SWITCH™ TECH
USER GUIDE

BEST
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TURNING STANDARD KEYED LOCKS INTO SMART DIGITAL LOCKSETS

MECHANICAL MADE DIGITAL

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A SIMPLE SWITCH
A SMARTER LOCK

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OnGuard

APPENDIX A: ONGUARD
Initial Configuration

This documentation applies for OnGuard 7.3+ and the Switch Tech Add-On 1.0+.

INITIAL CONFIGURATION

Integrating OnGuard with Switch Tech requires completing the following sub-tasks:

1. Installing the Switch Tech Add-On for OnGuard
2. Adding a Switch Bridge access panel
3. Adding one or more Switch Cores
4. Assigning access rights to a cardholder

These steps assume that one or more Switch Bridges have already been installed (*with power and network connectivity*). Additionally, each Switch Bridge must be claimed in Switch Deck prior to being connectable in OnGuard. See the Switch Bridge installation instructions and Switch Deck user guide respectively for information on these actions.

OnGuard License Requirement

The Switch Tech Add-On for OnGuard utilizes the following components of an OnGuard license:

1. Maximum Number of Local Readers
2. Maximum Number of Readers for System Type
3. Maximum Number of Readers in Enterprise (for enterprise systems)

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Add-On Installation

1. Download the Switch Tech Add-On for OnGuard here.
2. Double click the downloaded executable.
3. Verify the installer completes successfully.

Adding a Switch Bridge

In OnGuard System Administration:

1. Navigate to **Access Control** -> **Access Panels...**.
2. Select the **Other** form.
3. Click the **Add** button.
4. Provide a name for the Switch Bridge and check the **Online** box.
5. Under **Location**:
    - For **Access panel type** select BEST Switch Bridge.
    - Provide inputs for the **Workstation**, **Address**, **World time zone**, and **Daylight savings** fields.
6. Under **Connection**:
    - For **Connection type** select **IPv4**.
    - For **IP address** input the IP address for the Switch Bridge.
7. Under **Options**:
    - For **Cardholders** set an appropriate number for the cardholders in your system.

NOTE: The IP address can be obtained from Switch Deck or from your IT department.

Validate in the Communication Server that the Switch Bridge is online. If OnGuard does not connect to the Switch Bridge, try re-starting the Communication Server and confirm that:

- The Switch Bridge IP is reachable by the OnGuard server using the Windows **ping** command in a command prompt.
    - ◇ Example: **ping 1.2.3.4**
- The Switch Bridge is claimed in Switch Deck.
- Switch Bridge LED 1 and LED 2 are both illuminated green.
- If the Switch Bridge was previously tied to a different instance of OnGuard or an installation of OnGuard on a different server, it will ignore connection attempts from the current OnGuard instance. To remedy this, issue a **Reset** command to the Switch Bridge from Switch Deck.

Adding a Switch Core

In OnGuard System Administration:

1. Navigate to **Access Control** -> **Readers and Doors...** .
2. Click the **Add** button.
3. Under **General**:
    - Select the previously created BEST Switch Bridge for the **Panel** field.
    - Select **Generic Reader** for the **Type** field.
    - Provide inputs for the **Name**, **Port**, **Address**, **Reader Modes**, and **Card Format**.

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Assigning Access Rights

In OnGuard System Administration:

1. (*Optional*) Create one or more timezones via **Access Control** -> **Timezones...**.
2. Create one or more access levels via **Access Control** -> **Access Levels** using previously created Switch Core readers.
3. Create one or more cardholders via **Administration** -> **Cardholders** and assign the cardholder one or more access levels.

NOTE: BEST recommends enabling selective cardholder download via **Access Control** -> **Selective Cardholder Download** for each access level to significantly decrease Switch Bridge data download time.

NOTE: If using existing cardholders or schedules, you must perform a panel download via **Access Control** -> **Access Panels** -> **Other** by right clicking on the Switch Bridge and selecting **Download**. This also applies to the default schedules in OnGuard (always & never).

NOTE: When creating a cardholder, its **Badge ID** must match a corresponding credential number generated in Switch Deck.

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Switch Deck and Switch Mobile App: Instructions

Generating Credentials in Switch Deck

In a web browser:

1. Navigate to the **Switch Deck URL** that was provided by your dormakaba Switch Tech partner and log in.
2. Click on the **Sites** tab and select your site.
3. On the **Credentials** tab, click on **Generate Credentials** in the upper right-hand corner.
4. Provide the number of credentials you wish to generate as well as the starting digit of the credential set.
5. When completed, for each credential generated, you will see a credential number as well as a **16-digit Registration Token.** This token can be claimed in your Switch Tech Mobile App available on the Apple App Store or Google Play.

NOTE: To perform core administrative commands, the credential's **User Role** must be set to **Installer** in Switch Deck. This can be done before or after the token is claimed.

Claiming Credentials in the Switch Tech Mobile App

In the Switch Tech mobile app:

1. Click on the **drop-down** menu at the top of the app screen.
2. Click on the **+** in the upper right-hand corner of the app screen.
3. Enter an unclaimed **16-digit Registration Token.** Click **Submit.**

NOTE: The credential you claim in Switch Deck must match the **Badge ID** that was assigned to your OnGuard Cardholder.

Configuring a Core

In the Switch Mobile App:

1. Navigate to the **Admin** tab at the bottom of the screen. If you do not have an Admin option, you will need to update your credential's User Role in Switch Deck.
2. Select the following commands from the list:
   - Set Time
   - Initialize
   - Configure -> Select your door from the list
   - View Status (optional)
3. Click on **Start** in the upper right-hand corner of the screen.
4. Wake up the core you wish to configure and wait for the commands to complete.
5. Once done you may return to the **Keys** screen to operate your configured Switch Core.

NOTE: The Initialize command is only required when the core you are configuring is in a Factory state.

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OnGuard System Adminstration: Additional Notes

The following sections provide additional configuration information for Switch Tech in OnGuard System Administration. All Switch Tech supported fields within OnGuard System Administration are listed here.

ONGUARD SYSTEM ADMINISTRATION: ADDITIONAL NOTES

General

Reader Mode	Supported As
Card and pin	Card and pin
Card only	Card only
Pin or card	Card only
Facility code only	Card only
Locked	Locked—access granted only to administrators with the **Access – Admin** command
Unlocked	Card only

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OnGuard System Adminstration: Additional Notes

Access Panels

Other

Sub-Tab	Attribute	Notes
-	Name	-
-	Online	-
Location	Workstation	-
Location	Address	-
Location	Access panel type	Select BEST Switch Bridge
Location	World time zone	Used within OnGuard only
Location	Daylight savings	Used within OnGuard only
Connection	Connection type	Set to IPv4
Connection	IP address	Set to the IP address of the Switch Bridge, obtained either from Switch Deck or your IT department.
Options	Cardholders	-
Options	PIN type	All values are supported.

Readers and Doors

General

Attribute	Notes
Name	This name is propagated to the Switch Mobile App.
Panel	-
Type	Generic Reader
Port	Combination of Port and Address must be unique (*not used in Switch Tech*).
Address	Combination of Port and Address must be unique (*not used in Switch Tech*).
Strike time	Amount of time the Switch Core remains engaged (*operable*) after successfully granting access. Supports up to 60 seconds.
Extended strike	Amount of time the Switch Core remains engaged (*operable*) after successfully granting access for credentials with **Use extended strike/held times** set under **Cardholders** -> **Badge.** Supports up to 60 seconds.
Reader modes (*online*)	The static reader mode used by the Switch Core.
Card format	-

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OnGuard System Adminstration: Additional Notes

Timezones

Holidays

Attribute	Notes
Name	Only used for reference in OnGuard
Types	-
Start date	-
Duration (*days*)	Maximum number of 255 days
Repeat yearly	Not included in Switch Core configurations. OnGuard will automatically send updates to Switch Deck, requiring a future configuration update of the Switch Core.

Timezones

Attribute	Notes
Timezone	-
Name	Only used for reference in OnGuard
Intervals	-

Timezone / Reader Modes

Attribute	Notes
Reader	-
Timezone	-
Start (*reader mode*)	Used as the reader mode during the duration of the timezone

NOTE: See the **Limitations** section for limitations on applying Timezone / Reader modes.

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OnGuard System Adminstration: Additional Notes

Access Levels

Access Levels

Sub-Tab	Attribute	Notes
-	Name	Only used for reference in OnGuard
Access	Readers to assign	-
Access	Timezone to assign	-
Extended options	Use activation date time	-
Extended options	Use deactivation date time	-

Access Groups

Attribute	Notes
Group name	Only used for reference in OnGuard
Access level	-

Cardholders

Badge

Attribute	Notes
Badge ID	Must match a corresponding credential number generated in Switch Deck
Activate	-
Deactivate	-
PIN	Up to 9 digits supported. PIN values may be changed at any time.
Use extended strike / held times	-

Access Levels

Attribute	Notes
Activate dates	Not included in Switch Core access rights. OnGuard will automatically send updates to Switch Deck, requiring an access right update to the credential's mobile device / Switch™ Fob.
Access levels	-
Access groups	-

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OnGuard System Adminstration: Additional Notes

Cardholders

Reports

Reports can be generated from audits provided via the Switch Bridge. See **OnGuard Alarm Monitoring: Additional Notes** for more information on the available audits.

Cardholder Options

General Cardholder Options

Attribute	Notes
Badge PIN code generation - PIN type	All values are supported.
Badge activation / deactivation dates - Use time	-

System Options

Access Levels / Assets

Attribute	Notes
Enable extended options	-

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OnGuard Alarm Monitoring: Additional Notes

The following sections provide additional information for Switch Tech in OnGuard Alarm Monitoring. All supported sections, fields, or commands within OnGuard System Administration are listed here.

ONGUARD ALARM MONITORING: ADDITIONAL NOTES

Switch Cores differ from traditional, hard-wired readers because they are offline. Unlike hard-wired readers, which can be remotely manipulated via OnGuard Alarm Monitoring, Switch Cores can only be manipulated in proximity to the Switch Core with the Switch Mobile App. However, Switch Cores generate audits (*alarms*) which can be viewed in real time in OnGuard Alarm Monitoring. Audits are delivered with best effort and are subject to the connectivity of the mobile device or Switch Fob that generated the audit.

Switch Core Related Alarms are listed below:

Alarm Name	Notes
Granted access	Access granted to a Switch Core does not guarantee the user accessed the space. Additionally, it does not reflect the open / closed status of the door.
Denied access	Generic access denial. See the alarm message via **View Associated Text** for more information.
Access denied: Card expired	-
Access denied: Invalid timezone	If the badge does not have access at the attempted time

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OnGuard Alarm Monitoring: Additional Notes

Access denied: Reader locked	Occurs if the Switch Core's reader mode is set to **Locked**
Invalid PIN	Occurs if the badge does not have a PIN, provides an incorrect PIN, does not provide a PIN, or provides too many incorrect PINs. See the alarm message via **View Associated Text** for more information.
Inactive badge	-
Invalid access level	If the badge does not have a valid access level for the Switch Core
Reader low battery restored	-
Reader low battery	-
Battery test fail	-
Message	Generic message for Switch Tech custom alarms. See the alarm message via **View Associated Text** for more information.

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Limitations

The Switch Tech system makes a best effort to consume access control information provided by OnGuard. For critical access control functions, it is recommended to confirm access control functionality meets expectations.

Additionally, Switch Tech has the following limitations in OnGuard:

- Switch Bridges currently adhere to the OnGuard access panel limit of 128 readers (*Switch Cores*). There are no effective limitations on the number of:
    - Cardholders
    - Timezones
    - Access levels
    - Access levels per badge
    - Updates to Switch Core names, reader modes, strike times, and timezone / reader modes result in configuration updates, which must be applied to the Switch Core via the **Configure** command in the Switch Mobile App. Additionally, any holiday changes must also be applied via the **Configure** command.

NOTES: All other updates are deployed in real time. Switch Cores with pending configuration updates can be identified in Switch Deck.

- Switch Cores support up to 30 holidays.
- Switch Cores have no effective limit on the complexity of a user's access schedule to a Switch Core; however, Switch Cores have a limited complexity on timezone / reader modes, both during and outside of holidays. The limitations are defined by intervals, where an interval is a range of time (*e.g., 9:00 AM to 10:00 AM*) for a given reader mode. Switch Cores support up to 30 reader mode intervals within a week, and 4 reader modes within a holiday day.

Here are some examples:

- **Example 1**: A Switch Core is in **Card Only** mode from 9:00 AM to 5:00 PM Monday–Friday. Otherwise, the Switch Core is in **Card and Pin**, its default reader mode. This results in 5 intervals, with a door mode of **Card and Pin** outside these intervals:
    - Monday – 9:00 AM to 5:00 PM, Card Only
    - Tuesday – 9:00 AM to 5:00 PM, Card Only
    - Wednesday – 9:00 AM to 5:00 PM, Card Only
    - Thursday – 9:00 AM to 5:00 PM, Card Only
    - Friday – 9:00 AM to 5:00 PM, Card Only
- **Example 2**: A Switch Core has an active holiday with two holiday types: 1 and 2. There is a timezone / reader mode for each holiday type, the first of which requires **Card and Pin** from 9:00 AM to 10:00 AM, and the second of which requires **Card and Pin** from 10:00 AM to 12:00 PM. This results in a single interval:
    - 9:00 AM to 12:00 PM, Card and Pin

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Frequently Asked Questions

Is a Switch Tech PIN required when setting up my credential in Lenel OnGuard?

- A Switch Tech PIN is only required for site administrators to execute specific commands in the Switch Mobile App; however, users may also be required to provide their PIN for multi-factor access.

What happens if I get a new mobile device?

- The Switch Mobile Access app uses your phone number to register with LEGIC Trusted Service to deliver Switch Tech files. When you register your Switch Mobile Access app with your new phone it will invalidate the registration of your old phone. You may not use the same mobile number to register multiple devices.

NOTE: Your old keys will not transfer automatically, you will need to ask your site administrator for a new token.

I am seeing an error when trying to claim multiple keys from the same site in Switch Deck.

- This is expected, you may only claim a single key from the same site within Switch Deck. You may, however, claim multiple keys across multiple sites within your Switch Mobile Access app.

After making a change in Lenel OnGuard, how long does it take for the files to reach my mobile device?

- After a change is made in your access control software, it can take as long as 3 or 4 minutes for the new or updated files to reach your mobile device. Make sure you have a strong cellular network or Wi-Fi connection and your Switch Mobile Access App is open.

I am planning on switching to a new instance of Lenel OnGuard, how do I properly move my existing cores and bridge?

- The Switch Bridge can only talk to a single access control software at a time. This is for security purposes. When the bridge is set up with the initial access control system, it will not accept communication from any other access control system. In order to move the bridge from on access system to another, perform the following steps:
    - ◇ Disconnect the bridge from the old access control system.
    - ◇ Connect the bridge to the new access control system.
    - ◇ Perform a reset on your bridge in Switch Deck.
- Switch Cores operate in a similar way: they will need to be reconfigured with the latest configuration files (associated with the new access control system) after the bridge has been properly restored.
    - ◇ Create your cores in the new access control system.
    - ◇ Visit each core and perform a configuration update.

NOTE: Based on the work required, it is not recommended to change access control systems frequently.

NOTE: Upgrades to new revisions of the access control system will not require these steps.

For any questions regarding the functionality of this integration, please contact BAS.Support.Best.US@dormakaba.com with the subject line: Switch Tech - OnGuard Integration.

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