



X E R I O N P H A R M A C E U T I C A L S

Xerion Pharmaceuticals AG
Presentation June 2002



The Company

Introduction

NIS

NIS+

Tool

Xerion

Founded	August 1998
Business Segment	1st: Target Validation 2nd: Drug Development
Bioinformatics Tasks	1st: In Silico Analyse of Biological Data 2nd: Development of a Validated Target Database
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Description of the basics of NIS





NIS from an administrator's point of view

Introduction

NIS

NIS+

Tool

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- Developed 1985 as yp from SUN Microsystems

- Main criteria of NIS
 - Based on RPC mechanisms
 - Creating Indexed Sequence files → Nis maps

- NIS Features
 - NIS domain
 - NIS server, NIS slave servers, NIS clients
 - Sharing System Files



NIS from an administrator's point of view

Introduction

NIS

NIS+

Tool

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- ❑ **Advantages from NIS**
 - Easy to maintain
 - Easy way of administering a large number of users and groups across a large number of shared systems

- ❑ **Disadvantages from NIS**
 - NIS isn't secure
 - NIS can consume some network bandwidth



Description of the basics of NIS+





NIS+ from an administrator's point of view

Introduction

NIS

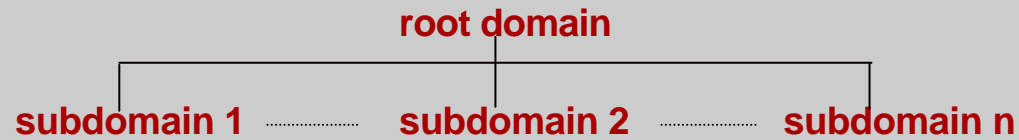
NIS+

Tool

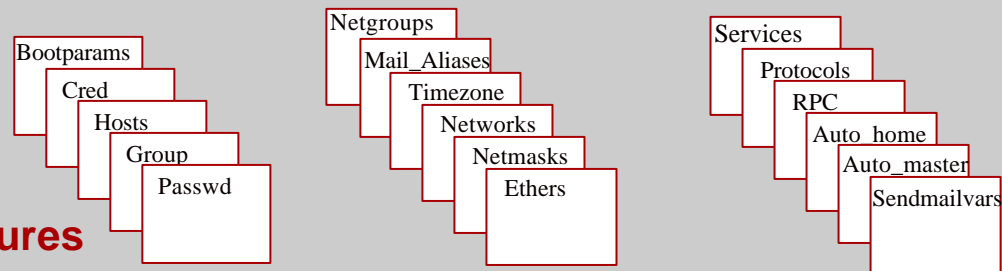
- ❑ NIS+ is not an extension of NIS

- ❑ Main criteria of NIS+

- Server Client architecture
- Sharing system resources in central locations
- Hierarchical structure



- Default NIS+ maps



- ❑ NIS+ Features

- NIS+ namespace
- NIS+ Master server, NIS+ replicas, NIS+ clients
- Credentials for authorization and authentication



NIS+ from an administrator's point of view

Introduction

NIS

NIS+

Tool

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Advantages over NIS

- Secure data access
- Hierarchical and decentralized network administration
- Very large namespace administration
- Access to resources across domains
- Incremental updates

Disadvantages over NIS

- It isn't a really common tool
- No transfer possibilities of NIS+ data to the windows world
- Up to now a bulky administration



Description of the NIS+ Administration Tool





NIS+ Administration Tool

Introduction

NIS

NIS+

Tool

- Graphical User Interface for NIS+ Administration**

- Why the tool**
 - Bulky nis+ commands
 - Destroying NIS+ table by running a wrong command
 - Examples

- System requirements of the Tool**
 - Tcl/Tk package
 - Expect
 - Setup NIS+ server (nisserver script from SUN)
 - Setup all the NIS+ clients (nisclient script from SUN)
 - Nsswitch.conf file must be correct configured
 - Set up automounter



NIS+ Administration Tool

Introduction

NIS

NIS+

Tool

❑ Features of the Tool

- User, Group Administration
- Host Administration
- Automounter Administration

❑ Configuration of the Tool

- Setting of the environment variable NISPLUSADMIN
- Path settings of the system commands (awk, rm, grep, sleep, which, etc.)
- Path settings of the nis+ commands
- Creating an auto_disks automounter map
`nistbladm -c automount_map key=S value=S \`
`auto_disks.org_dir.domainname.`



NIS+ Administration Tool

Introduction

NIS

NIS+

Tool

User administration

– Adding one user

- Creating home directory
- Skeleton configuration
- Defining host of home directory
- Integrating in the automounter

– Adding multiple users

- Filename with all users (name+shell)
- Starting userid
- Creating home directory (only on one certain host)



NIS+ Administration Tool

□ User administration

Introduction

NIS

NIS+

Tool

The screenshot shows the 'Nis+ Admintool' window with a table of user information and a set of navigation buttons at the bottom.

User Name	User Id	Shell	Comment
tbu	1150	/bin/ksh	Thomas Bust
ahoe	1108	/bin/ksh	Adriana Hoer
vil	1109	/bin/ksh	Leodevico I
kje	1110	/bin/ksh	Kristian Jer
hka	1111	/bin/ksh	Hilda Karask
bkr	1112	/bin/ksh	Baerbel Kren
sle	1113	/bin/ksh	Stephanie Le
eme	1114	/bin/ksh	Elisabeth Me
jni	1115	/bin/ksh	Jens Niehwoe
cpe	1116	/bin/ksh	Corinne Pet

Navigation buttons: User, Group, Hosts, Ethers, Automaster, Autohome, Autodisks, Add Entry, Delete Entry, Back.



NIS+ Administration Tool

Introduction

NIS

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Tool

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❑ User administration

The screenshot shows a dialog box titled "Nis+ Admintool: User Input" with the following fields and controls:

- User Name:
- User Id:
- Primary Group:
- User Passwd:
- Comment:
- Login Shell:
- Homedir Path:
- Multiple User
- Filename:
- First Uid:
- Create Homedir
- Automounter on
- Homedir Source:
- Skeleton Path:
- Homedir Host:
- Root Passwd:

Buttons at the bottom:



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Introduction

NIS

NIS+

Tool

□ Group Administration

Group Name	Group Id	Members
root	0	root
other	1	
bin	2	root,bin,daemon
sys	3	root,bin,sys,adm
adm	4	root,adm,daemon
uucp	5	root,uucp
mail	6	root
tty	7	root,tty,adm
lp	8	root,lp,adm
nuucp	9	root.nuucp

Navigation buttons: User, Group, Hosts, Ethers, Automaster, Autohome, Autodisks

Action buttons: Add Entry, Delete Entry, Back



NIS+ Administration Tool

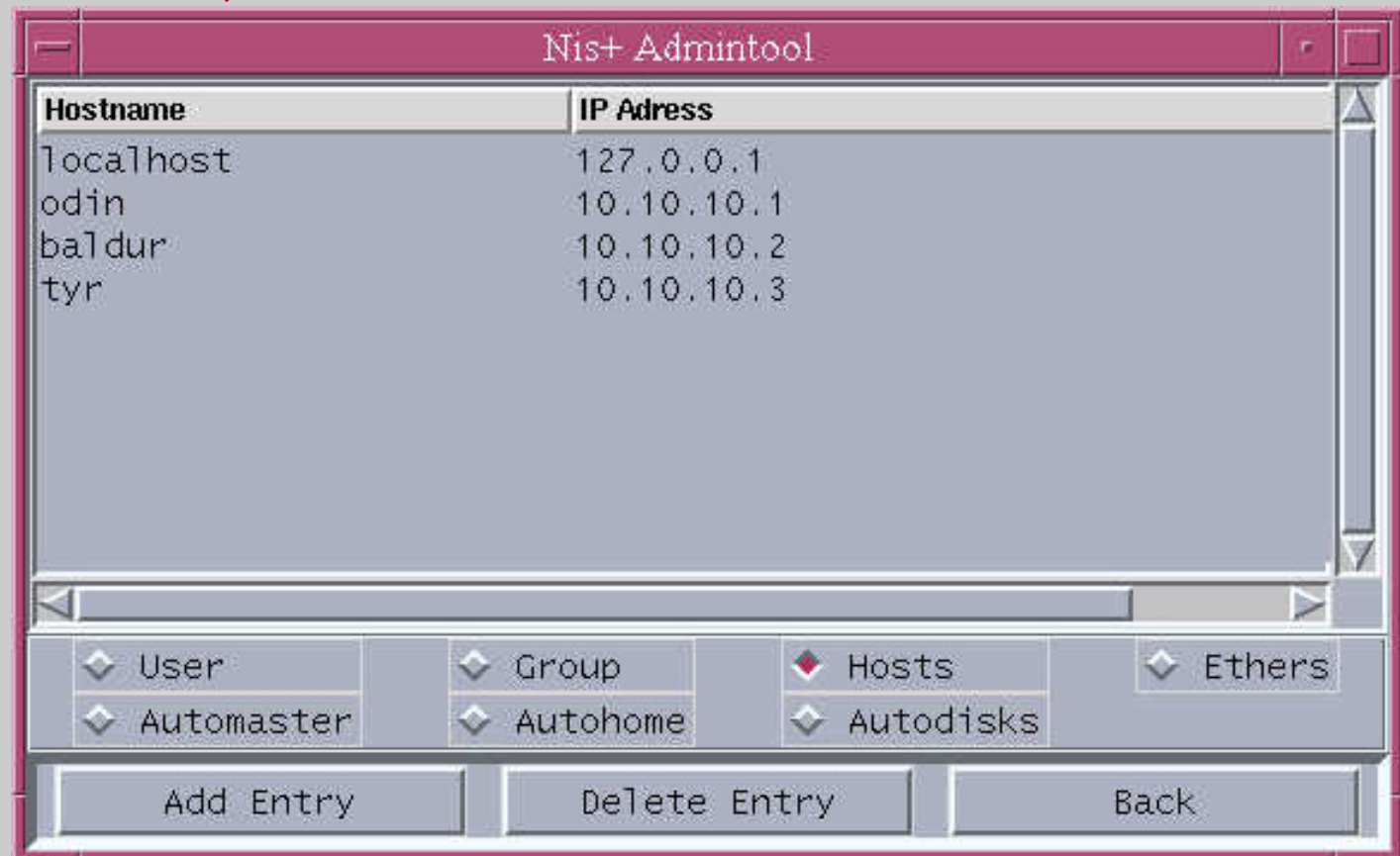
Introduction

NIS

NIS+

Tool

- Host Administration
 - Hostname, IP-Adress





NIS+ Administration Tool

Introduction

NIS

NIS+

Tool

– Hostname, Ether Address

Hostname	Ether Address
odin	8:0:20:f7:a5:42
baldur	8:0:20:ff:4:4b

The screenshot shows the Nis+ Admintool window with a table of entries. Below the table is a navigation pane with several options: User, Group, Hosts, Ethers (selected), Automaster, Autohome, and Autodisks. At the bottom are buttons for Add Entry, Delete Entry, and Back.



NIS+ Administration Tool

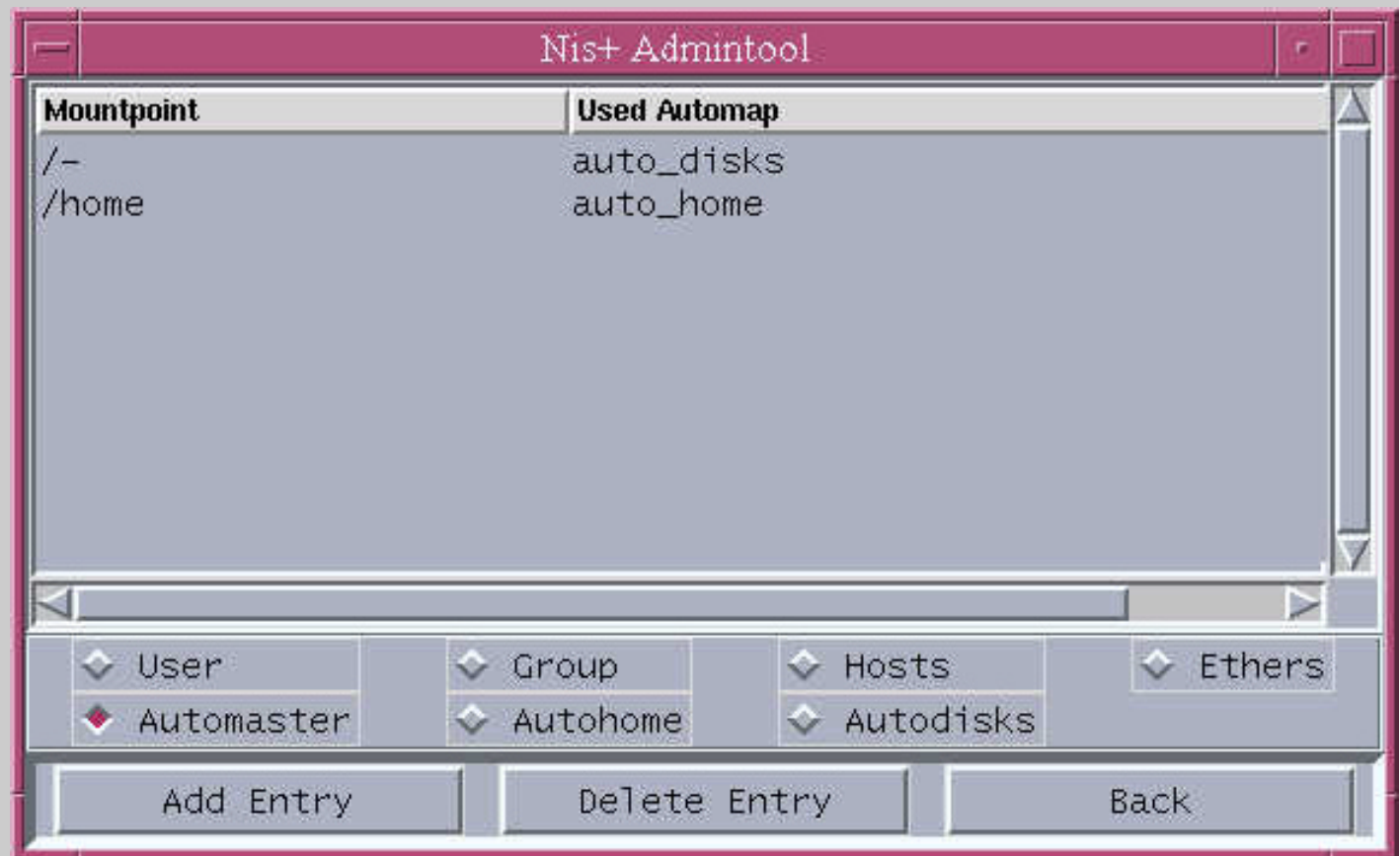
Introduction

NIS

NIS+

Tool

- ❑ Automounter Administration
 - Configuring the automaster



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Introduction

NIS

NIS+

Tool

– Configuring the autohome

The screenshot shows the Nis+ Admintool window with a table of homedir configurations. The table has two columns: 'Homedir Name' and 'Source Homedir'. The entries are:

Homedir Name	Source Homedir
tbu	odin:/primusr/home/tbu
mfi	odin:/primusr/home/mfi

Below the table, there are several configuration options with diamond-shaped icons: User, Group, Hosts, Ethers, Automaster, Autohome (which is selected with a red diamond), and Autodisks. At the bottom, there are three buttons: 'Add Entry', 'Delete Entry', and 'Back'.



NIS+ Administration Tool

Introduction

NIS

NIS+

Tool

– Configuring the autodisks

The screenshot shows the Nis+ Admintool window with a table of autodisk configurations. The table has two columns: 'Disk Mount Point' and 'Disk Source'. Below the table is a navigation pane with several options, and at the bottom are three buttons: 'Add Entry', 'Delete Entry', and 'Back'.

Disk Mount Point	Disk Source
/secusr	odin:/localdisks/1disk2
/tertusr	odin:/localdisks/1disk3
/quartusr	odin:/localdisks/1disk4
/quintusr	odin:/localdisks/1disk5

Navigation pane options:

- User
- Group
- Hosts
- Ethers
- Automaster
- Autohome
- Autodisks**

Buttons: Add Entry, Delete Entry, Back



NIS+ Administration Tool

Introduction

NIS

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Tool

Missing nice to have features

- Automatic creation of of the `auto_disks.org_dir`
- Integration of a dump facility