

如何從ISE匯出配置和運算元據備份

目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[背景資訊](#)

[組態](#)

[從GUI執行按需ISE配置資料備份](#)

[從CLI執行按需ISE配置資料備份](#)

[從GUI執行按需ISE運算元據備份](#)

[從CLI執行按需ISE運算元據備份](#)

[驗證](#)

[疑難排解](#)

簡介

本文檔介紹如何對身份服務引擎(ISE)進行按需配置資料和運算元據備份。

必要條件

需求

思科建議您瞭解以下主題：

- 身份服務引擎(ISE)的基本知識。
- 如何配置儲存庫。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- 思科身分識別服務引擎2.7

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

背景資訊

確保環境中可用ISE的另一個關鍵策略是制定可靠的備份策略。ISE備份有兩種型別：配置備份和操作備份。

Cisco ISE 允許您從主PAN和監控節點備份資料。可以從CLI或使用者介面進行備份。

配置資料 — 包含特定於應用和Cisco ADE作業系統配置資料。可使用GUI或CLI通過主PAN進行備份。

運行資料 — 包含監控和故障排除資料。可以通過主PAN GUI或使用監控節點的CLI進行備份。

備份儲存在儲存庫中，可以從同一儲存庫中恢復。您可以安排備份自動運行，也可以根據需要手動運行。您可以從GUI或CLI檢視備份的狀態，但只能從CLI檢視還原的狀態。

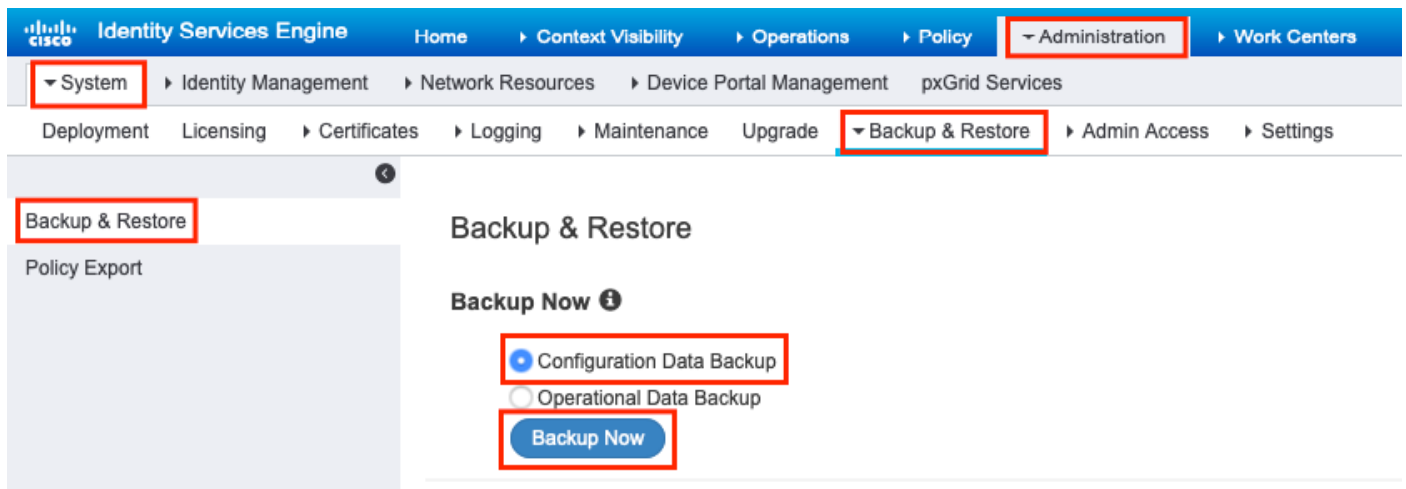
注意： Cisco ISE不支援用於備份ISE資料的VMware快照。使用VMware快照或任何第三方備份來備份ISE資料會導致停止思科ISE服務。

組態

從GUI執行按需ISE配置資料備份

步驟1. 配置儲存庫，請參閱[如何在ISE上配置儲存庫](#)

步驟2. 登入到ISE，導航到Administration > System > Backup & Restore，選擇Configuration Data Backup，按一下Backup Now，如下圖所示：



步驟3. 提供備份名稱、儲存庫名稱和加密金鑰，然後按一下備份。

提示： 確保您記住加密金鑰。

Backup Configuration Data

*Backup Name	<input type="text" value="Config-Backup"/>
*Repository Name	<input type="text" value="FTP-Repo"/>
*Encryption Key	<input type="password" value="*****"/>
*Re-Enter Encryption Key	<input type="password" value="*****"/>

i Internal CA Certificate Store is not in this backup. It is recommended to export it using "application configure ise" CLI command

Cancel

Backup

附註： ISE配置備份包含系統和受信任證書，並且不包含內部證書頒發機構(CA)證書。

從ISE CLI手動備份內部證書頒發機構(CA)儲存。通過SSH登錄到ISE主管理節點(PAN)節點，並運行命令 `application configure ise > select option 7` 以匯出內部CA儲存。

```
ise/admin# application configure ise
```

```
Selection configuration option
```

- [1]Reset M&T Session Database
- [2]Rebuild M&T Unusable Indexes
- [3]Purge M&T Operational Data
- [4]Reset M&T Database
- [5]Refresh Database Statistics
- [6]Display Profiler Statistics
- [7]Export Internal CA Store**
- [8]Import Internal CA Store
- [9]Create Missing Config Indexes
- [10]Create Missing M&T Indexes
- [11]Enable/Disable ACS Migration
- [12]Generate Daily KPM Stats
- [13]Generate KPM Stats for last 8 Weeks
- [14]Enable/Disable Counter Attribute Collection
- [15]View Admin Users
- [16]Get all Endpoints
- [17]Enable/Disable Wifi Setup
- [18]Reset Config Wifi Setup
- [19]Establish Trust with controller
- [20]Reset Context Visibility
- [21]Synchronize Context Visibility With Database
- [22]Generate Heap Dump

```
[23]Generate Thread Dump
[24]Force Backup Cancellation
[25]CleanUp ESR 5921 IOS Crash Info Files
[0]Exit
```

7

```
Export Repository Name: FTP-Repo
Enter encryption-key for export:
Security Protocol list Start
Inside Session facade init
Old Memory Size : 7906192
Old Memory Size : 7906192
Export in progress...
Old Memory Size : 7906192
```

The following 5 CA key pairs were exported to repository 'FTP-Repo' at 'ise_ca_key_pairs_of_ise':

```
Subject:CN=Certificate Services Root CA - ise
Issuer:CN=Certificate Services Root CA - ise
Serial#:0x08f06033-2a4c4fcc-b297e75a-04f11bf9
```

```
Subject:CN=Certificate Services Node CA - ise
Issuer:CN=Certificate Services Root CA - ise
Serial#:0x3a0e8d8a-5a2846be-a902c280-b5d678aa
```

```
Subject:CN=Certificate Services Endpoint Sub CA - ise
Issuer:CN=Certificate Services Node CA - ise
Serial#:0x33b14150-596c4552-ad0a9ab1-9541f0bb
```

```
Subject:CN=Certificate Services Endpoint RA - ise
Issuer:CN=Certificate Services Endpoint Sub CA - ise
Serial#:0x37e17494-cf1d4372-bf0bale6-83653826
```

```
Subject:CN=Certificate Services OCSP Responder - ise
Issuer:CN=Certificate Services Node CA - ise
Serial#:0x68a694ed-bc48481d-bc6cc58e-60a44a61
```

ise CA keys export completed successfully

從CLI執行按需ISE配置資料備份

步驟1.配置儲存庫，請參閱[如何在ISE上配置儲存庫](#)

步驟2.登入PAN節點的CLI並運行以下命令：

```
backup <backup file name> repository <repository name> ise-config encryption-key plain
<encryption key>
```

```
ise/admin# backup ConfigBackup-CLI repository FTP-Repo ise-config encryption-key plain
```

```
% Internal CA Store is not included in this backup. It is recommended to export it using
"application configure ise" CLI command
% Creating backup with timestamped filename: ConfigBackup-CLI-CFG10-200326-0705.tar.gpg
% backup in progress: Starting Backup...10% completed
% backup in progress: Validating ISE Node Role...15% completed
```

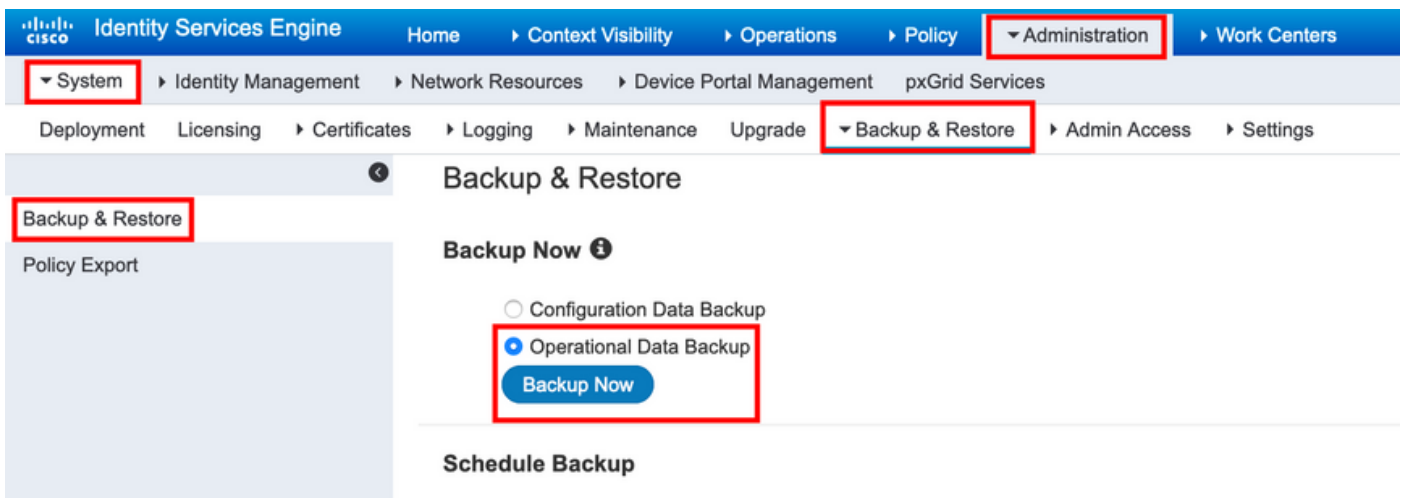
```
% backup in progress: Backing up ISE Configuration Data...20% completed
% backup in progress: Backing up ISE Indexing Engine Data...45% completed
% backup in progress: Backing up ISE Logs...50% completed
% backup in progress: Completing ISE Backup Staging...55% completed
% backup in progress: Backing up ADEOS configuration...55% completed
% backup in progress: Moving Backup file to the repository...75% completed
% backup in progress: Completing Backup...100% completed
ise/admin#
```

從GUI執行按需ISE運算元據備份

步驟1.配置儲存庫，請參閱[如何在ISE上配置儲存庫](#)

步驟2.啟動ISE操作備份。

登入到ISE GUI，導航到管理>系統>備份和還原，選擇運算元據備份，按一下立即備份，如下圖所示：



步驟3.提供Backup Name、Repository Name和Encryption Key，然後按一下Backup。

提示：確保您記住加密金鑰。

從CLI執行按需ISE運算元據備份

步驟1.配置儲存庫請參閱[如何在ISE上配置儲存庫](#)

步驟2.登入到主MNT節點的CLI並運行命令：

```
backup <backup file name> repository <repository name> ise-operational encryption-key plain
<encryption key>
```

```
ise/admin# backup Ops-Backup-CLI repository FTP-Repo ise-operational encryption-key plain
<backup password>
% Creating backup with timestamped filename: Ops-Backup-CLI-OPS10-200326-0719.tar.gpg
% backup in progress: Starting Backup...10% completed
% backup in progress: starting dbbackup using expdp.....20% completed
% backup in progress: starting cars logic.....50% completed
% backup in progress: Moving Backup file to the repository...75% completed
```

% backup in progress: Completing Backup...100% completed
ise/admin#

驗證

導覽至Administration > System > Backup & Restore，以檢視Configuration Data Backup進度，如下圖所示：

The screenshot displays the Cisco Identity Services Engine (ISE) Administration console. The navigation menu includes Home, Context Visibility, Operations, Policy, Administration, and Work Centers. The left sidebar shows System, Identity Management, Network Resources, Device Portal Management, and pxGrid Services. The main content area is titled 'Backup & Restore' and contains the following sections:

- Configuration Data Backup:** A progress bar showing 20% completion. A 'Stop' button is located to the right of the progress bar. Below the progress bar, it says 'Click on 'Stop' to cancel Configuration Data Backup'.
- Backup & Restore:** A section with a heading and an information icon.
- Backup Now:** A section with an information icon and two radio buttons: 'Configuration Data Backup' (selected) and 'Operational Data Backup'. A 'Backup Now' button is located below the radio buttons.
- Schedule Backup:** A table with columns for Backup Name, Frequency, Start End Date, and Execute At. It lists 'Configuration Data Backup' and 'Operational Data Backup' with 'Schedule' links.
- Last Backup Details:** A section with an information icon and a heading 'Configurational Backup Details'. It displays the following details:
 - Backup Name: Config-Backup
 - Repository Name: FTP-Repo
 - Start Date & Time: Sat Mar 07 10:43:07 IST 2020
 - Status: Backup is in progress...
 - Scheduled: no
 - Triggered Form: Admin web UI
 - Execute On: ise-1.ise.local

導覽至Administration > System > Backup & Restore以檢視Operational Data Backup進度，如下圖所示：

The screenshot shows the Cisco ISE Backup & Restore interface. At the top, there's a navigation bar with 'Administration' and 'Work Centers' tabs. Below that, a breadcrumb trail leads to 'Backup & Restore'. The main content area is divided into several sections:

- Operational Data Backup:** A progress bar showing 20% completion, with a 'Stop' button. A red box highlights this section.
- Backup Now:** Radio buttons for 'Configuration Data Backup' and 'Operational Data Backup' (selected), with a 'Backup Now' button.
- Schedule Backup:** A table with columns for Backup Name, Frequency, Start End Date, Execute At, and Schedule Status. It lists 'Configuration Data Backup' and 'Operational Data Backup', both with 'Schedule' buttons and unchecked 'Schedule Status' checkboxes.
- Last Backup Details:**
 - Configurational Backup Details:** Backup Name: ConfigBackup-CLI, Repository Name: FTP-Repo, Start Date & Time: Sat Mar 7 11:28:15 IST 2020, Status: success, Scheduled: no, Triggered Form: CLI, Execute On: Restore.
 - Operational Backup Details:** Backup Name: ops-backup, Repository Name: FTP-Repo, Start Date & Time: Fri Mar 13 13:55:02 IST 2020, Status: Backup is in progress... (highlighted with a red box), Scheduled: no, Triggered Form: Admin web UI, Execute On: ise-1.ise.local.

您還可以從PAN節點的CLI檢查配置備份的進度。

```
ise/admin# show backup status
%% Configuration backup status
%% -----
%      backup name: ConfigBackup-CLI
%      repository: FTP-Repo
%      start date: Thu Mar 26 07:05:11 IST 2020
%      scheduled: no
%      triggered from: CLI
%      host:
%      status: Backup is in progress
%      progress %: 50
%      progress message: Backing up ISE Logs

%% Operation backup status
%% -----
% No data found. Try 'show backup history' or ISE operation audit report
ise/admin#
```

備份完成後，您可以看到備份狀態為成功。

疑難排解

確保ISE管理節點上正在運行ISE索引引擎服務。

```
ise-1/admin# show application status ise
```

ISE PROCESS NAME	STATE	PROCESS ID
Database Listener	running	15706
Database Server	running	89 PROCESSES
Application Server	running	25683
Profiler Database	running	23511
ISE Indexing Engine	running	28268
AD Connector	running	32319
M&T Session Database	running	23320
M&T Log Processor	running	16272

要在ISE上調試備份還原，請使用以下調試：

```
ise-1/admin# debug backup-restore backup ?
<0-7> Set level, from 0 (severe only) to 7 (all)
<cr> Carriage return.
```

```
ise-1/pan# debug backup-restore backup 7
ise-1/pan#
ise-1/pan# 6 [25683]:[info] backup-restore:backup: br_history.c[549] [system]: ISE
backup/restore initiated by web UI as ise.br.status is 'in-progress' in /tmp/ise-cfg-br-flags
7 [25683]:[debug] backup-restore:backup: br_backup.c[600] [system]: initiating backup Config-
Backup to repos FTP-Repo
7 [25683]:[debug] backup-restore:backup: br_backup.c[644] [system]: no staging url defined,
using local space
7 [25683]:[debug] backup-restore:backup: br_backup.c[60] [system]: flushing the staging area
7 [25683]:[debug] backup-restore:backup: br_backup.c[673] [system]: creating /opt/backup/backup-
Config-Backup-1587431770
7 [25683]:[debug] backup-restore:backup: br_backup.c[677] [system]: creating /opt/backup/backup-
Config-Backup-1587431770/backup/cars
7 [25683]:[debug] backup-restore:backup: br_backup.c[740] [system]: creating /opt/backup/backup-
Config-Backup-1587431770/backup/ise
```



```
7 [25683]:[debug] backup-restore:backup: br_backup.c[781] [system]: calling script
/opt/CSCOcpm/bin/isecfgbackup.sh
6 [25683]:[info] backup-restore:backup: br_backup.c[818] [system]: adding ADEOS files to backup
6 [25683]:[info] backup-restore:backup: br_backup.c[831] [system]: Backup password provided by
user
6 [25683]:[info] backup-restore:backup: br_backup.c[190] [system]: No post-backup entry in the
manifest file for ise
7 [25683]:[debug] backup-restore:backup: br_backup.c[60] [system]: flushing the staging area
6 [25683]:[info] backup-restore:backup: br_backup.c[912] [system]: backup Config-Backup-CFG10-
200421-0646.tar.gpg to repository FTP-Repo: success
6 [25683]:[info] backup-restore:backup: br_history.c[487] [system]: updating /tmp/ise-cfg-br-
flags with status: complete and message: backup Config-Backup-CFG10-200421-0646.tar.gpg to
repository FTP-Repo: success
```

使用no debug backup-restore backup 7禁用節點上的調試。

```
ise-1/admin# no debug backup-restore backup 7
```