

SQL Server UnitySentinel Restore Script

fcc2b7d8-2888-4b07-816d-2d366802c3a4 - VM-Sage-Prod-02

Overview

This PowerShell script automates the download, extraction, conversion, and restoration of SQL Server database backups for Unity Sentinel environments. It is designed for **environment refresh scenarios**, typically from production to development or staging.

What the Script Does

1. **Sets up working directories and logging**
2. **Downloads the latest .7z backup archive via SFTP** using WinSCP
3. **Extracts FULL_*.sqb** files from the archive using **7-Zip**
4. **Converts .sqb files to .bak** using **sqb2mtf.exe**
5. **Renames and prepares backup files**
6. **Runs SQL restore commands** via **Invoke-Sqlcmd** using a **.sql** script

Folder Structure

All script activity takes place under:

```
1 E:\ImportData\fcc2b7d8-2888-4b07-816d-2d366802c3a4\  
2 |─ download\      # For downloaded archives  
3 |─ extract\       # For converted .bak files  
4 |─ log\           # For all script and WinSCP logs  
5 |─ winscp\        # Contains WinSCP.com  
6 |─ 7-zip\         # Contains 7z.exe  
7 |─ sqb2mtf.exe    # Converts .sqb to .bak  
8 |─ UnityPrivateKey3.ppk # SFTP private key  
9 |─ restore_database.sql # SQL script  
10
```

Required Tools (Bundled or Preinstalled)

Tool	Purpose	Notes
------	---------	-------

WinSCP.com	SFTP file transfer	Requires .ppk private key
7z.exe	Archive extraction	Must be in 7-zip\ folder
sqb2mtf.exe	Converts .sqb to .bak	Proprietary tool
SqlServer PS module	SQL Server management	Installed via Install-Module SqlServer

Credentials

- SFTP login is embedded using a private key (UnityPrivateKey3.ppk)
- SQL Server connection is made to localhost , using Windows Authentication

If SQL Authentication is needed, modify the Invoke-Sqlcmd command to include:

```
1 -Username "sa" -Password "YourPassword123"
2
```

SQL Restore Logic

The .sql script uses \$(BackupPath) to point to the .bak files dynamically. PowerShell substitutes this using:

```
1 -Variable @{ BackupPath = $extractFolder }
2
```

Each DB is:

1. Set to SINGLE_USER
2. Overwritten using WITH REPLACE
3. Returned to MULTI_USER

Output and Logging

Logs are saved to:

```
1 C:\Temp\UnitySentinel-Update\log\  
2 |— scriptlog_YYYYMMDD_HHMMSS.txt  
3 |— winscplog_YYYYMMDD_HHMMSS.txt  
4
```

Log messages are timestamped:

```
1 [2025-08-28 13:25:01] Processing FULL_*.sqb...  
2 [2025-08-28 13:26:13] SQL restore script executed successfully.  
3
```

Common Errors & Fixes

Issue	Cause	Fix
& : The expression...	Missing or invalid executable path	Confirm \$sevenZipPath, \$sqb2mtfExe point to real .exe
SSL Provider, error: certificate chain...	SQL Server uses SSL	Add - TrustServerCertificate to Invoke-Sqlcmd
RESTORE DATABASE...tail of the log	Existing DB not overwritten	Ensure WITH REPLACE is present in SQL script
No process on other end of the pipe	SQL Server not running	Confirm SQL Server service is running on localhost

Pre-run Checklist

- Confirm all tools exist in expected paths

- Confirm `.ppk` file is valid and not expired
 - Confirm SQL Server is running on `localhost`
 - Ensure running account has `dbcreator` / restore rights
 - Ensure firewalls or policies don't block WinSCP or 7z
-

Output Databases

Database Name	MDF Path
Unity_Collections	Unity_Collections_1.mdf , Unity_Collections_2.ldf
Unity_Proposal	Unity_Proposal_1.mdf , Unity_Proposal_2.ldf
Unity_DMS	Unity_DMS_1.mdf , Unity_DMS_2.ldf
Unity_S3CUSTDB	Unity_S3CUSTDB_1.mdf , Unity_S3CUSTDB_2.ldf
Unity_S3DB01	Unity_S3DB01_1.mdf , Unity_S3DB01_2.ldf

Final Notes

- Script can be scheduled via **Task Scheduler** or run manually in **elevated PowerShell**
- SQL `.bak` files must be complete and uncorrupted
- Keep `.sql` script updated if DB names or paths change