

NBAC IMPLEMENTASYON

Hazırlayan: Asiye Yigit

Temmuz 2011

NetBackup 7.1 Installasyon

- “hansel” sistemine NetBackup 7.1 Enterprise Server kurulmalıdır.

```
root@hansel # pwd
/NB71
root@hansel # ls -F
Doc/                               VSM_README
LICENSE                             install*
NetBackup_7.1_Solaris_Sparc64.tar.gz solaris/
root@hansel # ./install
```

Symantec Installation Script
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Installing NetBackup Server Software

Do you wish to continue? [y,n] (y)

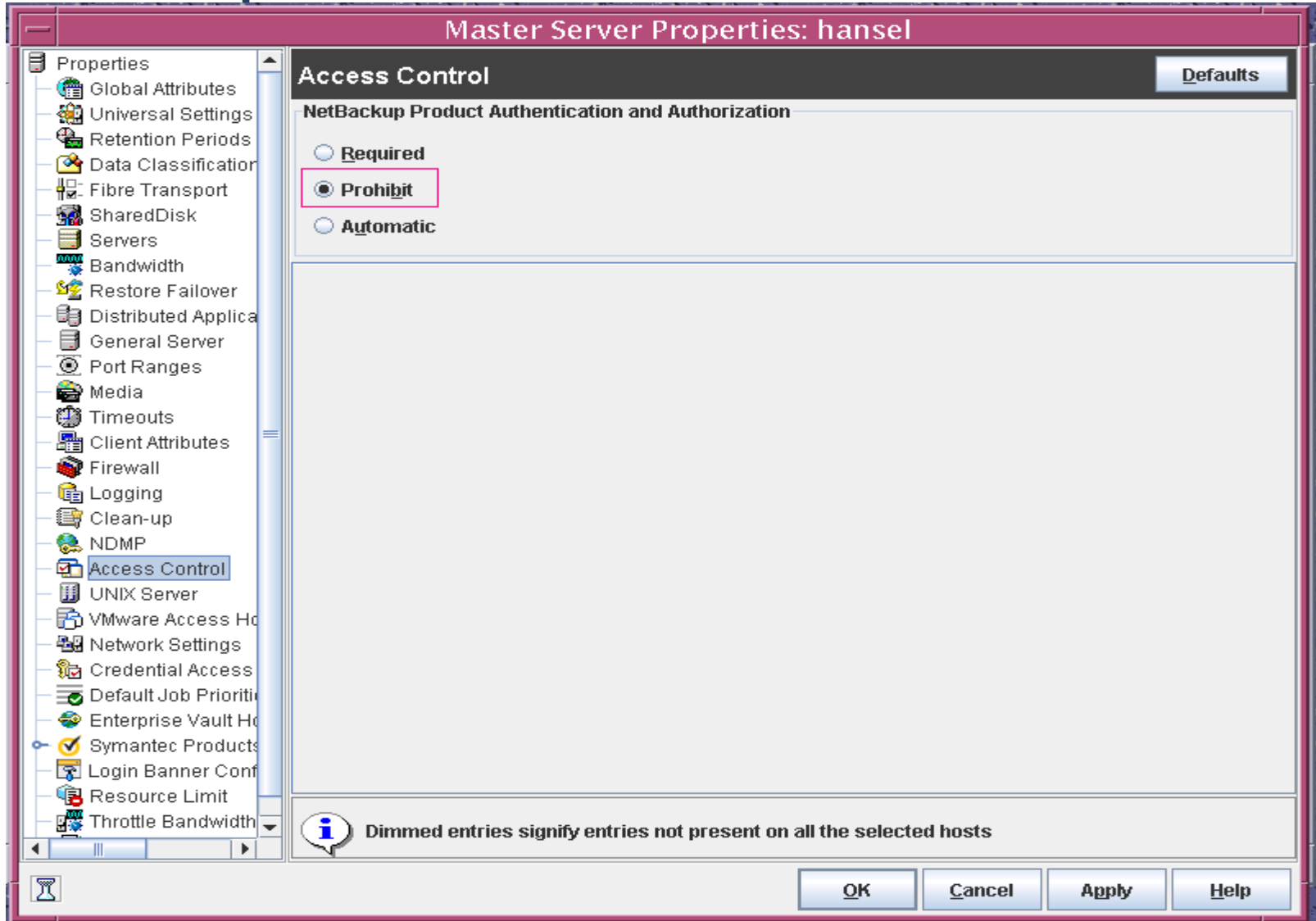
NetBackup 7.1 Installasyon Tamamlandı

- “hansel” sistemine NetBackup 7.1 Enterprise Server

```
root@hansel #
root@hansel # bpps -a
NB Processes
-----
  root  6993      1    0 17:10:31 ?           0:02 /usr/opensv/netbackup/bin/nbars
  root  7005      1    0 17:10:49 ?           0:02 /usr/opensv/netbackup/bin/nbaudit
  root  6901      1    0 17:06:14 ?           0:47 /usr/opensv/db//bin/NB_dbsrv @/usr/opensv/var/glob
bal/server.conf @/usr/opensv/var/
  root  7334      1    0 17:15:26 ?           0:01 /usr/opensv/netbackup/bin/nbpem
  root  7337    7334    0 17:15:26 ?           0:01 /usr/opensv/netbackup/bin/nbproxy dblink nbpem
  root  7282      1    0 17:11:33 ?           0:00 /usr/opensv/netbackup/bin/bpcompatd
  root  6801      1    0 17:06:05 ?           0:00 /usr/opensv/netbackup/bin/bpcd -standalone
  root  7001      1    0 17:10:48 ?           0:01 /usr/opensv/netbackup/bin/nbevtmgr
  root  7292      1    0 17:11:35 ?           0:08 /usr/opensv/netbackup/bin/nbemmm
  root  7332    7329    0 17:15:25 ?           0:01 /usr/opensv/netbackup/bin/nbproxy dblink nbjm
  root  7315      1    0 17:15:21 ?           0:03 /usr/opensv/netbackup/bin/bprd
  root  7422      1    0 17:15:36 ?           0:01 /usr/opensv/netbackup/bin/nbsvcmon
  root  7296      1    0 17:11:36 ?           0:02 /usr/opensv/netbackup/bin/nbrb
  root  7099    7097    0 17:10:54 ?           0:01 /usr/opensv/netbackup/bin/bpjobd
  root  6797      1    0 17:06:04 ?           0:00 /usr/opensv/netbackup/bin/vnetd -standalone
  root  7097      1    0 17:10:54 ?           0:01 /usr/opensv/netbackup/bin/bpdbm
  root  7329      1    0 17:15:24 ?           0:01 /usr/opensv/netbackup/bin/nbjm
  root  7342    7334    0 17:15:27 ?           0:01 /usr/opensv/netbackup/bin/nbproxy dblink nbpem_cl
eanup
  root  7344      1    0 17:15:27 ?           0:03 /usr/opensv/netbackup/bin/nbstserv
  root  7389      1    0 17:15:31 ?           0:01 /usr/opensv/netbackup/bin/nbsl
  root  7365      1    0 17:15:29 ?           0:03 /usr/opensv/netbackup/bin/nbrmms
  root  7410      1    0 17:15:35 ?           0:00 /usr/opensv/netbackup/bin/nbvault

MM Processes
-----
  root  7307      1    0 17:12:06 ?           0:01 vmd
root@hansel #
```

Implementasyon Öncesi “Master Server Host Properties” “Access Control” Bölümü



“Master Server” “host” dosyası.

```
root@hansel # more /etc/hosts
#
# Internet host table
#
::1      localhost
127.0.0.1    localhost
10.1.1.231   hansel  hansel.gantek.com loghost
root@hansel #
```

“Master Server”ın NBAC Kullanım İçin Konfigüre Edilmesi

```
root@hansel # bpnbaz -setupmaster
```

```
You will have to restart NetBackup services on this machine after the command completes successfully.
```

```
Do you want to continue(y/n)y
```

```
Gathering configuration information.
```

```
Please be patient as we wait for 10 sec for the security services to start their operation.
```

```
Generating identity for host `hansel`
```

```
Setting up basic authorization information. Please be patient.
```

```
Basic authorization information generated successfully.
```

```
Granting authorization check permissions to host `hansel`
```

```
Configuring authentication domains within Netbackup
```

```
Setting up authorization information in Netbackup configuration files.
```

```
Setting up NBAC on target host: hansel
```

```
Warning: NetBackup Master Server is currently configured in AUTOMATIC mode. Security will be enforced only in REQUIRED mode. This can be done after entire NetBackup domain is configured with NBAC
```

```
Operation completed successfully.
```

```
root@hansel # █
```

“Master Server” üzerinde “authentication” ve “authorization” Servislerin Çalıştığından Emin Olunması

```
root@hansel # ps -fed |grep nbatd | grep -v grep
  root 13514      1   0 19:19:51 ?                0:01 /usr/openv/netbackup/bin/private/nbatd -c /usr/openv/va
r/global/vxss/eab/data
root@hansel # ps -fed |grep nbazd | grep -v grep
  root 13609      1   0 19:19:55 ?                0:01 /usr/openv/netbackup/bin/private/nbazd
root@hansel # _
```

Komut Sonrası “Master Server” üzerinde “bp.conf” Dosyasına Eklenen Satırlar

```
root@hansel # more /usr/opensv/netbackup/bp.conf
SERVER = hansel
CLIENT_NAME = hansel
CONNECT_OPTIONS = localhost 1 0 2
USE_VXSS = AUTOMATIC
VXSS_SERVICE_TYPE = INTEGRITYANDCONFIDENTIALITY
EMMSERVER = hansel
HOST_CACHE_TTL = 3600
VXDBMS_NB_DATA = /usr/opensv/db/data
AUTHENTICATION_DOMAIN = hansel.gantek.com "ADDED AUTOMATICALLY" PASSWD hansel 0
AUTHORIZATION_SERVICE = hansel 0
root@hansel # █
```


“Authentication Broker” a “Master Server” in Eklenmesi

```
root@hansel # bpnbat -addmachine
Machine Name: hansel
Password:
Passwords must be longer than 5 characters
Password:
Password:
Operation completed successfully.
root@hansel # bpnbat -addmachine
Machine Name: hansel.gantek.com
Password:
Password:
Operation completed successfully.
root@hansel # █
```

“Authentication Broker” a “Master Server” in Eklenmesinin Ardından Login Olunabildiğinin Kontrolü

```
Operation completed successfully.  
root@hansel # bpnbat -loginmachine  
Does this machine use Dynamic Host Configuration Protocol (DHCP)? (y/n) n  
Authentication Broker: hansel.gantek.com  
Authentication port[ Enter = default]:  
Machine Name: hansel  
Password:  
Operation completed successfully.  
root@hansel # bpnbat -loginmachine  
Does this machine use Dynamic Host Configuration Protocol (DHCP)? (y/n) n  
Authentication Broker: hansel.gantek.com  
Authentication port[ Enter = default]:  
Machine Name: hansel.gantek.com  
Password:  
Operation completed successfully.  
root@hansel # █
```

“Security”nin Konfigüre Edilmesi

```
root@hansel # # bpnbaz -setupsecurity hansel.gantek.com -server hansel
root@hansel #
root@hansel #
root@hansel # bpnbaz -allowauthorization hansel.gantek.com
Operation completed successfully.
root@hansel #
```

“Authentication Broker”’a Login Olunduğunun Kontrolü

```
root@hansel # bpnbat -login
Authentication Broker: hansel.gantek.com
Authentication port [0 is default]:
Authentication type (NIS, NISPLUS, WINDOWS, vx, unixpwd, ldap): unixpwd
Domain: hansel.gantek.com
Login Name: root
Password:
Operation completed successfully.
```

“Authentication” ve “Authorization” Konfigürasyonuna Ait Bazı Çıktıların Kontrolü

```
root@hansel #  
root@hansel # bpnbat -ShowMachines  
hansel  
hansel.gantek.com  
Operation completed successfully.  
root@hansel # bpnbaz -ShowAuthorizers  
-----  
Type: User  
Domain Type: vx  
Domain:NBU_Machines@hansel.gantek.com  
Name: hansel  
  
-----  
Type: User  
Domain Type: vx  
Domain:NBU_Machines@hansel.gantek.com  
Name: hansel.gantek.com  
  
Operation completed successfully.
```

“Authentication” ve “Authorization” Konfigürasyonuna Ait Bazı Çıktıların Kontrolü

```
root@hansel # bpnbaz -listgroups
NBU_User
NBU_Operator
NBU_Admin
NBU_Security Admin
Vault_Operator
NBU_SAN Admin
NBU_KMS Admin
Operation completed successfully.
root@hansel #
```

NetBackup “Master Server Host Properties”’de “Access Control” Ayarlarının Yapılması

The screenshot shows the "Master Server Properties: hansel" dialog box with the "Access Control" tab selected. The "NetBackup Product Authentication and Authorization" section has the "Automatic" radio button selected. The "Authentication Domains" tab is active, showing a search for "hansel" and one domain added to the "Selected Authentication Domains" list.

Master Server Properties: hansel

Access Control Defaults

NetBackup Product Authentication and Authorization

Required
 Prohibit
 Automatic

Authentication Domains | Authorization Service | Network Attributes

Available Brokers:
hansel Find

Available Authentication Domains

Domain Na...	Domain Type	Broker
--------------	-------------	--------

Add
Remove

Selected Authentication Domains

Domain Name	Domain Type	Broker
hansel.gantek.com	PASSWD	hansel

Dimmed entries signify entries not present on all the selected hosts

OK Cancel Apply Help

NetBackup “Master Server Host Properties”’de “Access Control” Ayarlarının Yapılması

The screenshot shows the "Master Server Properties: hansel" dialog box in NetBackup. The "Access Control" tab is selected, and the "Authorization Service" sub-tab is active. The "NetBackup Product Authentication and Authorization" section has the "Automatic" radio button selected. The "Host" field contains "hansel". A "NOTE" at the bottom states: "Any Master or Media Server that uses NetBackup Product Authorization must define an authorization service." The "Access Control" item in the left-hand tree is highlighted.

Master Server Properties: hansel

Access Control Defaults

NetBackup Product Authentication and Authorization

Required

Prohibit

Automatic

Authentication Domains **Authorization Service** Network Attributes

Host:

hansel

Customize port of the authorization service

1

NOTE:
Any Master or Media Server that uses NetBackup Product Authorization must define an authorization service.

Dimmed entries signify entries not present on all the selected hosts

OK Cancel Apply Help

NetBackup “Master Server Host Properties”’de “Access Control” Ayarlarının Yapılması

The screenshot displays the "Master Server Properties: hansel" dialog box in NetBackup. The "Access Control" tab is active, showing "NetBackup Product Authentication and Authorization" options: Required, Prohibit, and Automatic. Below this, there are tabs for "Authentication Domains" and "Authorization". The "Networks:" list is currently empty. At the bottom of the main dialog, there are buttons for "Add...", "Add to All", and "Remove".

An "Add Network" sub-dialog box is open, allowing configuration of a new network entry. It includes the following fields and options:

- Host/Domain:** Host Name, Domain Name
- Host Details:** Host Name / IP: [Empty text box]
- Domain Details:** Domain Name / IP: hansel.gantek.com
- Specify network mask (if domain is specified in terms of IP):**
 - IP Details:** Bit count: 1, Subnet Mask: [Empty text box]

Buttons at the bottom of the sub-dialog include "Add", "Close", and "Help".

At the bottom of the main dialog, a note states: "Dimmed entries signify entries not present on all the selected hosts".

Buttons at the bottom of the main dialog include "OK", "Cancel", "Apply", and "Help".

NetBackup “Master Server Host Properties”’de “Access Control” Ayarlarının Yapılması

The screenshot shows the "Master Server Properties: hansel" dialog box in NetBackup. The "Access Control" tab is selected, and the "Networks" list contains the entry ".hansel.gantek.com". The "Required" radio button is selected for both the overall "NetBackup Product Authentication and Authorization" and the "Attributes of the selected network".

Master Server Properties: hansel

Access Control Defaults

NetBackup Product Authentication and Authorization

Required
 Prohibit
 Automatic

Authentication Domains | **Authorization Service** | **Network Attributes**

Networks:

.hansel.gantek.com	▲ ▼
--------------------	--------

Attributes of the selected network

NetBackup Product Authentication and Authorization:

Required
 Prohibit
 Automatic

Add... **Add to All** **Remove**

Dimmed entries signify entries not present on all the selected hosts

OK **Cancel** **Apply** **Help**

NetBackup “Master Server Host Properties”de “Access Control” Ayarlarının Yapılması

The image shows a screenshot of the NetBackup Master Server Properties dialog box for a host named 'hansel'. The 'Access Control' tab is selected, and the 'Automatic' radio button is chosen under 'NetBackup Product Authentication and Authorization'. A 'Restart Daemons' warning dialog is overlaid on the main window, stating: 'Some settings may not take effect until daemons or services are restarted nor will they take effect on the currently active jobs or utilities. See documentation for further details.' The dialog has an 'OK' button. The main window also has 'Add...', 'Add to All', and 'Remove' buttons at the bottom. A status bar at the bottom of the main window reads: 'Dimmed entries signify entries not present on all the selected hosts'. The bottom of the main window has 'OK', 'Cancel', 'Apply', and 'Help' buttons.

Master Server Properties: hansel

Access Control

NetBackup Product Authentication and Authorization

Required

Prohibit

Automatic

Authentication Domains Authorization Service Network Attributes

Networks:

.hansel.gantek.c

Restart Daemons

i Some settings may not take effect until daemons or services are restarted nor will they take effect on the currently active jobs or utilities.

See documentation for further details.

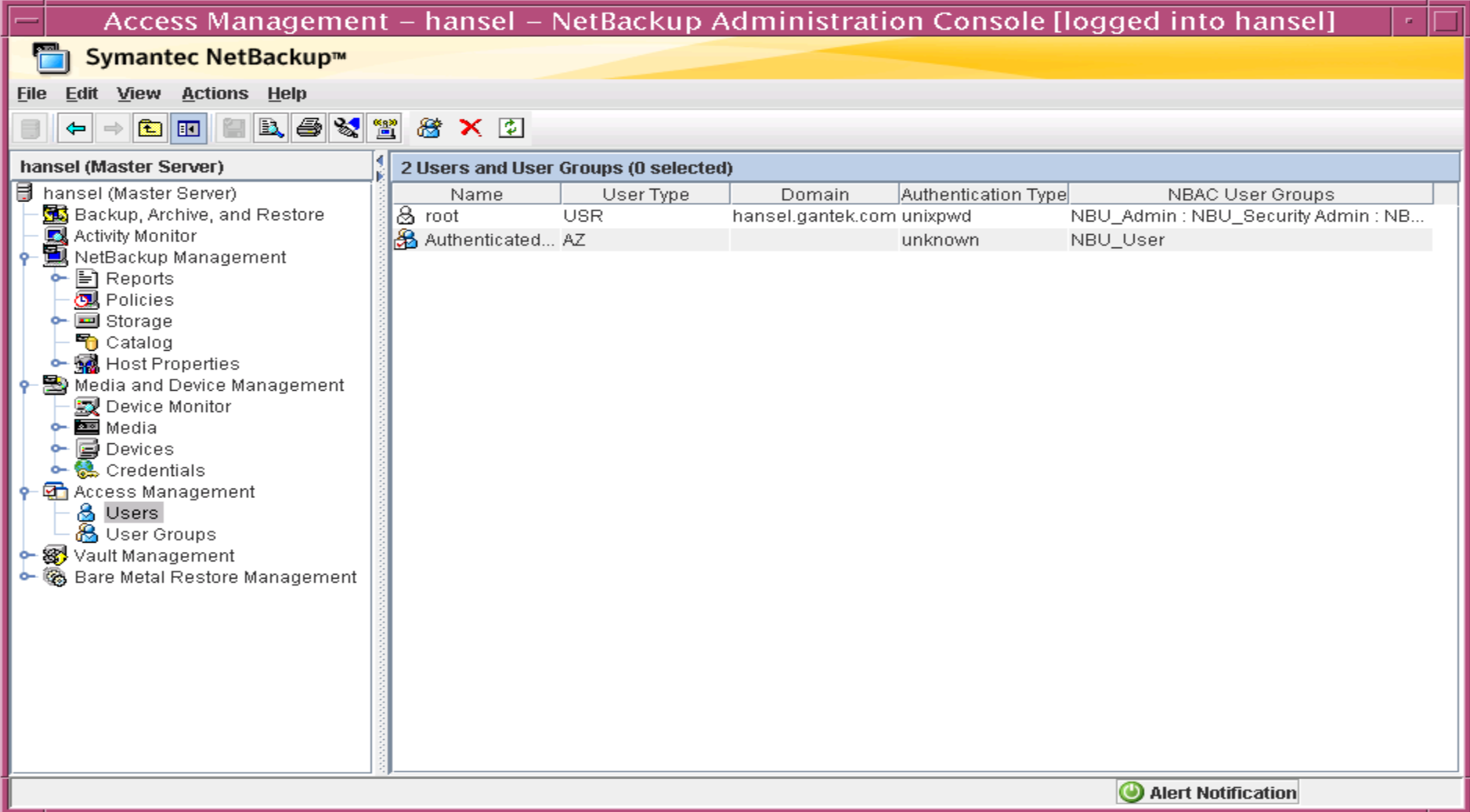
OK

Add... Add to All Remove

i Dimmed entries signify entries not present on all the selected hosts

OK Cancel Apply Help

NetBackup Yönetim Konsolundan “Daemon” “Restart” Sonrası “Access Management”’e Ulaşılır



The screenshot displays the Symantec NetBackup Administration Console interface. The title bar reads "Access Management - hansel - NetBackup Administration Console [logged into hansel]". The main window is titled "Symantec NetBackup™" and features a menu bar with "File", "Edit", "View", "Actions", and "Help". Below the menu bar is a toolbar with various icons. The left sidebar shows a tree view of the console's structure, with "Access Management" expanded to show "Users" and "User Groups". The main pane displays "2 Users and User Groups (0 selected)" with a table listing the following data:

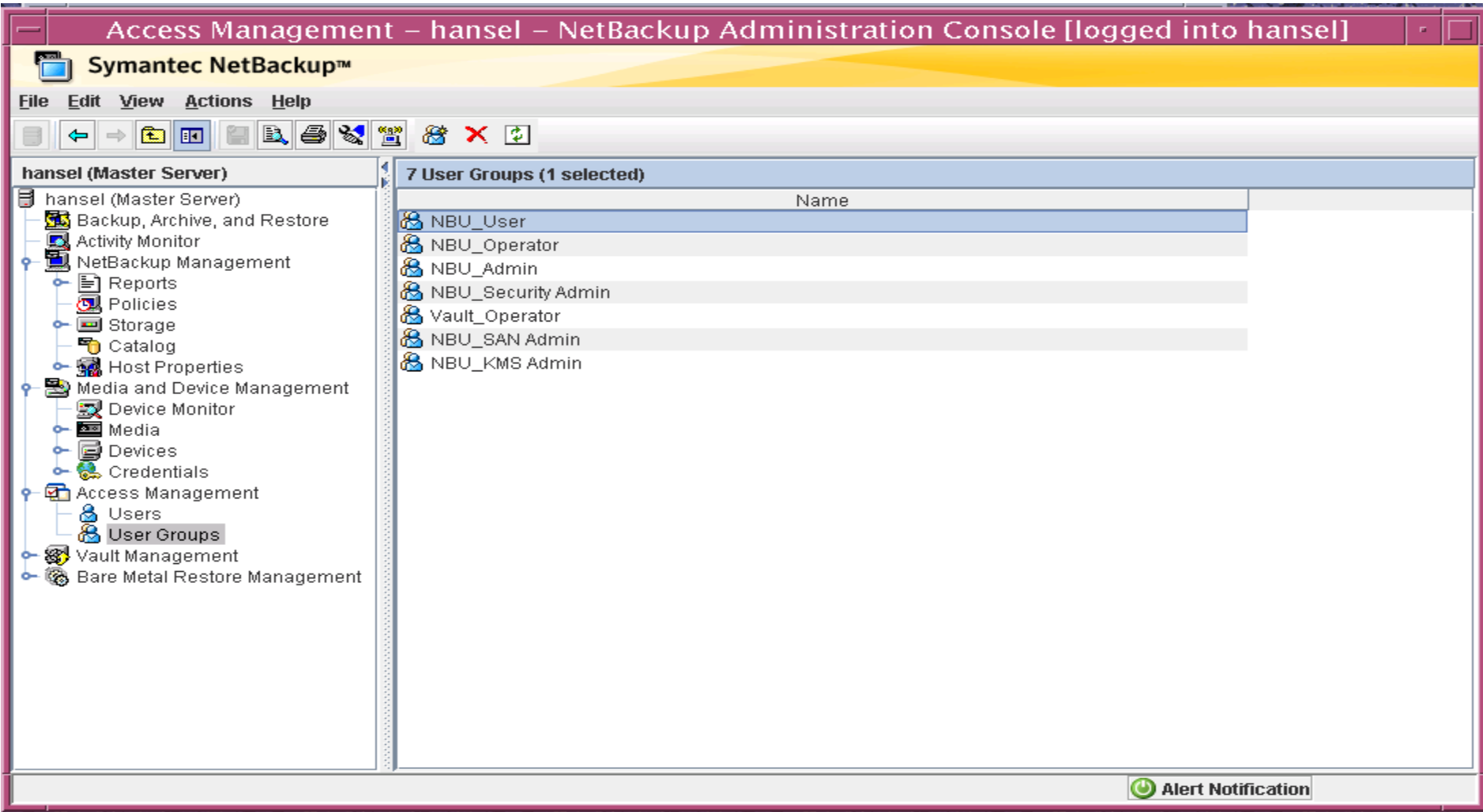
Name	User Type	Domain	Authentication Type	NBAC User Groups
root	USR	hansel.gantek.com	unixpwd	NBU_Admin : NBU_Security Admin : NB...
Authenticated...	AZ		unknown	NBU_User

At the bottom right of the console, there is an "Alert Notification" button with a green power icon.

“Access Management” ile “passwd” Dosyasında Olan Kullanıcılar İçin Tanımlamalar Yapılır

```
root@hansel # grep asiye /etc/passwd  
asiye:x:1001:10:Asiye  
Yigit:/export/home/asiye:/usr/bin/ksh  
root@hansel #
```

“Access Management” ile “passwd” Dosyasında Olan Kullanıcılar İçin Tanımlamalar Yapılır

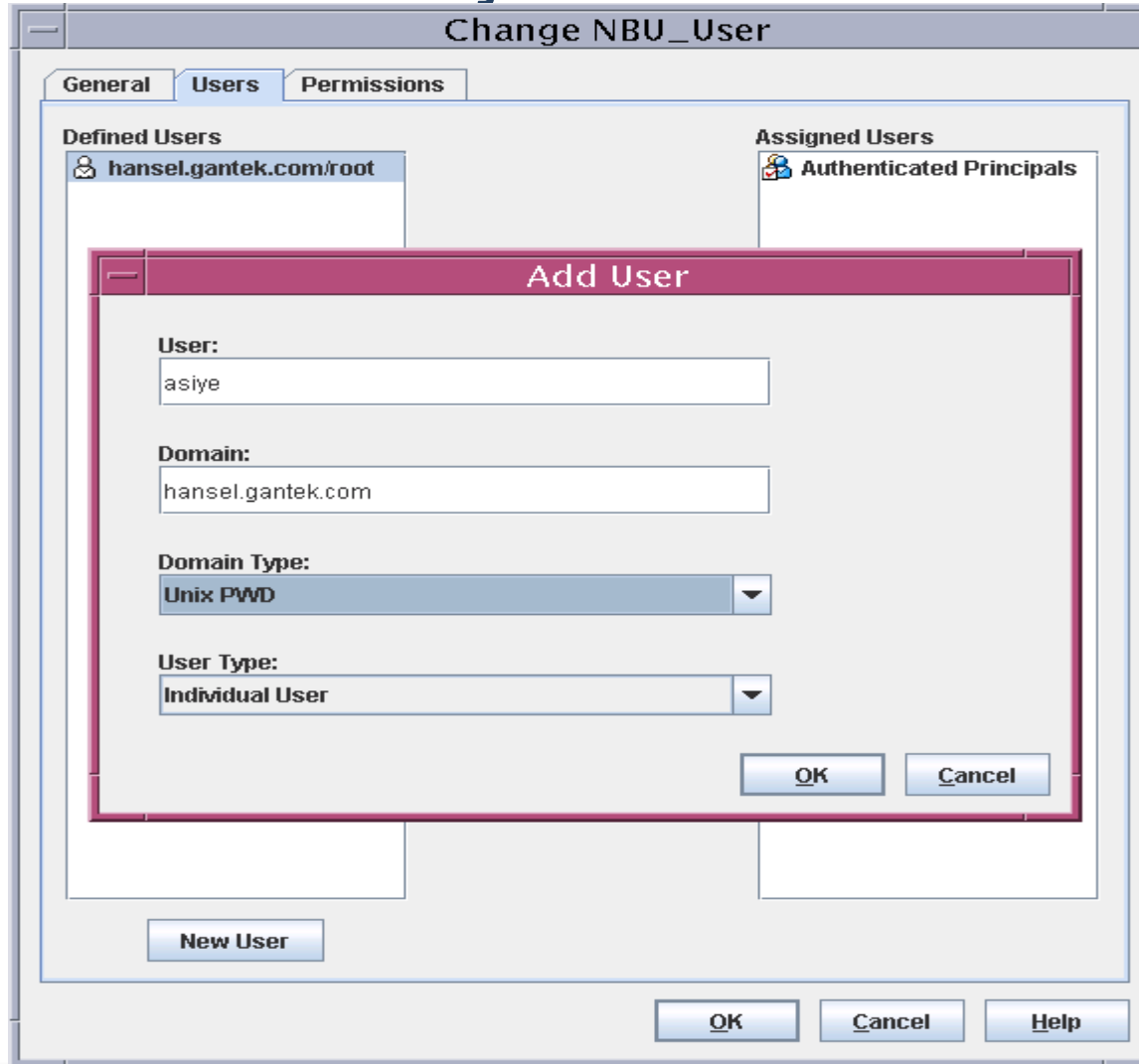


The screenshot displays the Symantec NetBackup Administration Console interface. The title bar reads "Access Management – hansel – NetBackup Administration Console [logged into hansel]". The main window is divided into two panes. The left pane shows a tree view of the console's structure, with "Access Management" expanded to show "User Groups". The right pane displays a list of 7 user groups, with "NBU_User" selected. The list includes:

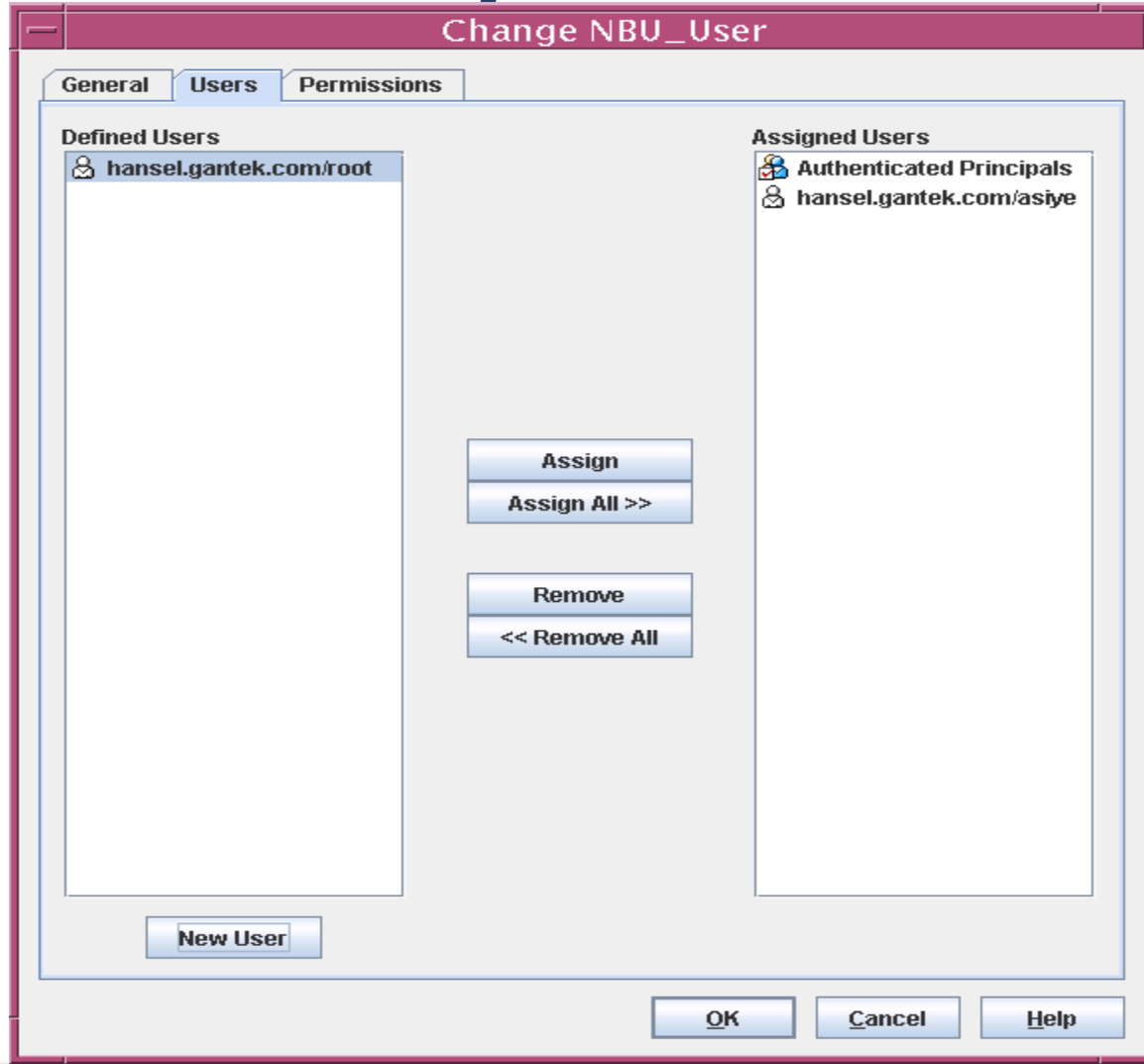
Name
NBU_User
NBU_Operator
NBU_Admin
NBU_Security Admin
Vault_Operator
NBU_SAN Admin
NBU_KMS Admin

At the bottom right of the console, there is an "Alert Notification" button.

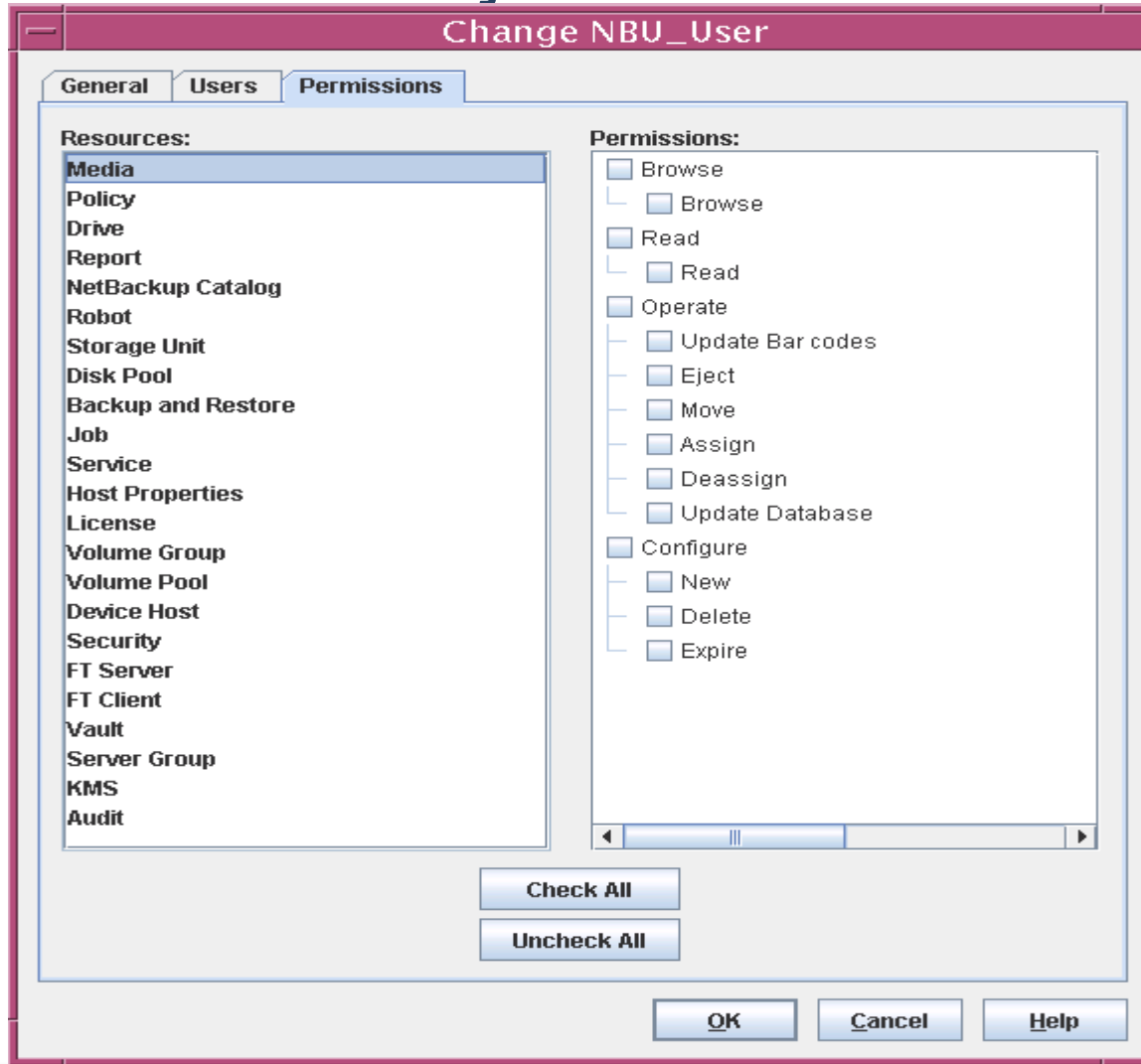
“Access Management” ile “passwd” Dosyasında Olan Kullanıcılar İçin Tanımlamalar Yapılır



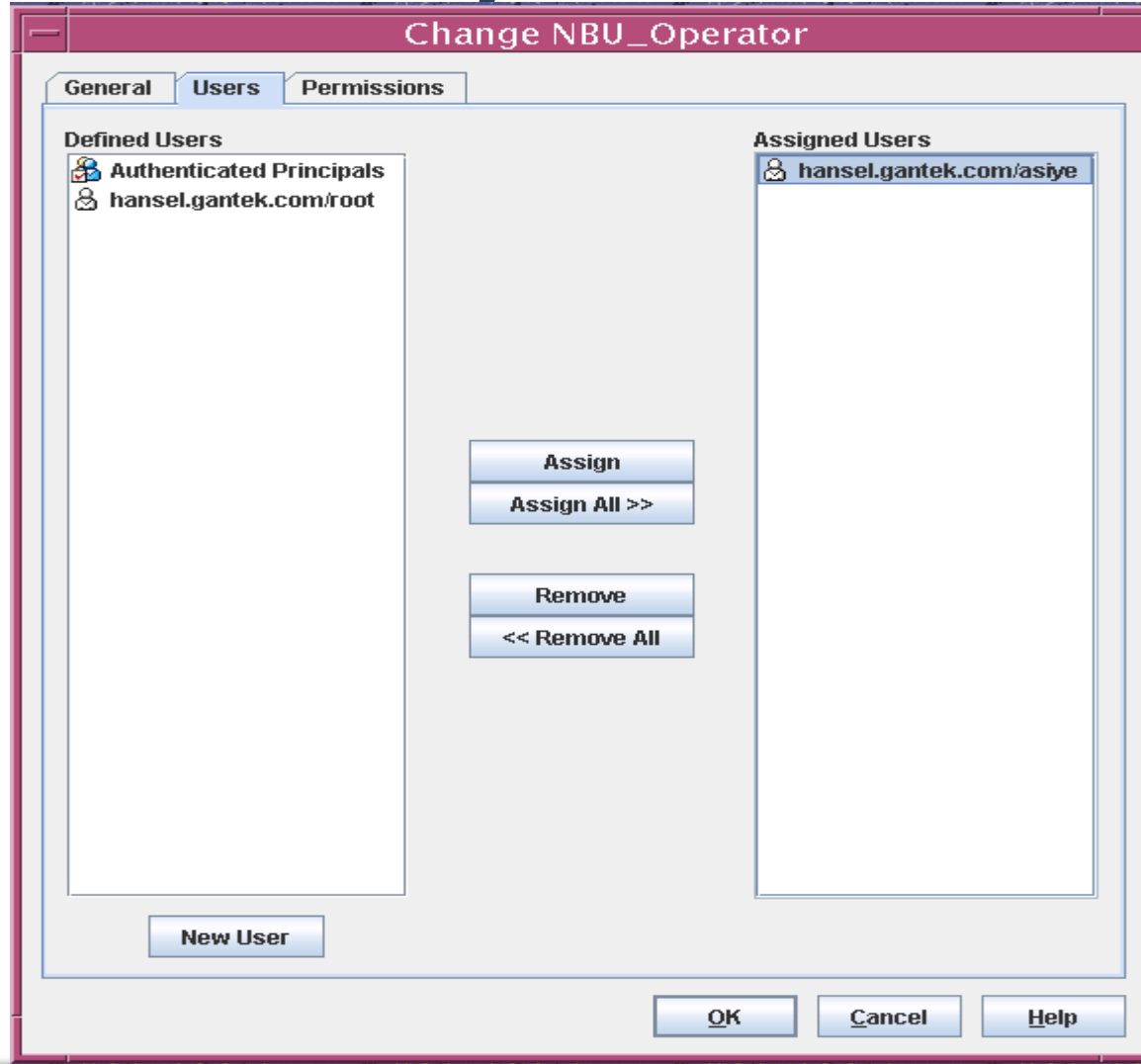
“Access Management” İle “passwd” Dosyasında Olan Kullanıcılar İin Tanımlamalar Yapılır



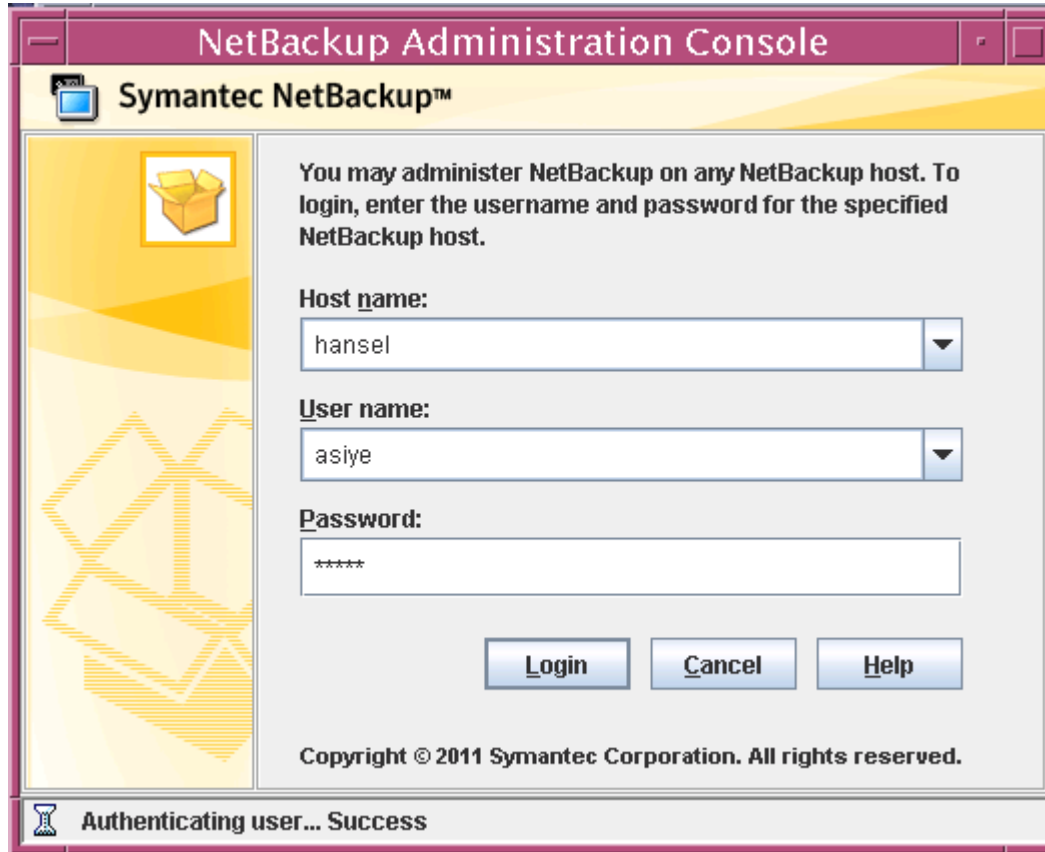
“Access Management” ile “passwd” Dosyasında Olan Kullanıcılar İçin Tanımlamalar Yapılır



“Access Management” ile “passwd” Dosyasında Olan Kullanıcılar İçin Tanımlamalar Yapılır



NetBackup Ortamına “asiye” Kullanıcısı İle Giriş Yapılması



The image shows a screenshot of the NetBackup Administration Console login dialog box. The window title is "NetBackup Administration Console" and the application name is "Symantec NetBackup™". The dialog box contains the following text and fields:

You may administer NetBackup on any NetBackup host. To login, enter the username and password for the specified NetBackup host.

Host name:
hansel

User name:
asiye

Password:

Buttons: Login, Cancel, Help

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Authenticating user... Success

NetBackup Ortamına “asiye” Kullanıcısı İle Yapılan Tüm İşlemler “nbauditreport” Komutuyla Görüntülenmektedir

```
root@hansel # nbauditreport
```

TIMESTAMP	USER	DESCRIPTION
07/02/11 21:50:52	asiye@hansel.gantek.com	Settings of Schedule 'Differential-Inc' of Policy 'hansel_fs' were modified
07/02/11 21:50:49	asiye@hansel.gantek.com	Settings of Schedule 'Full' of Policy 'hansel_fs' were modified
07/02/11 21:50:45	asiye@hansel.gantek.com	Schedule 'Differential-Inc' was added to Policy 'hansel_fs'
07/02/11 21:50:41	asiye@hansel.gantek.com	Schedule 'Full' was added to Policy 'hansel_fs'
07/02/11 21:50:39	asiye@hansel.gantek.com	Include list settings of Policy 'hansel_fs' were modified
07/02/11 21:50:38	asiye@hansel.gantek.com	Client 'hansel' was added to Policy 'hansel_fs'
07/02/11 21:50:37	asiye@hansel.gantek.com	Policy 'hansel_fs' was saved but no changes were detected
07/02/11 21:50:35	asiye@hansel.gantek.com	Policy 'hansel_fs' was created
07/02/11 20:47:25	system@hansel	The nbaudit service on master server 'hansel' was started
07/02/11 20:46:47	system@hansel	The nbaudit service on master server 'hansel' was stopped
07/02/11 20:42:42	root@hansel.gantek.com	Properties of host 'hansel' were modified
07/02/11 19:19:58	system@hansel	The nbaudit service on master server 'hansel' was started
07/02/11 19:19:24	system@hansel	The nbaudit service on master server 'hansel' was stopped

```
Audit records fetched: 13
```

```
root@hansel #
```

Windows NB Remote Admin Console İçin “trust relationship” Tanımlanmalıdır.

“hansel” üzerinde aşağıda olan komut çalıştırılmalıdır. İlgili dosya NB Remote Admin Console’un çalıştığı sistem üzerinde bpsetconfig komutuyla kullanılmalıdır.

```
bpgetconfig USE_VXSS AUTHENTICATION_DOMAIN > VXSS_SETTINGS.txt
```

```
C:\Documents and Settings\Administrator>"C:\Program Files\Veritas\NetBackup\bin\Admincmd\bpsetconfig.exe" "C:\Documents and Settings\Administrator\VXSS_SETTINGS.txt"
```

```
C:\Documents and Settings\Administrator>_
```

Windows NB Remote Admin Console İçin “trust relationship” Tanımlanmalıdır.

The screenshot displays the Symantec NetBackup Administration Console interface. The main window is titled "esx (7.1 Enterprise Server) - NetBackup Administration Console". A "Change Server" dialog box is open, showing the following fields and options:

- Enter host name: hansel (with a "Browse..." button)
- esx (selected in a list)
- hansel (selected in a list)
- Login using different user name
- User name: root
- Password: *
- Authentication Domain: hansel.gantek.com
- Domain Type: UNIXPWD
- Authentication Broker: hansel
- Port: 0

Buttons: OK, Cancel, Help

A "NetBackup Administration Console" error message dialog box is also visible, containing the text: "A trust relationship was unobtainable from the Symantec Product Authentication & Authorization broker. Click Yes to attempt to set up a trust relationship with the broker." Buttons: Yes, No

At the bottom right of the main console, a status bar shows "Master Server: esx Connected".

Windows ortamından hansel'a Bağlandığı Görülmektedir.

The screenshot displays the Symantec NetBackup Administration Console interface. The title bar reads "hansel (7.1 Enterprise Server) - NetBackup Administration Console". The menu bar includes "File", "Edit", "View", "Actions", and "Help". The left-hand navigation pane shows a tree structure with "hansel (Master Server)" selected and highlighted with a red box. Below it, various management options are listed, including Activity Monitor, NetBackup Management, Reports, Policies, Storage, Catalog, Host Properties, Media and Device Management, Device Monitor, Media, Devices, Credentials, Vault Management, Access Management, and Bare Metal Restore Management. The main content area features a yellow header with the Symantec NetBackup logo and a list of configuration tasks: "Getting Started", "Configure Storage Devices", "Configure Disk Storage Servers", "Configure Disk Pool", "Configure Volumes", "Configure the Catalog Backup", "Create a Backup Policy", and "Create a Snapshot Backup Policy". The "Configure the Catalog Backup" task is highlighted with a dark blue background. At the bottom of the console, a status bar shows "Change to a different server" on the left and "Master Server: hansel Connected" on the right, indicating a successful connection to the server.

Media Sunucular Üzerinde Yapılması Gerekenler

Media Sunucular üzerinde NBAC kullanıcılarıyla tüm işlemler yapılmak isteniyorsa master sunucu üzerinde (“inventory” gibi) “bpnbaz –SetupMedia <Media_Server_Name> komutu çalıştırılmalıdır.