

# LAN Crypt Admin Windows

## LAN Crypt Admin Windows Database Integrity Check, Repair, and Migration to LAN Crypt Admin Windows Version 11 with the CheckDatabase Console Tool

### 1 Functionality of the CheckDatabase Console Tool

The CheckDatabase console tool offers comprehensive support for administering the LAN Crypt database and includes three main functions:

1. **Integrity Check and Repair:** Verifies MAC values to determine if database entries have been manually manipulated and repairs them if necessary.
2. **Certificate Validation:** Checks certificate entries in the database for consistency.
3. **Database Migration:** Allows a secure and easy migration of the database structures to the optimized structures of LAN Crypt Admin Windows Version 11, improving database performance.

### 2 Prerequisites for Use

In the folder `LCAdmin\install\CheckDatabase`, you will find the 32-bit binary `CheckDatabase.exe` and the three required .DLL files: `lcda.dll`, `sglcapi.dll`, and `SGLCScriptApiV4.dll`. These files are necessary for the application to function.

### 3 Using the CheckDatabase Console Tool

To use `CheckDatabase.exe`, ensure you are in the console in the same directory as the .exe file and the three .DLL files.

Overview of the Console Tool Parameters:

<i>Parameter</i>	<i>Description</i>
-?, -h, --help	Displays the help screen
-r, --repair	Repairs/replaces hash values to restore database integrity

<i>Parameter</i>	<i>Description</i>
-m, --migrate	Migrates to new certificate data structures in LAN Crypt Admin Windows Version 11 (performance improvement)
-o, --owner	Database owner, default = dbo
-d, --odbc	ODBC name, default = SGLCsqlServer
-u, --user	Database username, default = Windows user credentials
-p, --password	Database password, default = Windows user credentials
-s, --so	LAN Crypt Security Officer, default = Master Security Officer
--sqlDialect	SQL dialect, default = 0 (Microsoft), 1 (Oracle)
-l	Limits the number of specific certificate entries displayed during certificate checks in the console, default = 100



The parameters `-r/--repair` and `-m/--migrate` cannot be used simultaneously.

### 3.1 Checking the Database

To check the status of the database, use a command such as:

```
CheckDatabase.exe -o <database owner> -d <ODBC name> -u <database user name> -p <database password>
```

The database will be checked against three criteria, and the analysis results will be displayed in the console: **MAC errors**, missing **CertData** entries, and missing **CertificationMeta** entries.

**MAC errors** indicate integrity violations in the database. If data has been manually manipulated, the associated **MAC entry** (hash value) no longer matches. Such errors can affect the functionality of the administration.

Missing **CertData** entries mean that information about created certificates is missing from the database.



If **MAC** errors or missing **CertData** entries are found during the database analysis, it is recommended to manually check the data.

Missing **CertificationMeta** entries indicate that certain database entries have not yet been migrated to the optimized database structure of LAN Crypt Admin Windows Version 11.

## 3.2 Repairing MAC Errors

If **MAC** errors are detected during the database check, the MAC values can be repaired. However, the original state of the database before manual manipulation will not be restored. Instead, the MAC values will be adjusted to the modified data.

Example command for repair:

```
CheckDatabase.exe -r -o <database owner> -d <ODBC name> -u <database user name> -p <database password>
```

## 3.3 Migrating the Database Structure to Version 11

To improve performance when accessing certificates, migrating the database to version 11 of the administration is recommended. In this process, the database structures for certificates are expanded, and **CertificationMeta** entries are created for all valid user certificates.

Example command for migration:

```
CheckDatabase.exe -m -o <database owner> -d <ODBC name> -u <database user name> -p <database password>
```

Alternative example for migration with default configuration:

```
CheckDatabase.exe -m
```

## Imprint

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