NetIQ® eDirectory™ 8.8 SP8

What's New Guide

September 2013

Contents

About this Book and the Library

The *What's New Guide* introduces you to the new features in the NetIQ eDirectory.

For the most recent version of the *NetIQ eDirectory 8.8 SP8 What's New Guide*, see the NetIQ eDirectory 8.8 online documentation Web site.

Intended Audience

The guide is intended for network administrators.

Other Information in the Library

The library provides the following information resources:

XDASv2 Administration Guide

Describes how to configure and use XDASv2 to audit eDirectory and NetIQ Identity Manager.

Installation Guide

Describes how to install eDirectory. It is intended for network administrators.

Administration Guide

Describes how to manage and configure eDirectory.

Troubleshooting Guide

Describes how to resolve eDirectory issues.

Tuning Guide for Linux Platforms

Describes how to analyze and tune eDirectory on Linux platforms to yield superior performance in all deployments.

These guides are available at NetIQ eDirectory 8.8 documentation Web site (https://www.netiq.com/documentation/edir88/).

For information about the eDirectory management utility, see the *NetIQ iManager 2.7 Administration Guide* (https://www.netiq.com/documentation/imanager/).

About NetIQ Corporation

We are a global, enterprise software company, with a focus on the three persistent challenges in your environment: Change, complexity and risk—and how we can help you control them.

Our Viewpoint

Adapting to change and managing complexity and risk are nothing new

In fact, of all the challenges you face, these are perhaps the most prominent variables that deny you the control you need to securely measure, monitor, and manage your physical, virtual, and cloud computing environments.

Enabling critical business services, better and faster

We believe that providing as much control as possible to IT organizations is the only way to enable timelier and cost effective delivery of services. Persistent pressures like change and complexity will only continue to increase as organizations continue to change and the technologies needed to manage them become inherently more complex.

Our Philosophy

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In order to provide reliable control, we first make sure we understand the real-world scenarios in which IT organizations like yours operate — day in and day out. That's the only way we can develop practical, intelligent IT solutions that successfully yield proven, measurable results. And that's so much more rewarding than simply selling software.

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We place your success at the heart of how we do business. From product inception to deployment, we understand that you need IT solutions that work well and integrate seamlessly with your existing investments; you need ongoing support and training post-deployment; and you need someone that is truly easy to work with — for a change. Ultimately, when you succeed, we all succeed.

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1 Service Pack 8 Features and Enhancements

This chapter provides an overview of the features and enhancements included in eDirectory 8.8 SP8.

1.1 Scalability Enhancements

To ensure faster data synchronization and obituary processing, and reduced memory footprint when processing journal events, the scalability enhancements mentioned in the following sections are included in eDirectory 8.8 SP8.

In this release, some background processes have been redesigned to cater to large, dynamic environments. This includes optimization of the existing background processes and providing configuration options to tune your systems appropriate to your environment.

1.1.1 Background Process Control

Administrators can control the background process by configuring the following Background Process Delay Settings policies on the Background Process Settings window in NetIQ iMonitor:

- **CPU** - Specifies the maximum percentage of computer resources and the maximum sleep duration of the same process (skulker, purger, or obituary).
- **Hard Limit** - Specifies a static delay setting for the individual skulker, purger, and obituary processes.

For information about configuring background processes, see "Configuring Background Processes" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.1.2 Skulker Process

To increase the threads created to replicate to more servers simultaneously, you can use skulker process to manually set the maximum number of threads created. This setting is applicable to all the partitions in a server.

For information about configuring the skulker process, see "Manually Configuring Synchronization Threads" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.1.3 Asynchronous Replication

To decrease the amount of time replication requires, the following operations now run in parallel:

- Processing change cache
- Sending packets to a remote server

The new **Async Outbound Sync Settings (milliseconds)** option allows you to avoid overloading the receiving server. By default, this option is turned off. The setting depends on your environment. When you enable this option, set it to `100`, and then adjust up or down as needed.

For information about configuring asynchronous outbound synchronization, see "Configuring Asynchronous Outbound Synchronization" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.1.4 Policy Based Replication

Administrators can now create a policy (XML file) to specify how to replicate changes. For example, this can be useful with a replica ring distributed across multiple locations. If the policy contains a typo or incorrect syntax, the replication reverts to the default method.

For more information, see "Policy Based Replication" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.1.5 Obituary

An obituary generated because of deleting, renaming, or moving objects is processed faster than what it was in the previous releases of eDirectory. For example, an update that required five cycles in previous releases might now require only two cycles.

Also, the obituary process can now run in parallel with the skulker process.

1.1.6 Tracking Obituary Count and Change Cache Count through iMonitor

iMonitor displays the number of objects with obituaries in each state. In addition, it displays the number of objects in the change cache of a partition when you view a partition object through iMonitor in a given server. This helps in further monitoring the state of synchronization and obituary processing.

1.1.7 Distributed Reference Links (DRL)

To optimize obituary processing, eDirectory no longer uses the following DRL attributes:

- `UsedBy`
- `ObitUsedBy`

1.1.8 Journal Event Caching

The Journal Event system is modified to allow you to use a combination of memory and disk to maintain events in the queue. This reduces the drastic growth in memory of the ndsd process.

Enhancements to journal events include:

- **Caching**

  When the journal event queue grows beyond a point in memory (32 MB = max. of 8 x 4 MB blocks), eDirectory starts using a cache on the hard drive.

- **Variables**

Journal events includes the following variables that users can configure:

- ◆ NDSD_EVENT_DISK_CACHE
- ◆ NDSD_EVENT_DISK_CACHE_DIR

◆ **Compression**

Enhanced compression minimizes the size of the data on the hard drive. The compression ratio is approximately 20:1.

1.1.9 Solid State Disks (SSD) Support

This release supports Enterprise SSD for improved IO operations.

1.1.10 Advanced Referral Costing (ARC)

In this release, ARC is enabled by default.

For more information, see "Advanced Referral Costing" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.1.11 Login Update Interval

The new Login Update Disable Interval option allows administrators to specify an interval of time (in seconds) during which eDirectory does not update login attributes.

NOTE: This option applies only to NetIQ Directory Services (NDS) Logins.

For more information, see "Controlling and Configuring the DS Agent" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.2 LDAP Enhancements

This release includes the following LDAP enhancements:

1.2.1 Permissive Modify Control

You can extend the current LDAP modify operation by using this option. If you attempt to delete an attribute that does not exist or to add any value to an attribute that already exists, the operation goes through without displaying any error message.

For more information, see "Configuring Permissive Modify Control" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.2.2 Generalized Time Support

The Generalized Time Support option allows you to display the time in the YYYYMMDDHHmmSS.0Z format.

Note that 0Z signifies support to fractional seconds as supported by Active Directory. Because eDirectory does not support fractional seconds display, this options displays *0* to avoid breaking the functionality in a co-existing environment.

For more information, see "Configuring Generalized Time Support" in the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

1.2.3   Subtree Delete Control

This release supports subtree delete control that allows deleting any container object. Previously, only leaf objects could be deleted. However, subtree delete control does not support deleting partition containers.

1.3   IPv6 Support

This release supports both IPv4 and IPv6 networks. By default, IPv6 is enabled automatically when you install eDirectory. If you are upgrading from a previous version of eDirectory, you must manually enable IPv6 support.

eDirectory 8.8 SP8 supports the following IPv6 modes:

- Dual stack
- Tunneling
- Pure IPv6

eDirectory 8.8 SP8 does not support the following IPv6 address types:

- Link local addresses
- IPv4-mapped IPv6 addresses
- IPv4-compatible IPv6 addresses

eDirectory 8.8 SP8 supports the following addressing formats:

- [::]
- [::1
- [2015::12]
- [2015::12]:524

1.4   Auditing Enhancements

This release enhances XDAS auditing by supporting the client IP address in events.

2 Supported Platforms for eDirectory Installation

eDirectory 8.8 SP8 is a cross-platform release aimed at improving the stability of eDirectory.

2.1 Obsolete Platforms

eDirectory 8.8 SP8 does not support the following platforms:

- NetWare
- 32-bit and 64-bit eDirectory on Solaris
- 32-bit eDirectory on AIX
- 32-bit eDirectory on Linux
- 32-bit eDirectory on Windows

2.2 Linux

You must install eDirectory on one of the following platforms:

- SLES 11 SP1, SP2, and SP3 64-bit
- SLES 10 SP4 64-bit
- RHEL 5.10, 5.9, 5.8, and 5.7
- RHEL 6.5, 6.4, 6.3, and 6.2

You can run these operating systems in a virtual mode on the following hypervisors:

- VMware ESXi
- Xen (on SLES 10 and SLES 11 and their Support Packs)

  NOTE: eDirectory 8.8 SP8 is supported on SLES 10 XEN virtualization service that runs the SLES 10 guest OS. The following updates are available at the NetIQ Update Web site (https://update.novell.com):

  - SUSE-Linux-Enterprise-Server-X86_64-10-0-20061011-020434
  - SLES10-Updates

  For registering and updating SUSE Linux Enterprise 10, refer to Registering SUSE Linux Enterprise with the NetIQ Customer Center (http://www.suse.com/products/register.html). After installing the latest update, ensure that the minimum patch level of the installed update is 3.0.2_09763-0.8.

- Windows Server 2008 R2 Virtualization with Hyper-V

To determine the version of SUSE Linux you are running, see the `/etc/SuSE-release` file.

Ensure that the latest glibc patches are applied from Red Hat Errata (http://rhn.redhat.com/errata) on Red Hat systems. The minimum required version of the glibc library is version 2.1.

2.3 Windows

You must install eDirectory on one of the following platforms:

- Windows Server 2008 (x64) (Standard/Enterprise/Data Center Edition) and its service packs
- Windows Server 2008 R2 (Standard/Enterprise/Data Center Edition) and its service packs
- Windows 2012 Server

IMPORTANT

- You must use an account that has administrative rights to install eDirectory 8.8 SP8 on Windows Server 2008 R2.
- Windows desktop versions are not supported.

3 Install and Upgrade Enhancements

This chapter discusses the features and enhancements with the NetIQ eDirectory 8.8 installation and upgrade.

The following table lists the new features and specifies the platforms they are supported on.

Feature	Linux	Windows
Multiple package formats for installing eDirectory 8.8	✓	✗
Custom location install for application files	✓	✓
Custom location install for data files	✓	✓
Custom location install for configuration files	✓	✗
Nonroot install	✓	✗
Improved support for installations on high availability clusters	✓	✓
FHS compliance	✓	✗
LSB compliance	✓	✗
Server health checks	✓	✓
SecretStore integration	✓	✓
eDirectory Instrumentation Installation	✓	✓

This chapter includes the following information:

3.1 Improved Support for Installations on High Availability Clusters

eDirectory 8.8 SP8 simplifies the installation and management of eDirectory on both Linux and Windows clusters, improving clustering support and enabling high availability. eDirectory also provides high availability through replica synchronization, which can be combined with clustering to achieve a greater level of availability.

For more information on installing eDirectory on clusters, see the *NetIQ eDirectory 8.8 SP8 Installation Guide*.

3.2 For More Information

Refer to the following for more information on any of the features discussed in this chapter:

- *NetIQ eDirectory 8.8 SP8 Installation Guide*
- *NetIQ eDirectory 8.8 SP8 Administration Guide*
- On Linux: `nds-install`, `ndsconfig`, and `ndscheck` man pages

4 Microsoft Windows Server 2008 Password Policy Support

In previous releases of eDirectory, users could use either the default Microsoft complexity policy or the legacy Novell syntax. However, NetIQ eDirectory 8.8 SP8 supports the use of password policies that conform to the Microsoft Windows Server 2008 password policy complexity requirements, which differ from the requirements in the previous Microsoft complexity policy. You can use iManager to create a policy using the new Microsoft Server 2008 Password Policy syntax option and configure that policy as necessary for your environment.

This chapter includes the following information:

4.1 Creating Windows Server 2008 Password Policies

You can use iManager to create password policies that use Microsoft Windows Server 2008 complexity requirements and assign users in your eDirectory environment to the new policy. For detailed instructions on creating password policies, see the *NetIQ Password Management 3.3.2 Administration Guide* (http://www.netiq.com/documentation/password_management33/pwm_administration/data/bookinfo.html).

NOTE

- Before creating a new password policy using the Microsoft Server 2008 Password Policy syntax, ensure that you install the most recent version of the Novell iManager Password Management plug-in. For more information about installing iManager plug-in modules, see the *NetIQ iManager 2.7 Administration Guide* (https://www.netiq.com/documentation/imanager/imanager_admin/data/hk42s9ot.html).

- You must also ensure that both Universal Password and Advanced Password Rules are enabled for the policy you want to create or configure.

4.2 Managing Windows Server 2008 Password Policies

You can manage your policies that use the Windows Server 2008 password policy complexity requirements using iManager. For more information, refer to the "Managing Passwords by Using Password Policies" section in the *Novell Password Management 3.3.2 Administration Guide* (http://www.netiq.com/documentation/password_management33/pwm_administration/data/ampxjj0.html).

4.3 For More Information

Refer to the following for more information on password policies in eDirectory:

- iManager online help
- *Novell Password Management 3.3.2 Administration Guide* (http://www.netiq.com/documentation/password_management33/pwm_administration/data/bookinfo.html)
- *Novell Modular Authentication Services 3.3.4 Administration Guide* (http://www.netiq.com/documentation/nmas33/admin/data/a20gkue.html)

5 Auditing with XDASv2

The XDASv2 specification provides a standardized classification for audit events. It defines a set of generic events at a global distributed system level. XDASv2 provides a common portable audit record format to facilitate the merging and analysis of audit information from multiple components at the distributed system level. The XDASv2 events are encapsulated within a hierarchical notational system that helps to extend the standard or existing event identifier set.

With eDirectory 8.8 SP8, if the XDASv2 agent cannot communicate with the syslog server, the agent can be configured to locally cache logged audit events, ensuring that audit data is not lost. The agent then attempts to re-send the stored audit events, continuing until communication is restored. XDAS event caching is disabled by default.

For more information, refer to the *NetIQ XDASv2 Administration Guide*.

6 Miscellaneous

This chapter covers miscellaneous new features with NetIQ eDirectory 8.8.

6.1 iMonitor Cache Dump Reporting

The Change Cache page in iMonitor displays only one object at a time, which makes it difficult to browse the entire change cache. eDirectory 8.8 SP8 adds a new Change Cache Dump Report to the default reports included with iMonitor. With this report, you can view the entire change cache at once. This report can help an administrator better understand the changes occurring on a particular server.

When you run a Change Cache Dump Report, iMonitor also generates a full XML dump of all objects in the cache, along with attributes and values that need to be synchronized across servers.

For more information about iMonitor reports, refer to the *NetIQ eDirectory 8.8 SP8 Administration Guide*.

6.2 Microsoft Large Integer Syntax Support in iManager

eDirectory 8.8 SP8 provides a new syntax to support the Microsoft Large Integer Syntax. This syntax can be used to store large-integer values or dates previous to 1970 or beyond 2038. You can use either LDAP or iManager to create or manage attributes with this syntax.

NOTE: eDirectory still uses its existing syntax and 32-bit values for internal timestamps.