

Partner

如何設定 MySQL syslog

V010



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前言

本文件描述 N-Reporter 使用者，在 Linux 使用 Rsyslog 和在 Windows 使用 Open Source 工具 NXLog 方式設定 MySQL syslog。

NXLog 工具將 Windows MySQL 記錄轉成 syslog，再轉發到 N-Reporter 做正規化、稽核與分析。

此文件適用於 CentOS / Ubuntu 和 Windows 安裝 MySQL 套件。

MySQL Server Logs : <https://dev.mysql.com/doc/refman/8.0/en/server-logs.html>

註：本文件僅做為如何將日誌吐出的設定參考，建議您仍應聯繫設備或是軟體原廠尋求日誌輸出方式之協助。

1 CentOS 8

1.1 編輯 MySQL 設定檔

(1) 查看 MySQL 版本

```
# mysql -V
```

```
[root@CentOS8 ~]# mysql -V
mysql Ver 8.0.21 for Linux on x86_64 (Source distribution)
[root@CentOS8 ~]#
```

(2) 編輯 MySQL Server 設定檔

```
# vi /etc/my.cnf.d/mysql-server.cnf
```

```
[root@CentOS8 ~]# vi /etc/my.cnf.d/mysql-server.cnf
```

(3) 設定 MySQL 記錄

記錄在檔案

```
# General and Slow logging
log-output=FILE
```

開啟查詢記錄

```
general-log=1
```

查詢記錄檔案

```
general_log_file=/var/log/mysql/mysql-gen.log
```

開啟慢查詢記錄

```
slow-query-log=1
```

慢查詢記錄檔案

```
slow_query_log_file=/var/log/mysql/mysql-slow.log
```

執行超過 10 秒記錄

```
long_query_time=10
```

錯誤記錄檔案

```
# Error Logging.
log-error=/var/log/mysql/mysqld.log
```

```
# General and Slow logging
log_output=FILE
general_log=1
general_log_file=/var/log/mysql/mysql_gen.log
slow_query_log=1
slow_query_log_file=/var/log/mysql/mysql_slow.log
long_query_time=10
# Error Logging.
log_error=/var/log/mysql/mysqld.log
```

(4) 重啟 MySQL 服務和確認 MySQL 服務正常

```
# systemctl restart mysqld && systemctl status mysqld
```

```
[root@CentOS8 ~]# systemctl restart mysqld && systemctl status mysqld
● mysqld.service - MySQL 8.0 database server
  Loaded: loaded (/usr/lib/systemd/system/mysqld.service; disabled; vendor preset: disabled)
  Active: active (running) since Fri 2021-09-03 13:56:36 CST; 10ms ago
    Process: 5678 ExecStartPost=/usr/libexec/mysql-check-upgrade (code=exited, status=0/SUCCESS)
   Process: 5551 ExecStartPre=/usr/libexec/mysql-prepare-db-dir mysqld.service (code=exited, status=0/SUCCESS)
   Process: 5527 ExecStartPre=/usr/libexec/mysql-check-socket (code=exited, status=0/SUCCESS)
 Main PID: 5633 (mysqld)
   Status: "Server is operational"
     Tasks: 39 (limit: 11411)
    Memory: 491.7M
      CGroup: /system.slice/mysqld.service
              └─5633 /usr/libexec/mysqld --basedir=/usr

Sep 03 13:56:28 CentOS8.localdomain systemd[1]: Starting MySQL 8.0 database server...
Sep 03 13:56:28 CentOS8.localdomain mysql-prepare-db-dir[5551]: Initializing MySQL database
Sep 03 13:56:36 CentOS8.localdomain systemd[1]: Started MySQL 8.0 database server.
[root@CentOS8 ~]#
```

1.2 設定 Rsyslog 轉發 MySQL log

(1) 檢查 rsyslog 版本

```
# rsyslogd -v
```

```
[root@CentOS8 ~]# rsyslogd -v
rsyslogd 8.19.11.0-7.el8_4.2 (aka 2019.11) compiled with:
  PLATFORM:                               x86_64-redhat-linux-gnu
  PLATFORM (lsb_release -d):
  FEATURE_REGEXP:                         Yes
  GSSAPI Kerberos 5 support:               Yes
  FEATURE_DEBUG (debug build, slow code): No
  32bit Atomic operations supported:       Yes
  64bit Atomic operations supported:       Yes
  memory allocator:                      system default
  Runtime Instrumentation (slow code):    No
  uuid support:                           Yes
  systemd support:                        Yes
  Config file:                            /etc/rsyslog.conf
  PID file:                              /var/run/rsyslogd.pid
  Number of Bits in RainerScript integers: 64

See https://www.rsyslog.com for more information.
[root@CentOS8 ~]#
```

(2) 編輯 Rsyslog 設定檔

```
# vi /etc/rsyslog.conf
```

```
[root@CentOS8 ~]# vi /etc/rsyslog.conf
```

(3) 加載 imfile 輸入模組

```
module(load="imfile") # provides support for file logging
```

```
#### MODULES ####

module(load="imuxsock"      # provides support for local system logging (e.g. via logger command)
      SysSock.Use="off") # Turn off message reception via local log socket;
                          # local messages are retrieved through imjournal now.
module(load="imjournal"      # provides access to the systemd journal
      StateFile="imjournal.state") # File to store the position in the journal
#module(load="imklog") # reads kernel messages (the same are read from journald)
#module(load="immark") # provides --MARK-- message capability
module(load="imfile") # provides support for file logging
```

(4) 新增 rsyslog 的 130-mysql.conf 設定檔

```
# vi /etc/rsyslog.d/130-mysql.conf
```

```
[root@CentOS8 ~]# vi /etc/rsyslog.d/130-mysql.conf
```

(5) 設定 MySQL log 轉發到 N-Reporter

```
# Send MySQL log to N-Reporter
input(type="imfile" File="/var/log/mysql/mysql-gen.log" Tag="mysql" Severity="info" Facility=
"local3" Ruleset="nreporter")

input(type="imfile" File="/var/log/mysql/mysql-slow.log" Tag="mysql" Severity="warning"
Facility="local3" Ruleset="nreporter")

input(type="imfile" File="/var/log/mysql/mysqld.log" Tag="mysql" Severity="error" Facility="local3"
Ruleset="nreporter")

ruleset(name="nreporter"){action(type="omfwd" Target=" 192.168.8.4 " Port="514" Protocol="udp")}

# Send MySQL log to N-Reporter
input(type="imfile" File="/var/log/mysql/mysql_gen.log" Tag="mysql" Severity="info" Facility="local3" Ruleset="nreporter")
input(type="imfile" File="/var/log/mysql/mysql_slow.log" Tag="mysql" Severity="warning" Facility="local3" Ruleset="nreporter")
input(type="imfile" File="/var/log/mysql/mysqld.log" Tag="mysql" Severity="error" Facility="local3" Ruleset="nreporter")
ruleset(name="nreporter"){action(type="omfwd" Target="192.168.8.4" Port="514" Protocol="udp")}
```

紅色文字部位請輸入 MySQL 日誌路徑檔案和 N-Reporter 系統 IP address

(6) 重啟 Rsyslog 服務和確認 Rsyslog 服務正常

```
# systemctl restart rsyslog && systemctl status rsyslog
```

```
[root@CentOS8 ~]# systemctl restart rsyslog && systemctl status rsyslog
● rsyslog.service - System Logging Service
  Loaded: loaded (/usr/lib/systemd/system/rsyslog.service; enabled; vendor preset: enabled)
  Active: active (running) since Fri 2021-09-03 14:04:43 CST; 9ms ago
    Docs: man:rsyslogd(8)
          https://www.rsyslog.com/doc/
 Main PID: 5734 (rsyslogd)
   Tasks: 5 (limit: 11411)
  Memory: 1.1M
 CGroup: /system.slice/rsyslog.service
         └─5734 /usr/sbin/rsyslogd -n

Sep 03 14:04:43 CentOS8.localdomain systemd[1]: rsyslog.service: Succeeded.
Sep 03 14:04:43 CentOS8.localdomain systemd[1]: Stopped System Logging Service.
Sep 03 14:04:43 CentOS8.localdomain systemd[1]: Starting System Logging Service...
Sep 03 14:04:43 CentOS8.localdomain rsyslogd[5734]: [origin software="rsyslogd" swVersion="8.19.11.0-7.el8_4.2" x-pid="5734" x-info="https://www.rsyslog.com"] start
Sep 03 14:04:43 CentOS8.localdomain systemd[1]: Started System Logging Service.
[root@CentOS8 ~]#
```

2 Ubuntu 21

2.1 編輯 MySQL 設定檔

(1) 查看 MySQL 版本

```
# mysql -V
```

```
root@Ubuntu21:~# mysql -V
mysql Ver 8.0.26-0ubuntu0.21.04.3 for Linux on x86_64 ((Ubuntu))
root@Ubuntu21:~#
```

(2) 編輯 MySQL Server 設定檔

```
# vi /etc/mysql.conf.d/mysqld-server.cnf
```

```
root@Ubuntu21:~# vi /etc/mysql/mysql.conf.d/mysqld.cnf
```

(3) 設定 MySQL 記錄

記錄在檔案

```
# General and Slow logging
log-output=FILE
```

開啟查詢記錄

```
general-log=1
```

查詢記錄檔案

```
general_log_file=/var/log/mysql/mysql-gen.log
```

開啟慢查詢記錄

```
slow-query-log=1
```

慢查詢記錄檔案

```
slow_query_log_file=/var/log/mysql/mysql-slow.log
```

執行超過 10 秒記錄

```
long_query_time=10
```

錯誤記錄檔案

```
# Error Logging.
log-error=/var/log/mysql/mysqld.log
```

```
# General and Slow logging
log_output=FILE
general_log=1
general_log_file=/var/log/mysql/mysql_gen.log
slow_query_log=1
slow_query_log_file=/var/log/mysql/mysql_slow.log
long_query_time=10
# Error Logging
log_error=/var/log/mysql/error.log
```

(4) 重啟 MySQL 服務和確認 MySQL 服務正常

```
# systemctl restart mysql && systemctl status mysql
```

```
root@Ubuntu21:~# systemctl restart mysql && systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2021-09-03 02:16:38 UTC; 5ms ago
     Process: 9545 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
    Main PID: 9553 (mysqld)
      Status: "Server is operational"
        Tasks: 38 (limit: 4584)
       Memory: 352.5M
      CGroup: /system.slice/mysql.service
              └─9553 /usr/sbin/mysqld

Sep 03 02:16:38 Ubuntu21 systemd[1]: Starting MySQL Community Server...
Sep 03 02:16:38 Ubuntu21 systemd[1]: Started MySQL Community Server.
root@Ubuntu21:~#
```

2.2 設定 Rsyslog 轉發 MySQL log

(1) 檢查 rsyslog 版本

```
# rsyslogd -v
```

```
root@Ubuntu21:~# rsyslogd -v
rsyslogd 8.2102.0 (aka 2021.02) compiled with:
  PLATFORM:                               x86_64-pc-linux-gnu
  PLATFORM (lsb_release -d):
  FEATURE_REGEXP:                         Yes
  GSSAPI Kerberos 5 support:               Yes
  FEATURE_DEBUG (debug build, slow code): No
  32bit Atomic operations supported:       Yes
  64bit Atomic operations supported:       Yes
  memory allocator:                      system default
  Runtime Instrumentation (slow code):   No
  uuid support:                           Yes
  systemd support:                        Yes
  Config file:                            /etc/rsyslog.conf
  PID file:                              /run/rsyslogd.pid
  Number of Bits in RainerScript integers: 64

See https://www.rsyslog.com for more information.
root@Ubuntu21:~#
```

(2) 編輯 rsyslog 設定檔

```
# vi /etc/rsyslog.conf
```

```
root@Ubuntu21:~# vi /etc/rsyslog.conf
```

(3) 加載 imfile 輸入模組

```
module(load="imfile") # provides support for file logging
```

```
#####
#### MODULES ####
#####

module(load="imuxsock") # provides support for local system logging
#module(load="immark") # provides --MARK-- message capability
module(load="imfile") # provides support for file logging
```

(4) 新增 rsyslog 的 130-mysql.conf 設定檔

```
# vi /etc/rsyslog.d/130-mysql.conf
```

```
root@Ubuntu21:~# vi /etc/rsyslog.d/130-mysql.conf
```

(5) 設定 MySQL log 轉發到 N-Reporter

```
# Send MySQL log to N-Reporter
input(type="imfile" File="/var/log/mysql/mysql-gen.log" Tag="mysql" Severity="info" Facility="local3" Ruleset="nreporter")

input(type="imfile" File="/var/log/mysql/mysql-slow.log" Tag="mysql" Severity="warning" Facility="local3" Ruleset="nreporter")

input(type="imfile" File="/var/log/mysql/mysqld.log" Tag="mysql" Severity="error" Facility="local3" Ruleset="nreporter")

ruleset(name="nreporter"){action(type="omfwd" Target=" 192.168.8.4 " Port="514" Protocol="udp")}

# Send MySQL log to N-Reporter
input(type="imfile" File="/var/log/mysql/mysql_gen.log" Tag="mysql" Severity="info" Facility="local3" Ruleset="nreporter")
input(type="imfile" File="/var/log/mysql/mysql_slow.log" Tag="mysql" Severity="warning" Facility="local3" Ruleset="nreporter")
input(type="imfile" File="/var/log/mysql/error.log" Tag="mysql" Severity="error" Facility="local3" Ruleset="nreporter")
ruleset(name="nreporter"){action(type="omfwd" Target="192.168.8.4" Port="514" Protocol="udp")}
```

紅色文字部位請輸入 MySQL 日誌路徑檔案和 N-Reporter 系統 IP address

(6) 重啟 Rsyslog 服務和確認 Rsyslog 服務正常

```
# systemctl restart rsyslog && systemctl status rsyslog
```

```
root@Ubuntu21:~# systemctl restart rsyslog && systemctl status rsyslog
● rsyslog.service - System Logging Service
   Loaded: loaded (/lib/systemd/system/rsyslog.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2021-09-03 02:51:55 UTC; 3ms ago
     TriggeredBy: ● syslog.socket
   Docs: man:rsyslogd(8)
         man:rsyslog.conf(5)
         https://www.rsyslog.com/doc/
 Main PID: 10502 (rsyslogd)
   Tasks: 5 (limit: 4584)
    Memory: 1.4M
   CGroup: /system.slice/rsyslog.service
           └─10502 /usr/sbin/rsyslogd -n -INDEF

Sep 03 02:51:55 Ubuntu21 systemd[1]: Starting System Logging Service...
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: imuxsock: Acquired UNIX socket '/run/systemd/journal/syslog' (fd 3) from systemd. [v8.2102.0]
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: rsyslogd's groupid changed to 10
Sep 03 02:51:55 Ubuntu21 systemd[1]: Started System Logging Service.
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: rsyslogd's userid changed to 104
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: imfile: on startup file '/var/log/mysql/mysql_gen.log' does not exist but is configured in static file monitor - this may indicate a misco
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: imfile: on startup file '/var/log/mysql/mysql_slow.log' does not exist but is configured in static file monitor - this may indicate a misco
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: [origin software="rsyslogd" swVersion="8.2102.0" x-pid="10502" x-info="https://www.rsyslog.com"] start
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: imfile: error accessing file '/var/log/mysql/mysql_slow.log': Permission denied [v8.2102.0]
Sep 03 02:51:55 Ubuntu21 rsyslogd[10502]: imfile: error accessing file '/var/log/mysql/mysql_gen.log': Permission denied [v8.2102.0]
root@Ubuntu21:~#
```

顯示讀取 MySQL log 權限不足

(7) 重啟 Rsyslog 服務和確認 Rsyslog 服務正常

```
# ll /var/log/mysql/
```

```
root@Ubuntu21:~# ll /var/log/mysql/
total 24
drwxr-x---  2 mysql adm    4096 Sep  3 02:16 .
drwxrwxr-x 10 root syslog 4096 Sep  3 01:53 ../
-rw-r-----  1 mysql adm    7194 Sep  3 02:16 error.log
-rw-r-----  1 mysql mysql   178 Sep  3 02:16 mysql_gen.log
-rw-r-----  1 mysql mysql   178 Sep  3 02:16 mysql_slow.log
root@Ubuntu21:~#
```

(8) 修改 MySQL log 其它帳號能夠讀取

```
# chmod o+x /var/log/mysql/*.log
```

```
root@Ubuntu21:~# chmod o+r /var/log/mysql/*.log
```

(9) 檢查 MySQL log 權限

```
# ll /var/log/mysql/
```

```
root@Ubuntu21:~# ll /var/log/mysql/
total 24
drwxr-x--- 2 mysql adm 4096 Sep 3 02:16 .
drwxrwxr-x 10 root syslog 4096 Sep 3 01:53 ../
-rw-r--r-- 1 mysql adm 7194 Sep 3 02:16 error.log
-rw-r--r-- 1 mysql mysql 178 Sep 3 02:16 mysql_gen.log
-rw-r--r-- 1 mysql mysql 178 Sep 3 02:16 mysql_slow.log
root@Ubuntu21:~#
```

(10) 重啟 rsyslog 服務和確認 rsyslog 服務正常

```
# systemctl restart rsyslog && systemctl status rsyslog
```

```
root@Ubuntu21:~# systemctl restart rsyslog && systemctl status rsyslog
● rsyslog.service - System Logging Service
  Loaded: loaded (/lib/systemd/system/rsyslog.service; enabled; vendor preset: enabled)
  Active: active (running) since Fri 2021-09-03 03:07:57 UTC; 5ms ago
TriggeredBy: ● syslog.socket
    Docs: man:rsyslogd(8)
          man:rsyslog.conf(5)
          https://www.rsyslog.com/doc/
 Main PID: 11031 (rsyslogd)
   Tasks: 5 (limit: 4584)
  Memory: 1.2M
 CGroup: /system.slice/rsyslog.service
         └─11031 /usr/sbin/rsyslogd -n -iNONE

Sep 03 03:07:57 Ubuntu21 systemd[1]: Starting System Logging Service...
Sep 03 03:07:57 Ubuntu21 rsyslogd[11031]: imuxsock: Acquired UNIX socket '/run/systemd/journal/syslog' (fd 3) from systemd. [v8.2102.0]
Sep 03 03:07:57 Ubuntu21 systemd[1]: Started System Logging Service.
Sep 03 03:07:57 Ubuntu21 rsyslogd[11031]: rsyslogd's groupid changed to 110
Sep 03 03:07:57 Ubuntu21 rsyslogd[11031]: rsyslogd's userid changed to 104
Sep 03 03:07:57 Ubuntu21 rsyslogd[11031]: [origin software="rsyslogd" swVersion="8.2102.0" x-pid="11031" x-info="https://www.rsyslog.com"] start
root@Ubuntu21:~#
```

3 Windows 2019

3.1 NXLog

3.1.1 NXLog 安裝

(1) 下載 NXLog CE(Community Edition)

前往網址 <https://nxlog.co/products/nxlog-community-edition/download>

下載網址最新版 nxlog-ce-x.x.xxxx.msi · 範例: nxlog-ce-3.2.2329.msi

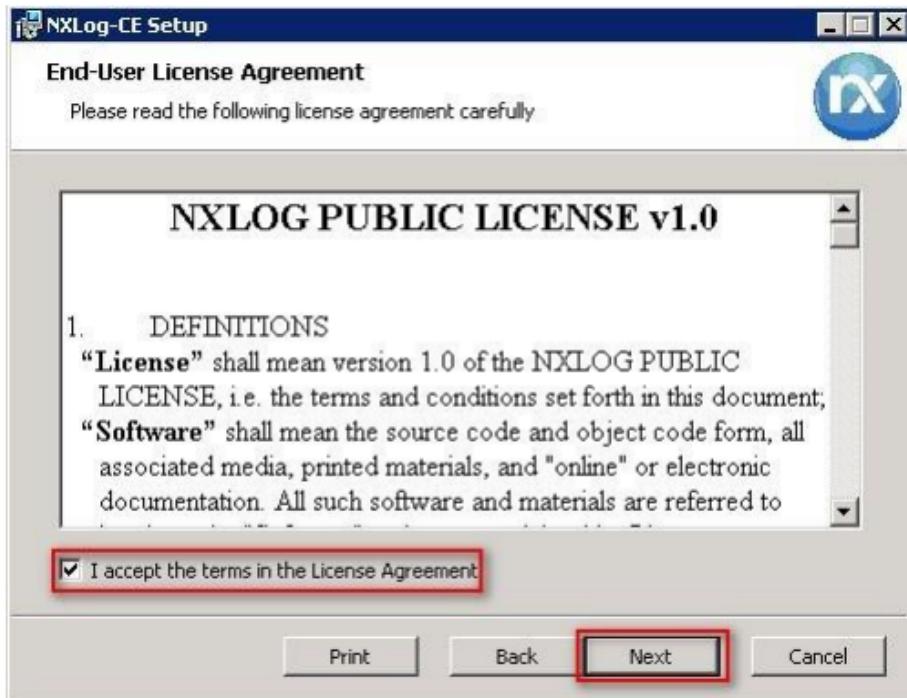


註：若需要下載 NXLog 32bit 版本，請與我們連繫。

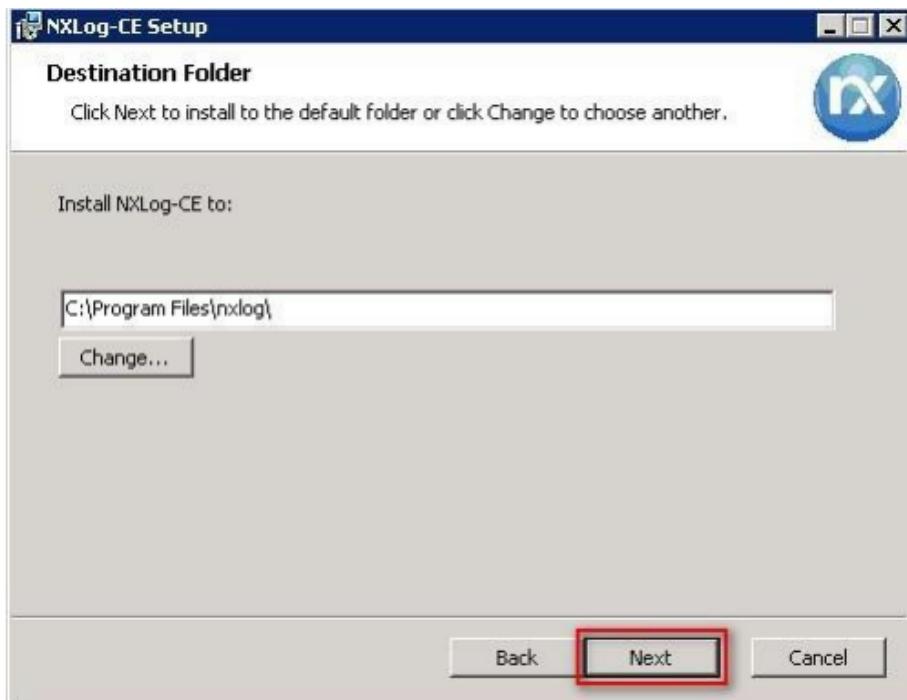
(2) 安裝 NXLog

-> 點擊 [nxlog-ce-3.2.2329.msi] -> 按 [Next].

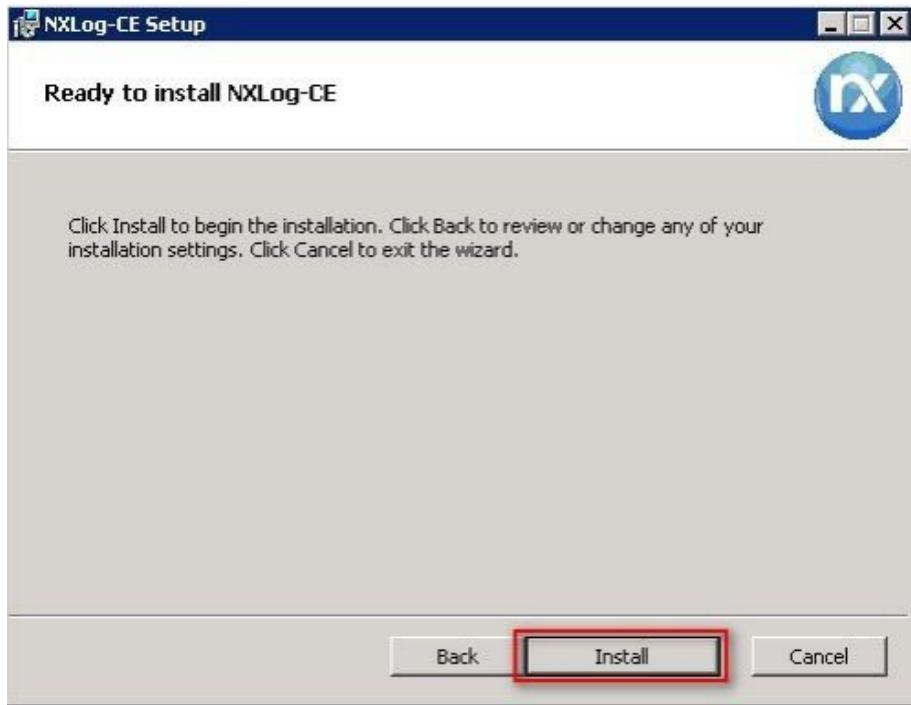
-> 勾選 [I accept the terms in the License Agreement], 按 [Next] .



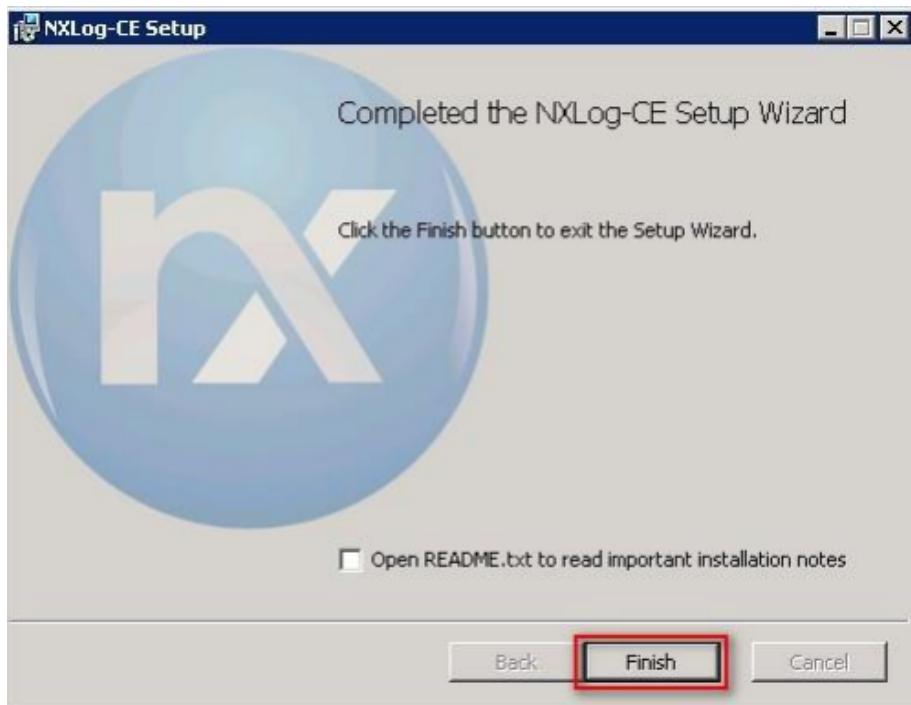
-> 按 [Next]. (預設安裝路徑為 C:\Program Files\nxlog\)



-> 按 [Install].



-> 按 [Finish].



3.1.2 NXLog 設定檔下載

(1) 開啟 [Windows PowerShell]



(2) 下載 nxlog_MySQL.conf 並覆蓋 NXLog 設定檔。

下載連結：http://www.npartnertech.com/download/tech/nxlog_MySQL.conf

```
PS C:\> Invoke-WebRequest -Uri 'http://www.npartnertech.com/download/tech/nxlog_MySQL.conf' -OutFile 'C:\Program Files\ nxlog\conf\nxlog.conf'
```

A screenshot of a Windows PowerShell window titled "系統管理員: Windows PowerShell". The command PS C:\> Invoke-WebRequest -Uri 'http://www.npartnertech.com/download/tech/nxlog_MySQL.conf' -OutFile 'C:\Program Files (x86)\nxlog\conf\nxlog.conf' is displayed in green text. The window has standard minimize, maximize, and close buttons at the top right.

本文件範例是 NXLog 64bit 版本，若是 NXLog 32bit 位元，紅色文字部位請改以下設定 'C: \Program Files (x86)
\nxlog\conf\nxlog.conf'

3.1.3 NXLog 設定檔

```
## Please set the ROOT to the folder your nxlog was installed into, otherwise it will not start.
define NCloud 192.168.8.4
define BASEDIR C:\Logs
define ROOT C:\Program Files\NXLog

Moduledir %ROOT%\modules
CacheDir %ROOT%\data
Pidfile %ROOT%\data\nxlog.pid
SpoolDir %ROOT%\data
LogFile %LOGDIR%\nxlog.log

## Load the modules needed by the outputs
<Extension syslog>
    Module xm_syslog
</Extension>

## For MySQL general log file use the following:
<Input in_generallog>
    Module im_file
    File '%BASEDIR%\mysql-gen.log'
    Exec $SyslogFacilityValue = 6;
    SavePos TRUE
    ReadFromLast TRUE
</Input>

## For MySQL Slow log file use the following:
<Input in_slowlog>
    Module im_file
    File '%BASEDIR%\mysql-slow.log'
    Exec $SyslogFacilityValue = 4;
    SavePos TRUE
    ReadFromLast TRUE
</Input>

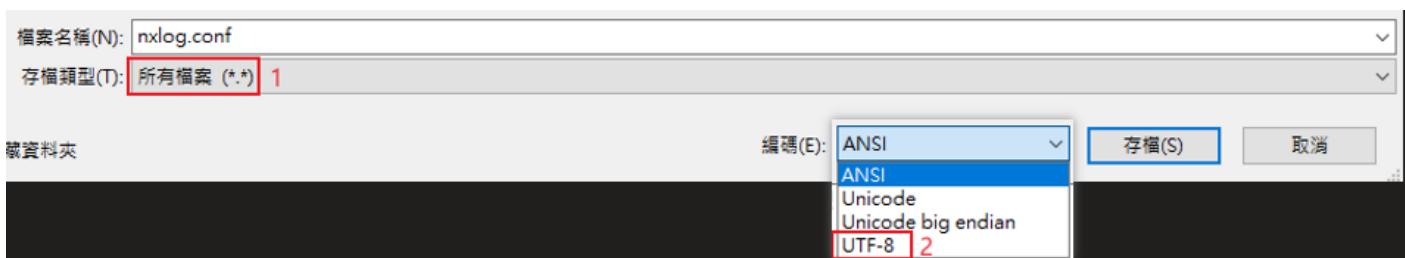
## For MySQL error log file use the following:
<Input in_errorlog>
    Module im_file
    File '%BASEDIR%\mysql.err'
    Exec $SyslogFacilityValue = 3;
    SavePos TRUE
    ReadFromLast TRUE
</Input>

<Output out_mysqllog>
    Module om_udp
    Host %NCloud%
    Port 514
    Exec $SyslogFacilityValue = 19;
    Exec to_syslog_bsd();
</Output>

<Route mysqllog>
    Path in_generallog, in_slowlog, in_errorlog => out_mysqllog
</Route>
```

藍色文字部位請輸入 N-Reporter 系統 IP address 和 MySQL 日誌路徑檔案

修改設定檔內容後需“另存新檔”覆蓋原本檔案 · 1. 存檔類型請選擇“所有檔案 (*.*)” · 2. 編碼請選擇“UTF-8”以免編碼錯誤造成服務無法正常開啟。



3.1.4 NXLog 啟動服務

(1) 開啟 [Windows PowerShell]



(2) 啟動 NXLog 服務，檢查 NXLog 服務和確認 NXLog 沒有錯誤訊息

```
PS C:\> Start-Service -Name nxlog
PS C:\> Get-Service -Name nxlog
PS C:\> Get-Content 'C:\Program Files\NXLog\data\nxlog.log'
```

A screenshot of a Windows PowerShell window titled "系統管理員: Windows PowerShell". The window contains the following command history and output:

```
PS C:\> Start-Service -Name nxlog
PS C:\> Get-Service -Name nxlog
Status      Name            DisplayName
----      ----            -----------
Running    nxlog           nxlog

PS C:\> Get-Content 'C:\Program Files (x86)\NXLog\data\nxlog.log'
2021-09-03 16:17:50 INFO nxlog-ce-2.10.2150 started
PS C:\> _
```

The window has standard operating system window controls (minimize, maximize, close).

3.2 MySQL

3.2.1 編輯 MySQL 設定檔

(1) 開啟 [Windows PowerShell] · 編輯 my.ini 設定檔

```
PS C:\> notepad C:\ProgramData\MySQL\MySQL Server 8.0\my.ini
```



紅色文字部位請輸入 MySQL 服務版本

(2) 設定 MySQL 記錄

記錄在檔案

```
# General and Slow logging
log-output=FILE
```

開啟查詢記錄

```
general-log=1
```

查詢記錄檔案

```
general_log_file="mysql-gen.log"
```

開啟慢查詢記錄

```
slow-query-log=1
```

慢查詢記錄檔案

```
slow_query_log_file='mysql-slow.log'
```

執行超過 10 秒記錄

```
long_query_time=10
```

錯誤記錄檔案

```
# Error Logging.
log-error='mysql.err'
```

```
# General and Slow logging.
log-output=FILE
general-log=1
general_log_file="mysql-gen.log"
slow-query-log=1
slow_query_log_file="mysql-slow.log"
long_query_time=10
# Error Logging.
log-error="mysql.err"
```

紅色文字部位請輸入 MySQL 日誌檔名

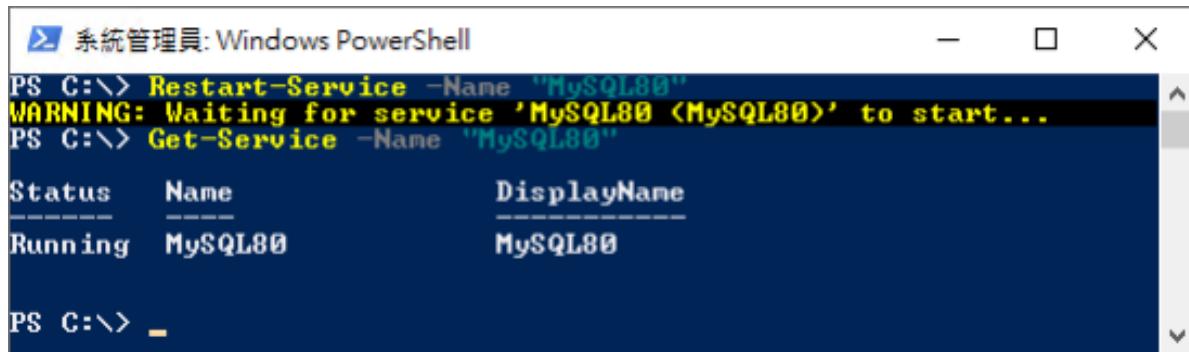
3.2.2 重啟 MySQL 服務

(1) 開啟 [Windows PowerShell]



(2) 重啟 MySQL 服務和確認 MySQL 服務狀態

```
PS C:\> Restart-Service -Name "MySQL80"  
PS C:\> Get-Service -Name "MySQL80"
```



A screenshot of a Windows PowerShell window titled "系統管理員: Windows PowerShell". The window displays the command output:

```
PS C:\> Restart-Service -Name "MySQL80"  
WARNING: Waiting for service 'MySQL80 <MySQL80>' to start...  
PS C:\> Get-Service -Name "MySQL80"  


| Status  | Name    | DisplayName |
|---------|---------|-------------|
| Running | MySQL80 | MySQL80     |

  
PS C:\> _
```

紅色文字部位請輸入 MySQL 服務版本

4 Windows 2022

4.1 NXLog

4.1.1 NXLog 安裝

(1) 下載 NXLog CE(Community Edition)

前往網址 <https://nxlog.co/products/nxlog-community-edition/download>

下載網址最新版 nxlog-ce-x.x.xxxx.msi · 範例: nxlog-ce-3.2.2329.msi

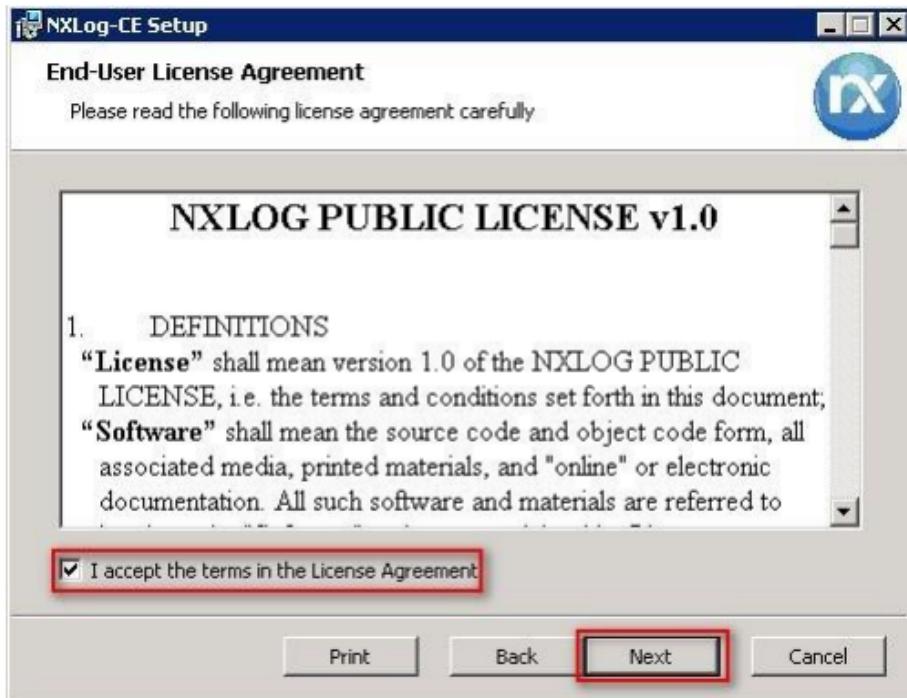


註：若需要下載 NXLog 32bit 版本，請與我們連繫。

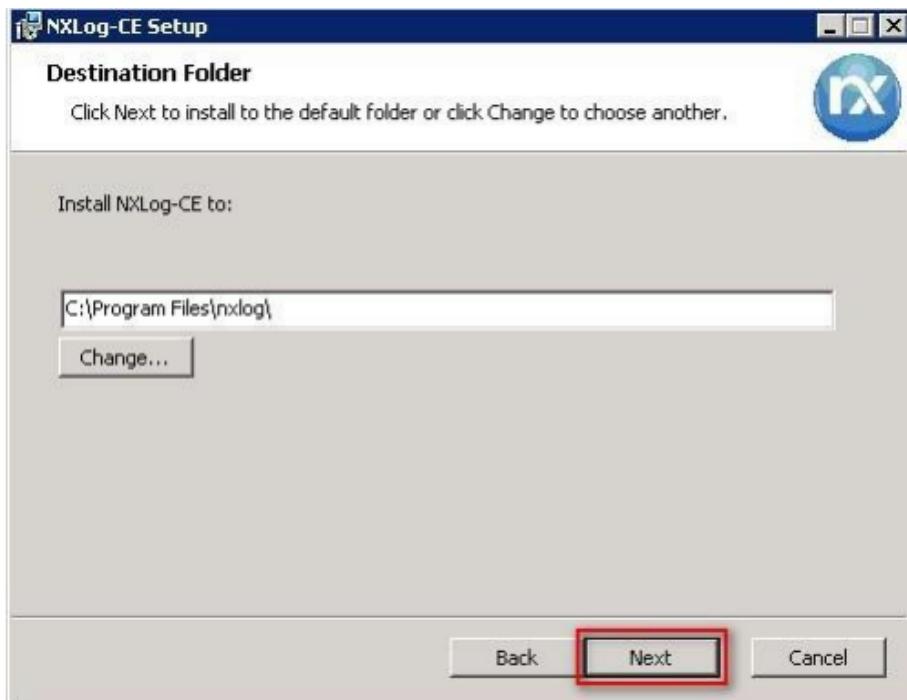
(2) 安裝 NXLog

-> 點擊 [nxlog-ce-3.2.2329.msi] -> 按 [Next].

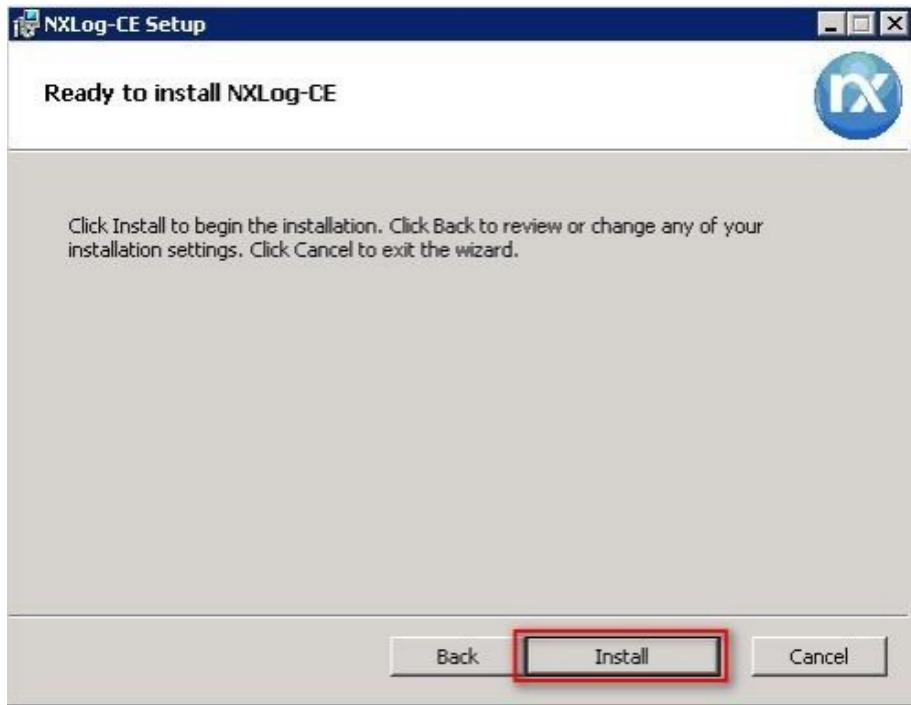
-> 勾選 [I accept the terms in the License Agreement], 按 [Next] .



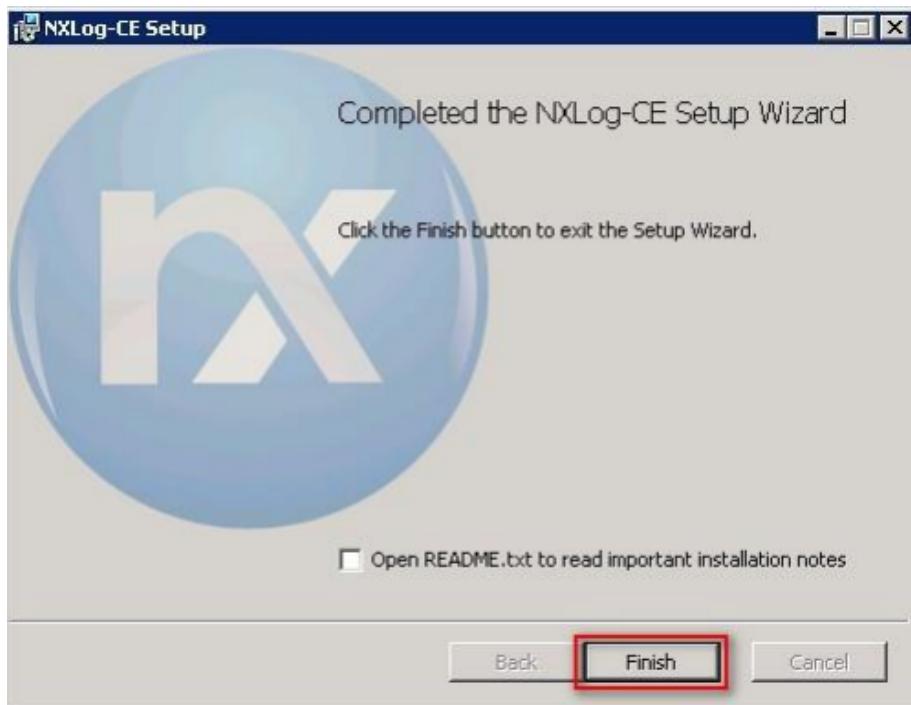
-> 按 [Next]. (預設安裝路徑為 C:\Program Files\nxlog\)



-> 按 [Install].



-> 按 [Finish].



4.1.2 NXLog 設定檔下載

(1) 開啟 [Windows PowerShell]



(2) 下載 nxlog_MySQL.conf 並覆蓋 NXLog 設定檔。

下載連結：http://www.npartnertech.com/download/tech/nxlog_MySQL.conf

```
PS C:\> Invoke-WebRequest -Uri 'http://www.npartnertech.com/download/tech/nxlog_MySQL.conf' -OutFile 'C:\Program Files\ \nxlog\conf\nxlog.conf'
```

A screenshot of a Windows PowerShell window titled "Administrator: Windows PowerShell". The command "Invoke-WebRequest" is being run to download the configuration file from the specified URL and save it to the specified local path. The command is shown in blue, indicating it is being typed or has been run.

本文件範例是 NXLog 64bit 版本，若是 NXLog 32bit 位元，紅色文字部位請改以下設定 'C: \Program Files (x86)
\nxlog\conf\nxlog.conf'

4.1.3 NXLog 設定檔

```
## Please set the ROOT to the folder your nxlog was installed into, otherwise it will not start.
define NCloud 192.168.8.4
define BASEDIR C:\Logs
define ROOT C:\Program Files\NXLog

Moduledir %ROOT%\modules
CacheDir %ROOT%\data
Pidfile %ROOT%\data\nxlog.pid
SpoolDir %ROOT%\data
LogFile %LOGDIR%\nxlog.log

## Load the modules needed by the outputs
<Extension syslog>
    Module xm_syslog
</Extension>

## For MySQL general log file use the following:
<Input in_generallog>
    Module im_file
    File '%BASEDIR%\mysql-gen.log'
    Exec $SyslogFacilityValue = 6;
    SavePos TRUE
    ReadFromLast TRUE
</Input>

## For MySQL Slow log file use the following:
<Input in_slowlog>
    Module im_file
    File '%BASEDIR%\mysql-slow.log'
    Exec $SyslogFacilityValue = 4;
    SavePos TRUE
    ReadFromLast TRUE
</Input>

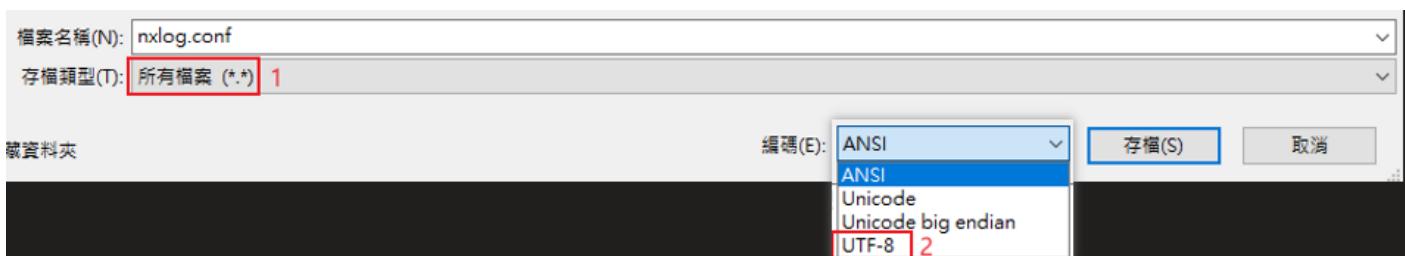
## For MySQL error log file use the following:
<Input in_errorlog>
    Module im_file
    File '%BASEDIR%\mysql.err'
    Exec $SyslogFacilityValue = 3;
    SavePos TRUE
    ReadFromLast TRUE
</Input>

<Output out_mysqllog>
    Module om_udp
    Host %NCloud%
    Port 514
    Exec $SyslogFacilityValue = 19;
    Exec to_syslog_bsd();
</Output>

<Route mysqllog>
    Path in_generallog, in_slowlog, in_errorlog => out_mysqllog
</Route>
```

藍色文字部位請輸入 N-Reporter 系統 IP address 和 MySQL 日誌路徑檔案

修改設定檔內容後需“另存新檔”覆蓋原本檔案 · 1. 存檔類型請選擇“所有檔案 (*.*)” · 2. 編碼請選擇“UTF-8”以免編碼錯誤造成服務無法正常開啟。



4.1.4 NXLog 啟動服務

(1) 開啟 [Windows PowerShell]



(2) 啟動 NXLog 服務，檢查 NXLog 服務和確認 NXLog 沒有錯誤訊息

```
PS C:\> Start-Service -Name nxlog
PS C:\> Get-Service -Name nxlog
PS C:\> Get-Content 'C:\Program Files\nxlog\data\nxlog.log'
```

```
Administrator: Windows PowerShell
PS C:\> Start-Service -Name nxlog
PS C:\> Get-Service -Name nxlog

Status    Name          DisplayName
-----   ---
Running   nxlog        nxlog

PS C:\> Get-Content 'C:\Program Files\nxlog\data\nxlog.log'
2024-07-26 00:52:42 WARNING no functional input modules!
2024-07-26 00:52:42 WARNING no routes defined!
2024-07-26 00:52:42 INFO nxlog-ce-3.2.2329 started
PS C:\>
```

4.2 MySQL

4.2.1 編輯 MySQL 設定檔

(1) 開啟 [Windows PowerShell] · 編輯 my.ini 設定檔

```
PS C:\> notepad C:\ProgramData\MySQL\MySQL Server 9.0\my.ini
```

```
Administrator: Windows PowerShell
PS C:\> notepad C:\ProgramData\MySQL\MySQL Server 9.0\my.ini
PS C:\>
```

紅色文字部位請輸入 MySQL 服務版本

(2) 設定 MySQL 記錄

記錄在檔案

```
# General and Slow logging
log-output=FILE
```

開啟查詢記錄

```
general-log=1
```

查詢記錄檔案

```
general_log_file="mysql-gen.log"
```

開啟慢查詢記錄

```
slow-query-log=1
```

慢查詢記錄檔案

```
slow_query_log_file='mysql-slow.log'
```

執行超過 10 秒記錄

```
long_query_time=10
```

錯誤記錄檔案

```
# Error Logging.
log-error='mysql.err'
```

```
# General and Slow logging.
log-output=FILE
general-log=1
general_log_file="mysql-gen.log"
slow-query-log=1
slow_query_log_file="mysql-slow.log"
long_query_time=10
# Error Logging.
log-error="mysql.err"
```

紅色文字部位請輸入 MySQL 日誌檔名

4.2.2 重啟 MySQL 服務

(1) 開啟 [Windows PowerShell]



(2) 重啟 MySQL 服務和確認 MySQL 服務狀態

```
PS C:\> Restart-Service -Name "MySQL90"  
PS C:\> Get-Service -Name "MySQL90"
```

```
Administrator: Windows PowerShell  
PS C:\> Restart-Service -Name "MySQL90"  
PS C:\> Get-Service -Name "MySQL90"  
  
Status    Name          DisplayName  
---  
Running   MySQL90      MySQL90  
  
PS C:\>
```

紅色文字部位請輸入 MySQL 服務版本

5 N-Reporter

(1) 新增 MySQL 設備

[設備管理] -> [設備樹狀圖] -> 點選 [新增]

The screenshot displays the N-Reporter 7 software interface. On the left, a vertical sidebar menu is open, showing various management options like Events, Reports, and Dashboard. The 'Equipment Management' section is selected and expanded, revealing the 'Equipment Asset Tree View' option, which is also highlighted with a red box. The main content area is titled 'Equipment Asset Tree View' and shows a hierarchical tree structure. At the top of this area is a toolbar with several icons: a search bar, a refresh button, a 'New Input' button, a 'Run Query' button, and three other buttons for different functions. The tree itself has two main nodes: 'Global (10/10)' and 'Unknown Device (0/3)'. The 'Global' node is expanded, showing its 10 sub-devices. The 'Unknown Device' node is collapsed. The entire interface has a clean, modern design with a light blue header and a white background.

(2) 選擇設備種類

選擇 [Application/DB/OS/Server]-> 點選 [引導模式]



(3) 設備基本設定

輸入**設備名稱**和**IP**->**Syslog** 資料格式選擇 [MySQL]-> 點選 [**下一步**]

新增設備 - 設備基本設定

設備基本設定

設備名稱 *

MySQL-192.168.8.196

IP *

192.168.8.196

所屬領域 *

Global

Syslog 資料格式 ⓘ

MySQL

自定義資料格式 ⓘ +

未啟用

SNMP Model ⓘ

未啟用

Web 監控 ⓘ

啟用網頁監控功能

上一步

下一步

取消



(4) Syslog 相關設定

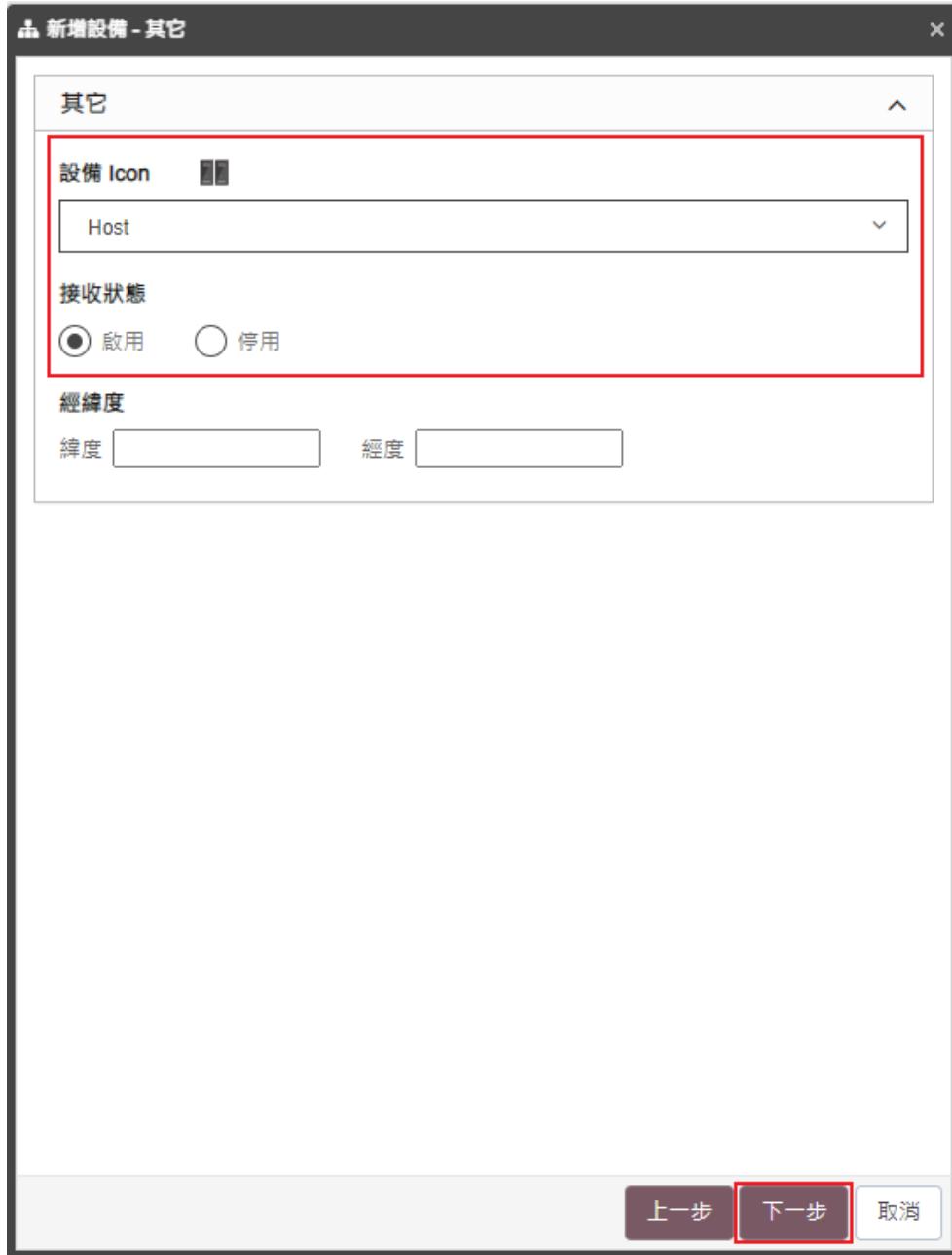
Facility 選擇 [(19) local use 3 (local3)]-> 點選 [下一步]

(若勾選 [Raw Data 保留]，則 [事件查詢] 顯示 Raw Data 資訊)

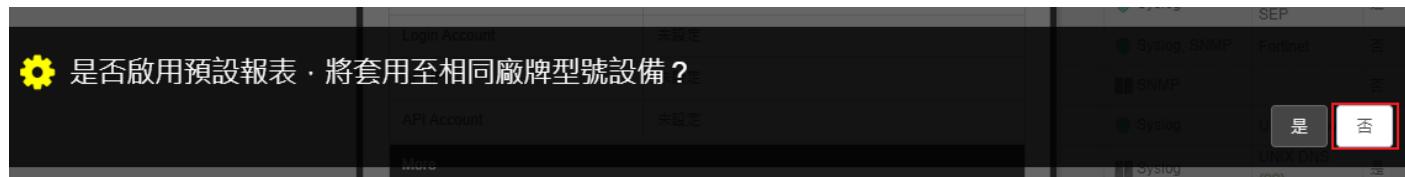


(5) 其他

設備 Icon 選擇 [Host]-> 接收狀態選擇 [啟用]-> 點選 [下一步]->[確認]



是否啟用預設報表，將套用至相同廠牌型號設備-> 點擊 [否]





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