Technical support	Free installation support by e-mail to registered users for 90 days. Register at **www.xandros.com/support/register.html** Contact support at **support@xandros.com** For better service, send a separate e-mail for each question. For support beyond the 90-day period, packages can be purchased. See **www.xandros.com/products/business/server/support.html**

You can also access the **Hardware Detection** panel in the Control Center, click the **Tech Support** button, and provide the file generated to Xandros Technical Support.

Determining version numbers

You may need to know the version number for technical support or when downloading software.

To view the Xandros Server version number

1. Click **Launch** ▶ **Xandros File Manager**.
2. Click **Help** ▶ **About Xandros OS**.

To view the Linux kernel version number

1. Click **Launch** ▶ **Control Center** ▶ **Control Center**.
2. The Linux kernel version is displayed as the **Release**.

To view the software version number in an application

- In the application, click **Help** ▶ **About...**

You can also view version numbers in Xandros Networks by clicking **Settings** and enabling the **Expert View** option.

You can also view product, build, and serial number information in the **Hardware Detection** panel of the Control Center.

2 Overview

This chapter provides an overview of Xandros Server, including:

- Managed Community
- Xandros Management Console (xMC)
- Custom server components
- Integrated backup facilities
- Integrated mail and calendaring services

Managed Community

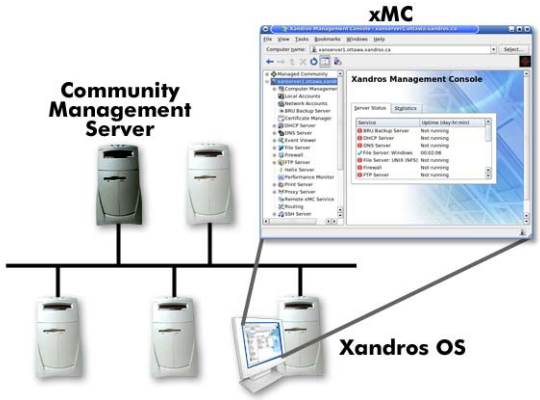
Xandros provides a powerful "Managed Community" model that automates many tasks and presents a simplified, centralized approach to administering a multi-server environment. The services you implement within the Managed Community are aware of each others' presence, so administrative tasks that span multiple services on multiple servers can be achieved in a convenient manner.

A **Managed Community** is one or more Xandros computers in a domain. Xandros Server and Xandros Desktop computers can comprise a Managed Community. In each Managed Community there is one controlling computer called a **Community Management Server**. It maintains network user accounts, for example, for the entire domain. Any additional server installations are referred to as **Member Servers**. One of them can be designated as a failover installation for the Community Management Server.

Each Managed Community can have its own domain, meaning it is not installed into an existing domain.

Designating a Community Management Server

When setting up a Managed Community, you first designate a Community Management Server.



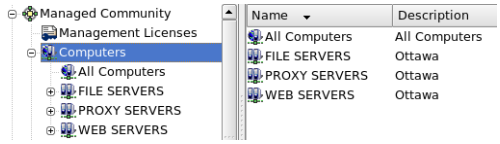
Managed Community has one Community Management Server

Each Managed Community has one Community Management Server. For Xandros Server, within your corporate local area network (LAN) you can have one Community Management Server and several Member Servers that provide backup, networking, file, print, Domain Name System (DNS), and other internal services. You might set up a second Managed Community in your Internet-accessible secure zone, again with a Community Management Server, plus additional Member Servers for Web, file transfer protocol (FTP), e-mail, and DNS services.

In a larger enterprise you may decide to deploy a large number of servers for various services within your Managed Community while employing a single Community Management Server, even when the servers are housed in diverse locations. Or you can set up separate Managed Communities for various corporate divisions or geographic locales, each with one Community Management Server and any number of additional servers. The choice is yours, as Xandros provides such flexibility.

Grouping servers

You can set up virtual groups of servers within your community to simplify administration. For example, you name separate groups for all your file or Web servers, or for all the servers in your London office, to make it easy to monitor and manage related server activities. Because these are virtual groupings, a particular server can reside in more than one group. For example, the Web servers in your London office can reside in both the “Web” and “London” groups. The figure here shows that file, proxy, and Web servers have been grouped into their own categories. Grouping servers makes it easy to manage them.



Grouping servers for easy management

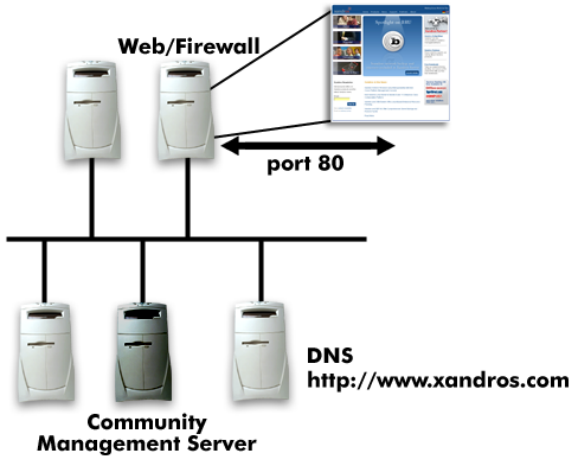
Centralized network account management

Your Managed Community provides a centralized repository for network accounts to simplify account administration and allow all authentication to occur in a single place. For example, rather than set up separate user accounts on the file, Web, FTP, print, virtual private network (VPN), and other servers within your Managed Community, you manage a single set of network accounts, providing users with access to a range of services on various servers. So when an employee joins or leaves your company, it becomes a simple task to establish or discontinue access to network services.

Thanks to the centralized account repository, a user logged in to a Windows computer using their domain account does not have to provide their user name and password to access certain services within the Managed Community, such as a Web site with protected services using NTLM authentication.

Work flow automation

Because the servers within the Managed Community, as well as the services on a particular server, are aware of each other's presence, many normally discreet system administration tasks can be automated, to save you the trouble of laborious manual configuration. For example, when you add a virtual Web server, the wizard prompts you to automatically generate the required DNS entries, provided that you have DNS administrative privileges. Then Xandros Server checks to see if there is a managed firewall on your Web Server and, if you have administrative privileges for the firewall, opens the appropriate ports.

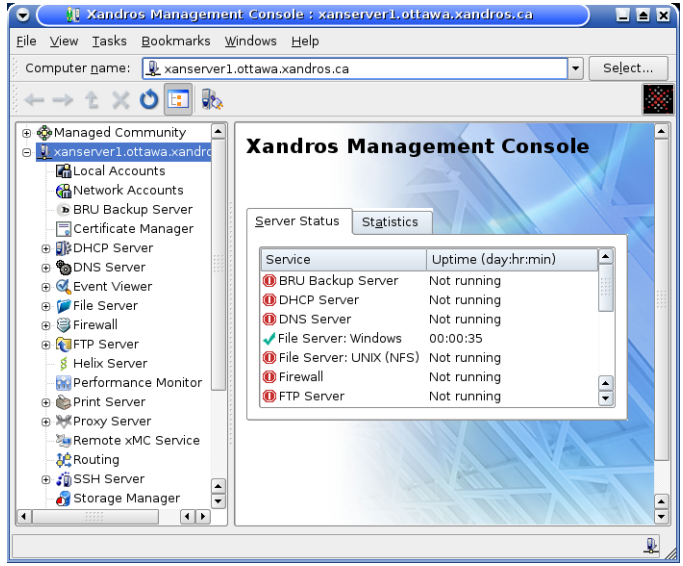


Automatic generation of DNS and firewall entries within your Managed Community

Other tasks within your Managed Community are automated in a similar manner. For example, when you add a network user account, entries for Web, file, print, VPN, FTP, and proxy server authentication are generated automatically.

Xandros Management Console (xMC)

Linux servers are renown for their power and stability, yet their installation and administration generally requires technical skill and command-line experience. Xandros greatly simplifies these tasks by incorporating the power of Linux into the all-graphical Xandros Management Console (xMC).



xMC showing administrator access to services in Xandros Server

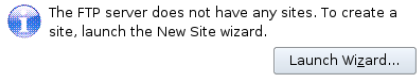
Xandros Management Console has multiple features. Because it is a remote management tool, you do not need to be at the server computer to manage its services. xMC employs a plug-in architecture so you can develop your own server components to manage server software from within xMC as well. The plug-in architecture also means that you can add and remove server components to meet your needs. xMC can be run remotely on other computers, such as Windows and Xandros Desktop. Effectively, xMC becomes your all-in-one management console on Xandros services.

Likewise, you can log into multiple Managed Communities from a single workstation. When you log into xMC, you are logging into the Managed Community you designate, and from there you can switch to any Xandros server or Xandros desktop in that community that you have permission to manage.

Due to the flexible, plug-in approach, you can add or delete components from xMC to suit your needs.

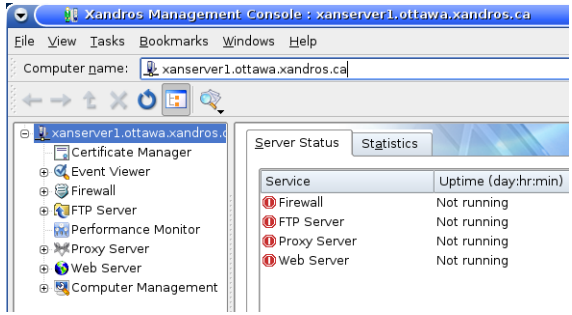
The left pane of xMC presents a convenient tree view of the services you are authorized to access and manage for the selected server. It also provides access to various administrative tasks, such as managing user and network accounts, setting system alerts, and configuring event reports.

When you click on various server services, notice that they present a consistent tabbed interface with global controls, tool bar buttons, and menu items that adapt to the task at hand. Informative messages automatically appear when tasks must be performed prior to starting a service. For example, the DHCP Server component prompts you to configure a DHCP network connection if you have not done so yet, and the FTP Server component prompts you to launch the wizard to set up your first site.



FTP Server prompts you to launch the wizard to set up your first site

The services and administrative tasks displayed in xMC automatically adapt to your administrative privileges. For example, as the xMC Administrator for a Web server you may be granted access to certificate, FTP, proxy, and Web services, as well as to the Event Viewer.

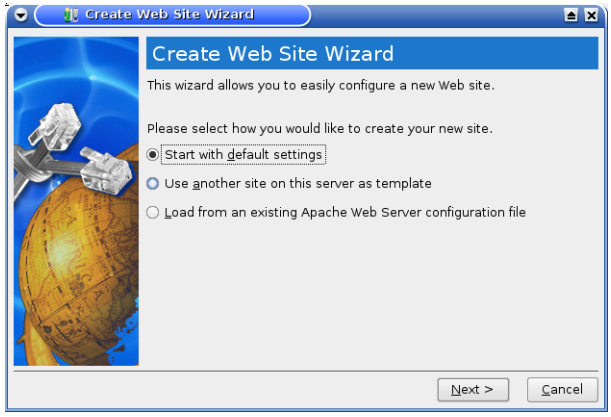


Components a typical Web administrator may see in Xandros Management Console

User-friendly wizards

Xandros eliminates the pain of manual commands. Instead, wizards are available for many tasks, and they are especially powerful because they know which service privileges you have within the Managed Community.

For example, when you click the Create Site button on the Web Server tool bar, it launches a wizard to help you to configure the site with default settings, using an existing site as a template, or by loading an existing Apache configuration file.



Create Web Site wizard guides you along various paths to set up a site

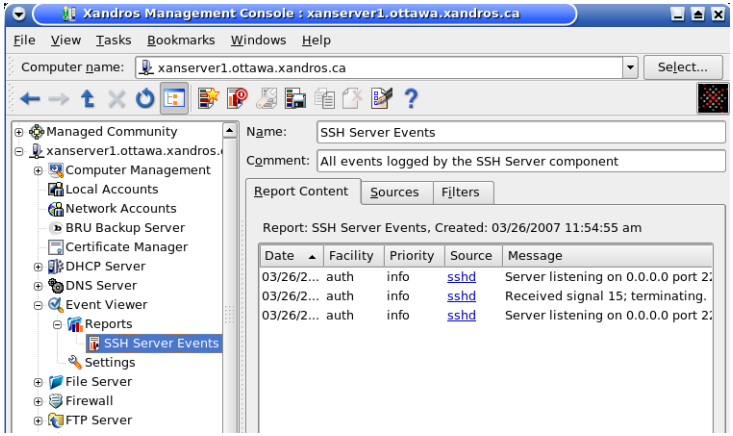
The wizard fills in default settings automatically, which you can accept or change. Because it is aware of DNS servers within your Managed Community, it prompts you to select from the available DNS zones if you have DNS Server privileges.

When you add a local user, another wizard automatically assigns the account to your standard set of groups. Advanced options let you easily customize everything from the login shell to server groups.

Viewing system events

The Event Viewer provides a single point of access to all of your system logs, giving you a view of all activity on your current server, making it easy to focus on areas of concern, such as system alerts or signs of attempts at unauthorized access.

To create a custom report, a check list is provided to select particular logs (such as the firewall log to detect unauthorized access), and then filter the events according to various criteria (such as the time period or severity).

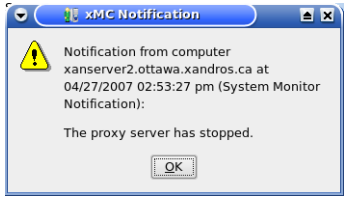


Event Viewer showing report

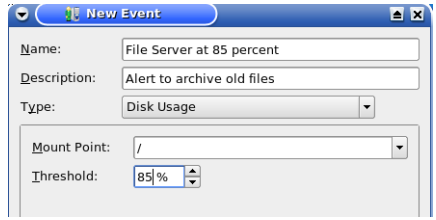
System monitoring and alerts

Xandros provides integrated system monitoring and alert facilities to help keep the servers in your Managed Community running smoothly, and it allows you to take action before a problem occurs.

The System Monitor helps you to maintain a high level of service availability and lets you set up alerts, such as notification when a disk nears capacity, heavy CPU load or RAM usage, or a hot CPU. You can then tell the system what action to take.

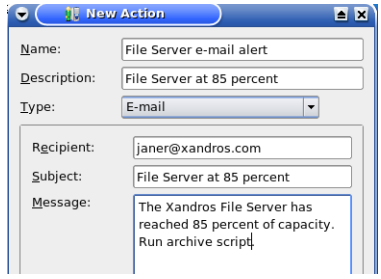


Alert that proxy server has stopped



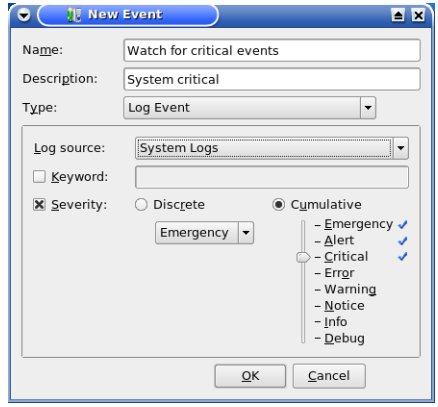
Creating a disk monitoring alert in the System Monitor

For example, you can monitor your File Server and have it alert you by e-mail when disk usage reaches 85 percent of capacity. Or, with another alert it can run a program to archive the oldest files representing 30 percent of the drive capacity, to automatically restore File Server usage to 60 percent.



Specifying the action to take when disk capacity threshold reached

You can instruct the System Monitor to check the logs in your Managed Community, send alerts, and take action based on log priority. There are several priority levels, including critical errors and emergencies.

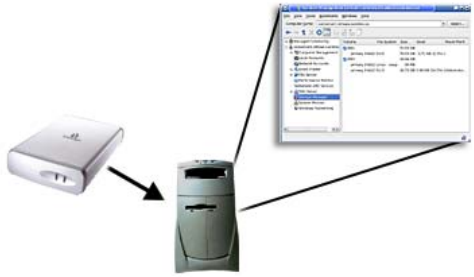


Creating an alert in the System Monitor based on errors logged

Managing logical volumes

The Storage Manager in xMC supports Logical Volume Management (LVM), which makes it easy to expand storage facilities to meet growing system needs.

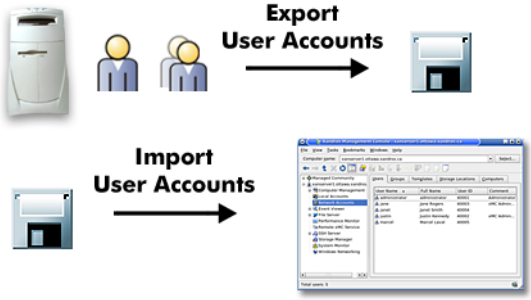
Logical volumes are an alternative to partitions and allow you to combine multiple hard disks into a single volume group. Normally, when you set up services with primary and extended partitions, one of the most difficult tasks is to estimate storage requirements based on anticipated usage. Thanks to the logical volume management in the Storage Manager, you can "combine" multiple disks into one single volume group, so the volume group can then contain data surpassing the size of an individual drive. With xMC's powerful remote management, you can even do it remotely after a new hard disk is installed by your support staff.



Adding a disk to your server

Migrating Windows users to Linux

To migrate domain user accounts from Windows to Linux, Xandros provides a tool to run on your Windows Server. Located on Applications CD 1, the Windows Migration Tool captures the information, and then asks you where you want to save the file. You then import the file into xMC and the accounts from your Windows domain are added to your Network Accounts.



Migrating user accounts from Windows to Linux

Adding or removing components

xMC makes quick work of adding or removing components for any of the servers in your Managed Community. You simply select the server and then launch the wizard to connect to the repository on Xandros Networks, from which it creates a list of available components. You then check or uncheck the components you want to add or remove and allow the wizard to complete the tasks.

Adding or removing server components

Xandros Networks is a secure service that provides easy access to the components and updates for your Xandros installation. It is also your source for purchasing upgrade components and additional user licenses for Scalix e-mail and calendaring, BRU backup, Helix media server, and other components.

There are even Software and Management License components within xMC that provide an interface to manage applications and licenses on the computer.

Custom server components

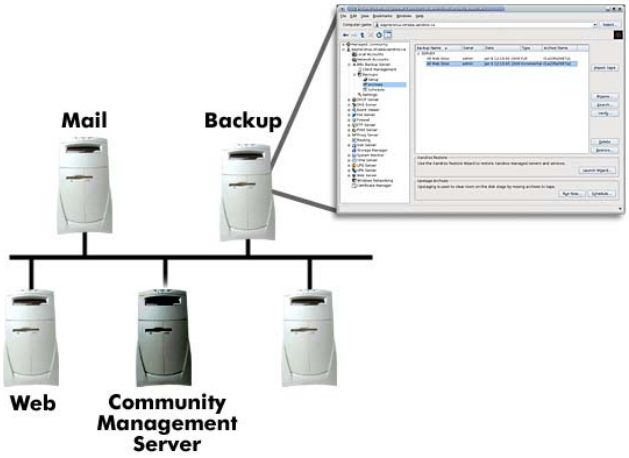
The architecture allows you to integrate management of third-party services within xMC, just like any other xMC component. Examples of third-party plug-ins already included with Xandros Server are the BRU Backup Server, Helix Server, and Scalix Xandros Edition.

Obtain the *Xandros Server Developer Guide* from the Xandros Server Web site or Xandros Technical Support, and then create your own components for custom services you want to provide.

Integrated backup facilities

Xandros Server includes an integrated BRU Backup Server from TOLIS Group to deliver reliable backup and recovery while simplifying the complex task of protecting critical system files and user data. You can easily schedule backups for your servers, file shares, FTP sites, Web sites, and various configuration files for firewall and other services. The computers backed up can be Xandros Servers, Xandros Desktop computers, and even Windows computers.

The BRU Backup Server is aware of other services within your Managed Community, including other computers that have registered for backup services. For example, you are prompted to include a new Web or FTP site when using the backup service, assuring that all services requiring backup are covered and saving you from bothering other administrators to add or change their settings.

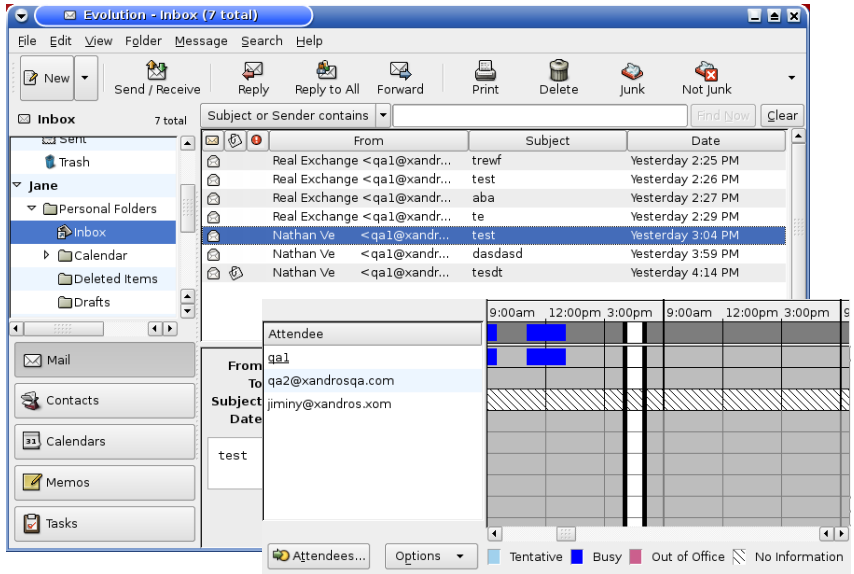


Using a backup server

Integrated mail and calendaring services

The Scalix Xandros Edition incorporated in Xandros Server is a Microsoft Exchange alternative for Linux that provides enterprise customers with mail and calendaring services, with full-function support for Microsoft Outlook, as well as a broad range of POP and IMAP clients.

Scalix provides connectors for both Microsoft Outlook on Windows and Evolution on Linux as clients for enterprise calendaring and scheduling with real-time free/busy lookup, contact and task management, public folders, rich text formatting, offline folder synchronization, secure delegate access to calendar and e-mail, and e-mail rules.



Using Evolution to access mail and calendaring functions of your Scalix server

Installing Xandros Server 3

The installation process is:

- Check that the computer meets system requirements
- Install Xandros Server
- Start up and log in
- Install updates

When you install Xandros Server, you are installing an operating system, the server software, and desktop applications.

System requirements

System requirements are determined by:

- Xandros Server baseline requirements
- Your server functions, such as if you will use the computer as a file server or Web server

Ensure the computer meets the minimum requirements for Xandros Server:

- Intel Pentium 4, AMD Athlon or Opteron, or compatible processor for 32-bit version
- Intel EM64T, AMD Opteron or AMD64, or compatible processor for 64-bit version
- 512 MB of RAM or greater (2 GB recommended)
- Adequate unallocated space available on the hard disk, with 40 GB minimum and 120 GB recommended. Xandros Server itself takes at most 2

GB, but 40 GB is the minimum if you want to use the computer as a file or file transfer protocol (FTP) server, for example.

Xandros recommends the use of a redundant array of independent disks (RAID) storage system. Using a RAID system, data is stored on multiple hard disks, which appear on the system as a single disk. RAID helps to protect data and improves performance. Xandros recommends hardware-based RAID instead of software-based RAID.

- CD drive (must be bootable)
- Video card and compatible monitor capable of 800 x 600 resolution (1024 x 768 recommended)
- Mouse or similar pointing device
- Keyboard
- Network card (Ethernet connection with speed of 100 Mbps minimum and 1 Gbps recommended)
- Internet service (to get updates)

Additional system requirements depend on intended use of the computer. For example, hard drives with ample capacity are required if you intend to use the computer as a file, Web, FTP, and/or electronic mail server. For a mail server, the faster the disk access speed (seek time), the better. For a proxy server, a regular computer likely meets requirements, but you want lots of RAM for a large cache, low random seek time for fast access to the hard disk and RAM, and ability to handle peak loads. Multiple Ethernet cards can be required, for example when the computer acts as a firewall to internal and external networks. A media server that creates video content requires a powerful computer. When creating virtual machines, you want large disk capacity and RAM, for example, to accommodate each operating system that you install. See the individual chapters in the *Xandros Management Console Administrator Guide* for more guidance.

To check system components on a Windows computer

1. Click **Start** ▶ **Control Panel**.
2. Click **System**.

To check system components on a Xandros OS computer

1. Click **Launch** ▶ **Control Center** ▶ **Control Center**, then **Hardware Information**.
2. Click the device for which you want information. For example, click **Hardware Detection** to list the audio/sound card, CD drive, network card, and video card of the computer.

Hardware compatibility

Ensure that your computer hardware is compatible with Xandros OS.

To check hardware compatibility

- See **http://support.xandros.com/hcl.php**

If you try to install Xandros Server on a computer that includes incompatible hardware, it may not install or some features may not work.

Understanding disk partitioning

Xandros Server can be installed on a new hard disk or one in use. It can be installed on a hard disk that already contains an operating system, to either overwrite or coexist with that operating system. Because Xandros Server is intended to run all the time, coexistence with another operating system is not recommended.

Hard disks typically have one main partition. If you want the Xandros installation to coexist with another operating system, a separate partition is created on the hard disk.

Partitions can be created using the Xandros installation wizard or by you. The Xandros installation program is automated and requires little input. Otherwise you can create partitions yourself if you know how or using Xandros Storage Manager. A partition table keeps track of the partitions on your hard disk and lets you add, edit, and delete partitions.

The table outlines the options available in the Xandros Installation Wizard. Xandros recommends using the wizard to partition the disk.

Install option	Explanation
Use free space	Searches for unallocated space on the hard disk. Unallocated space is space not defined. When there is enough space, Xandros Server is installed into it.
Take over disk or partition	Erases all existing information and formats the hard disk or a specified partition. Xandros Server is installed into the disk or partition.
Resize a Windows partition	Lets you resize FAT, FAT32, and NTFS file systems to reallocate space for use as a Linux system. It shrinks a Windows partition and installs Xandros Server within the resulting free space. If you have Windows Vista installed on the computer, use the native Vista tool to resize the partition instead of the Xandros installation wizard.
Replace existing Xandros OS	Replaces a previous version of a Xandros product on its partition, optionally keeping some of your defaults, including the home directories, user accounts, and user folders, but not Xandros Server component settings or files. Home directories are saved with an **_old** extension. Xandros recommends exporting any address books to other formats within the address book application before upgrading (the LDIF format works well). For an encrypted local user account, to keep the files, unencrypt the home folder first. To keep any desktop wallpapers added by you, ensure that they are in your home folder. Xandros recommends upgrading from previous versions of Xandros Server, not Xandros Desktop installations.

table continued

Install option	Explanation
Manage disks and partitions	Lets you assign and delete existing partitions. On a computer without an operating system or a disk with free space, it also lets you add a partition. The wizard lets you use an existing partition but does not let you change its size. Partitioning is not recommended by Xandros in the sense that if you have a 60 GB disk, Xandros recommends using the entire disk for Xandros Server. Otherwise, a partition of 40 GB minimum is required and 120 GB is recommended. With a RAID system, data is stored on multiple hard disks, which appear on the system as a single disk. During installation of Xandros Server, you can delete non-functioning RAID configurations, for example you can remove the RAID headers from an array of disks and convert them to individual integrated drive electronics (IDE) or serial advanced technology attachment (SATA) disks. You delete a RAID configuration because it is a non-functioning array (you removed a disk and want to install on the remaining disks) or because it is an array that does not exist on the system because it was moved. After removal, data that was stored in the RAID array may not be accessible. Another option is to use the BIOS RAID configuration tool during startup, but this will not work in all cases, for example if you have a drive that was previously in a different computer that had a different BIOS RAID manufacturer, then the BIOS tool will be unable to remove any headers. You can use logical volume management (LVM) during installation to partition your disks, as explained later.

Installing Xandros Server

Based on the function of the computer, there are three installation options:

- **Community Management Server as PDC** — A Community Management Server can function as a server providing all or some services, manage other servers and network user accounts as a Primary Domain Controller (PDC), and functions as a Lightweight Directory Access Protocol (LDAP) server. Using LDAP, it stores information that facilitates finding and accessing computers and other resources by relating names to network addresses, for example doing auto-completion when a user types an e-mail address. LDAP is integrated into the components when appropriate and runs in the background. For the first installation, you designate the computer as the Community Management Server with PDC functions; there is one Community Management Server per Managed Community.
- **Member Server** — A Member Server is associated with a Community Management Server and as such is part of its Managed Community. For the second and subsequent server installations, you normally perform this type of installation. To create a Member Server, during installation you reference the computer to a Community Management Server.
- **Community Management Server as non-PDC (stand-alone)** — Use this option when you are installing into a network with Windows Small Business Server 2003, with which trusted domain relationships cannot be established. To use this option, during installation you designate the computer to be a Community Management Server, without PDC functions.

The license allows you to install Xandros Server on one computer. When using the Advanced edition, you can manage up to 25 user computers. Read the license before or during installation.

Installation takes about 20 minutes for an experienced user performing a regular installation on a 2.4 GHz computer; additional configuration can take a half hour or so.

Use the 32 bit version of Xandros Server if you intend to use Scalix Xandros Edition. You can install the 32 bit version on 32 or 64 bit hardware/processors.

Xandros Server cannot be installed on an Apple Macintosh computer.

Some server components are required and others can be deselected during installation. Even a home office can use most of the services, for example backup, DHCP, file, firewall, FTP, print, proxy, time, and virtual private networking (VPN) servers, while DNS, mail, and Web servers are likely to be located at an Internet service provider. Components required and installed by default include those for logging events, file servers, user accounts, and Windows networking. The selection also depends on the edition you purchased.

The table outlines components that can be deselected during installation of the Standard edition.

Optional component	Function
RealNetworks	Installs the RealProducer application that allows you to produce content in the RealAudio and RealVideo formats for the Helix Server
BRU Backup Server	Backs up and restores user and other files locally or over a network. Xandros Server, Xandros Desktop, and Windows computers can be backed up, for example.
Certificate Manager	Lets you use security certificates. Required component when the Web Server component is installed, but only one Certificate Manager is needed when you have many Web servers.
DHCP Server	Allows user computers to be configured for networking automatically over a network, for example provides Internet protocol (IP) addresses
DNS Server	Tracks names and addresses of computers so that they can be accessed, for example to access Web pages by domain name instead of IP address
Firewall	Establishes network zones, lets you control open and closed ports, as well as allows or blocks specified IP addresses
FTP Server	Runs file transfer protocol (FTP) sites for viewing, uploading, and downloading files over the Internet
Helix Server	Runs streaming media, such as videos
Print Server	Enables multiple users to print to one or more printers
Proxy Server	Retrieves and caches Web content for users
Remote xMC Service	Allows you to run Xandros Management Console from a Windows XP or Vista computer, thereby allowing remote access to Xandros Server computers

table continued

Optional component	Function
Routing	Configures connections to other subnetworks
SSH Server	Allows remote access to Xandros Server computers, including Xandros Server components over the Internet from a Windows computer
Time Server	Keeps the time on user computers synchronized
UPS Monitor	Monitors power supply to a Xandros Server computer
Virtual Machine Manager	Allows you to run other operating systems and applications in a window on the desktop
VPN Server	Allows users to access your network over the Internet by virtual private networking
Web Server	Runs Web, wiki, and blog sites

Use one of the following installation procedures:

- Xandros Server installs on a computer without an operating system, upgrades a previous version of a Xandros product, or replaces another Linux operating system
- Xandros Server replaces a Microsoft Windows operating system
- Xandros Server coexists with one or more other operating systems on the same computer. The idea is to have the Xandros Server computer running all the time, so this option is not recommended. When using RAID, ensure that both operating systems support RAID the same way.

If you need help identifying partitions, see “To determine the partition number” on page 85.

To install Xandros Server on a computer without an operating system, upgrade a Xandros product, or replace another Linux operating system

1. If you are replacing another Linux operating system, back up any data or folders that you want to keep. If you are upgrading Xandros Server, use the BRU Backup Server component to backup xMC data, such as Web sites, backing up to a tape or another computer.
2. Remove all media from drives, such as floppy disks and CDs, and disconnect USB hard disks and memory sticks.
3. Insert the Xandros Server Installation CD into the drive. Use the 32 bit version if you intend to install Xandros Scalix Edition.
4. Restart the computer, and wait for the Xandros Installation Wizard.

   If your computer restarts without displaying the wizard, see "Troubleshooting installation" on page 48 and try again.

Welcome window

5. In the Welcome window, click the **Next** button.
6. In the language settings window, set keyboard, language, and other defaults as follows:

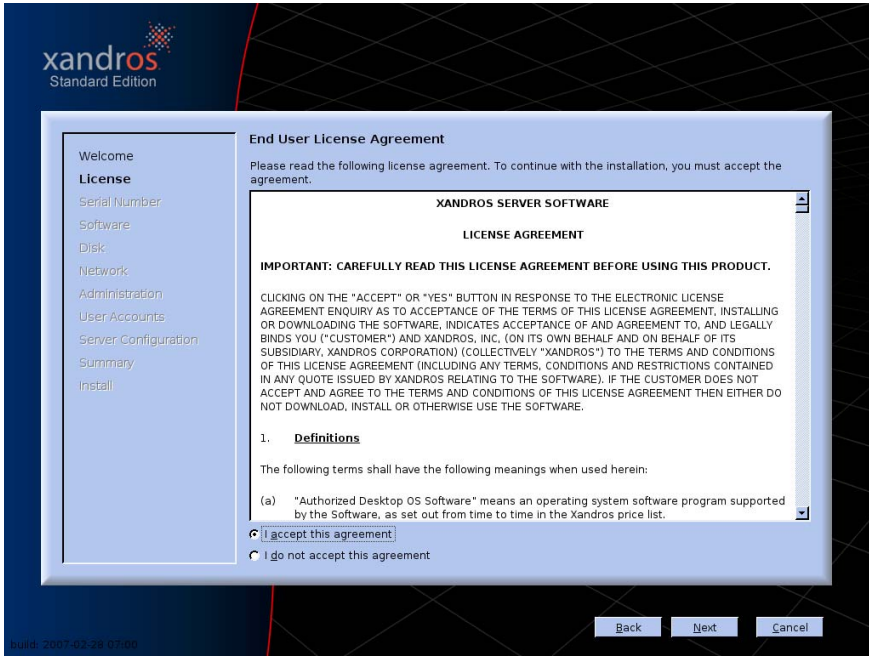
   Locale — Sets currency, time format, date format, and similar default values

Language — The language version of the Xandros product, meaning a translated version. The language package needs to be provided with the product.

Keyboard Layout — For example, when you apply the French keyboard mapping to your keyboard, pressing the A key types the letter Q. Please note that not all keyboard layouts work in Linux (for example Japanese) and that additional installations from Xandros Networks can be required for the mapping and fonts to work properly.

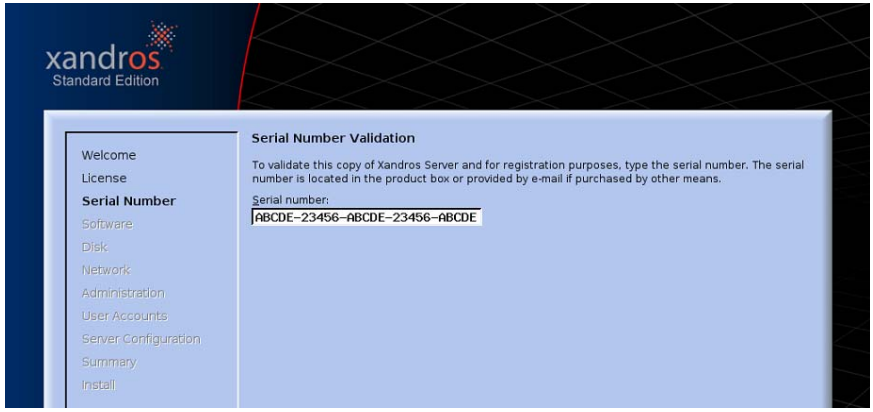
Click **Next**.

7 Read the license agreement. To continue, enable the **I accept this agreement** option, then click **Next**.



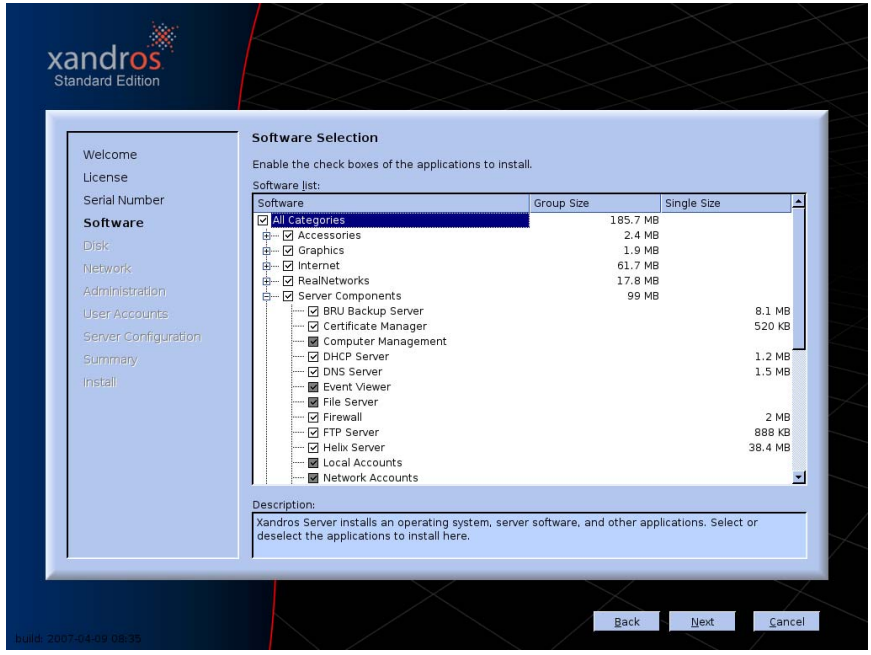
Accepting the software license

8 Type the serial number for Xandros Server, and click **Next**. The serial number is 25 digits long. If you have a trial version, this window does not appear.



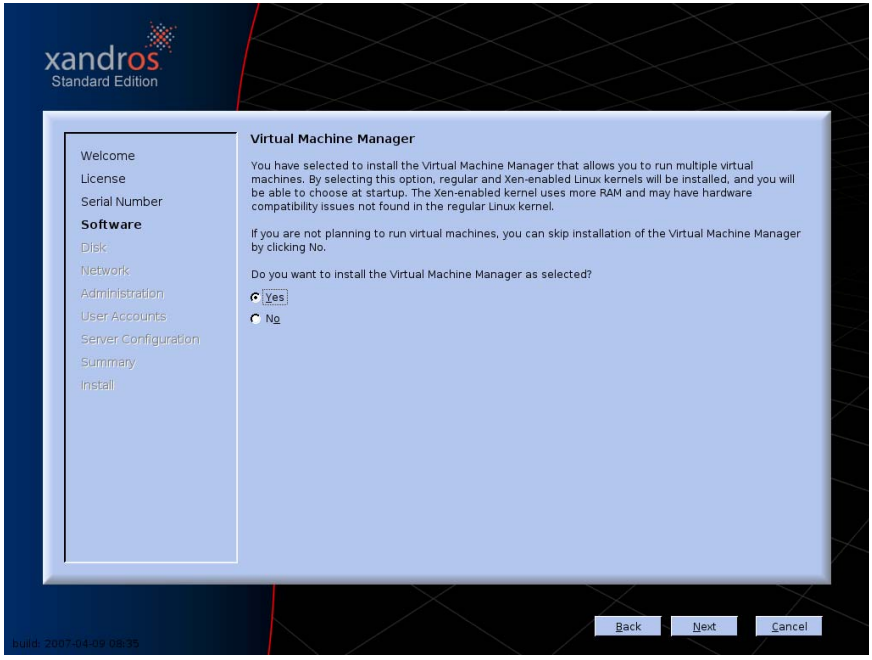
Inputting the serial number

9 To install all available desktop applications and server components, click **Next**. Otherwise, disable the check boxes of those that you do not want to install, and click **Next**. See the table at the beginning of this section for information about the components. If you deselect any server options, you can install them later.



Selecting software for installation

10 If the Virtual Machine Manager option was enabled on the previous screen, you are asked to verify installation. If you do, a Xen-enabled kernel is installed that can use more memory and is less compatible with some hardware, so install the component only if you want to run virtual machines. Click **Next**.



Verifying installation of the Virtual Machine Manager component

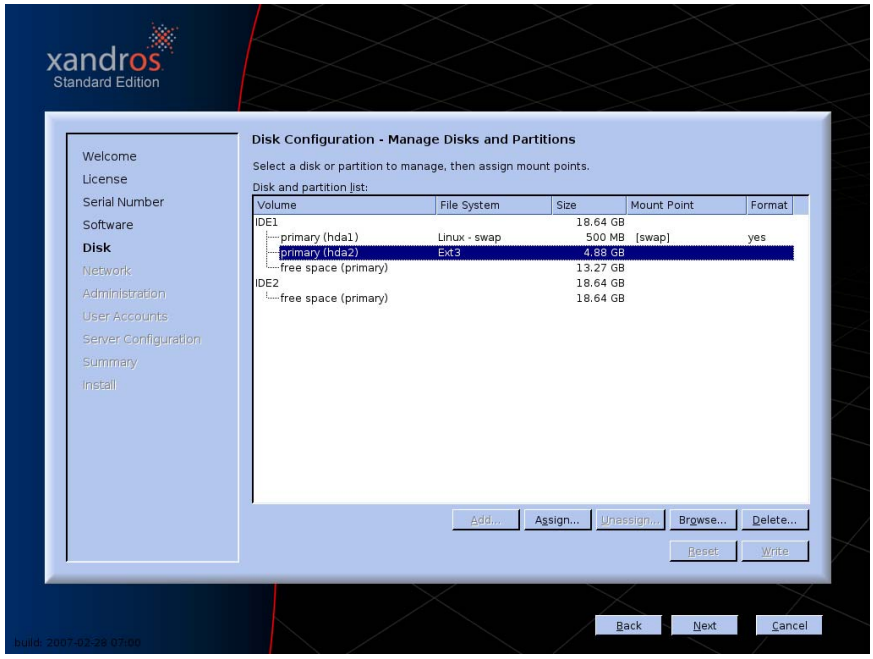
11 Enable one of the following options. Only the options applicable to your computer are available for selection.

- **Use free space** — Uses the largest unallocated space on the hard disk
- **Take over disk or partition** — Takes over an entire hard disk or specified partition; all data is erased. You can use this option to completely erase an old version of a Xandros product and all your folders and data.
- **Resize a Windows partition** — Shrinks a Windows partition and installs within the resulting free space. (If you have Windows Vista, use the native Vista tool to resize the partition instead of the Xandros wizard.)
- **Replace existing Xandros OS** — Replaces a previous version of a Xandros product, optionally keeping existing user accounts and folders, which are renamed in the format _old, and some defaults. It does not keep your Xandros Server files, for example Web site files, so back them up first.

- **Manage disks and partitions** — You reassign a partition and install onto it. When installing on a computer without an operating system or with a free space entry on a disk, you can add a partition and install onto it.

Click **Next**.

12 The next screen varies based on selection. A Disk Configuration window can appear from which you select the disk or partition to use. Select it.



Selecting a partition to use for installation

If the **Add** button is displayed and you want to add a partition, click it, set the **File system** and **Size**, and click **OK**.

If the **Assign** button is displayed, click it and in the Assign Mount Point window, leave the **Mount point** set at **/** so that you install into the root directory, then select a **File system**:

- **Ext2** or **Ext3** — Ext3 is the default file system. Choose one of these options if you use PartitionMagic to partition your disks (PartitionMagic does not support ReiserFS). Ext3 is the successor to Ext2 and functions better when the system encounters a problem, such as a power failure.
- **ReiserFS** — Generally better performance than Ext2 or Ext3 in terms of disk space use, access, and crash recovery
- **Reiser4** — The latest version of the Reiser file system. Fastest file system, more space efficient. Faster copying speed than ReiserFS and Ext3.

When active, enable one of the following options:

- **Replace existing file system** — Formats the disk or partition and erases all data on that disk or partition
- **Rename...folders...** — Keeps your /root and /home folders and their contents, and renames them with _old
- **Leave existing file system unchanged** — This option is not recommended because it is good for system files to be formatted for the installation

Click **OK** to exit from the Assign Mount Point window.

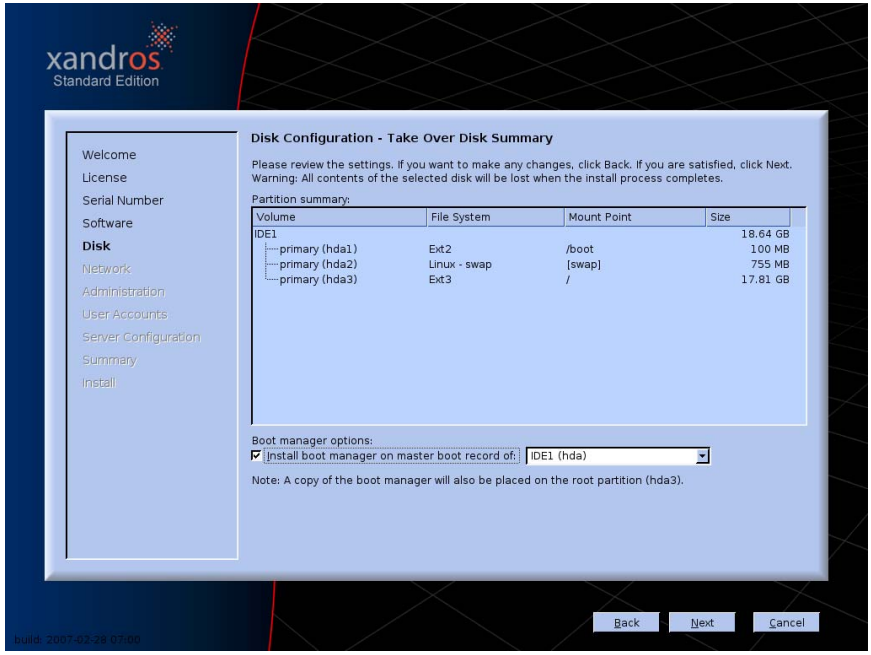
To avoid issues booting, keep various mount points on a single controller, be it SCSI, IDE, RAID, or LVM for example.

You can delete non-functioning RAID configurations, for example you can remove the RAID headers from an array of disks and convert them to individual IDE or SATA disks and install Xandros Server on one of them. You delete a RAID configuration because it is a non-functioning array (you removed a disk and want to install on one of the remaining disks) or because an array does not exist on the system because it was moved. After removal, data that was stored in the RAID array may not be accessible. Select the BIOSRAID entry, click the **Remove BIOS RAID** button, and confirm the deletion. The button is active only if a RAID array is selected.

Click **Next** to continue in the wizard. Depending on your configuration, you can be prompted to configure the disks for logical volume management (LVM). LVM is advanced disk management that allows you to easily add or replace hard disks and detect them automatically, and particularly to pool space of multiple disks, for example 10 GB from one disk and 20 GB from another disk to render a block of 30 GB. Three partitions are required: /, /boot, and swap, which you can create by assigning partitions in the same panel. If you use LVM, your partitions will then be mapped by the installation program into LVM logical volumes. If you do not configure your partitions to use LVM, you can still pool space of multiple partitions on a single disk, but not pool space of multiple disks.

13 In the second Disk Configuration window, to use the default Xandros boot manager (recommended), click **Next**.

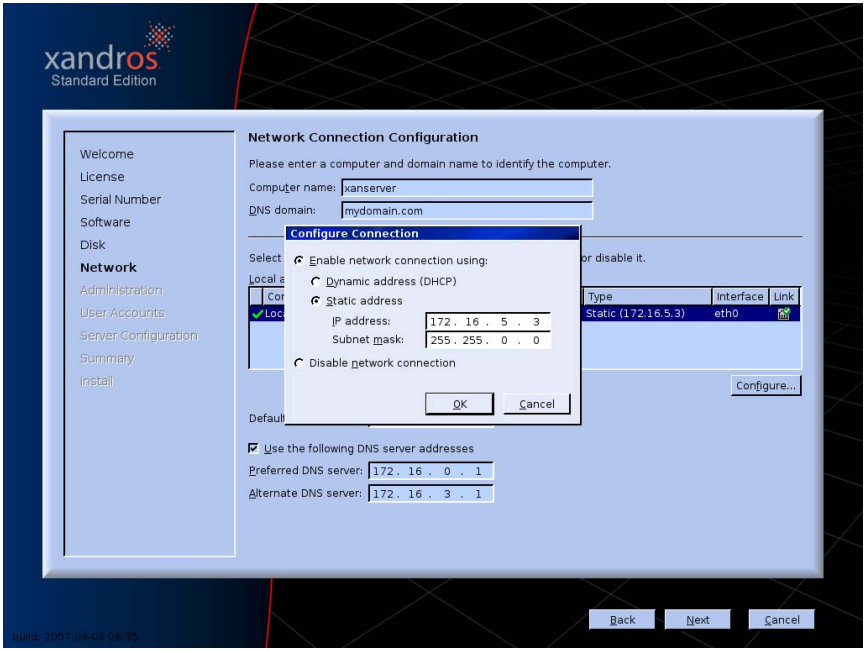
A boot manager determines the screen shown on startup, for example to select one operating system to launch instead of another. If you want to use something other than the default boot manager at startup, select it from the **Install boot manager on master boot record** list box (must already be mapped to the Xandros partition for a second option to appear). Or, when you have a boot manager that can be configured after installation, you can deselect the check box.



Using the default black Xandros startup screen

14 In the Network Connection Configuration window, type a name for the Xandros Server computer in the **Computer name** box. The default is xanserver. Make it unique on your network and if you intend to have more than one installation of Xandros Server, for example xanserver1 or proxyserver1. Make it 15 characters or less if the computer will be on a Windows network.

In the **DNS domain** box, type the name of the local network domain, for example, yournetwork.com or newyork.xandros.com



Naming the computer and setting network configuration

Select each network interface, click **Configure**, and enable one of the following options:

- **Dynamic address (DHCP)** — When the IP address of the computer changes each time you connect to the network, for example to your Internet service provider, choose this option. Xandros recommends using a dynamically assigned static IP address for the Xandros Server computer. Some components require use of a static IP address, including BRU Backup, DHCP, mail, FTP, proxy, time, and Web server. Use of a static IP address is also recommended for firewalls, DNS, and VPN servers.
- **Static address** — When the computer has a static IP address assigned to it, enter it in the **IP address** box and enter the **Subnet mask**. Assign a static IP address when it is the first Community Management Server installation and you do not have an external DHCP server (like on

Windows) giving it its address. In general for installations, if you cannot use a dynamically assigned static address, Xandros recommends use of a static IP address, and you must use a static IP address if you intend to use the computer as a backup, DHCP, mail, FTP, proxy, time, or Web server, for example. Use of a static IP address is also recommended for firewalls, DNS, and VPN servers.

- **Disable network connection** — To prevent network connections through the selected device and never use the Internet, for example. In order to install updates to Xandros Server over the Internet you require a network connection. If you have an extra network card in the computer that will not be used, disable it so that it does not interfere with the other network connection.

Click **OK** to return to the wizard.

If any of the following fields are active, complete them:

Default gateway — An IP address. A gateway is a computer that connects networks to each other, for example within a corporation or at the Internet service provider for a home user. Firewall servers and proxy servers are examples of gateways. A router is a gateway; if yours has an IP address, enter it here.

Preferred DNS server — If you have a Domain Name System (DNS) server for domain name lookups, you can specify its IP address. A DNS server translates Internet domain names into IP addresses so that computers recognize them.

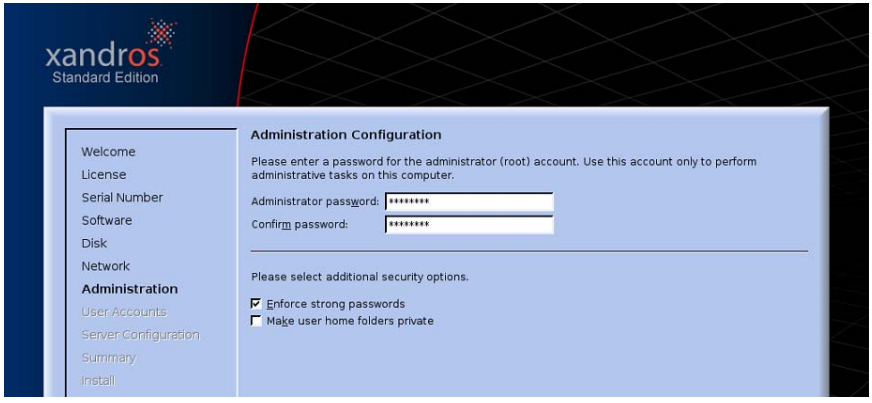
Alternate DNS server — The DNS server to use when the preferred DNS server is not available. Enter its IP address (optional).

Click **Next**. If you see a message about the gateway needing to match, change the subnet mask of the network connection, to 255.255.0.0 for example.

15 If the Administration Configuration window appears, complete it:

- **Administrator password** — Type a password for the Administrator account. The password must be a minimum of six characters. This account is used to log in to the desktop as Administrator (root).
- **Confirm password** — Retype the password
- **Enforce strong passwords** — To make it more difficult for a password to be compromised, the check box is enabled by default. The wizard checks if the password is acceptable to this higher standard. For example, it disallows the use of common words.
- **Make user home folders private** — To disable sharing of home folders, enable this check box. If you have multiple user accounts and thereby multiple home folders, users will be able to access and browse each other's folders unless you enable this option. Other users still have access to private home folders when a user is logged in regardless of encryption.

Click **Next** to continue in the wizard.

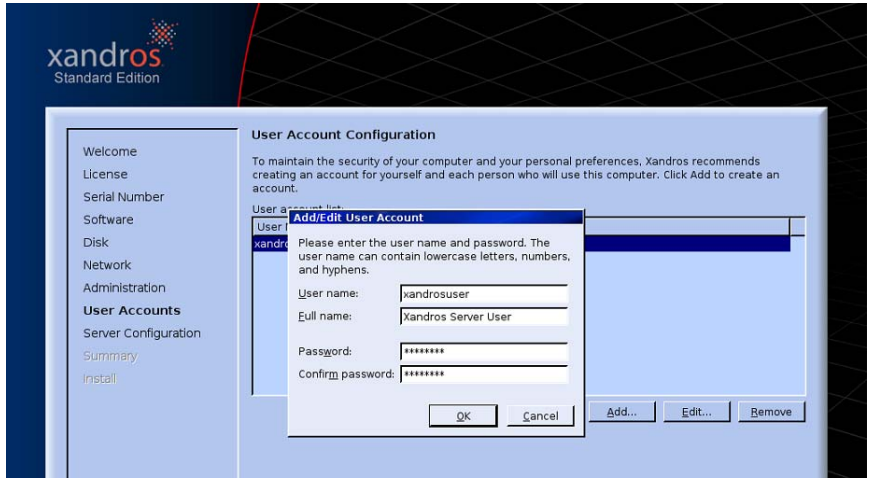


Entering the desktop Administrator password

16 If the User Account Configuration window appears, click **Add** to add a user account (optional and recommended). This user account is for access to the desktop. Complete the Add/Edit User Account window:

- **User name** — Type the user ID of the user. This is the name for logging in to the desktop, such as jimmyk. Spaces cannot be used.
- **Full Name** — Type the full name of the user, for example Jimmy King. Spaces are allowed.
- **Password** — Type a password for the user
- **Confirm password** — Retype the password
- Click **OK** to exit from the window.

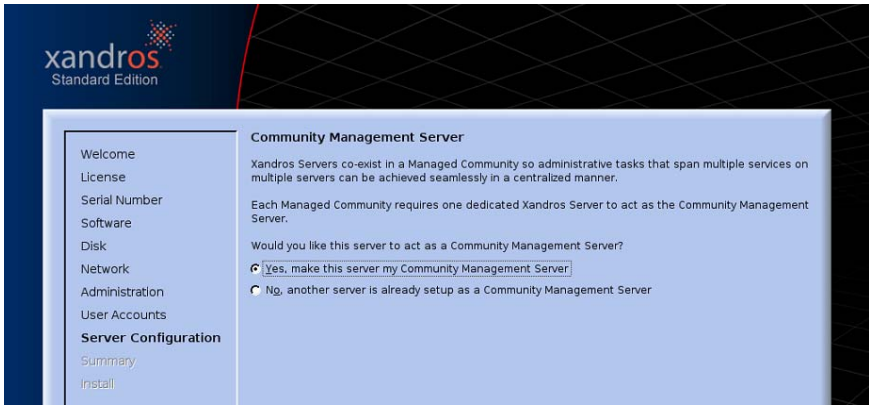
Click **Next** to continue in the wizard.



Setting up a desktop user account

17 In the Community Management Server window, enable the **Yes** or **No** option to specify if you want the computer to be a Community Management Server. A Community Management Server can function as a server, manage other servers and network user accounts, and function as an LDAP server. For a stand-alone installation, you want it to be in its own domain, so make it a Community Management Server. For a Member Server, enable **No**. For the first installation, leave the **Yes** option enabled. These options were discussed earlier.

Click **Next**.



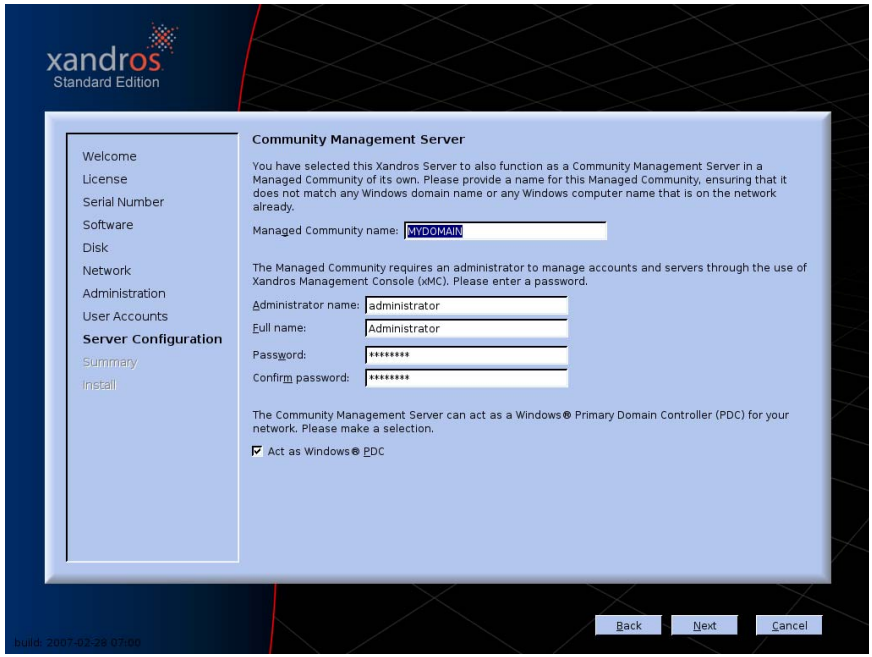
Establishing a Community Management Server

18 If the Community Management Server window appears, complete it:

- **Managed Community name** — Type a name for the Managed Community. The field is autofilled using part of the DNS domain entered earlier by you. This name will also be used as the domain, so use a domain that does not already exist.
- **Administrator name** — Type a name for the master Administrator account for the server components, meaning to access Xandros Management Console (xMC). This administrator can use Xandros Server components and create other administrator accounts with equal or fewer privileges. The default user name is administrator.
- **Full name** — Type the name of the administrator. The default is Administrator.
- **Password** — Type a password for account. Acceptable values depend on whether strong passwords are being enforced.
- **Confirm password** — Retype the password
- **Act as Windows PDC** — Leave this option enabled for the first installation; one computer must function as the PDC for user accounts in a Managed Community. Disable this option when you want the computer to be part of an existing domain.

- **LAN management connection** — When more than one network card is detected, from the drop-down list select the network connection that the Xandros Server computer is to use to communicate with members in the Managed Community.

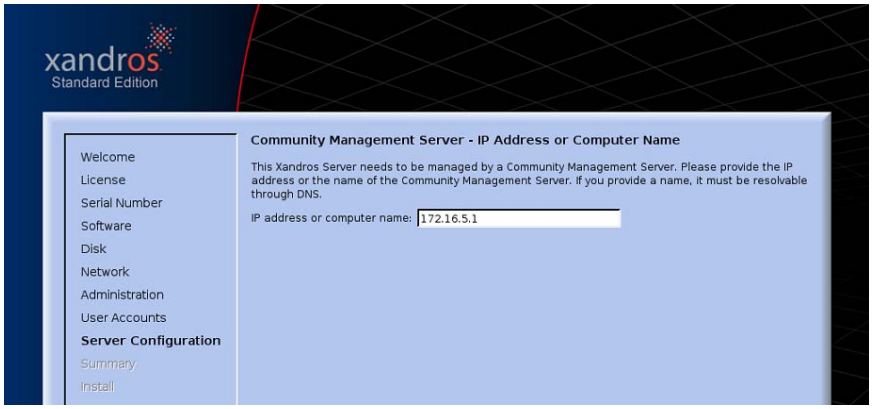
Click **Next**.



Naming the domain and configuring xMC administrator account

19 For a Member Server installation, in the Community Management Server window, specify the Community Management Server to use: type the **IP address or computer name** of the Community Management Server to be used to manage the installation. Examples are 172.16.5.1, xanserver, proxyserver1, and xanserver.company.com If you have Xandros Server installed, you can view the IP address in the **Managed Community** component. If you enter a name, it must be immediately resolvable through DNS, meaning in your DNS server the domain is set to company.com and a xanserver entry is configured to point to the Community Management Server IP address. The location of the Community Management Server is checked before proceeding, so it must be running. For best results, use the IP address.

Click **Next**.

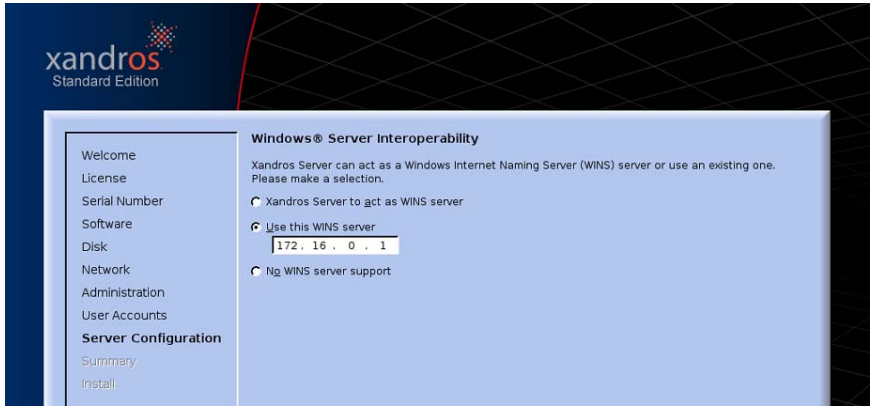


Specifying a Community Management Server for a Member Server

20 In the Windows Server Interoperability window, you can specify if the computer acts as or uses a Windows Internet Naming Service (WINS) server. A WINS server provides address resolution for Windows computers, mapping computer names to IP addresses so that computers can recognize them, similar to a DNS server. Use is recommended. Select an option:

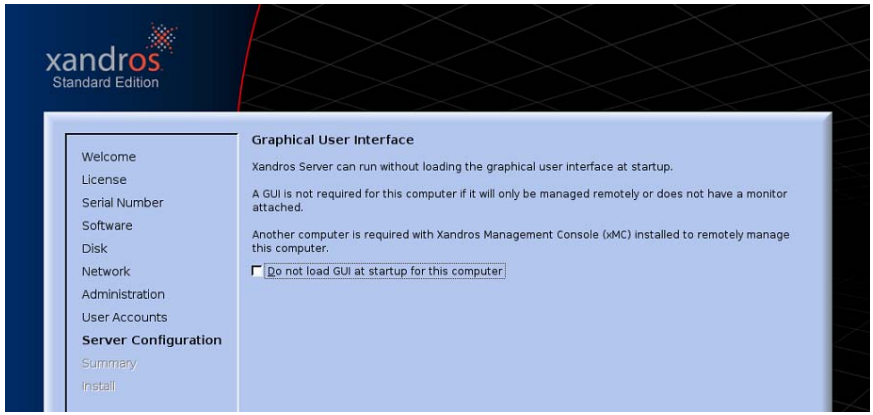
- **Xandros Server to act as WINS server** — To have the computer function as a WINS server
- **Use this WINS server** — To specify an existing WINS server, enable the option and type its IP address. You can view it on Xandros and Windows computers in the **Network Connections** panel.
- **No WINS server support** — To ignore WINS, for example because you only have Linux computers

Click **Next**.



Specifying WINS server use

21 In the Graphical User Interface window, to start Xandros Server from the command line instead of the graphical user interface, enable the **Do not load GUI at startup for this computer** check box, then click **Next**. To explain, a graphical user interface is not required when the computer will only be managed remotely or does not have a monitor attached. The non-graphical startup is also more secure and less resource-intensive. If in doubt, leave the option unchecked.



Option to use command line for login

22 In the Installation Summary window, check the information. If you need to change any settings, click **Back**. Otherwise, click **Finish** to perform the installation. Xandros Server is installed.

If you chose to take over a disk or partition, the contents of the disk or partition will be erased.

If you have problems installing Xandros Server, see “Troubleshooting installation” on page 48.

To replace a Microsoft Windows operating system with Xandros Server

1. Back up any data or folders that you want to keep.
2. The installation is similar to the previous one. In the Disk Configuration window, you enable the **Take over disk or partition** option.

All data and files on the disk or partition used will be erased before installation.

To install Xandros Server to coexist with another operating system (Windows XP example)

1. If Windows is not already installed, install it first and preferably on a separate hard disk.
2. Remove all media from drives, such as floppy disks and CDs, and disconnect USB hard disks and memory sticks.
3. In the My Computer window in Windows, check if you have an NTFS-formatted hard disk by right-clicking the disk and selecting **Properties**. Check if the **File system** setting reads **NTFS**.

   If you have an NTFS disk, to ensure that the partitions are resized properly, defragment the disk by clicking **Start** ▶ **Control Panel** ▶ **Administrative Tools** ▶ **Computer Management** ▶ **Disk Defragmenter**, then defragment the appropriate disk.
4. Insert the Xandros Server Installation CD into the drive. Use the 32 bit version if you intend to install Scalix Xandros Edition.
5. Restart the computer, and wait for the Xandros Installation Wizard.

   If your computer restarts without displaying the wizard, see "Troubleshooting installation" on page 48 and try again.
6. In the Welcome window, click **Next**.
7. In the language settings window, set keyboard, language, and other defaults as follows:

   Locale — Sets currency, time format, date format, and similar default values

   Language — The language version of the Xandros product, meaning a translated version. The language package needs to be provided with the product.

   Keyboard Layout — For example, when you apply the French keyboard mapping to your keyboard, pressing the A key types the letter Q. Please note that not all keyboard layouts work in Linux (for example Japanese) and that additional installations from Xandros Networks can be required for the mapping and fonts to work properly.

   Click **Next**.

8 Read the license agreement. To continue, enable the **I accept this agreement** option, then click **Next**.

9 Type the serial number for Xandros Server, and click **Next**. The serial number is in the box and is 25 digits long. If you have a trial version, this window does not appear.

10 To install all available desktop and server applications, click **Next**. Otherwise, disable the check boxes of applications that you do not want to install, and click **Next**. See the table at the beginning of this section for information about the components. If you deselect any server options, you can install them later.

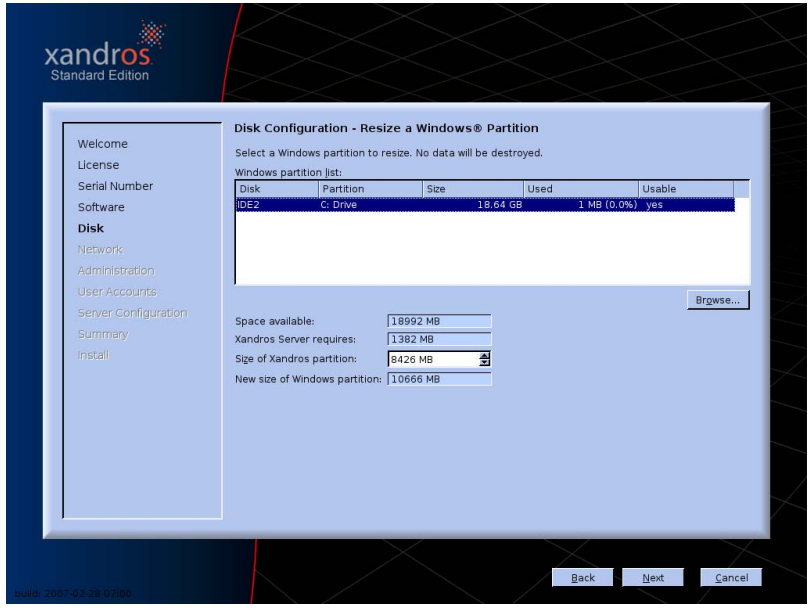
11 If the Virtual Machine Manager option was enabled on the previous screen, you are asked to verify installation. If you do, a Xen-enabled kernel is installed that can use more memory and is less compatible with some hardware, so install the component only if you want to run virtual machines. Click **Next**.

12 Enable one of the following options, and click **Next**:

- **Use free space** — Uses the largest unallocated space on the hard disk
- **Resize a Windows partition** — Shrinks a Windows partition and installs within the resulting free space. (If you have Windows Vista, use the native Vista tool to resize the partition instead of the Xandros wizard.)

Click **Next**.

13 If you chose to **Resize a Windows partition**, select the Windows partition and specify the size to use for the Xandros partition. Then click **Next**.



Selecting the disk or partition to use for installation

14 Complete the rest of the wizard, starting with step 13 on page 37.

If you install Xandros Server to coexist with one or more other operating systems, install the other operating system first. If you install Xandros Server first, then want to install Microsoft Windows, insert the Windows CD into the computer and wait for the installation wizard. If the installation wizard does not automatically launch or work, back up your files, clear the hard disk, install Windows, then install Xandros Server. If the black Xandros startup screen does not appear, use the Restore Xandros function to restore it.

When using RAID, ensure that the other operating system uses RAID the same way.

Troubleshooting installation

For error 2000, if you downloaded the product, try another installation CD, for example create it using a speed of 4x or less.

Error 4000 means the hard disk controller that your hard disk is connected to is not supported. If you are using a serial advanced technology attachment (SATA) RAID device/controller, install with another type of RAID or without RAID. If you are using an integrated drive electronics (IDE) device and a SATA controller, update your system BIOS and set it to non-enhanced mode. Or try connecting any hard drives to another controller.

If you are unable to use the mouse, use a USB or PS2 mouse.

As outlined here, Xandros Server includes a troubleshooting menu that can be used to install the product when it does not immediately recognize hardware. You can also use the troubleshooting menu when your installation is successful but have a hardware issue, such as no sound, to reinstall using another option.

To use the troubleshooting menu for installation

1 With the Xandros Server Installation CD in the drive, restart the computer.

2 When a message appears to press <SPACE> or type “menu” for troubleshooting options, do so immediately, and press **Enter**. Access is successful when the selection screen includes the following options. You need to be quick to move the selection off **Default Setup** so that you can make a selection.

Option	Description
Default Setup	Default installation
Restore Xandros	Restore the startup screen and installation
Rescue Console	Diagnostic tools; vga=normal
International Setup	Keyboard and language other than default
256-Colors Setup	Old monitor or video card
VESA Mode Setup	Generic video support; acpi=on
Text Mode Boot Setup	To start without showing the splash screen
ACPI 1 Setup	Default installation
ACPI 2 Setup	noacpi
ACPI 3 Setup	pci=biosirq
ACPI 4 Setup	pci=noacpi
ACPI 5 Setup	pci=nomsi
ACPI 6 Setup	pci=nommconf
ACPI 7 Setup	pci=assign-busses
ACPI 8 Setup	pci=routeirq
APM 1 Setup	acpi=off

where

ACPI means Advanced configuration and power interface that allows a computer to hibernate and be re-activated by pressing any key; newer than APM

APM means Advanced power management, such as turning off the monitor and/or hard disk; older interface developed by Intel and Microsoft

pci=noacpi means that ACPI is not used to configure any PCI device

3 Using the down arrow, ↓, select **APM 1 Setup**, then press **Enter**.

If Xandros Server does not install, select **ACPI 2 Setup**. If it does not install, try **ACPI 3 Setup**, then try the other ACPI, VESA, and 256-Colors options until one of the options works.

If you use a keyboard and language other than the default (English), select **International Setup** to install Xandros Server. For example, you can apply a French keyboard mapping.

If Xandros Server still does not install, select **Rescue Console**, press **Enter**, and type `startx` at the bash prompt.

If it still does not install, try booting the CD with the **Scroll Lock** on, type `install` at the prompt, and press **Enter**.

You can also check that the computer BIOS is set to boot from the CD instead of a hard drive if you are having trouble installing.

Getting updates

After installing Xandros Server, Xandros recommends that you download updates, such as security updates. You can do so in the First Run Wizard that appears the first time you log in. Updates can also be installed in the **Computer Management** component of Xandros Management Console. Otherwise, for instruction on getting updates, see “Installing updates and applications” on page 71.

Starting up 4

This chapter introduces the desktop environment, including how to:

- Start up
- Log in
- Complete the First Run Wizard
- Log in to Xandros Management Console
- Lock the desktop and change the screen saver timing
- Change your password
- Log out
- Troubleshoot login and restore the installation

Starting up and logging in

After installing Xandros Server, you log in to the computer.

Starting up

When you start the computer, a menu displays startup options. When you have more than one operating system installed, the menu lets you select the operating system to start. The Safe Video Mode and Configure (Expert) options are for troubleshooting.

If you enabled the option during installation to start Xandros Server without the graphical user interface, instructions are provided to use the command line.

To start Xandros Server

1 Start the computer.

2 When the black startup menu is displayed, with a Xandros Server option selected, press **Enter**. Use the virtualization option when you have the Virtual Machine Manager component installed and you want to use it. Selecting the virtualization option loads a Xen-enabled kernel instead of the regular kernel. By default, if 30 seconds elapses without a selection being made, the option at the top of the menu is selected automatically and startup continues to the login window.

You can reduce the default selection time and change the default operating system in the **Boot Manager** panel of the Control Center. This means you can start up faster.

To start Xandros Server without the graphical interface

1 Follow the previous procedure.

2 At the prompt, log in as root. (You do not need to log in to manage the computer remotely; you simply need to select Xandros Server from the startup screen and reach the login prompt.)

3 At the prompt, to start the desktop to run as the root user, type

```
/etc/init.d/kdm start
```

and press **Enter**, which loads the login window. Do not use the startx command because it circumvents the Xandros system.

4 Log in as any user.

Logging in

You can log in to the desktop as a regular user or as Administrator (root).

In Linux, the account used for system administration is called Administrator (root). By logging in to the computer as the Administrator, you have unlimited privileges for the desktop: you can add and delete local user accounts, change local user privileges, access all files, and configure Xandros OS. Only one Administrator account for access to the desktop is allowed. Avoid working in this account unless you need such access.

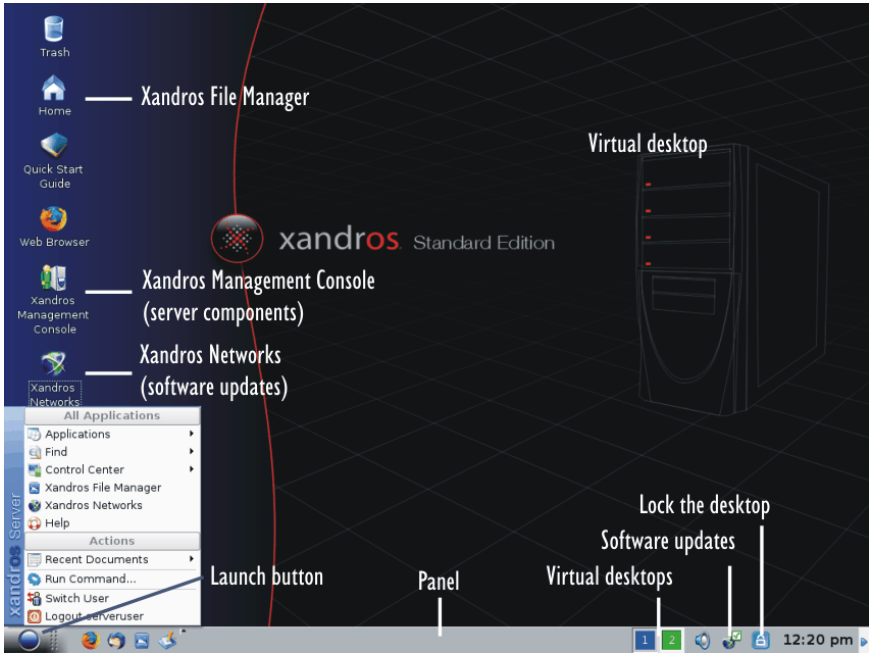
The login window varies with installation.

Logging in to a Community Management Server (left) and Member Server (right)

To log in

1. In the login window, select a desktop user account from the **User name** drop-down list.
2. Type the password for the user account in the **Password** box.
3. If applicable, from the **Domain** drop-down list, select a domain to log in to. You log in to the local desktop by selecting the "this machine" option, and typically this is the option you select. You do not have to select the domain at this time because you are not yet logging in to Xandros Management Console (xMC). You do select a domain when you want to access a computer remotely.
4. Click **Log in**. A desktop with a blue background loads by default for a user account and red for the Administrator account. If you have problems logging in, see the next section.
5. If you installed Xandros Server with **256-Colors Setup** and the colors displayed on your monitor require correction, change from 256-color mode to another color mode by clicking **Launch** ▶ **Control Center** ▶ **Control Center**, then **Display**, then **Settings**, changing the color mode in the **Color** drop-down list, for example to **True Color (24 bit)** or **High Color Plus (16 bit)**, and clicking **Apply**. Restart the computer.
6. If you installed with the **VESA Mode Setup** option and windows appear large, increase the **Screen Size** in the **Settings** panel of the Control Center.

The screen locks by default after three minutes of inactivity. To change this time, click **Launch** ▶ **Control Center** ▶ **Control Center**, click **Display**, then **Screen Saver**. Change the **Start automatically** setting, and click **Apply**.



Xandros Server desktop

To start Xandros OS using specialized settings

1 Start the computer.

2 When the black Xandros startup menu is displayed, press the down arrow, ↓, to select one of the following options, and press **Enter**:

- **Safe Video Mode** — If you are unable to boot or log in to the desktop, use this mode
- **Configure (Expert)** — If you are unable to boot or log in to the desktop using Safe Video Mode, use this mode. This option is for advanced users who are familiar with the UNIX command-line interface and who are interfacing with technical support personnel. For example, you can press **Ctrl+D** at the prompt to load the login window.

3 If you are still unable to log in, follow the instructions in "Troubleshooting login" on page 61. Instructions are also provided there on manually loading a driver in case a hardware component is not detected or does not function immediately.

Completing the First Run Wizard

The First Run Wizard automatically launches the first time each user logs in.

First Run Wizard to set basic default values

The wizard guides you through basic setup tasks, such as:

- Configuring the mouse
- Choosing regional settings, such as location and keyboard language. Setting the locale automatically sets fields such as the character set, date format, and currency.
- Setting the date and time
- Adding printers (off by default)
- Choosing default window styles and system behavior, such as Xandros Desktop, UNIX, Microsoft Windows, or Mac OS behavior
- Registering over the Internet
- Installing updates over the Internet

Complete the wizard. If you do not want to add a printer, register now, or get updates from Xandros Networks, for example, you can do so later. All of the settings you select in the First Run Wizard can be changed later in the Control Center. You can also access the First Run Wizard again by clicking **Launch ▶ Applications ▶ System ▶ First Run Wizard**.

Starting Xandros Management Console

The server software is accessible on the desktop and from the Launch menu as Xandros Management Console (xMC). xMC has three main functions:

- Allows authorized xMC Administrators to manage resources, such as file servers and remote access
- Allows authorized xMC Administrators to add and delete user accounts, including permitting others to access xMC
- When Xandros BridgeWays - Deployment and Management Edition components are included, allows authorized xMC Administrators to deploy Xandros products and compatible applications to computers over the network and maintain them

xMC can be accessed from several computers, including Xandros Server, Xandros Desktop, and Windows. To install xMC on a Windows computer, see "Installing Xandros Management Console on a Windows computer" on page 81.

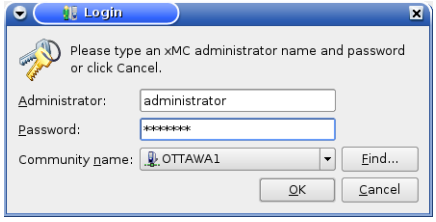
For information on how to use xMC to administer and manage services and components, see the *Xandros Management Console Administrator Guide*.

Product registration is required before xMC launches. You are prompted to register. Only the Community Management Server needs to be registered.

To start xMC

1 Double-click the **Xandros Management Console** icon on the desktop or click **Launch** ▶ **Applications** ▶ **Server Management** ▶ **Xandros Management Console**. A login window appears.

2 Type the name and password required to log in to xMC, for example administrator, which is the default xMC administrator account created during installation. Select the Managed Community domain from the drop-down list or search for it by clicking **Find**. Click **OK** to log in. You can be prompted to register.



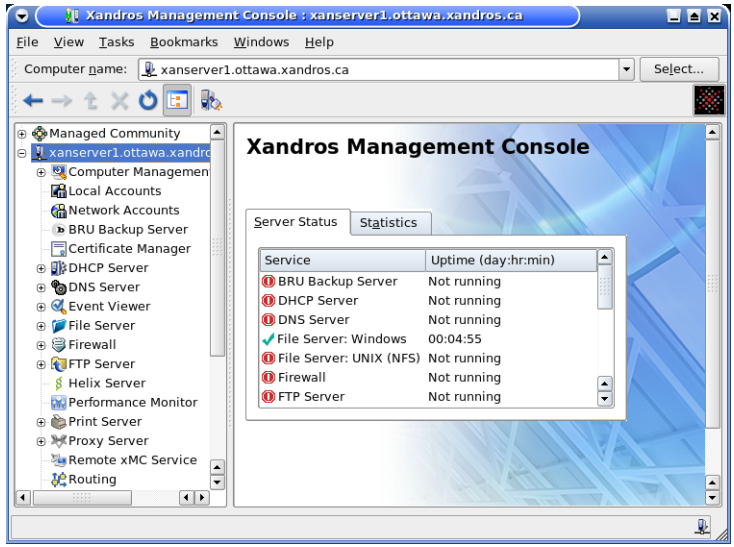
Login window for Xandros Management Console

If you are accessing Xandros Management Console for the first time and a message appears that the account and password are invalid, it can mean that there is no Internet access or that the **Subnet mask** used during installation is incorrect. You can check which subnet mask is being used in

the **Network Connections** panel of the Control Center or by entering `/sbin/ifconfig` in a console window.

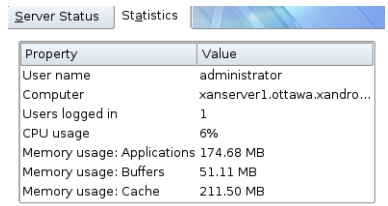
If you successfully accessed Xandros Management Console before and a message appears that the account and password are invalid, it can mean that use of the Dynamic Host Configuration Protocol (DHCP) is enabled and the IP address of the Community Management Server has changed; acquire a new IP address, use a static IP address, or reinstall.

When the software launches, a list of services and their status displays. The components vary by product and edition. Components also vary based on your privileges for the selected computer, which is displayed in the **Computer name** field. A few services run by default, while others need to be explicitly started.



Xandros Management Console

3 Click the **Statistics** tab for a quick overview, such as the number of xMC Administrators logged in, load, and memory usage.



Statistics tab of xMC

To exit from xMC

- Click **File** ▶ **Quit**. Services continue to run, for example your Web server. When the default start mode of a service is set to **Manual**, the service will stop when you restart the computer.

When xMC or an application is non-responsive, you can terminate it by pressing **Ctrl+Alt+Esc**, then clicking the application window.

Protecting your desktop

You can lock the screen to ensure that no one accesses the computer when you leave it, and you can change the login password.

Locking the screen

When you lock the screen, Xandros OS blocks access to the desktop. You enter the password to unlock the screen and regain access to the desktop. The screen is locked by default by a screen saver after three minutes, and you can change this.

To lock the screen

- On the Panel, click the **Lock the Desktop** icon.

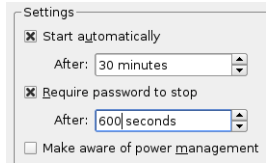
To unlock the screen

- In the unlock computer window, type the login password, and click **OK**.

If the screen is blank, press a key or move the mouse to display the login window.

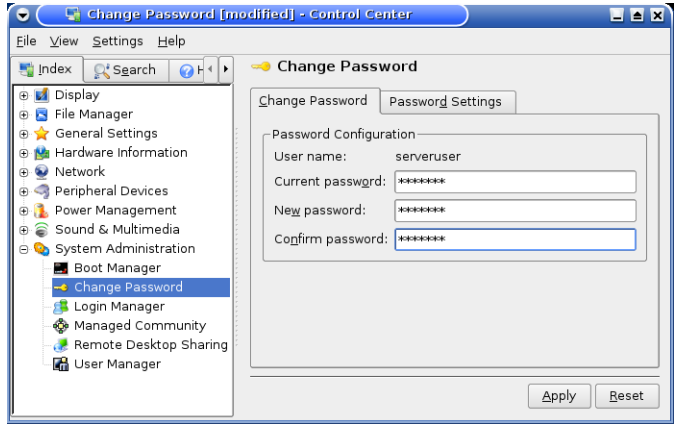
To change the screen saver time

1. Click **Launch** ▶ **Control Center** ▶ **Control Center**.
2. Click **Display**, then **Screen Saver**.
3. Change the **Start automatically** time after which the screen saver starts.
4. The **Require password to stop** time specified is the delay before the password is required after the screen saver is activated. Change this if you want.
5. Click **Apply**.



Changing your user password

You can change the password that you use to log in to the desktop. When you are logged in as the Administrator, you can change the password for that account and user accounts. When you are logged in as a user, you are changing the password for that user account only. The changes outlined here do not apply to Xandros Management Console.



Changing a user account password

To change your desktop password

1. Click **Launch** ▶ **Control Center** ▶ **Control Center**.
2. Click **System Administration**, then **Change Password**.
3. Type your existing password in the **Current password** box.
4. Type a new password in the **New password** box. Use of a strong password is recommended, that is, with a combination of characters and numbers instead of common words.
5. Type the new password again in the **Confirm password** box.
6. Click **Apply**.

The Administrator can change the passwords for user accounts in the **User Manager** panel.

Under the **Password Settings** tab, with the **Timeout**, you will not be asked for a password for the length of time specified after you have given your password once. This feature reduces the number of times you need to enter the password.

Logging out and shutting down

You can log in and out of the desktop as a different user. For example, you can log in as Administrator to configure a setting, log out, and then log back in to a user account. It is quicker than restarting the computer.

Xandros recommends leaving the servers on at all times, particularly the Community Management Server.

Though the intent is to have the server running all of the time, you can also shut down the computer. When you exit, with the **Save session for future logins** option you can save your desktop view and restore it the next time you log in. For example, you leave the Control Center open, then have it launch automatically the next time you log in. Not all applications can be re-launched automatically.

Logout window

To log out

1. Click **Launch** ▶ **Logout**. The logout window opens.
2. To save your desktop view, enable the **Save session for future logins** check box.
3. Click the **Log out** icon. The system logs out and the login window appears.

To shut down

1. Click **Launch** ▶ **Logout**.
2. To save your desktop view, enable the **Save session for future logins** check box.
3. Click the **Shut down** icon.
4. Enter the Administrator password for the desktop when prompted and click **OK**. The system shuts down.

   If you shut down a Community Management Server installation, a service on another installation, such as for a file server, continues to run. The computer can be slow, however.

If you shut down or turn off a server, its service cannot be used.

To restart

1. Click **Launch ▶ Logout**.
2. To save your desktop view, enable the **Save session for future logins** check box.
3. Click the **Restart** icon.
4. Enter the Administrator password for the desktop when prompted and click **OK**. Depending on the settings, some server services will not be running after you log in and need to be started.

Troubleshooting login

The startup menu provides options for troubleshooting login. If these options do not work, use the troubleshooting menu instead. As outlined in the previous chapter, also use the troubleshooting menu if your installation was successful but have a hardware issue, such as no sound, to reinstall using another option, or if an operating system is no longer selectable from the startup screen.

To restore and start Xandros OS using the troubleshooting menu

1. If the computer has more than one partition, you need to know which one to restore. See “To determine the partition number” on page 85.
2. Insert the Xandros Server Installation CD into the drive.
3. Restart the computer.
4. During startup, when a message appears to press <SPACE> or type “menu” for troubleshooting options, do so immediately, and press **Enter**. Access is successful when a selection screen appears with the following options:

   Default Setup
   Restore Xandros
   Rescue Console
   International Setup
   256-Colors Setup
   VESA Mode Setup
   Text Mode Boot Setup
   ACPI 1 Setup
   ACPI 2 Setup
   ACPI 3 Setup
   ACPI 4 Setup
   ...

5 Press the down arrow, ↓, to select **Restore Xandros**, and press **Enter**. You are prompted for the partition to restore and to verify that you want to restore it. When asked if you want to change the current command line, enter `no`. When asked if you want to change the current boot device, enter `no`. Xandros OS is restored and your files and some settings are saved.

6 If that option does not work, repeat the procedure to select **Rescue Console**. The Rescue Console provides diagnostic tools for configuring the Xandros installation. It allows you to access a console window where you can mount partitions and copy or modify files. It is useful if you forget your password and need to copy files or reset your password. It is for advanced users.

Manually loading a driver at startup

You can manually load a driver at startup. This procedure is for advanced users.

Some hardware that is not supported or not automatically detected can require manual loading of the kernel driver. For example, an ISA-bus network card is not automatically detected, but usually works if the driver is loaded for it. For example, a certain ISA-bus Western Digital network card uses the "wd" kernel driver. You add a line containing the text "wd" to the /etc/modules file. This action loads the driver at startup.

To load a driver

1 Log in as Administrator (root).

2 Click **Launch** ▶ **Applications** ▶ **Accessories** ▶ **Text Editor**.

3 Open the **/etc/modules** file.

4 Add a line to this file in the following format:

Module name	Options
sb	io=0x220 irq=5 dma=1 dma16=-1

In this example, an ISA sound card driver is to be loaded.

5 Save the file and close the Text Editor.

6 Restart the computer. The driver will be loaded automatically at startup.

Configuring Xandros Server 5

You can connect to the Internet, use e-mail, and install updates. Configuration can be required.

When installing the Advanced edition into a network that has a Dynamic Host Configuration Protocol (DHCP) server, additional configuration is recommended for use with Xandros Server.

Configuring Internet and other connections

You can access the Internet and networks several ways:

- Ethernet network connection for local area network (LAN)
- Wireless LAN
- Connection to an Internet service provider (ISP) by:
  - Telephone modem
  - Cable modem
  - Digital Subscriber Line (DSL) modem
- Virtual private network (VPN)

If the computer is connected through Ethernet to a network with a DHCP server, it is automatically configured by Xandros OS to access the network and the Internet. In this case, you do not need to set up a connection account.

Normally, the connection is configured automatically during installation and you can skip this section. Configuration can be viewed in the **Network Connections** panel of the Control Center (not documented here).

Setting up a connection

You can set up the following connections: cable, dial-up, DSL, LAN, wireless, and VPN. A connection can be set to initiate automatically at login.

For a cable modem, you may or may not need to create a connection account. Launch a Web browser and if you cannot connect, set up an account.

Because they are unlikely to be used for Xandros Server, dial-up, DSL, and wireless setup are not outlined here.

You set up a connection account for a wireless connection, either in a LAN or with access by Universal Mobile Telecommunications Service (UMTS / GSM). UMTS is a successor to the Global System for Mobile communication (GSM). UMTS is popular in Europe, while GSM is used in Europe and North America. Because it is unlikely to be used for Xandros Server, configuration is not outlined here.

To use a VPN connection, you need to have an account on a VPN server, and you need to set up a connection account.

Connection Wizard to configure an account for Internet access

To set up a cable or LAN connection account

1. Click **Launch** ▶ **Applications** ▶ **Internet** ▶ **Connection Wizard**. The Connection Wizard launches. You can also access the wizard from the **Network Connections** panel of the Control Center.
2. From the list, select the connection method:

   Cable — To use a cable modem and a cable television line to connect to the Internet, for example with speeds from 64 Kbps to 6 Mbps

   Local Area Network — To use a local area network (LAN) to connect to the Internet, for example using an Ethernet card

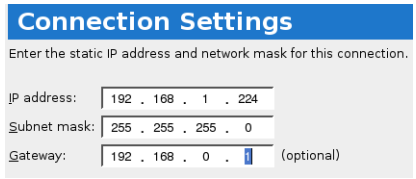
   Local Area Network - IP Alias — A connection using a virtual network interface. It is a feature of Linux that allows a single network device to respond to multiple network settings, such as multiple IP addresses. Usually you have a device such as eth0 that is configured with a specific IP address. You can create a virtual interface eth0:1 on the same network card that has a different IP address. For example, eth0 has an address of 192.16.0.1 and eth0:1 has an IP address of 10.0.0.1

   Local Area Network - Virtual LAN — Independent networks in a physical network. A local area network that maps computers by something other than location, such as by department. When the Media Access Control (MAC) address of a computer has been used for the mapping and the computer is physically moved, the computer does not need to be reconfigured.

   Click **Next**.
3. For the IP Alias option, in the Select Connection Parent window, select the network connection, then click **Next**.
4. If the Virtual LAN Identifier window appears, type a number to identify the virtual network, then click **Next**.
5. If the Select Hardware window appears, the equipment detected for your connection method is displayed. Select the hardware that you want to use to connect, then click **Next**.
6. If the Select Address Type window appears, specify if a **Static IP address** is to be used for the connection or if the IP address can change (**Dynamic IP address**). Normally, a dynamic IP address is fine for Internet connections.

   Click **Next**.

7 If the Connection Settings window appears, provide the static IP address and related network addresses. You can look up the addresses in the **Network Connections** panel of the Control Center.



Setting a static IP address for an Internet connection

IP address — The static IP address of the computer when it connects to the Internet. This address must be already be assigned by your network administrator to your computer. View the addresses by entering `/sbin/ifconfig` in a Linux console window.

Subnet mask — The subnetwork address of the computer, usually 255.255.255.0 or 255.255.0.0

Gateway — A gateway is a computer that connects networks to each other, for example within a corporation or at the ISP for a home user. Firewall servers and proxy servers are examples of gateways. A router is a gateway; if yours has an IP address, enter it here. On a Linux computer, you can view the gateway address by entering `netstat -nr` in a console window. On a Xandros computer, it is viewable in the **Network Connections** panel of the Control Center. On a Windows computer, enter `ipconfig /all`

Click **Next**.

8 If the DNS Servers window appears and if your company has its own Domain Name System (DNS) server(s), provide the IP addresses of these servers. A DNS server translates character-based domain names, such as xandros.com, into numeric IP addresses so that computers can recognize them. You can look up the addresses in the **Network Connections** panel of the Control Center.

You have the option of specifying a Windows Internet Naming Service (WINS) server. A WINS server provides address resolution for Windows computers, mapping computer names to IP addresses so that computers can recognize them, similar to a DNS server. On a Xandros computer, it can be viewed in the **Network Connections** panel of the Control Center. On a Windows computer, it can be viewed in the **Network Connections** panel of the Control Panel.

When done, click **Next**.

9 If the Enter Domain Names window appears, type the domain of the DNS server, then click **Add**. An example is newyork.xandros.com. You add

multiple entries so that they appear in order of priority, for example, xandros.com, followed by newyork.xandros.com and xandros.ca

When you specify a host name, for example “myhost”, the networking software adds the domain “xandros.com” to it to create a fully qualified domain name, for example “myhost.xandros.com”. Using domain search order you can specify domains and the order that the networking software will try when looking up a host. For example, you specify in the **Domain Search Order** box the domains “xandros.com”, “xandros.ca”, and “xandros.net”. Typing “myhost” then causes the networking software to try automatically (without configuration or definition elsewhere) using the fully qualified names “myhost.xandros.com”, “myhost.xandros.ca”, and then “myhost.xandros.net” until it finds a match. This domain search will be done anywhere you type a host name, for example, if you enter http://myhost in a Web browser, run a shell command like “ping myhost”, or enter the host name in a mail program as the mail server name. This feature is provided because it is common in large corporate networks to use multiple domains.

When done, click **Next**.

Specifying domain names

10 In the Connection Name window, type a name for the connection, such as Office LAN or Cable Internet. Click **Next**.

11 In the Finish window, to initiate the connection each time the computer starts up, enable the **Connect automatically at system startup** check box (you will need to check the remember password box for this to work). To connect after you finish the wizard, enable the **Start this connection when finished** check box.

Click **Finish** to create the connection account.

12 To manually connect or disconnect, do so in the **Network Connections** panel in the Control Center.

To set up a VPN connection account

1. Click **Launch** ▶ **Applications** ▶ **Internet** ▶ **Connection Wizard**. The Connection Wizard launches.
2. From the list, select the connection method:

   Virtual Private Network - PPTP VPN — To connect to the network remotely, for example from a home computer to the office network. PPTP refers to the Point-to-Point Tunnelling Protocol.

   Click **Next**.
3. In the Select Connection window, specify the connection to use for VPN. For example, you may have one connection account for DSL in order to access the office computer and another connection account for personal dial-up access. Click **Next**.
4. In the Server Settings window, type the name of the VPN server to connect to in the **Host name** box, for example newyork.yourcompany.com, which is the VPN server at the office. Or type the **IP address** of the VPN server. Click **Next**.
5. In the Enter WINS Settings window, if you have a Windows Internet Name Service (WINS) server, type its IP address, then click **Next**. A WINS server maps computer names to IP addresses so that computers can recognize them. If your computer is set to act as a WINS server, you do not need to specify the WINS server IP address because Xandros automatically detects it. For VPN purposes, if you want to use names when doing Windows networking so as to avoid using IP addresses only, you can enter the WINS server address here. Look up the WINS address in the **Network Connections** panel of the Control Center, under **Properties** and the **WINS** tab.
6. In the Login Settings window, provide the account name and password of the user who will use the VPN access. If you intend to have it connect automatically on startup, leave the **Remember password** check box enabled. Then click **Next**.
7. In the Connection Name window, type a name for the connection account, for example Work VPN. Click **Next**.
8. In the Finish window, to initiate the connection each time the computer starts up, enable the **Connect automatically at system startup** check box (you will need to check the remember password box for this to work). To connect after you finish the wizard, enable the **Start this connection when finished** check box.

   Click **Finish** to create the connection account.
9. To manually connect or disconnect, do so in the **Network Connections** panel in the Control Center.

Setting up an e-mail account

Thunderbird Mail Client lets you use e-mail.

You need to know the following information:

- Your e-mail user name, for example jane or b1jr2q, and your password
- Your e-mail address, for example jane@xandros.com
- The types of incoming and outgoing mail servers, such as POP or IMAP for incoming mail and SMTP for outgoing mail.

  POP — E-mail messages are downloaded to your computer

  IMAP — E-mail is on the server, which allows you to roam, for example use a Web browser to access your mail from another computer. When using a Scalix server, you specify IMAP, which means you can access groupware functionality such as viewing free/busy times of colleagues in a Web interface only.

  SMTP — The standard server type for sending mail
- The names of the incoming and outgoing mail servers, for example pop3.company.com, smtp.xandros.com, or mail.example.net

You can enable Thunderbird Mail Client to use Lightweight Directory Access Protocol (LDAP) service whereby address entries are automatically filled in when you start typing in the **To** field of an e-mail message.

To set up an e-mail account for Thunderbird Mail Client

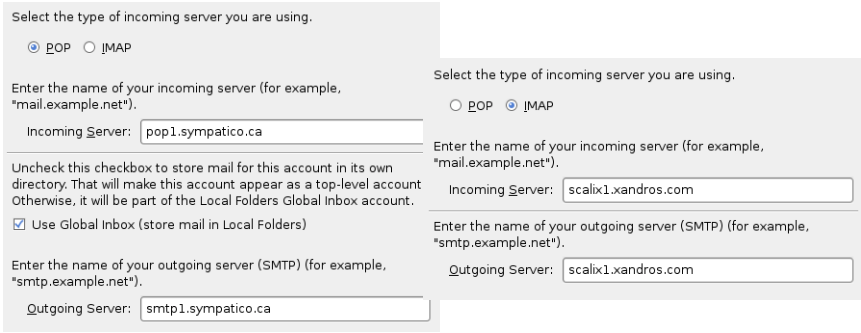
1. Click **Launch** ▶ **Applications** ▶ **Internet** ▶ **Thunderbird Mail Client**.
2. You are prompted if you want to import settings and mail from other applications. Enable an option, for example **Don't import anything**, and click **Next**. An Account Wizard is launched to allow you to set up a new e-mail account. You can also add an account in Thunderbird Mail Client by clicking **Edit** ▶ **Account Settings**, then **Add Account**.
3. In the Account Wizard, with the **Email account** option enabled, click **Next**.
4. In the Identity window, complete the boxes:

   Your Name — Type the name that you want to appear when you send an e-mail

   Email Address — Type your e-mail address, for example, jane@xandros.com

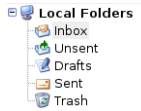
   Click **Next**.
5. For incoming e-mail, select the server type: **POP** or **IMAP**. Type the address of the incoming mail server, for example pop3.company.com or imap.company.com or 209.87.238.73

Type the address of the outgoing mail server, for example smtp2.company.com or 209.87.238.73. Then click **Next**.



Configuring incoming POP (left) and IMAP (right) mail servers in Thunderbird Mail Client

For the **Use Global Inbox** option, leave it enabled if you want the account to appear as **Local Folders**. Disable it if you want to have the account appear above **Local Folders** with the account name you give it later in the wizard.



6 In the User Names window, type your user name in the box(es), for example jane when your e-mail address is jane@xandros.com. Click **Next**.

7 In the Account Name window, type a name for the e-mail account as it will appear in Thunderbird Mail Client, for example your name, then click **Next**.

8 Click **Finish**. You are prompted if you want to set Thunderbird Mail Client as the default e-mail application. You may then be prompted to enter your password to access the incoming and outgoing mail servers.

You can download and install Thunderbird Mail Client in more than 25 languages from www.mozilla.com.

To configure Thunderbird Mail Client to use LDAP

1 In Thunderbird Mail Client, select **Edit ▶ Account Settings**. The Account Settings window opens.

2 Click **Composition & Addressing**.

3 Enable the **Use a different LDAP server** option, and click **Edit Directories**. The LDAP Directory Servers window opens.

4 Click **Add**. The Directory Server Properties window opens.

5 Set the following (example provided):

Name: Xandros LDAP
Hostname: smtp1
Base DN: ou=People, o=xandros

Another entry for the base distinguished name (DN) can be c=JP, for example, to include entries for Japan only.

6 Click **OK**. The Directory Server Properties window closes. Click **OK** again to exit from the window.

7 Select your LDAP server from the list and click **OK**. The LDAP Directory Servers window closes.

8 Click **OK**. The Account Settings window closes.

Installing updates and applications

In addition to the software provided during installation, updates and applications for use with the Xandros desktop and Xandros Server can be installed from Xandros Networks. Xandros Networks is an application that accesses a Xandros server over the Internet so that you can install updates and applications and delete applications. When your computer is being managed by Xandros BridgeWays - Deployment and Management Edition, Xandros Networks accesses your Xandros BridgeWays computer and for the Shop section accesses a Xandros server.

For the Advanced edition, when you install using the following instructions, you are installing to the Xandros Server computer, not into the software repository.

As a minimum, Xandros recommends installing the updates because they include critical patches and security updates.

An applet resides on the Panel that indicates when updates are available in Xandros Network. By default you are notified when critical, security, and recommended updates are available, and you can specify automatic installation by day and time. A green check mark indicates that the computer is up-to-date. A red exclamation mark indicates that updates are available. For computers managed by Xandros BridgeWays - Deployment and Management Edition, it can also indicate that your system administrator is performing updates.

Xandros update indicator

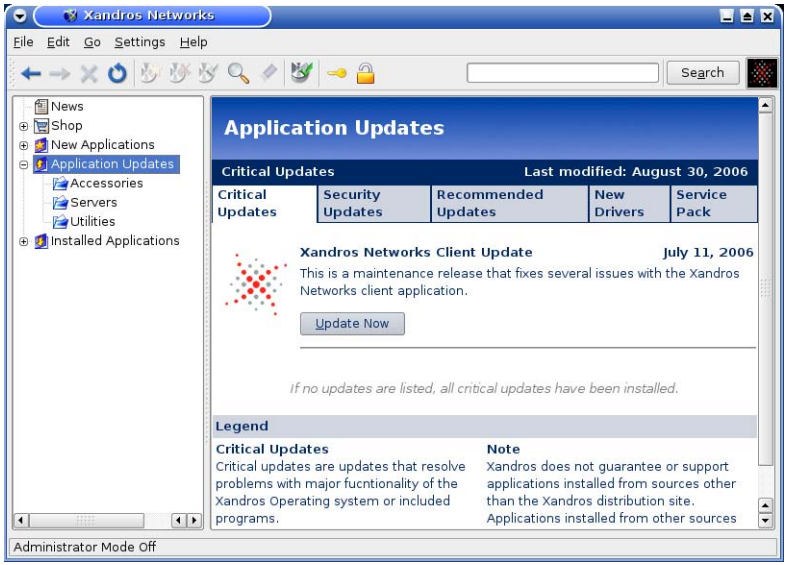
This section outlines how to install applications using Xandros Networks and with the Xandros Update applet on the Panel. Also, if you have a proxy server, configuration is required.

You can also perform updates in Xandros Management Console.

To install updates and applications with Xandros Networks

1 While connected to the Internet, click **Launch ▶ Xandros Networks**, or double-click the **Xandros Networks** icon on the desktop. Wait for the database to load.

2 Click **Application Updates**, also clicking on + to expand the list. Or click **File ▶ Install All Latest Updates from Xandros** to get all updates.



Xandros Networks for listing, updating, installing, and removing applications

3 Install the updates that you require, for example the general updates shown at the **Applications Updates** level or updates at the application-specific level.

4 Click **File ▶ Quit** to exit Xandros Networks.

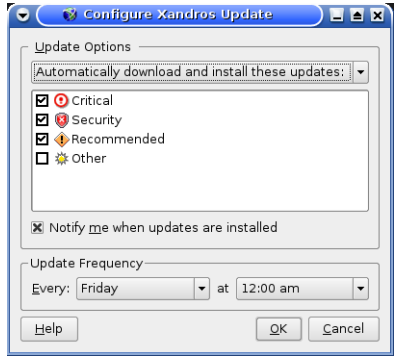
5 Normally new applications are automatically available from the **Applications** menu immediately after installation, however log out then in to ensure that the changes take effect. If you need to add any applications to the Applications menu so that they appear there, use the **Menu Editor** found under **Launch ▶ Applications ▶ System**.

To install updates from the Panel

1 When connected to the Internet, click the Xandros update icon on the Panel. A status window opens.

2 Click **Check Now** and install any updates identified.

3 The computer checks for updates at login by default. To change this, right-click the icon on the Panel and select **Configure Xandros Update**. The **Automatically download...** option needs to be selected from the drop-down list in order to specify the day and time for automatically installing updates.



Specifying date and time for automatic updates

Configuring proxy server settings for Xandros Networks and Internet

If you use a proxy server that requires a password when connecting to external networks, such as to the Internet or Xandros Networks, and you are required to log in each time you access the Internet, you may need to configure the proxy settings so that files download properly and to avoid logging in each time. After installing Xandros OS and configuring your Internet connection, follow the procedure outlined here.

To configure proxy settings

1 Click **Launch** ▶ **Control Center** ▶ **Control Center**.

2 Click **File Manager**, then **Web Browser**, then **Proxy**.

3 Enable the **Manually specify the proxy settings** check box.

4 Click the associated **Setup** button.

5 In the **HTTP** box, type `http://` followed by your user name, a colon, your password, the @ symbol, and the IP address or host name of the proxy server. An example of the format is http://username:password@192.168.6.3

6 Click **OK** to exit from the window.

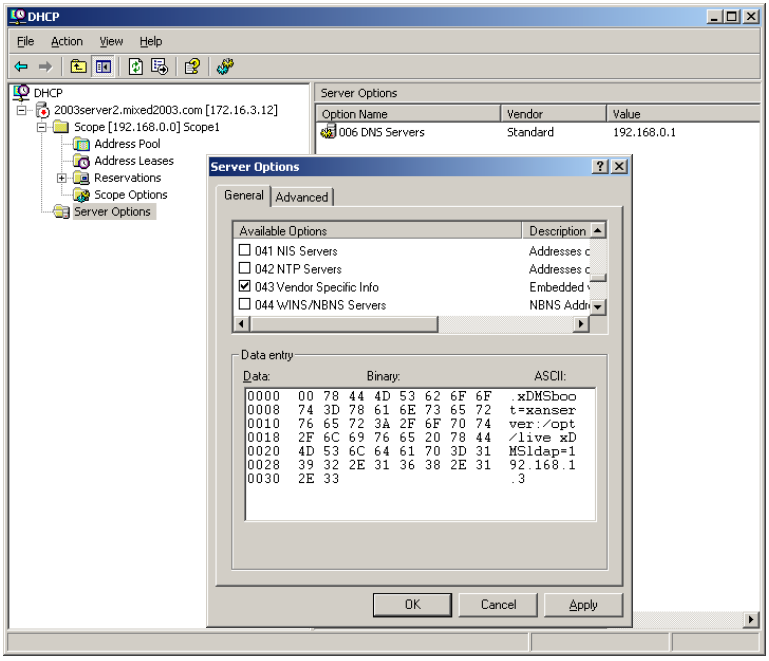
7 Click **Apply**. Some applications, such as Firefox Web browser have their own configuration, so you may need to change them too.

Configuring a DHCP server

If you installed the Advanced edition into a network that uses DHCP and you intend to use DHCP to deploy jobs to Xandros Desktop and other computers, the DHCP server can have additional configuration. The DHCP server can be Windows or Linux/UNIX-based, and configuration is recommended before any jobs are deployed. If your network does not use DHCP or you will specify which Community Management Server to use for the deployment, skip this section.

Configuring a Windows DHCP server

You can determine if the Windows server is a DHCP server and configure it for the Xandros Server computer with the instructions here for Windows Server 2000 and 2003.



Configuring a Windows DHCP server (Windows Server 2003 shown)

To configure a Windows DHCP server for deployments

1. At the Windows DHCP server, click **Start** ▶ **Programs** ▶ **Administrative Tools** ▶ **DHCP**. A DHCP windows launches. If it does not, there is no DHCP server and you skip the rest of this procedure.
2. Ensure that the DHCP server is authorized, for example as the top-level administrator, right click the server entry on the left side and select **Authorize**.
3. Now configure it. Click the **Scope** folder, then the **Scope Options** folder.
4. Right-click in the right pane and select **Configure Options**. A Server Options window opens.
5. In the **General** tab, enable the **043 Vendor Specific Info** check box, then enter the following string into the **Data entry** box to encode to binary:

   ```
   xDMSboot=xanserver:/opt/live xDMSldap=192.168.1.3
   ```

   where "xanserver" is the name of your Xandros Server and a DNS entry pointing to one or more repository servers. This DNS entry needs to be created by your network administrator. The IP address is for the computer that you installed Xandros Server on and is also the IP address provided for the xDMSldap setting. Replace the IP address of 192.168.1.3 with yours.
6. Click **OK** to apply the settings and exit from the window. The server is now configured to Xandros Server vendor-specific options.
7. To verify correct server configuration, perform the following tasks at a computer other than the DHCP server:
   - Boot the Xandros Server installation media, such as the CD.
   - Quickly enter `menu` at the prompt.
   - Quickly select **Rescue Console** from the menu.
   - After bootup, enter `cat /etc/vendor_info`
   - Check that the resulting code contains the original encoded line (the line in step 5). If so, the DHCP server is configured properly.

Configuring a Linux DHCP server

This server is not the Xandros Server computer. It is the DHCP server that provides DHCP service in the network in which the Xandros Server computer was installed.

You will generate a configuration line with the format

```
xDMSboot=hostname:/opt/live xDMSldap=0.0.0.0
```

An example is

```
xDMSboot=xanserver:/opt/live xDMSldap=10.0.0.5
```

where "xanserver" is the name of your Xandros Server and is the DNS name, and 10.0.0.5 is the IP address of your Xandros Server computer. The hostname is a DNS entry pointing to one or more repository servers. The IP address is for the computer on which Xandros Server is installed and is the IP address provided for the xDMSldap setting. The code needs to be encoded in hex for a Linux DHCP server using the following instructions.

To determine if DHCP is being used

- On a Debian-based server, open a console window and enter

  ```
  dpkg -l | grep dhcp
  ```

  If the server is a DHCP server, the response indicates this, for example

  ```
  ii dhcp-server    3.0pl1.2-12    DHCP Server
  ```

  or

  ```
  ii dhcp3-server   3.0.4-13       DHCP server for...
  ```

  Or, on an RPM Package Manager (RPM)-based server, such as Red Hat or Novell, open a console window and enter

  ```
  rpm -qa | grep dhcp
  ```

To configure a Xandros DHCP Server for deployments

1. If you use another Xandros Server for DHCP service, access the **DHCP Server** component at that computer.
2. Access the **Server Options** window.
3. Right-click in the main window and select **Add** Option. The Add New Option window opens.
4. Select **Xandros Default** from the **Vendor** drop-down list.
5. Select **Xandros BridgeWays - Deployment and Management Edition** from the **Option** drop-down list.

6 Complete the fields:

DME LDAP IP address — The IP address of the Xandros Server - Advanced Edition computer, for example 192.16.1.3

DME Boot — The IP address or the host name of the Xandros Server - Advanced Edition computer, for example 192.16.1.3 or xanserver1.ottawa.xandros.ca If you specify a name, it must be resolvable in DNS.

7 Click **Add** to add the option, then close the window when it reappears to add more options.

So in this example, the configuration line

```
xDMSboot=hostname:/opt/live xDMSldap=0.0.0.0
```

automatically becomes

```
xDMSboot=xanserver1:/opt/live xDMSldap=192.16.1.3
```

To configure a Linux DHCP server for deployments

1 Log in as Administrator and open a console window, or open a console window as Administrator by clicking **Launch ▶ Applications ▶ System ▶ Administrator Tools ▶ Console**.

2 Enter the appropriate command in the following format:

```
echo -n "xDMSboot=xanserver:/opt/live xDMSldap=10.0.0.5" | hexdump -C
```

where "xanserver" has a valid DNS entry of 10.0.0.5.

The output of the command is similar to the following:

```
00000000  78 44 4d 53 62 6f 6f 74  3d 78 61 6e 73 73 65 72    |xDMSboot=xanserver:/o|
00000010  76 65 72 3a 2f 6f 70 74  2f 6c 69 76 65 20 78 44    |pt/live xDMSldap|
00000020  4d 53 6c 64 61 70 3d 31 30 2e 30 2e 30 2e 35       |=10.0.0.5|
```

3 If a DHCP2 server is being used, add these configuration lines to the global section of the **dhcp.conf** file:

```
option vendor-encapsulated-options
78:44:4d:53:62:6f:6f:74:3d:78:61:6e:73:73:65:72:76:65:72:
3a:2f:6f:70:74:2f:6c:69:76:65:20:78:44:4d:53:6c:64:61:70:
3d:31:30:2e:30:2e:30:2e:35;
```

where the hex values are the ones generated in the previous step and each pair is separated by a colon (:) and a semi-colon (;) is placed at the end of the line. The line is one line, not three as shown.

4 If a DHCP3 server is being used, you can configure the server to provide this information only to computers that specifically request it, such as Xandros computers (optional).

```
class "xDMSclient" {
   match if substring (option vendor-class-identifier, 0,
10) = "xDMSclient";
       option vendor-encapsulated-options
78:44:4d:53:62:6f:6f:74:3d:78:61:6e:73:73:65:72:76:65:72:
3a:2f:6f:70:74:2f:6c:69:76:65:20:78:44:4d:53:6c:64:61:70:
3d:31:30:2e:30:2e:30:2e:35;
}
```

where the "option vendor-encapsulated-options" line is the same as for DHCP2.

5 To verify correct server configuration, perform the following tasks at a computer other than the DHCP server:

- Boot the Xandros Server installation media, such as the CD.
- Quickly enter `menu` at the prompt.
- Quickly select **Rescue Console** from the menu.
- After bootup, enter `cat /etc/vendor_info`
- Check that the resulting code contains the original encoded line (the echo line in step 2). If so, the DHCP server is configured properly.

6 Other post-installation tasks

This chapter outlines how to:

- Install from an Applications CD or Installation CD, including Scalix Xandros Edition
- Install Xandros Management Console (xMC) on a Windows computer
- Move the private key offline
- Restore Xandros Server
- Uninstall Xandros Server

Installing from an Applications CD or Installation CD

Insert the CD and follow the prompts. Otherwise, manual instructions are provided here for reference.

Depending on the edition of Xandros Server purchased, Scalix Xandros Edition is provided on a separate CD.

Information specific to the Applications CDs is found in the *Xandros Management Console Administrator Guide*, for example about installing the BRU agent to back up a computer or installing Xandros Management Console on a Windows computer.

To install Scalix Xandros Edition

- After logging in to the desktop, insert Applications CD 2 in a drive, wait for the installation panel, then install it. Scalix Xandros Edition needs to be installed onto a 32 bit version of Xandros Server. After installation, the component appears in xMC.

To view and install packages from an Applications CD or Installation CD (manual method)

1. Insert the CD in a drive. An installer window opens, but because we are using the manual method to install, close it.
2. Click **Launch ▶ Xandros Networks**. You do not need an Internet connection.
3. Click **Edit ▶ Set Application Sources**.
4. Note which boxes are enabled so that you can restore these later. The default is the Xandros distribution site.
5. Enable the **CD-ROM drive 1** or **CD-ROM drive 2** check box, depending on the drive in which you inserted the CD. Disable all other check boxes.
6. Click **OK** and provide the Administrator password if prompted. The applications database is compiled.
7. Click **New Applications**, clicking on the + to expand the list. View or select the packages for installation by enabling the check boxes. You can select multiple packages. If you perform a search for an application and do not find it, try clicking **Expert** in the left pane. You can also change the mode of the window by clicking **Settings ▶ Expert View**.
8. Install a single package by clicking **Install** or multiple packages by clicking **File ▶ Install Selected Applications**, then click **OK** to install. Wait while the packages are being installed, respond to any prompts, then **Close** the installation window when done.
9. Click **Edit ▶ Set Application Sources** and reset the source (for example, enable only the **Xandros distribution site** check box).
10. Applications installed from the CD normally appear in the appropriate area of the **Launch** menu. Some applications run in the background and are not launched. Any Xandros Server components are found in Xandros Management Console.

Installing Xandros Management Console on a Windows computer

xMC can be installed from Xandros Server Applications CD 1.

xMC can be installed on a computer with Windows XP with Service Pack 2 or Windows Vista. Both Home and Professional editions of Windows XP are supported. xMC is also known to run on Windows XP with Service Pack 1, but this is not officially supported.

The installation is referenced to a Community Management Server, which can be a Xandros Server or Xandros BridgeWays installation. The Remote xMC Service component needs to be installed only on the Community Management Server because that computer controls access to the Managed Community. Because you are identifying the Community Management Server by Internet Protocol (IP) address, use a server that has a static IP address.

Installation can take 15 minutes.

When running xMC on a Windows Vista computer for the first time, the User Account Control needs to be turned off.

To use the Web-based interface of the xMC Helix Server component, Firefox Web browser also needs to be installed on the Windows computer.

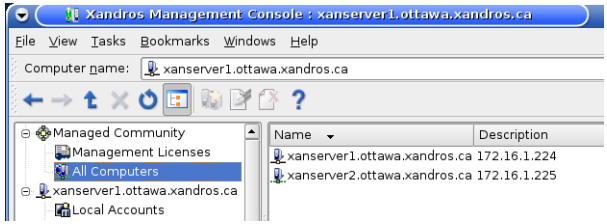
To check Windows XP if Service Pack 2 is installed

- At the Windows computer, click **Start** ▶ **Control Panel** and access the **System** panel. When Service Pack 2 is installed, it is shown as such. If you have Service Pack 1, xMC is known to install on it, but this is not officially supported. You can install with Service Pack 1 or go to the Microsoft Web site and update to Service Pack 2.

Viewing that Service Pack 2 is installed on a Windows XP computer

To install xMC on a Windows computer (Windows XP example)

1 Obtain the IP address of the Xandros Server computer. Version 2 is supported. You want the IP address of the Community Management Server. Look for it in the **Managed Community** component of xMC (shown) or the **Network Connections** panel of the Control Center.



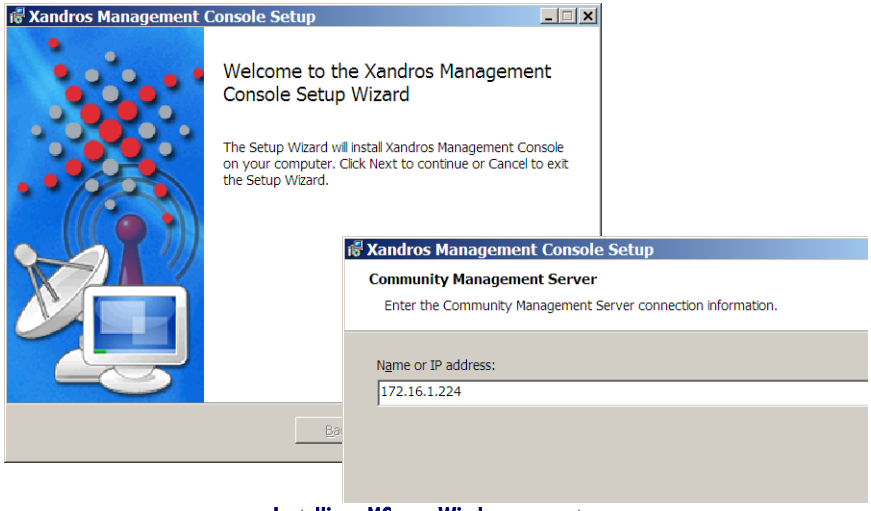
Viewing the IP address of a Xandros server

2 At the Windows computer, close any applications that are open.

3 Insert Xandros Server Applications CD 1 into a drive. Ignore any error message.

4 The wizard launches automatically. If it does not, open a My Computer window, right-click the CD entry, select **Explore**, then navigate into the **\Windows\xMC** folder, and double-click the **xMC-Install.msi** file.

5 Complete the wizard. Selecting a Complete installation also installs documentation. It can take several minutes for the application to install, for example 10 minutes.



Installing xMC on a Windows computer

6 To use the Helix Server component, also install Firefox Web browser from **www.firefox.com**

To run xMC on a Windows Vista computer

- After installing xMC, the User Account Control needs to be turned off before running xMC for the first time only. Access the **Control Panel**, then **User Accounts and Family Safety**, then **User Accounts**, and **Turn User Account Control on or off**.

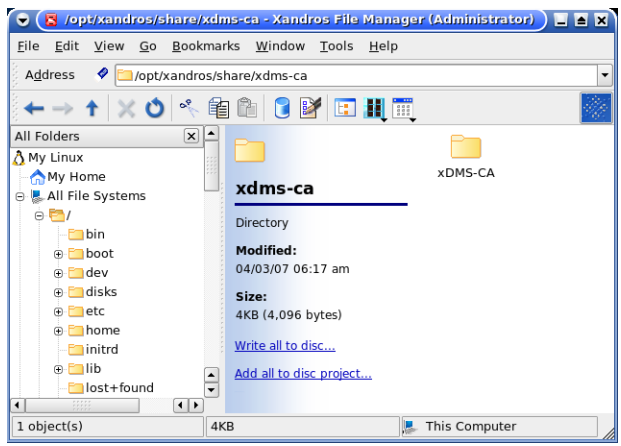
Moving the private key

To prevent unauthorized access to secure system resources through the Xandros Server software, its administrative software uses Secure Sockets Layer (SSL X.509) certificates to validate authenticity. Part of the certificate infrastructure is a public/private key pair, where the private key is used to create a certificate and the public key is used to validate it.

The private key used in this process is kept secure and accessible by the desktop Administrator at the Community Management Server. The key is stored in a key file and must be available on the Xandros Server computer when a new certificate is generated, which is limited to when the name or IP address of the Xandros Server computer is changed or re-installation. Otherwise the key file can be saved to an offline medium, such as a floppy disk, and removed from the hard disk of the Xandros Server computer.

If you choose to move the key offline, you do so immediately after installation, not after you add administrator accounts for Xandros Server components.

Some processes can stop functioning if a certificate needs to be regenerated but it has been moved offline.



Private key folder

To move the private key

1. Open the Xandros File Manager with administrator privileges by clicking **Launch ▶ Applications ▶ System ▶ Administrator Tools ▶ Xandros File Manager**. If prompted, enter the password used to log in to the desktop as Administrator.
2. Navigate to **/opt/xandros/share/xdms-ca/**
3. Select the **xDMS-CA** folder.
4. To copy to a floppy disk, open a second Xandros File Manager window as Administrator, access the **Floppy** disk, then drag and drop the folder so that it is copied onto the floppy disk.

   To copy to a CD, open a second Xandros File Manager window as Administrator, access the **DVD Writer**, click **Create data disc**, then drag and drop the folder.
5. Verify that the folder has been successfully copied.
6. Delete the file **cakey.pem** from the original **/opt/xandros/share/xdms-ca/xDMS-CA/private** folder.

To restore the private key

- Restoring the private key is a similar series of steps, except that the folder must be copied from the offline medium to **/opt/xandros/share/xdms-ca/**

Restoring Xandros Server

If you cannot log in or there is a problem with the black Xandros startup screen, you can restore the installation.

Xandros OS includes a troubleshooting menu that lets you restore Xandros Server, for example in the event of a crash or if you need to repair it after installing another operating system, for example to restore the black Xandros startup screen. User accounts and user folders are preserved. Restoration is performed at the partition level, meaning you select the partition to fix. For example, if you have Xandros Desktop installed on one partition and Xandros Server installed on another partition, you select the partition to restore. In such a scenario, you first need to determine the partition number.

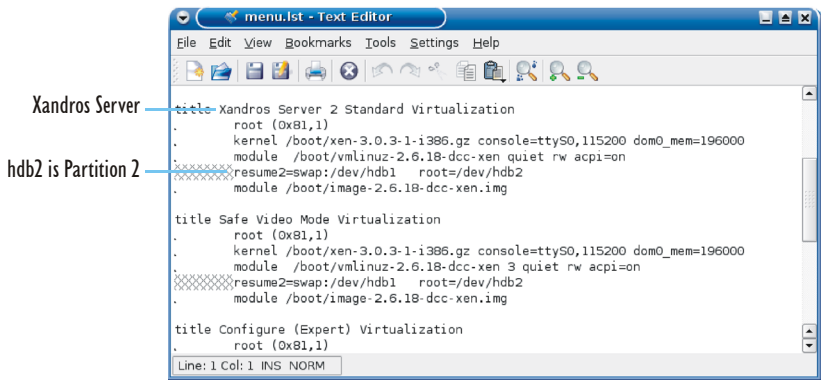
The easiest way to determine the partition number is to start the installation wizard with the Xandros installation CD. Enable the **Replace existing Xandros OS** option, view the partition, then **Cancel** the installation. You can also use the procedure outlined here.

To determine the partition number

1. Click **Launch** ▶ **Find** ▶ **Files/Folders**.
2. In the **Named** field, type

   ```
   grub.conf
   ```

3. Select the **file:/** folder from the **Look in** drop-down list.
4. Click **Find**.
5. Double-click a **grub.conf** file. There can be more than one such file, and it does not matter which one you open.
6. Look for the Xandros Server installation.
7. Look for the "root" line associated with it. Note the partition number. In the example shown, hdb2 refers to partition 2 on the second hard disk ("b").



Determining partitions on hard disk

To restore Xandros Server

1. Place the Xandros Server Installation CD in the drive.
2. Restart your computer.
3. When a message appears to press <SPACE> or type “menu” for troubleshooting options, do so immediately, and press **Enter**. Accessing the menu is successful when a Xandros selection screen appears that includes **Restore Xandros** as an option.
4. Using the down arrow, ↓, select **Restore Xandros**, and press **Enter**. Hardware is detected.
5. Viewing the left side of the list that appears, type the **Number** of the partition that you want to restore (use the previous procedure to determine the partition number), and press **Enter**. You are prompted to confirm the restoration, so indicate yes. When prompted if you want to change the command line, indicate no. When prompted if you want to change the boot device, indicate no. The installation is restored and your files and some settings are saved.

Uninstalling Xandros Server

Xandros Server and all associated applications can be removed from the computer. Uninstalling it from a disk or partition also removes your files and data in that disk or partition, and if Xandros OS is the only operating system installed then the computer will not start up after removal. Xandros Server is uninstalled using the Installation CD. It can also be uninstalled using the fdisk procedure in a console window (not documented here).

There is no automatic uninstall feature. Use the following procedures at your own risk.

To uninstall Xandros Server using the Installation CD

1. Back up any files that you want to keep to another disk, partition, or external media, such as a CD.
2. Remove all media from drives, including floppy disks, CD, and tapes.
3. If you have Xandros Server installed on a partitioned disk (meaning the entire disk is not used for Xandros Server or there is another operating system installed on the same disk), you need to determine which partition to erase. See “To determine the partition number” on page 85.
4. Insert the Xandros Server Installation CD into the drive.
5. Restart your computer, and wait for the Xandros Installation Wizard. If you need help reaching the wizard, see “Troubleshooting installation” on page 48.
6. In the wizard welcome window, click **Next**.

7 Enable the **I accept this agreement** option, and click **Next**.

8 Type the serial number, and click **Next**.

9 In the software selection window, click **Next**.

10 Enable the **Manage disks and partitions** option, and click **Next**.

11 Select the disk or partition to erase. For example, hda5 refers to partition 5 on the first hard disk. Then click **Delete**, and confirm the deletion.

12 If the Xandros Server installation is the only operating system using the swap partition, you also need to uninstall the swap partition. Select the swap partition (indicated by **Linux - swap** in the **File System** column), and click **Delete**.

13 Save the changes by clicking **Write** and confirming the write. Wait for the partition table to be written.

Uninstalling Xandros Server deletes all files on the partition or disk where it resides. If the Xandros OS installation being deleted is the only operating system installed, the computer will not start up after uninstallation.

14 Click **Cancel** and exit the wizard. Xandros Server has been uninstalled.

15 If required, remove the Xandros startup screen using one of the following procedures.

To remove Xandros boot loader from a Windows XP computer

1 Insert the Windows XP CD into the drive.

2 Restart your computer.

3 Press **R** for Repair on the **Welcome to Setup** window.

4 Select the Windows installation you want to log in to.

5 Type the Administrator password, and press **Enter**.

6 Type `fixmbr` and press **Enter**.

7 Confirm that you want to write a new MBR.

8 Restart the computer.

To remove Xandros boot loader from a Windows 9x computer

1 Launch the MS-DOS prompt by clicking **Start** ▶ **Applications** ▶ **Accessories** and selecting this option.

2 At the command prompt, type `fdisk /mbr` and press **Enter**.

3 Restart the computer.

To remove Xandros boot loader using Xandros OS

1. Log in as Administrator.
2. In a console window, type

   ```
   etcdevset -S -c boot.main -t mbr -v no
   ```

   and press **Enter**. This command is not necessary to remove the Xandros boot loader if Xandros was the only operating system installed because you are unable to log in as Administrator.

To remove Xandros boot loader from a Linux computer

1. Restart the computer.
2. When the Xandros startup screen appears, select the other Linux operating system.
3. Start up and log in to the desktop.
4. Open a console window as Administrator (root) and enter `grub` or `lilo` depending on which boot loader method the Linux operating system uses. With the grub command, for example, pressing **Tab** can bring up a list of commands that will allow the non-Xandros boot loader to be restored. If the command does not work, you may need to perform a repair or rescue using the Linux operating system installation CD.