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01 September 2023

## Supplementary documentation for the Bosch OSSO-SO Configurator tool

Issue            **Defining an OSS-SO site in a third-party configuration tool**  
Topic            Using the Uhlmann & Zacher **ClexSCT tool**.

### Overview

Before they can be mapped into a Bosch access control system (ACS), the main parameters of an OSS-SO locking system (also known as an OSS-SO "site") must be defined in the manufacturer's own configuration tool.

Here we use the U&Z **ClexSCT tool**.

- This tool exports a configuration in the form of an XML file, to form the foundation of the Bosch OSS-SO configuration.
- The person responsible for configuring OSSO in the Bosch ACS imports the XML file into the Bosch OSSO Configurator tool, and adds to it those details that the Bosch ACS requires.

### The OSS-SO Concept Card

The manufacturer of the locking system provides a Concept Card, the equivalent of a Bosch Facility Card. The Concept Card identifies the site owner and is required in the following circumstances:

- To create a new definition of a locking system in the third-party tool:
  - Present the concept card to the programming station when prompted by the tool.
- To initialize a locking unit (cylinder) for use in a particular locking system.
  - Present the concept card to the cylinder and wait for green LEDs on cylinder.

### OSS-SO access cards

Order cards of type MIFARE DESFire from the card manufacturer of your choice. OSS-SO cards require the following specifications:

- Bosch code
  - Application ID (AID) consisting of 6 hexadecimal characters
  - Files
- OSS-SO Permissions
  - Applications ID (AID)

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- A DESFire key1 that the purchaser of the cards specifies and orders from the card manufacturer.
- File 0: 32 bytes, for holding the Bosch code
- File 1: 288 bytes for holding permissions

### **Prerequisite hardware and software from U&Z**

- The ClexSCT tool
- USB radio stick in a USB port of the computer where the ClexSCT tool is running.
- Programming station, a small table-top device, connected via USB to the computer where the ClexSCT tool and the Clex database reside

### **Functions of the programming station**

The programming station reads:

- U&Z Concept Card  
The Concept Card is equivalent to a Bosch Facility card and authorizes one site operator. It is required to initialize the database that will contain the site definition. That database resides on the computer where ClexSCT is running.

The programming station writes the various cards that an OSS-SO system requires, for example:

- Service card: to put a lock unit into service mode, so that it can communicate with the Radio stick.
- Battery-change card
- Disassembly card

### **Identifying USB ports**

Use Windows Device Manager identify the COM ports used by the radio stick and the programming station. These will be required when you configure the ClexSCT software.

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## **Defining an OSS-SO locking system with the ClexSCT tool**

### **Introduction**

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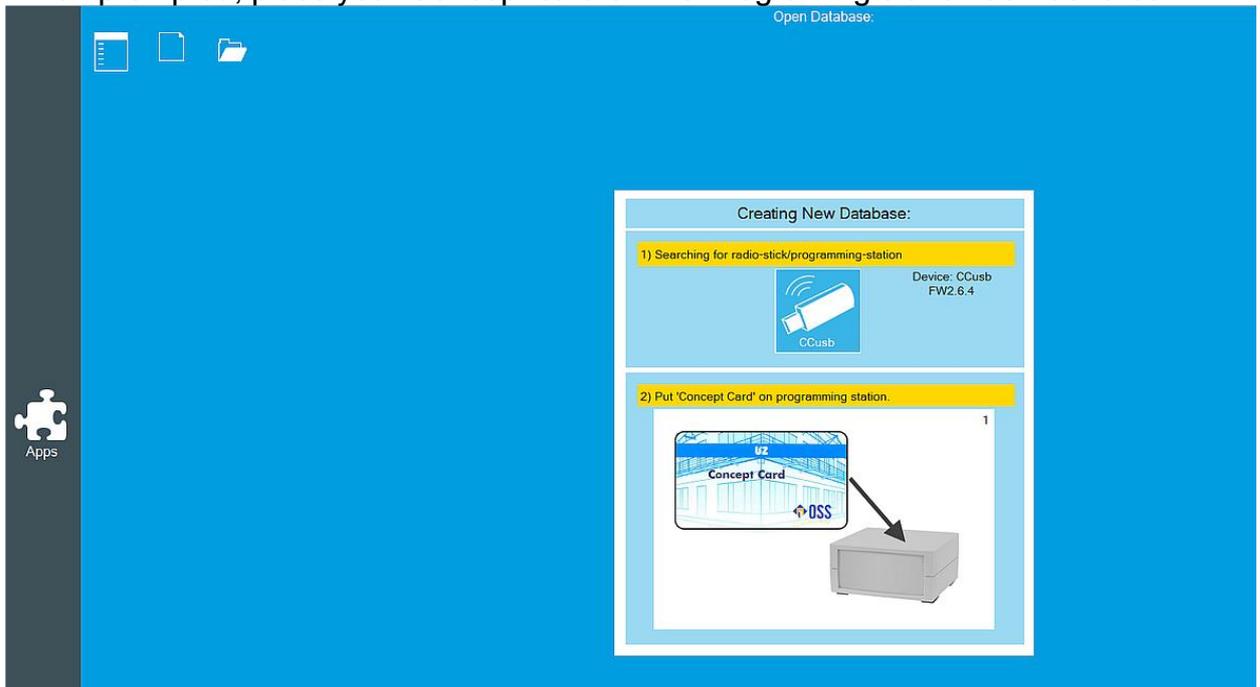
For the purposes of this documentation, we use the ClexSCT application from Ulmann&Zacher to define a basic OSS-SO locking system (also known as a "site") and export it in an XML file for further processing in the Bosch OSO Configurator tool.

### Prerequisites

- The USB radio stick and USB programming station are connected.

### Procedure

1. Double click the executable `ClexSCT_*.exe` to start the application.
- When prompted, place your Concept card on the Programming station as illustrated:



- The new database is created.

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- The main window changes and presents the **Apps** icon.

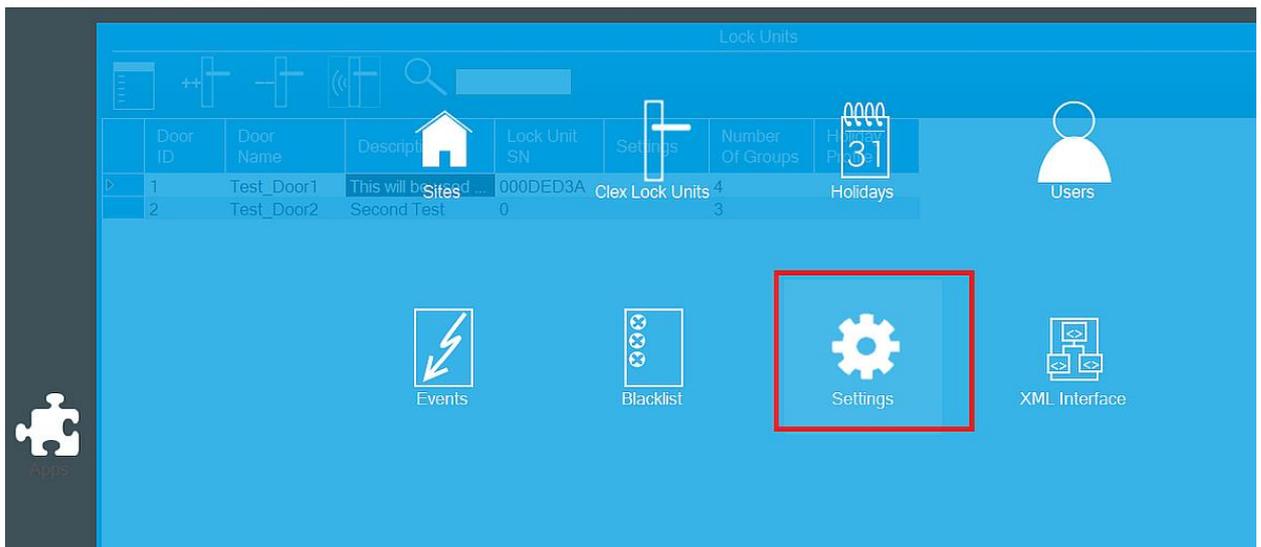
ClexSCT\_20201123.exe - (ConceptID: 0x00000029, Version: 1)



## 2. Click Apps

- the main screen appears:

ClexSCT\_20201123.exe - (ConceptID: 0x00000029, Version: 1)



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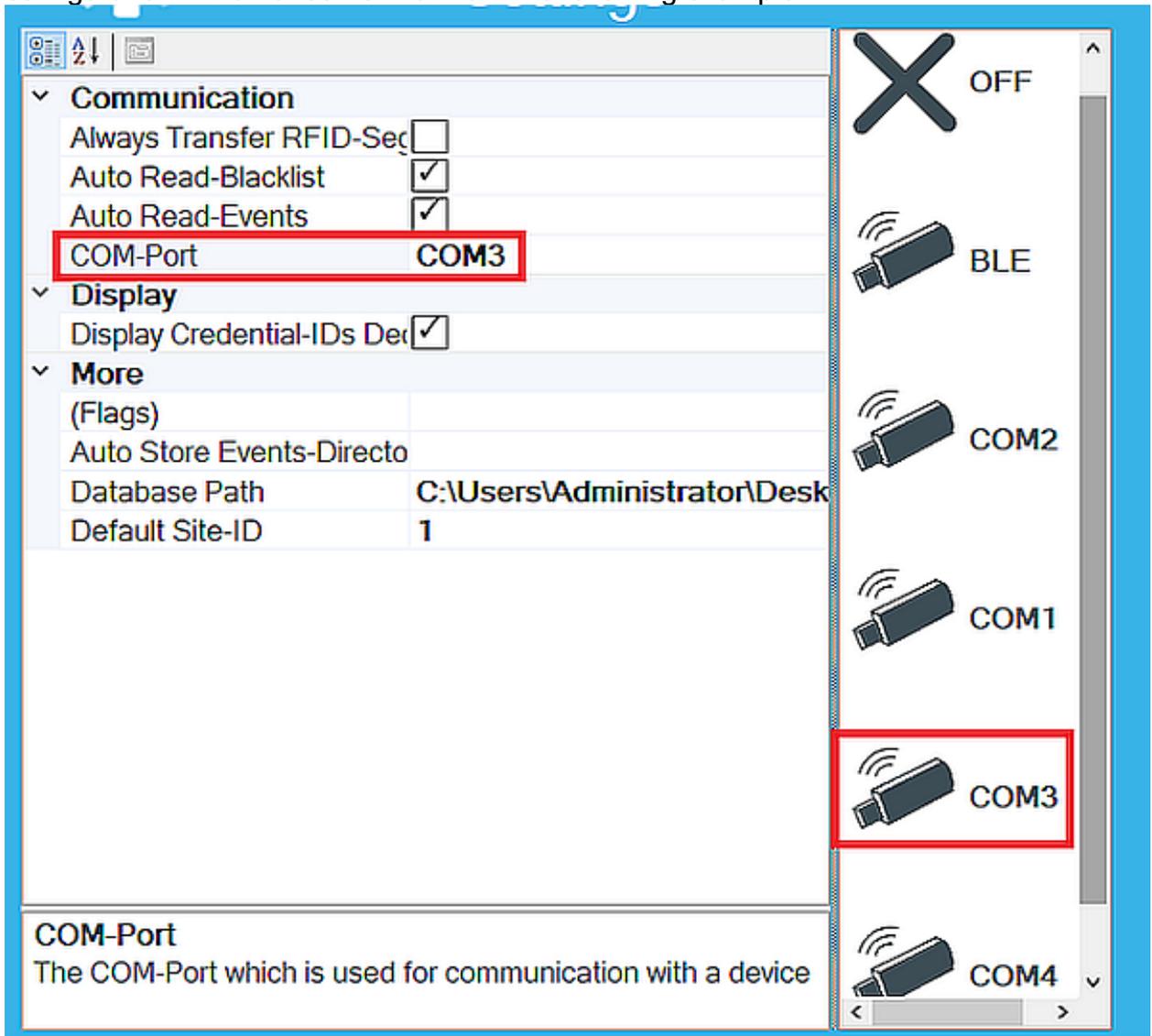
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3. Click **Settings** and set the COM port of the USB radio stick

- Use the Windows device manager to identify the stick's USB port, if necessary. Your configuration will differ somewhat from the following example:



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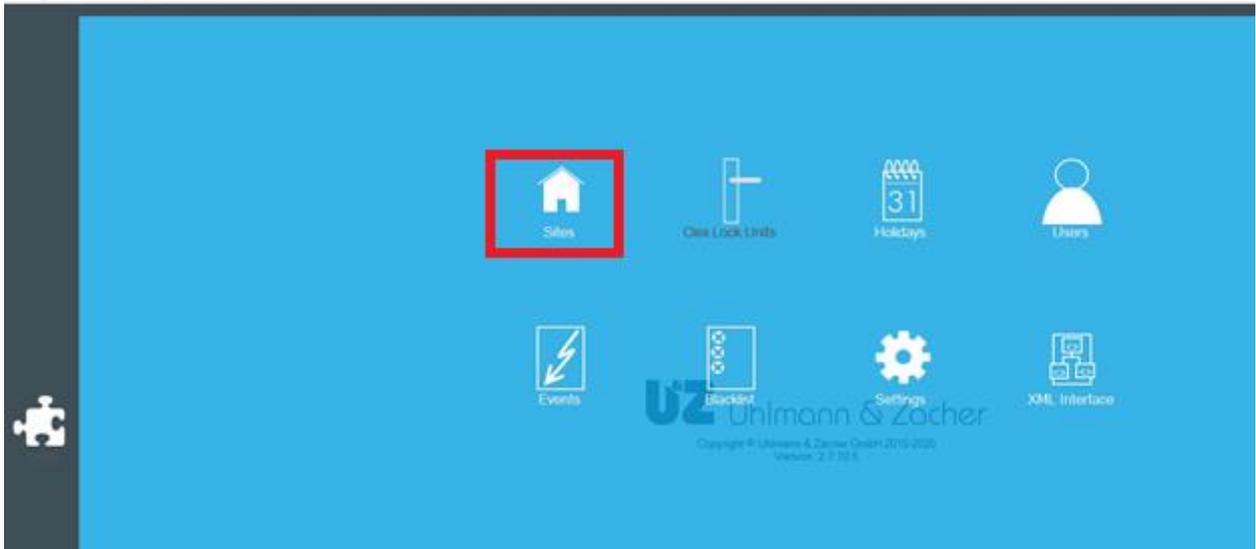
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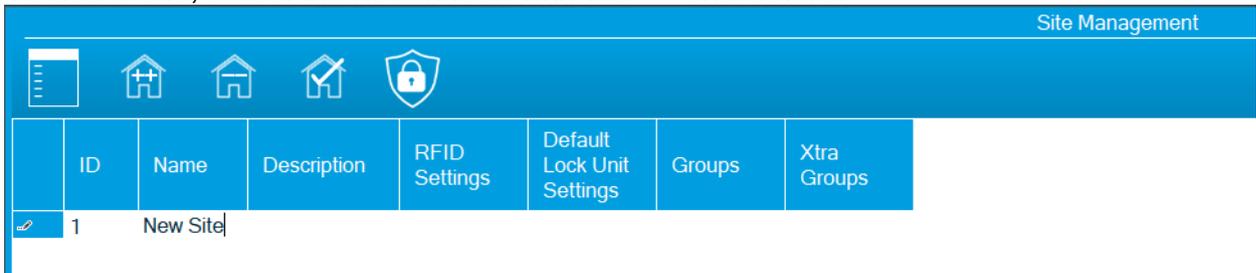
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4. Click **Sites** on the main screen.



- The **Site Management** dialog opens.
5. To add a site, select the ribbon icon with the ++ characters.



6. Enter a unique name and a description of the site. The ID is automatically set but can be edited. **IMPORTANT:** Do not use 0 (zero) as this is prohibited by the OSS-SO standard.
7. You can leave the **RFID Settings** at their defaults, but they can be edited if desired.
- **AID** (provided by your card manufacturer)
  - **Key Number:** 1

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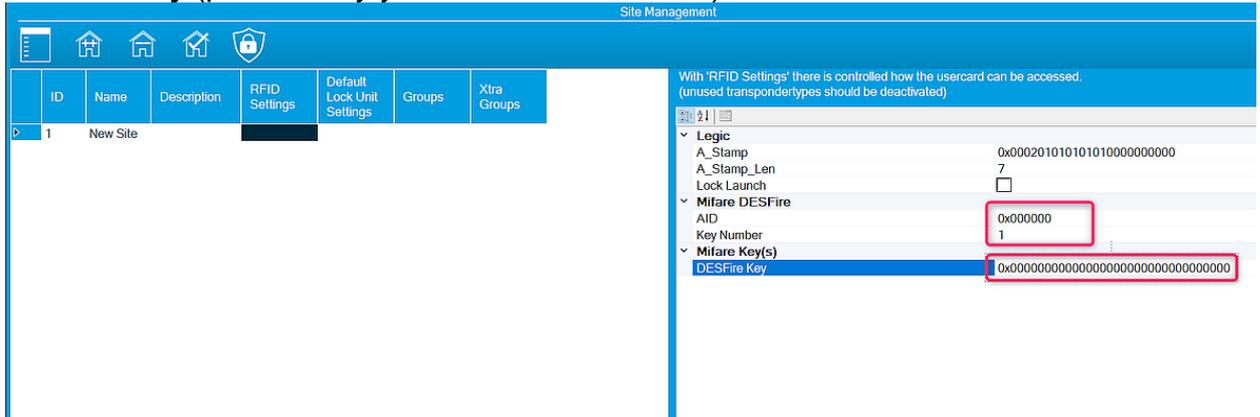
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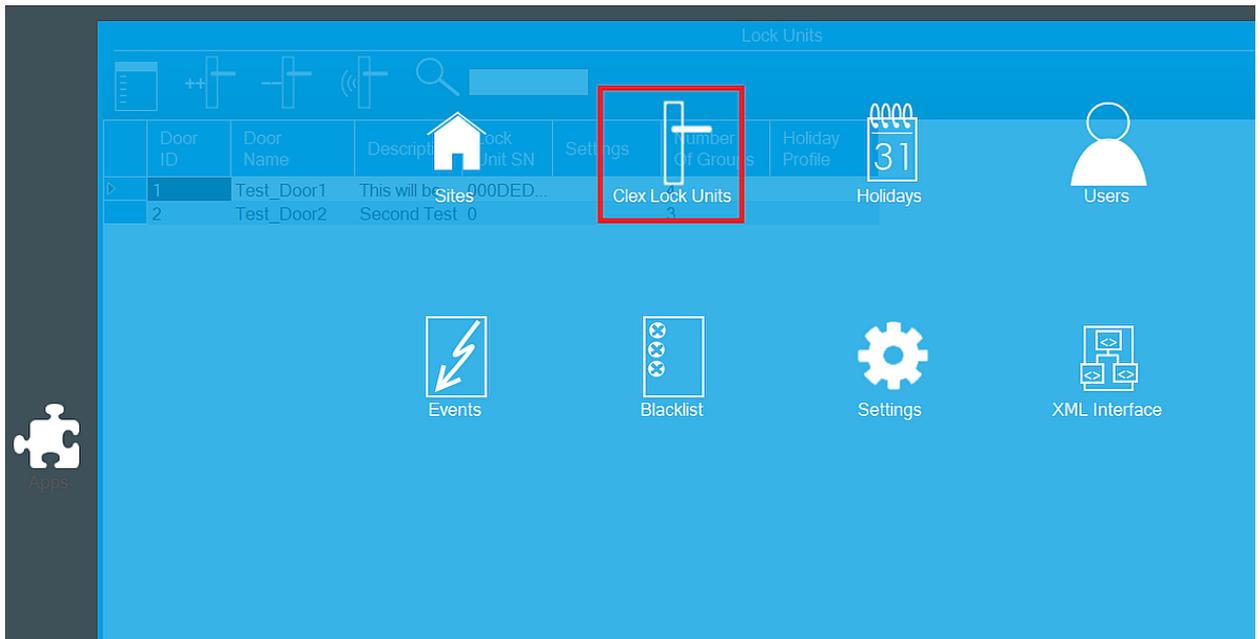
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- **DESFire key (provided by your card manufacturer)**



8. On the main screen, click **Clex Lock Units**

ClexSCT\_20201123.exe - (ConceptID: 0x00000029, Version: 1)



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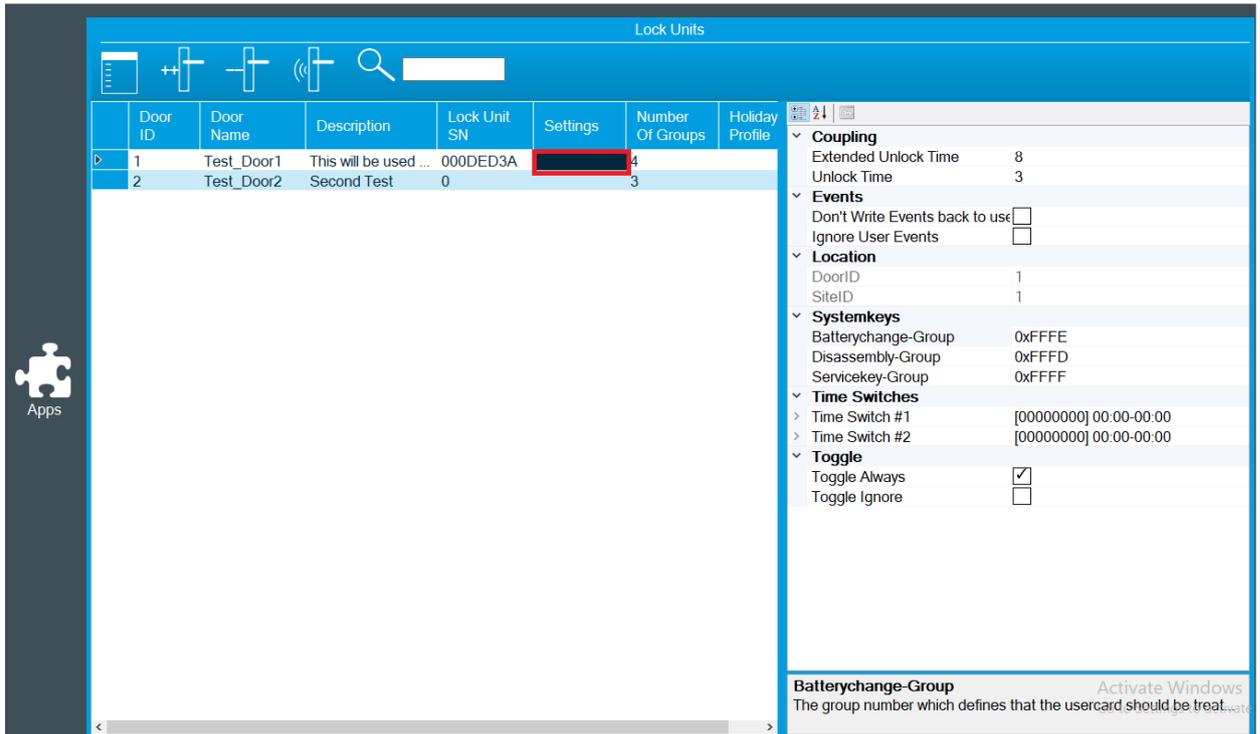
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9. On the **Lock Units** page, to add a lock unit, select the ribbon icon with the ++ characters.

ClexSCT\_20201123.exe - (ConceptID: 0x00000029, Version: 1)



10. Add the following information:

- Door ID
- Door Name
- Description
- The Lock Unit SN (serial number) is automatically read when the **service card** is presented to the lock unit.

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- **Number Of Groups (lock groups):** A door can be part of zero, one or more groups. There are 1024 groups available.

Lock Units							
Door ID	Door Name	Description	Lock Unit SN	Settings	Number Of Groups	Holiday Profile	
1	Test_Door1	This will be used ...	000DED3A		4		
2	Test_Door2	Second Test	0		3		

Group	Name	Select
0	Main Entry	<input checked="" type="checkbox"/>
1	Toilets	<input checked="" type="checkbox"/>
2	Koffee Corner	<input checked="" type="checkbox"/>
3	First floor	<input type="checkbox"/>
4		<input type="checkbox"/>
5		<input type="checkbox"/>
6		<input type="checkbox"/>
7		<input type="checkbox"/>
8		<input type="checkbox"/>
9		<input type="checkbox"/>
10		<input type="checkbox"/>
11		<input type="checkbox"/>
12		<input type="checkbox"/>
13		<input type="checkbox"/>
14		<input type="checkbox"/>
15		<input type="checkbox"/>
16		<input type="checkbox"/>
17		<input type="checkbox"/>
18		<input type="checkbox"/>
19		<input type="checkbox"/>
20		<input type="checkbox"/>
21		<input type="checkbox"/>
22		<input type="checkbox"/>
23		<input type="checkbox"/>
24		<input type="checkbox"/>
25		<input type="checkbox"/>
26		<input type="checkbox"/>
27		<input type="checkbox"/>
28		<input type="checkbox"/>

**Transmitting the configuration to the lock unit hardware,**

11. Make sure that the lock unit is within range of the radio stick.
12. Hold the service card in front of the lock unit hardware.

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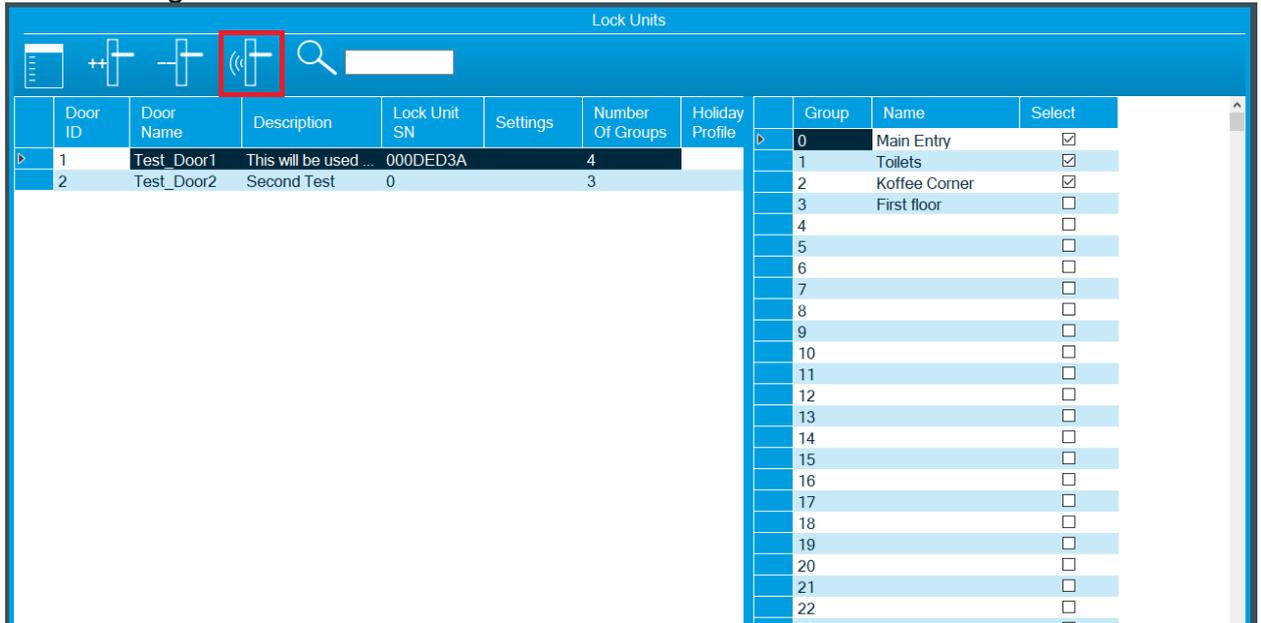
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13. On the Lock Units screen, select the lock unit icon with the radio waves, framed in the following illustration.



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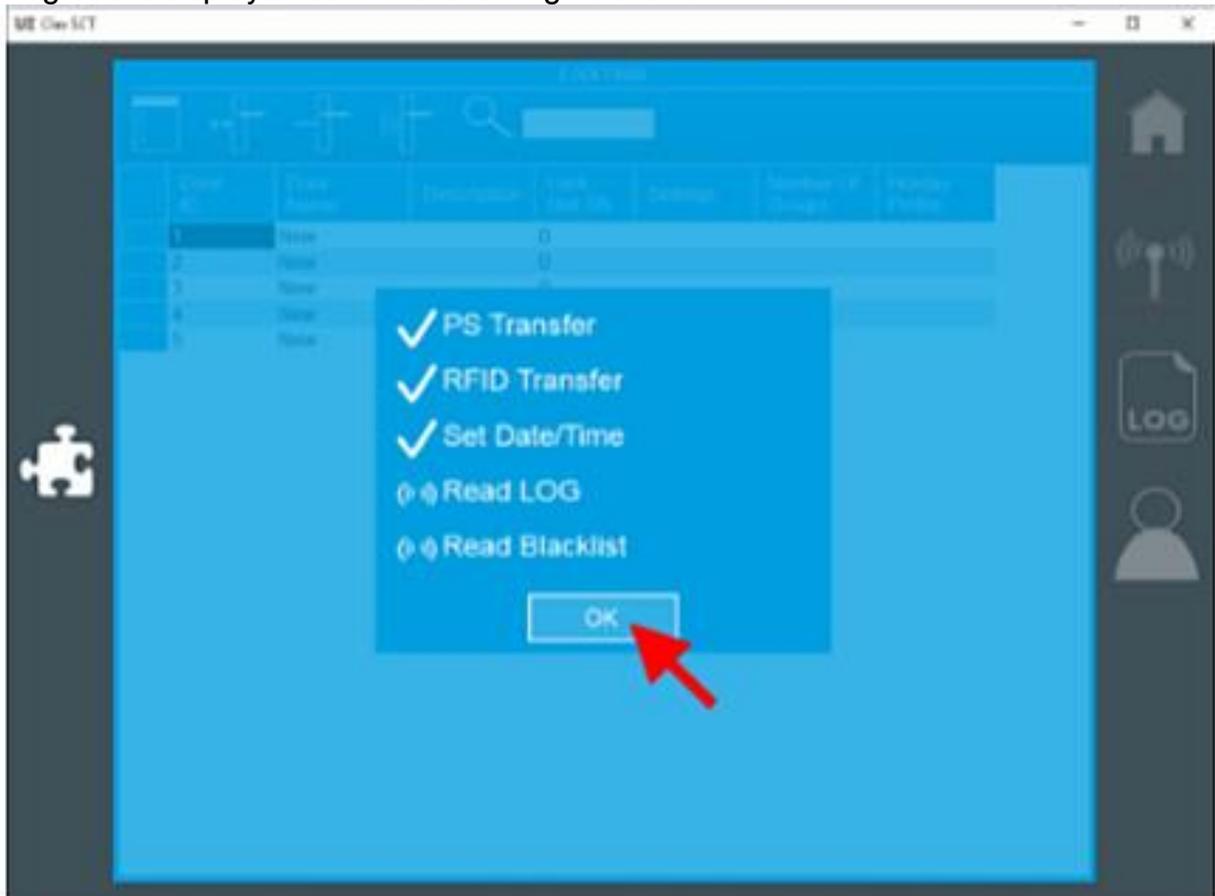
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- Progress is displayed as in the following illustration



14. Click **OK** when the transfer process is complete.

- The Lock unit is now ready to read OSS-SO access cards.

### Exporting the OSS-SO configuration to an XML file

After all locks are configured, the configuration needs to be exported for further processing in the Bosch OSO Configurator tool

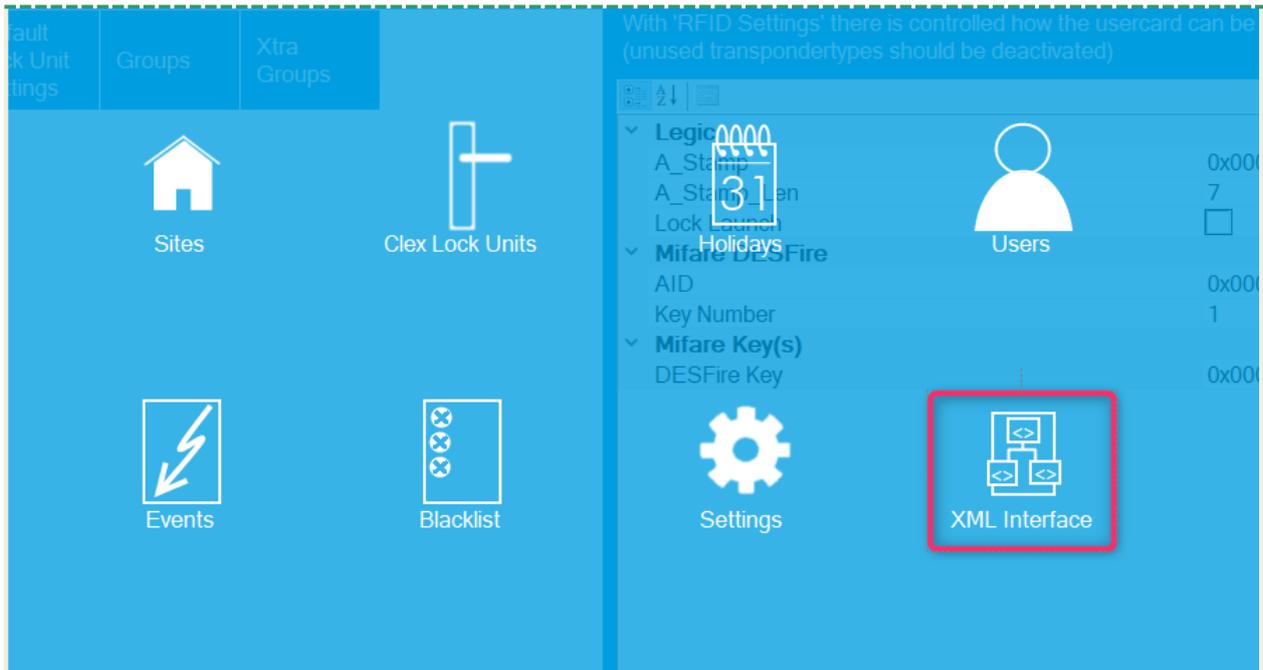
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15. Save the XML file in a location to which the Bosch OSO Configurator tool has access.
16. Proceed to the chapter in `OSS-SO_Integration.pdf` for instructions on importing an OSS-SO site in the Bosch OSO Configurator tool.