

System Galaxy Quick Guide

CONFIGURATION AND OPERATION

OTIS Compass™ Elevator System



JAN 2021 | SG 11.7.0 to CURRENT

System Galaxy

OTIS-3 Compass™ Elevator

Integrating with Galaxy 635-OEI Board

3rd Edition

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1 SYSTEM INTEGRATION OVERVIEW

This chapter provides an overview the capabilities and requirements for integrating System Galaxy 10.4.9 (or higher) with the **Otis-v3 Compass™ Elevator System** and the **System Galaxy OEI Panel**.

The following things are covered in this chapter:

[What's new in Otis v3](#)

[How the System Works](#)

(includes diagrams of the system topologies and DEC Mode operation)

[Hardware and Software Requirements and Stipulations](#)

[Troubleshooting](#) – commands for the OEI Board.

- Chapter 2 covers the System Galaxy Configuration (system programming).
- Chapter 3 covers Event Logging and Reports at System Galaxy.
- Chapter 4 covers Troubleshooting, Resources and Glossary.

SYSTEM COMPATIBILITIES:

System Galaxy 10.4.9 (or higher) supports interfacing with the **Otis-v3 Compass™ Elevator System**

- **System Galaxy OEI Panel** (CPU Flash version 10.4.15 or higher)
- **635 DRM Boards** for DEC's using External Readers and/or controlling turnstiles. Note: IP address of DEC must be programmed in the External Reader's general properties.
(DECs with Embedded Readers do not need a DRM Board)
- **DECs with Embedded Readers are supported**
- **DECs using External Readers are supported (for controlling turnstiles)**
- **All four DEC modes are supported**
- **Default Floor Cards supported**
- **Default Floor Group-0 is supported**
- **User-defined Floor Groups (1-10) are supported**
- **Otis special features are supported** (VIP, Vertigo, Split Group, and Has Physical Disability)

1.1 WHAT'S NEW IN OTIS V3

This section provides an overview the capabilities and requirements for integrating System Galaxy 10.4.9 (or higher) with the **Otis-v3 Compass™ Elevator System** and the **System Galaxy OEI Panel**.

1.1.1 Otis v3 supports all four DEC Modes

ALSO SEE: [Creating Access Groups \(with Elevator Floors and DEC readers assigned\)](#)

ALSO SEE: [PROGRAMMING THE DEFAULT FLOOR GROUP \(0\)](#)

ALSO SEE: [Programming User-defined Floor Group Programming](#)

ALSO SEE: [Assigning an Access Group to a Security Card \(that has elevator floors\)](#)

ALSO SEE: [Assigning a “Default Floor” to an Security Card](#)

MODE 1 = DEFAULT FLOOR ONLY – (Only accepts a DEFAULT FLOOR CARD)

When a DEC is actively in Mode-1, it will only accept “Default Floor Cards” (i.e. credentials that have a *default floor* assigned to them). The passenger must present a valid Default Floor Card to the DEC, and the DEC will indicate which elevator car to board for the *default floor*. It is the passenger’s responsibility to exit on the correct floor.

MODE 2 = PRESENT CARD TO REQUEST AN AVAILABLE FLOOR

When Mode-2 is active, each passenger must present a valid access card at the DEC, before requesting a floor. If the requested floor is a *free floor*, the system will dispatch a car. If the requested floor is an *authorized floor*, the system will only dispatch a car if that credential has valid access to the requested floor at the time of the request. Cars are only dispatched if the requested floor is “free” or if the card has valid access to the floor at the time the request is made.

MODE 3 = REQUEST FLOOR AND PRESENT CARD IF REQUIRED

(this mode offers the lowest security level)

When a DEC is actively in Mode-3, a passenger can request any *available floor*. All passengers can request a *free floor* without presenting credentials, as long as the active Floor Group has *free floors* available. If a passenger requests an *authorized floor*, the passenger will be required to present a valid security credential.

MODE 4 = PRESENT CARD AND REQUEST A FLOOR OR GO DEFAULT FLOOR.

(Combination of Mode 1 and 2)

In DEC Mode-4, a passenger will present a valid security card and either request an *available floor* during the allotted time-out, or wait for the *default floor*. The passenger can request an *available floor* as long as it belongs to the active floor group as a *free floor* or an *authorized floor*. If the passenger doesn’t request a floor during the *allotted time-out*, the system will dispatch a car for the *default floor* that is assigned to the security card. The *allotted time-out* is 6 seconds and is a programmable value in the Otis System.

1.1.2 Otis v3 supports “Default Floor” Cards (new setting in Cardholder screen)

The default floor can be assigned to the access card at the time of card enrollment in the System Galaxy Cardholder screen. The *default floor card* works when a DEC is operating in the following modes.

- Mode-1 – the passenger presents the card and Otis dispatches an elevator car for the default floor.
- Mode-4 – the passenger presents the card and waits 6 seconds* and Otis dispatches an elevator car for the default floor. This mode accepts normal elevator access cards as well as *default floor cards*.

*The 6-second delay allows other credentialed passengers to choose a different floor number (free or authorized). The duration of the delay is programmable in the Otis system.

ALSO SEE: [Assigning a “Default Floor” to an Security Card](#)

1.1.3 System Galaxy supports both types of DEC's

(i.e. *DECs with embedded card readers* vs. *DECs with external card readers*)

In both cases, the Galaxy OEI Panel makes the access decision (grant or deny).

DECs with Embedded Card Readers – (Wiegand Only / Otis v3)

The embedded reader is not wired to the Galaxy OEI Elevator Panel.

The DEC transmits card data, to the Galaxy Panel for access decisioning.

No DRMs are needed for this DEC.

This solution cannot control a turnstile.

DECs with External Card Readers – (Wiegand or ABA / controls turnstiles)

The external reader must be wired to a 635 DRM inside the Galaxy Elevator panel.

The associated DEC IP Address must be assigned to the external reader's properties (General tab).

The external reader transmits card data to the Galaxy Panel .

635-DRMs are must be installed in the Galaxy OEI Elevator Panel

This solution supports controlling an access point, such as a turnstile.

1.2 HOW THE SYSTEM WORKS

In simple terms, System Galaxy provides *elevator access control* and *event monitoring* for the Otis Compass™ System. This section answers the basic functionality questions in quick and brief description.

1.2.1 WHAT IS A DESTINATION-BASED ELEVATOR SYSTEM?

The Otis Compass™ System is a '**destination-based**' elevator system that uses buttonless cars to carry passengers to their requested floor. The Otis System evaluates all the floor requests and volume of passengers and assigns the related requests to the most appropriate elevator. Otis can dispatch the most appropriate elevator car to each passenger based on the destinations of the passengers.

1.2.2 WHAT ARE THE MAIN COMPONENTS OF THE ELEVATOR SYSTEM?

- **OTIS DECs** (Destination Entry Computer) is where a passenger makes floor requests and presents access cards. *See the section in this chapter on 'Understanding DEC Modes', as well as [Floor Group Programming](#).*
- **OTIS DES/DER** (Destination Entry System): the server that controls the DECs and dispatches elevator cars based on the access decision and passenger load, special features.
- **DEC MODES (1 thru 4)** are assigned to the DEC via the Floor Group programming) ... See the section on What's new to get a full description of every DEC Mode. *See more in [Elevator Floor Group Programming](#)*
- **Default Floor Group (0)** The default floor group is assigned to all DECs and uses "always" schedule (includes user-defined free/restricted floors, user-assigned DEC-Mode). This mode takes effect if all user-defined Floor Groups are inactive. *See more in [Elevator Floor Group Programming](#)*
- **User-defined Floor Groups 1- 10** (includes user-defined free/restricted floors, user-assigned DEC-Mode and Schedule). Floor Groups are assigned to DECS in the SG Elevator Programming and they define how the DEC will operate and which floors are free vs. which floors require a security credential (access card). The time schedule controls when the Floor Group is active (when it takes effect). The DEC resorts to the Default Floor Group if no other Floor Group is active. *See more in [Elevator Floor Group Programming](#)*
- **DEFAULT FLOOR** – is a fixed floor number that is assigned to an access card and will automatically dispatch an elevator for the **default floor number** when that card is presented at a DEC that is in Mode-1 or Mode-4.
- **OEI Elevator Control Panel** (Galaxy OEI Panel): provides the elevator access decision, and floor group programming to the Otis System DES & DEC (i.e. list of free floors and the DEC Operating modes and time schedules). *See the [Troubleshooting section for more about messaging](#).*
- **System Galaxy Server:** The System Galaxy Client/Communication Server is used to monitor events, enroll cards and configure the panel to behave as desired. The Galaxy Operator configures readers, schedules, access rules, floor groups, etc. and loads them to the Galaxy panels. The Comm server also hosts the GCS services, including the Event Service. The Client Software can also be installed on additional workstations. Ability to see, edit, and command Galaxy hardware, readers, cardholders and other programming is controlled by Galaxy operator logon privileges.

DIAGRAM-1: OTIS v3 TOPOLOGY – using DECS with Embedded Readers

The diagram below shows the NEW topology using a DEC with built-in reader that communicate through the Layer-3 Switch. This is the same topology that was supported in the Galaxy integration to Otis v2. **THIS SOLUTION WILL NOT CONTROL A TURNSTILE OR LOCK RELAY**

- A *Galaxy Operator* configures Elevator Floor Group & DEC Modes at the SG Client/Server and loads the configuration to the Galaxy 635 OEI Panel. The cardholder/card data, access groups, time schedules, default floors and other *special features* are also stored at the Galaxy OEI Panel.
- The **635 OEI Panel** sends the DEC settings, Floor Groups, free/authorized floors and DEC Mode to each DEC via the Otis Layer-3 Switch.
- When a user presents credentials to an embedded reader, all data (including card data) is sent to the Galaxy OEI Panel via the Layer-3 switch. The Galaxy OEI Panel makes the access decision (grant or deny), based on the card & access rules stored in the Panel. The access decision is returned to the DEC via the Layer-3 Switch. The Otis DES/DER server decides which elevator car is the most appropriate, based on passenger load and any special card features (such as default floor, VIP, split group, and other special features).

NOTE: In this scenario you do not need to install 635 DRM boards in the Galaxy OEI Panel for the embedded reader.

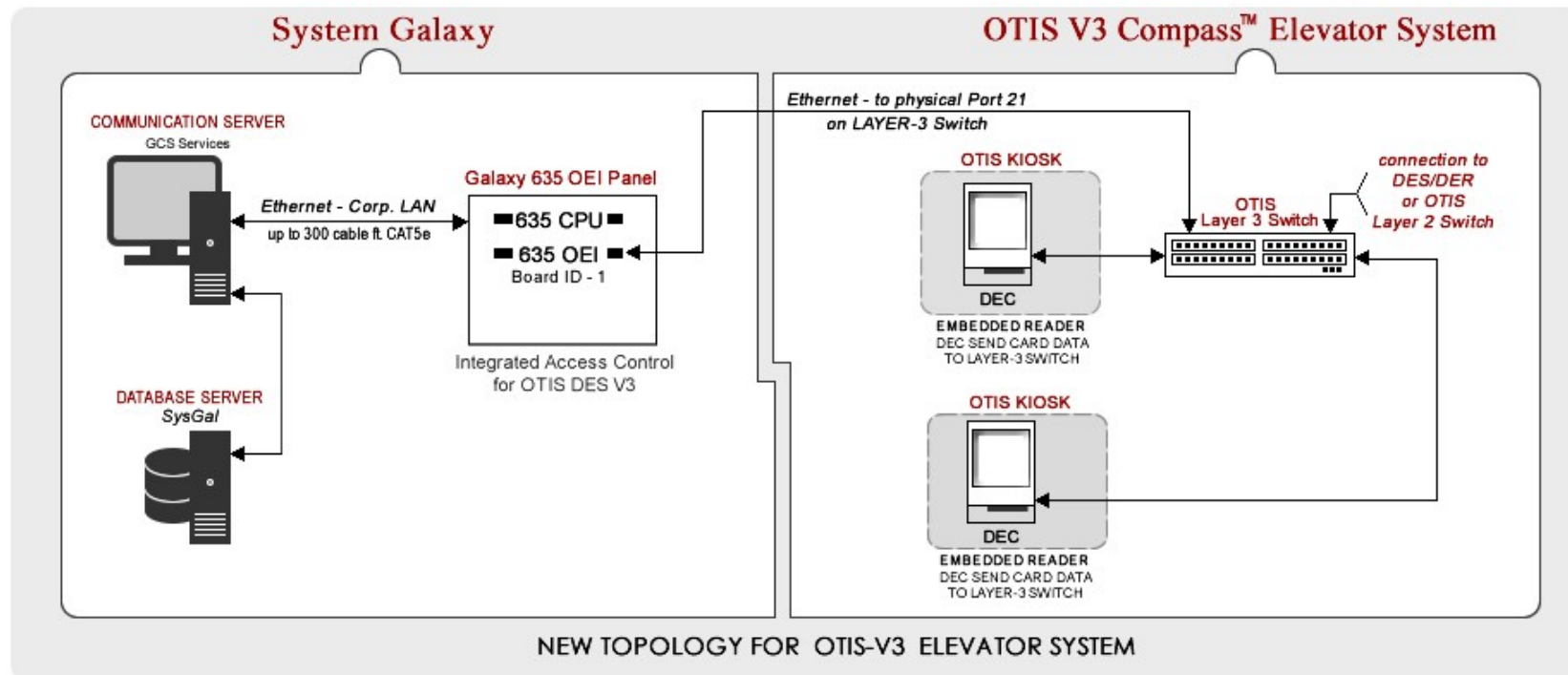


DIAGRAM-2: OTIS v3 TOPOLOGY – using External Readers (to Control Turnstiles)

The diagram below shows the topology using an external reader that is wired to the Galaxy 635 DRM board to control the turnstile / lock relay. This is the same topology that was supported in the Galaxy integration to Otis v2. **THIS SOLUTION WILL CONTROL TURNSTILES.**

- A *Galaxy Operator* configures Elevator Floor Group & DEC Modes at the SG Client/Server and loads the configuration to the Galaxy 635 OEI Panel. The cardholder/card data, access groups, time schedules, default floors and other *special features* are also stored at the Galaxy OEI Panel.
- The **635 OEI Panel** sends the DEC settings, Floor Groups, free/authorized floors and DEC Mode to each DEC via the Otis Layer-3 Switch.
- When a user presents credentials to an external reader, the card data is sent to the 635 DRM Board inside the Galaxy OEI Panel. The Galaxy OEI Panel makes the access decision (grant or deny), based on the card & access rules stored in the Panel. The access decision is returned to the DEC via the Layer-3 Switch. The DRM controls the turnstile / Lock Relay. The Otis DES/DER server decides which elevator car is the most appropriate, based on passenger load and any special card features (such as default floor, VIP, split group, and other special features).

NOTE: Use the Galaxy **635 - Configuration Tool** to program your DRM boards to unique ID numbers (DRM must start at #2 since OEI Board is #1).

NOTE: All DRMs must reside in the same OEI Panel. Contact Galaxy if you need assistance with a large-scale solution.

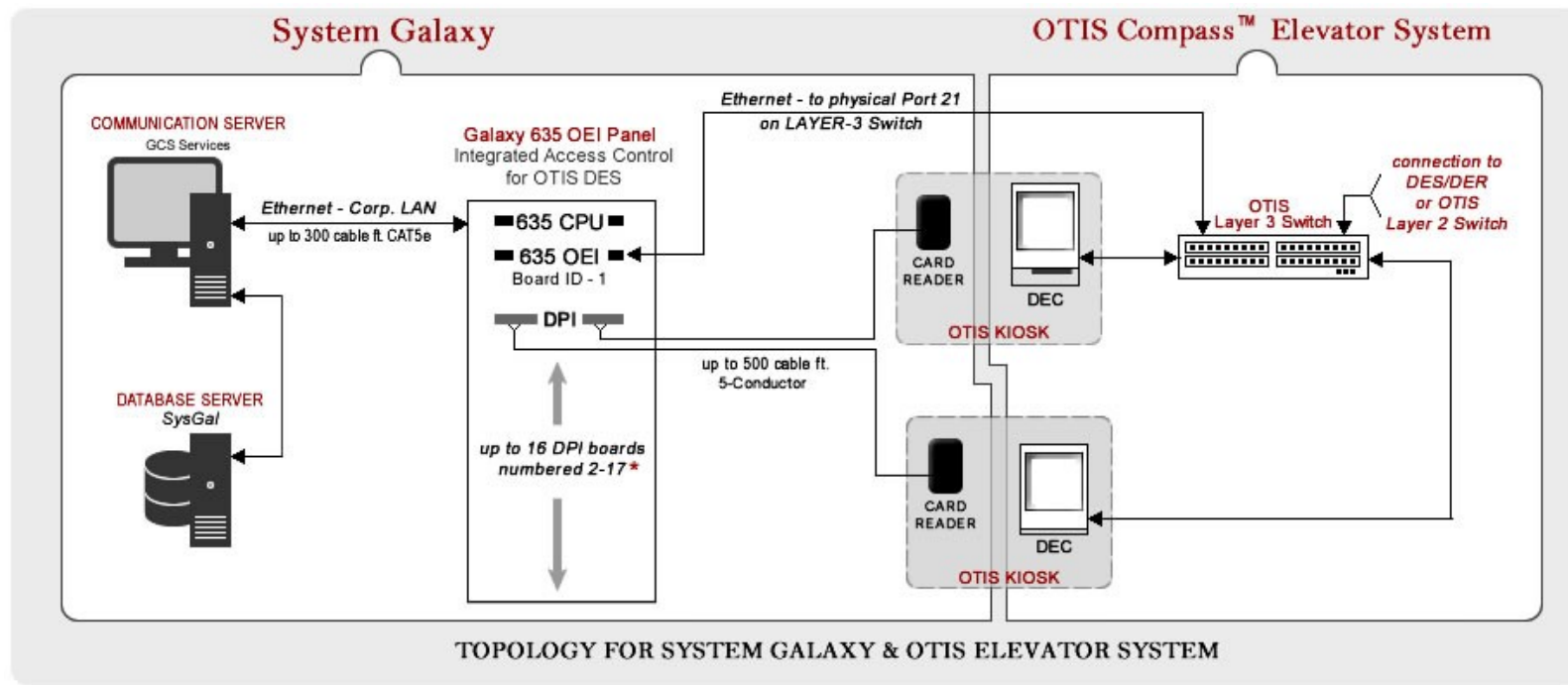


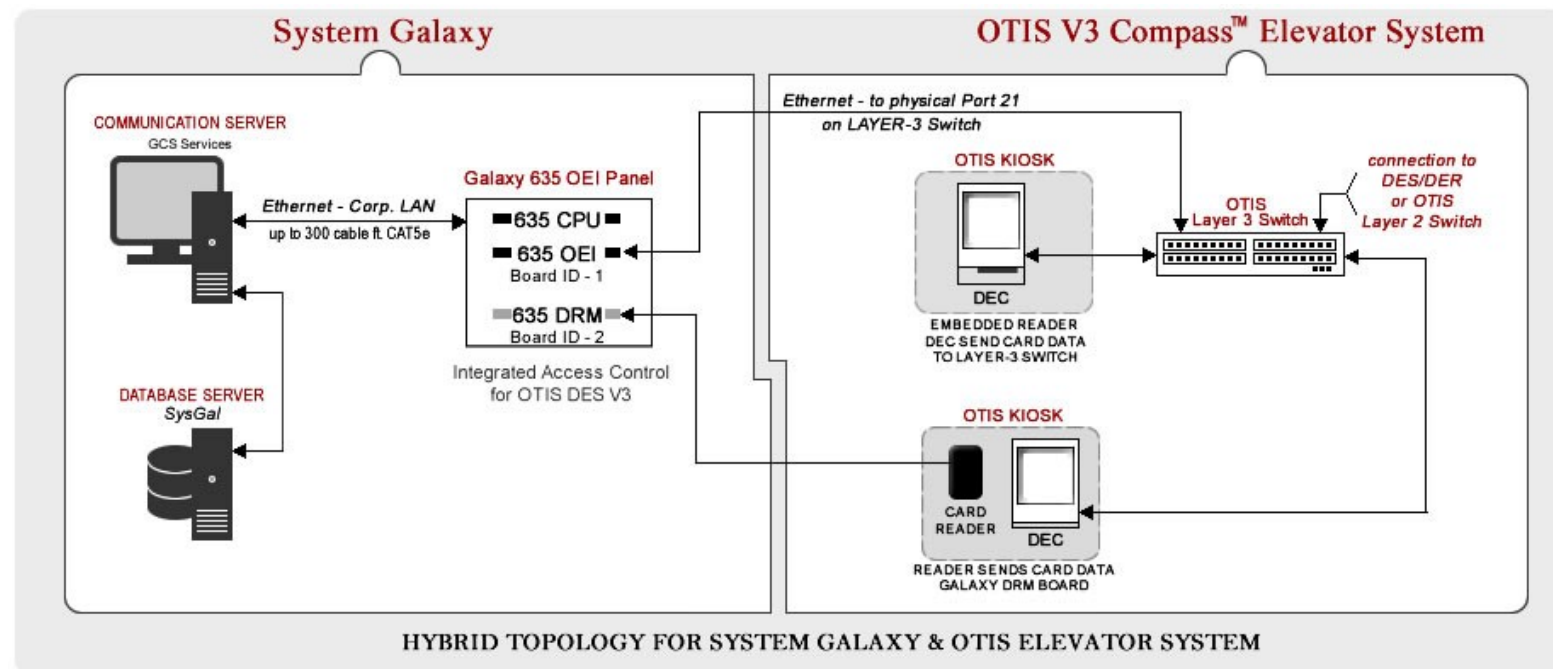
DIAGRAM-3: OTIS v3 HYBRID TOPOLOGY

The diagram below shows the topology using a combination of both types of DECS (Separate Readers that are wired to the Galaxy 635 DRM board to control the door or turnstile contacts) and Built-in Readers that is communicating with the Layer-3 switch.

- A *Galaxy Operator* configures Elevator Floor Group & DEC Modes at the SG Client/Server and loads the configuration to the Galaxy 635 OEI Panel. The cardholder/card data, access groups, time schedules, default floors and other *special features* are also stored at the Galaxy OEI Panel.
- The **635 OEI Panel** sends the DEC settings, Floor Groups, free/authorized floors and DEC Mode to each DEC via the Otis Layer-3 Switch.
- DECs with embedded readers send card data to the Galaxy OEI Panel via the Layer-3 Switch. See Diagram 1
- External Readers send card data directly to the DRM board in the Galaxy OEI Panel. See Diagram 2

NOTE: Use the Galaxy 635 - Configuration Tool to program your DRM boards to unique ID numbers (DRM must start at #2 since OEI Board is #1).

NOTE: All DRMs must reside in the same OEI Panel. Contact Galaxy if you need assistance with a large-scale solution.



1.2.3 WHAT IS THE PASSENGER TRANSACTION FLOW

The transaction flow is dependent on which DEC Mode /Floor Group is assigned and whether the requested floor is a free floor or requires authorization.

DIAGRAM-4: DEC MODE-1 = Default Floor Only (Present Card & Get Default Floor (restricted to one floor))

1. In MODE-1 the DEC idle prompt displays “Present Security Credentials”.
Passenger presents a “Default Floor Card” security credential.
2. The Galaxy 635-Panel grants a valid access card (or denies card based on schedules and access rules stored in the panel).
A Default Floor must be assigned to the card for it to be valid in this mode.
3. The DEC displays the “most-appropriate” elevator car for the default floor.
If a turnstile is used with external reader, the turnstile is unlocked.
Passenger never enters a floor number because the default floor assigned to the card.
4. An Otis Audit Event is logged by the 635-Panel at SG Client showing which elevator car dispatched.

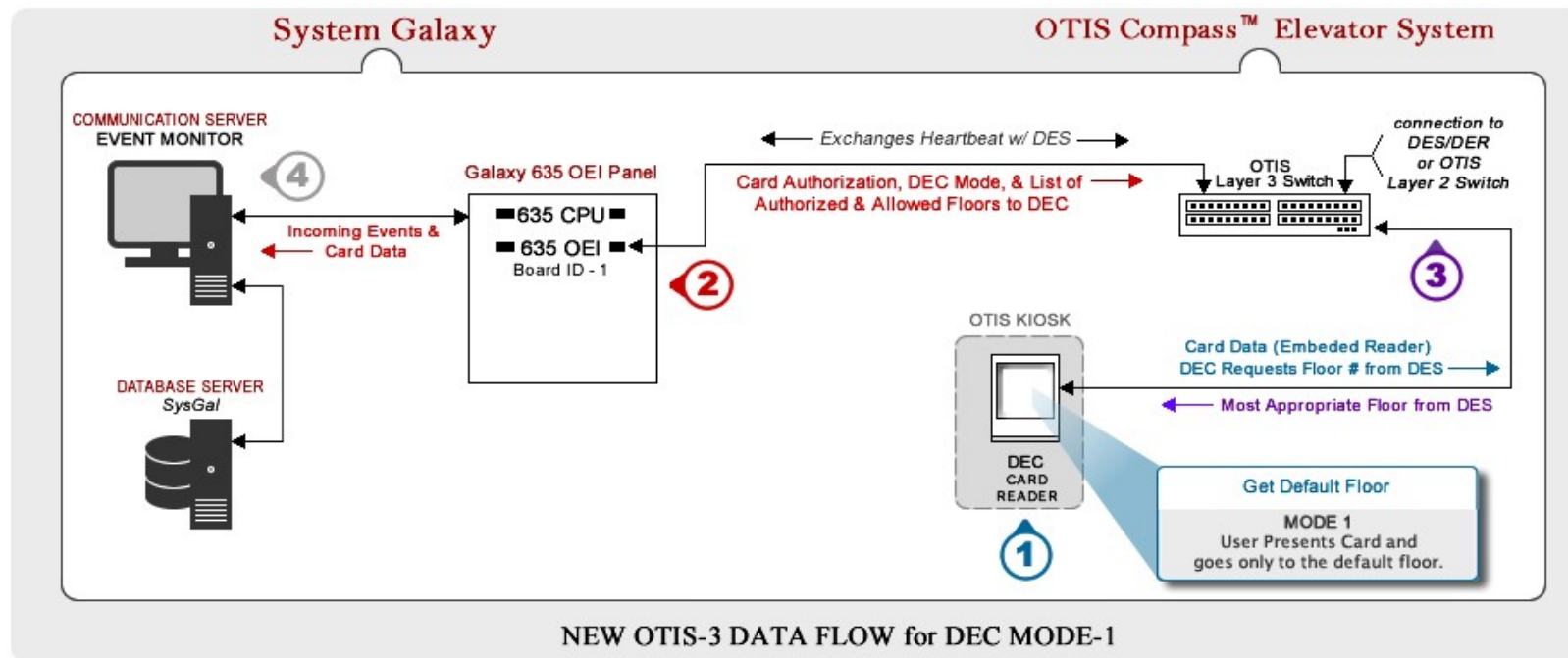


DIAGRAM-5: DEC MODE-2 Data Flow (Present Card First / High Security)

1. In MODE-2 the DEC idle prompt displays “Present Security Credentials”.
 Passenger presents access card and enters a floor number at the DEC.
 If the floor is restricted, the credentials are sent to the Galaxy Panel for a decision (if requested floor is free, a car is called).
2. The Galaxy OEI Panel grants a valid access card (or denies card based on schedules and access rules stored in the panel).
 The Galaxy OEI Panel returns the DEC Mode and the List of Floors (Allowed (free) & Authorized) and special options to the Layer-3 Sw.
 The DES/DER decides which car is appropriate based on passenger load and any special features on the card.
 The Galaxy OEI Panel transmits events to the SG Server & Event Monitor as to which Reader/DEC are solicited
3. The DEC displays the “most-appropriate” elevator car #.
4. An Otis Audit Event is logged at SG Client by the 635-Panel and shows the elevator car dispatched if a restricted floor was requested.
 If a credential is not authorized for the requested floor, an Event & Otis Audit Event are logged (e.g. invalid credential, destination not)

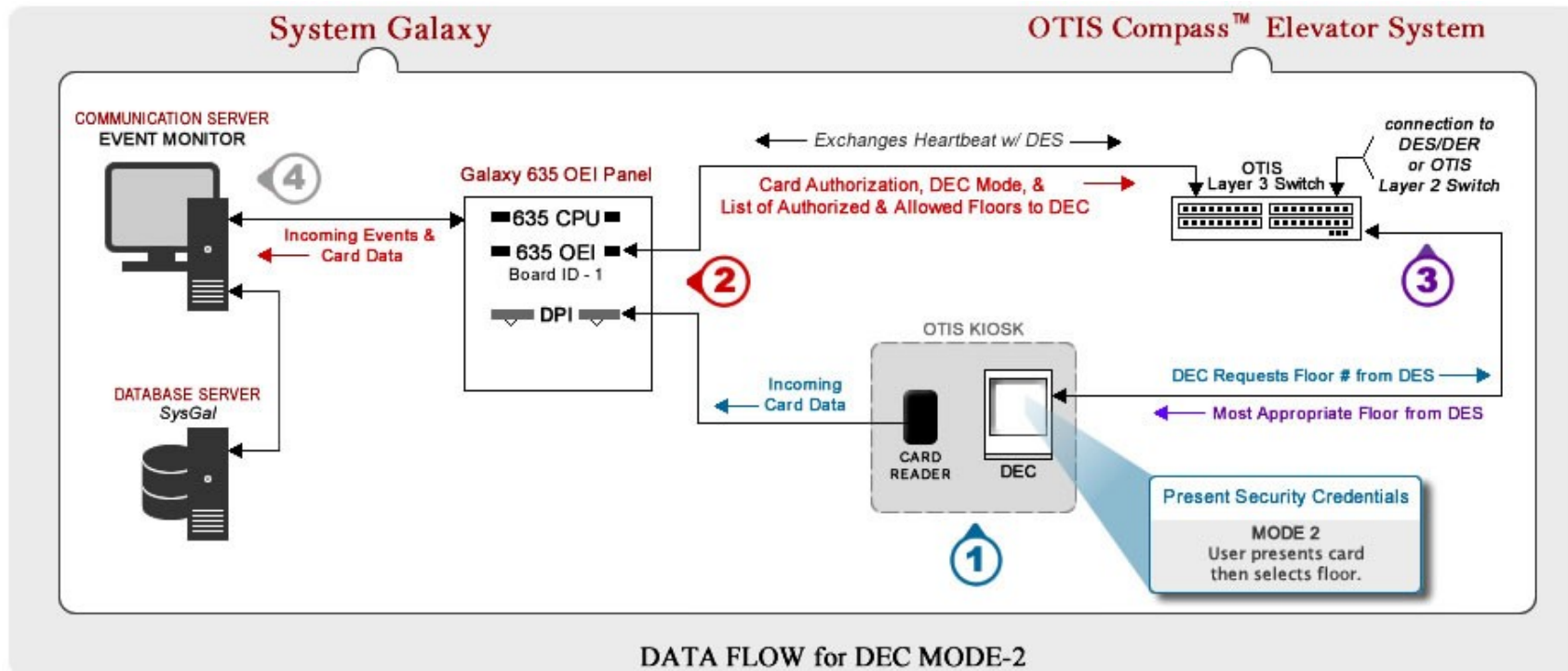
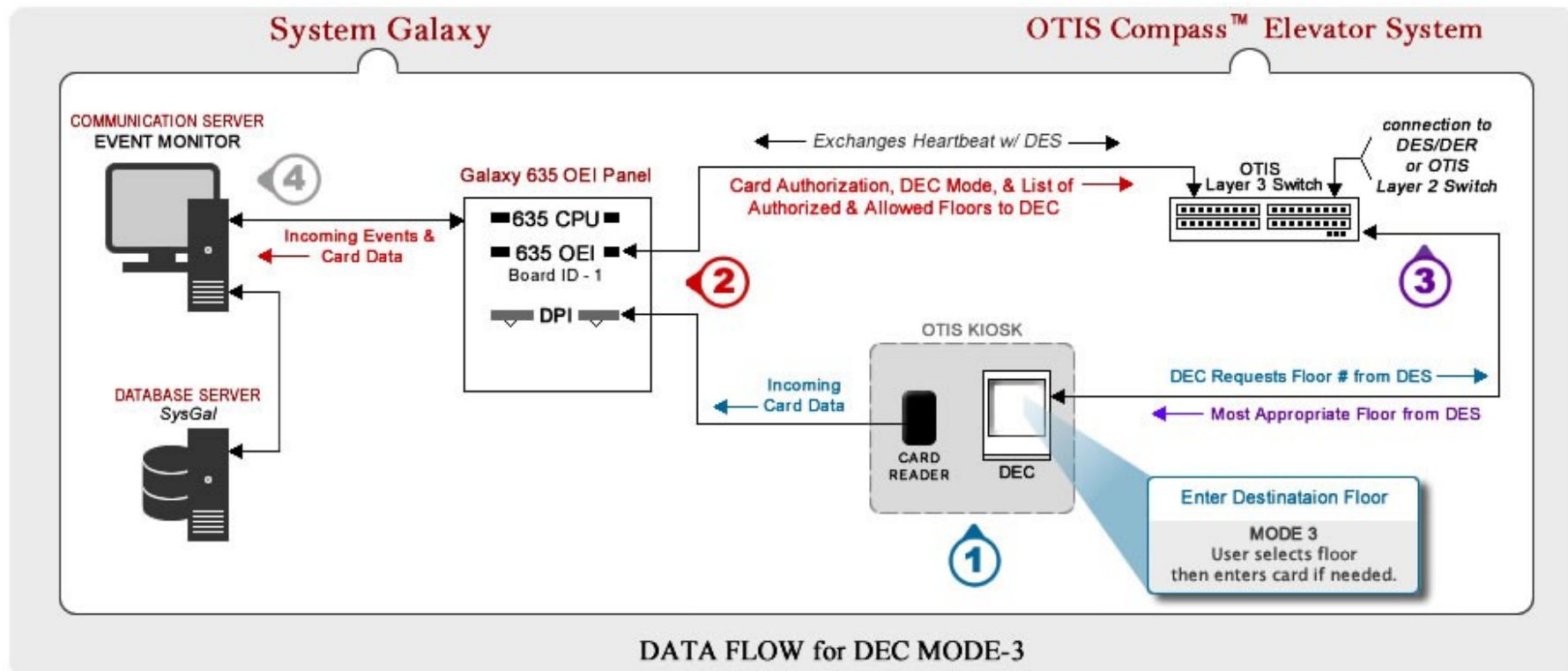


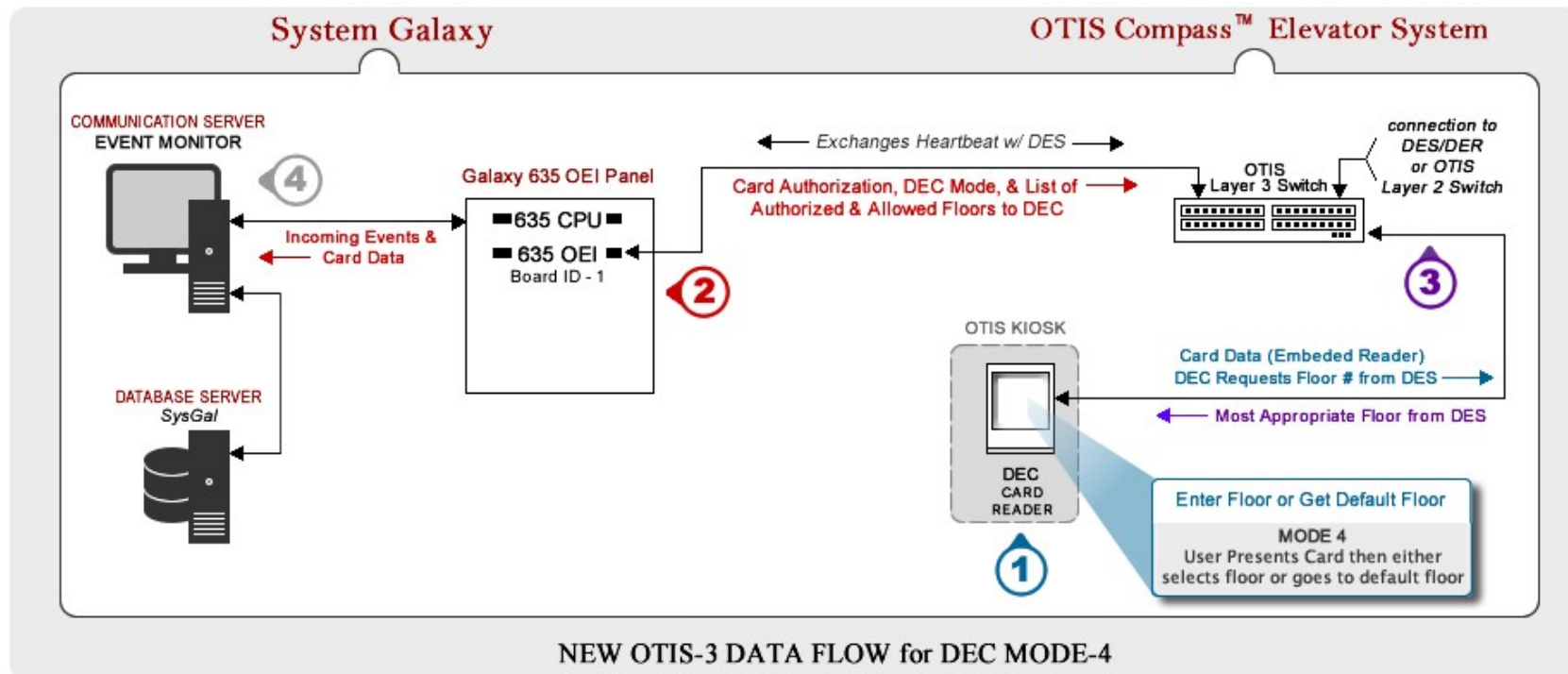
DIAGRAM-6: DEC MODE-3 Data Flow (Choose Floor First, then present Card if prompted)

- In MODE-3 the DEC idle prompt displays “Enter Destination Floor”.**
Passenger enters a desired floor number on the DEC. If requested floor is allowed free-access, the DEC displays the appropriate car. If requested floor is restricted, the DEC displays “Present credentials”. User presents card (data goes to Galaxy 635 Panel).
- The 635 Panel returns the card authorization (or denial) based on schedules and access rules stored in the panel.**
The OEI Panel sends the DEC Mode and the List of Floors (Authorized & Allowed (free)) along with special features
The Galaxy OEI Panel transmits events to the SG Server & Event Monitor as to which Reader/DEC are solicited
- The DEC displays the “most-appropriate” elevator car # if the requested floor is allowed free-access or floor is authorized for that card.**
If the credential is not authorized and floor is not free access, the DEC prompts user to ‘seek assistance / access denied’
- An Otis Audit Event is logged at SG Client by the 635-Panel and shows the elevator car dispatched if a restricted floor was requested.**
If a credential is not authorized for the requested floor, an Event & Otis Audit Event are logged (e.g. invalid credential, destination not)



OTIS MODE-4 Data Flow (Present Card First and Request Floor (or) Get Default Floor / High Security)

1. In MODE-4 the DEC idle prompt displays “Present Security Credentials”.
User presents credentials and has approx. 6 seconds to request a floor number at the DEC (card data goes to Galaxy 635 Panel)
If the floor is restricted, the credentials are sent to the Galaxy Panel for a decision.
If no floor is requested before the time-out elapses, the passenger is sent to the default floor assigned to the card – (skips step 2).
2. IF a floor was requested, the 635 Panel returns the card authorization (or denial) based on schedules and access rules stored in the panel.
The OEI Panel sends the DEC Mode and the List of Authorized & Allowed (free) Floors to the DEC
The Galaxy OEI Panel sends events to the SG Server & Event Monitor
3. The DEC displays the “most-appropriate” elevator car # if the requested floor is allowed free-access or floor is authorized for that card.
If the credential is not authorized or floor is not free access, the DEC prompts user to ‘seek assistance’
If the request time out elapsed, the default floor is selected.
4. An *Otis Audit Event* is logged at SG Client by the 635-Panel and shows the elevator car dispatched only if a restricted floor was requested.
If a credential is not authorized for the requested floor, an Event & Otis Audit Event are logged (e.g. invalid credential, destination not)



1.3 GALAXY-TO-OTIS INTERFACE REQUIREMENTS & STIPULATIONS

IMPORTANT This section provides a consolidated list of the known requirements & stipulations (divided up by hardware & software). Please review the requirements before beginning, so you can prepare appropriately. Keep these requirements in-hand during the installation process so you reference them as needed. You can also use these requirements as a troubleshooting tool. Although these requirements may go in the order of operation, they are not intended as a substitution for following instructions.

1.4.1 SOFTWARE SETUP REQUIREMENTS

1. **System Galaxy software v10.4.9 (or higher)**
2. **The pc running the System Galaxy communication and event services must have a static IP address**
3. **There are no known registration or workstation options (system settings) required for Otis v3**
4. **In the Controller Properties screen ...**
 - a) You must add only one OEI board to the Elevator OEI Panel in the Controller properties screen.
 - b) You must set the CPU Type to 635 (must use a 635-model CPU)
 - c) You will set the total number of floors the system will serve; note you can add up-to-120 floors from the controller screen. If you need to add more floors, you can do so in the Elevator Floor Group programming screen.
 - d) You only need a 635-DRM board if you are controlling turnstiles or relays using an external reader. Readers are typically embedded in the DEC's for OTIS-3. Embedded Readers do not need a DRM. All elevator readers/DRMs must be in the same OEI Panel
5. **In the Reader Properties Screen's General tab ...**
 - a) You must assign the reader to be an 'OTIS Elevator type' reader if you use an external reader.
 - b) You must map the reader to a DEC by entering the IP address of the DEC if you use an external reader.
6. **Otis Elevator Programming: you must add the DEC's with their correct IP addresses.**
7. **You must configure the Default Floor Group (0) and any custom (user-defined) Floor Groups in SG**

IMPORTANT: The **Default Floor Group-0** is automatically assigned to every DEC and uses the "Always" schedule. This means it takes effect at every DEC whenever a higher, user-defined Floor Group (1-10) becomes inactive (red). The user-defined Floor Groups (1-10) can be assigned to any DEC, and become active based on their time schedules (green=active, red=inactive).

- a) **NOTE:** The highest number Floor Group (1-10) whose schedule is active will take effect at any DEC where it has been assigned. User-defined Floor Groups supersede the Default Floor Group-0. If there are no active Floor Groups, the Default Group takes effect. If you have assigned more than one user-defined Floor Group to a DEC, the system will use the highest one that is active.
- b) **NOTE:** be careful in programming "free" floors in the Default Floor Group-0 since it could become active at any time. **LIKEWISE:** be careful which DEC Mode you assign to the Default Floor Group (0).
- c) **NOTE:** it is possible to make a user-defined Floor Group permanently supersede the Default Floor Group by assigning the "Always" schedule. In this case it can only be superseded by a higher number Floor Group if one is assigned and active.
- d) For the Default Floor Group (0), you must assign a DEC Mode (1, 2, 3, or 4) and any free floors needed.
- e) For user-defined Floor Groups (1-10): you must assign a DEC Mode (1, 2, 3, or 4) and any free floors needed. You must also assign a time schedule to your floor groups. When the floor group is inactive, the DEC will use the Default Floor Group – or a lower Floor Group if one is assigned and active.
- f) You should create dedicated time schedules for your Floor Groups that are not shared or commonly used with other Floor Groups or other entities such as Access Groups, Door Groups or I/O Groups. if you ever change that schedule it will break your Floor Group and other programming.
- g) You can add any additional floors or elevator doors (front or back) as needed, if you did not add enough during the Panel programming in the Controller properties screen.

1.4.2 HARDWARE REQUIREMENTS

General hardware installation requirements are covered in the *600-635 Hardware Guide*.

NOTICE: Requirements and stipulations may be repeated in the appropriate section for continuity of instructions.

1. You can only install 1 OEI Panel per Otis Compass™ system.
2. DO NOT wire access control doors to the OEI panel – only wire DEC readers to the OEI panel.
3. The 635 CPU must be configured with correct IP Addressing.
 - set DHCP = 'no' if you are using fixed addressing such as 192.x.x.x.
 - If you are using dynamic addressing, then set DHCP to 'yes' and make sure a dynamic address is leased to your controller so it will behave as a fixed address.
 - You must configure the Network Mask and Gateway addresses
 - The Event Server Address must be static and always uses port 3001 in the CPU for both the event server when configuring the panel. See the Hardware Guide for details.
4. **635 OEI Controller (elevator control panel for Otis Elevator Interface);**
 - a) **635 CPU Board - requires v10.4.15 flash (or higher):**
 - Maximum 1 OEI board on the data bus .
 - Up to 16 DPI boards on the data bus
 - b) **635 OEI Board - requires v10.4.15 flash (or higher) :**
 - The OEI board must be factory flashed
 - OEI board ID must be set to '1' (factory default)
 - Using Ethernet Cat5e (300 cable feet)
 - The OEI board must be connected to port 21 on the Otis Layer-3 switch
 - c) **635 DRM Board - supports 2 readers per board – but is only needed if you are installing a separate reader to control a turnstile/door contacts.**
 - YOU DO NOT NEED A DRM IF THE DEC HAS EMBEDDED READERS
 - DRM boards get their flash from the 635 CPU;

! DO NOT POWER FAIL THE DRM, CPU OR CONTROL PANEL DURING FLASHING.

 - Currently, the OEI Panel supports up to 16 DPI boards (up to 32 readers). DPI boards must have unique numbers (2 thru 17 is valid since the number 1 is reserved for an OEI board).
 - The 635 DRM Board ID is set using the onboard dipswitch.
 - Only Galaxy readers can be wired to the DRM boards inside the OEI Controller. Non- elevator readers must be connected to a non-elevator controller.
 - Any elevator DRM boards must be installed inside the same panel as the OEI board and 635 CPU (i.e. they cannot be in separate cans).
 - See the Galaxy 600-635 Hardware Guide for instructions on wiring specifications (i.e. gauge, distance, etc.) and for landing reader wires to the DRM terminals.

! When controlling Turnstiles the door contact must be 'jumped out' (by placing a jumper wire between COM and CNT on the reader port).

 - **NOTE:** DRM Relay-1 will audibly activate when a card is valid; however, the doors and contacts are not wired. The Otis system controls its doors based on the data received from the OEI board. DPI Relay-2 is unused for the Otis system.

1.5 TROUBLESHOOTING TIPS

1.5.1 VERIFYING DECS ARE 'ONLINE' AT THE GALAXY OEI BOARD

You can find out which DECS are online by interrogating the OEI board with special commands. To determine what DECS are listed at the OEI Board and their status, you can use a terminal emulator to issue an “online” command and a “rows” command.

IMPORTANT NOTES

- When the OEI board is connected to the network, the DES/DER will send the list of DECs and their configuration to the OEI. System Galaxy also sends its list of DECs and the floor group configuration to the OEI board.
- If a DEC goes offline after it was sent to the OEI, it will remain in the OEI list, but its status will change to 'OFFLINE'.
- If a DEC is programmed in Galaxy (and loaded to the panel), but is not present in the Otis configuration, then the DEC will be listed with an 'offline' status.

1.5.1.1 GALAXY OEI UPDATE MESSAGES TO OTIS SYSTEM & DECS

There are three times the **OEI Board** sends an update message to the Otis System. The update includes the DEC Operating Mode, the Operating Schedule, and the Public List of Floors(allowed).

1. A message is sent any time the OEI negotiates a connection to the Otis System. This occurs whenever the OEI board comes online, or when the Otis DES comes online.
2. A message is sent once per second for each DEC that is 'pending' an update. The OEI gets these pending updates from the CPU whenever a change occurs to a floor group. Floor Group updates happens for the following reasons.
 - a) Changes are made in the software programming of the floor group and loaded to the CPU.
 - b) When an existing floor group schedule becomes active or inactive.
3. A message is sent whenever a card authorization is issued from Galaxy. The authorization or denial is sent along with floor group programming up dates.

1.5.1.2 GET A LIST OF FLOOR GROUPS AT THE OEI BOARD

The **rows** command will return the list of Floor Groups that the OEI Board knows about. The Floor Groups are given a DEC Mode and the free floors are enabled as needed. If a DEC doesn't seem to be responding to the free floors or DEC operating modes, you can query the Floor Group List to prove whether the OEI knows about the Floor Groups.

Use a terminal emulator, such as Putty or HyperTerminal to issue the **rows** command.

1. **Connect one end of the Galaxy hardware programming cable to the OEI Board's 9-pin serial port. Connect the other end to the PC's COM port (serial port).**
2. **Start the terminal emulator and set up the connection parameters.**
 - Bits per Second = 57,600K
 - Data Bits = 8
 - Stop Bits = 1
 - Parity = None
 - Flow Control = None
3. **Type 'rows' (without the quote marks) into the emulator command line.**
4. **The Galaxy OEI Board will list every Floor Group (0 and 1 thru 10).**
 - The Floor Group number, its assigned DEC Operating Mode, as well as which floors are assigned free.
 - The floors that are assigned free will be designated with an "A" for allowed. Floors that require authorization do not have a letter designation.

1.5.1.3 GET A LIST OF DECS AT THE OEI BOARD

The **online** command will return the list of DECs that the OEI Board is communicating with through the Otis Compass System. If a DEC doesn't seem to be responding to the access control system or does not update its floor groups or DEC operating modes, you can query the DEC list to prove the OEI knows about the DECs. use a terminalemulator, such as Putty or HyperTerminal to issue the *online* command.

1. **Connect one end of the Galaxy *hardware programming cable* to the OEI Board's 9-pin serial port.**
2. **Connect the other end to the PC's COM port (serial port).**
3. **And start the terminal emulator as appropriate and set up the connection parameters.**
 - Bits per Second = 57,600K
 - Data Bits = 8
 - Stop Bits = 1
 - Parity = None
 - Flow Control = None
4. **Type 'online' (without the quote marks) into the emulator window.**
5. **The Galaxy OEI Board will list every DEC that it knows about.**

The DEC number/name, its IP Address, its assigned DEC Operating Mode, as well as its last known status (online vs. offline) will be displayed.
6. **If a DEC is listed as 'offline' it could be because it has lost it's network connectivity. Make sure the DEC is actually configured in the Otis System and is properly connected to the Otis system.**

IMPORTANT: the OEI Board can display "offline" status for a DEC that has been added from the System Galaxy programming and loaded to the elevator panel before it has been added to the Compass system or been connected. To determine if the extra DEC is caused by this situation, you can cold start both the CPU and OEI board in the panel. After the boards are cold started, issue the 'online' command again and should see that the extra DEC(S) went away. If you really needed the extra DEC, configure and connect it in the Compass system and Load Data from System Galaxy's GCS Loader program.

2 SYSTEM CONFIGURATION

This chapter covers the configuration of System Galaxy components.

2.1 QUICK STEPS – CONFIGURING THE INTERFACE

2.1.1 HARDWARE QUICK STEPS

Use the hardware requirements in chapter 1 of this guide with the instructions in the *600-635 Hardware Guide*.

1. Configure the GALAXY 635 Control Panel

a. Install & Configure the CPU board:

- set the fixed IP Address, Subnet Mask and Gateway;
- set the Loop and Controller Unit number to match the Loop and Controller number in the software; CPU must be numbered 1;
- DHCP can be set to YES, but a leased address should be used if fixed addressing is not available.
- set the Event Server IP address and set port 3001 and save settings

b. Install the OEI board: this board is factory flashed and is set to Board ID 1.

c. Install & Configure the DRM boards:

(ONLY IF USING EXTERNAL READERS TO CONTROL A TURNSTILE)

- The factory flash should match the CPU – if it does not, the board will update after a 10 sec. delay. Use auto clear command to bypass the delay.
- Each DPI must be uniquely numbered between 2 and 17 (use 635 ConfigurationTool)

d. Physically wire the card readers to the DPI boards.

- Only elevator readers can be wired to this panel. Use a separate panel for other door readers.
- Jumper the CNT and COM contacts together on the reader ports.

e. Complete panel installation as per 635 Hardware Guide.

- 2. Physically connect the 635 CPU to the corporate LAN using Cat5e cable. The CPU will connect to the event server/communication server based on network programming.**
- 3. Physically connect the 635 OEI to port 21 on the Otis Layer-3 Switch.**

2.1.2 SOFTWARE QUICK STEPS

1. **Install the System Galaxy 10.x software on the main Communication Server / Database Server as appropriate.** Register the software and clients as appropriate for the options purchased. Installation of software is covered on the Install DVD Help. Registration is covered in the Software Manual. There is no specific registration option for Otis, Elevators, or OEI boards.
2. **Check the Galaxy Event Service to confirm that the 635 OEI Elevator control panel is connected.** It may take a few minutes for the CPU to connect to the Event Service.
TIP: Use the GCS Service Monitor (Windows-7 or higher) or Service Manager (which gives you more options) to view connections to the Event service.

Open the System Galaxy Software for the remaining steps:

- (1) In the **Loop Properties screen**, add the **600 Cluster** using correct IP settings and port 4003.
- (2) In the **Controller Properties screen**, add the **635 Controller & 635 CPU**. Use GET BOARD INFO button to add the OEI board and DPI Boards to the software. Choose the most common reader type (such as proximity) used by most of the boards.
- (3) In the **Otis Elevator Programming screen**, create each DEC your system will use.
- (4) In the **Reader Properties screen**, define the readers as **Otis Elevator Readers** and assign a DEC number that you want that reader to work with. Set the reader technology type if different from the common reader type that you chose in step 3.8. Rename the reader using a logical name that indicates where the reader is located (e.g. "Main Lobby DEC-1", or "Floor-3 DEC-6").
- (5) In the **Time Schedules screen**, create the time schedules needed for the
 - a. **user-defined Floor Groups** – used to control which Floor Group is in effect; ultimately resulting in which "free floors" are available and which DEC Mode is in effect.
 - b. Elevator Access Groups – controls when the cardholder can use the elevator readers and floors.
 - c. Interior Door Groups and I/O Groups – for the cardholder to have access to interior doors as needed.
- (6) In the **Otis Elevator Programming screen**, configure the **Default Floor Group-0**.
 - a. **Choose the default DEC Mode**
 - b. Add any additional floors or negative floors that were not added in step 3.8
 - c. Enable (check) any mandatory free floors that will always be free at every DEC.
- (7) In the **Otis Elevator Programming screen**, configure **Optional Floor Groups** that you will need (assign the DEC mode, schedule and free floors as needed).
- (8) In the **Access Group Programming screen**, configure any **Access Groups** you need for cards.
 - a. Elevator Access Groups – for cardholders to use the elevator readers and floors.
 - b. Interior Door Access Groups – for cardholders who need access to interior door readers.
- (9) In the **Cardholder Programming screen**, assign **Access Groups** to access cards for each cardholder.
 - a. Elevator Access Groups – add the Elevator Loop and set the appropriate access group(s) for the access card given to the cardholders.
 - b. Interior Door Access Groups – add the Interior Door Loop and set appropriate access group(s) to the same card (or different card) as desired.

2.2 CONFIGURE THE GALAXY 635 CONTROL PANEL (Hardware)

You can use the **635 Configuration Tool** to program the CPU and DPI's from a internet browser such as Internet Explorer. The [*635 Config Tool Guide*](#) describes installing and using the 635 Config Tool. The [*600-635 Hardware Guide*](#) describes installing the Galaxy Hardware, including product safety information, requirements, reader wiring (etc.) in greater detail.

IMPORTANT NOTICES

- The PC running the **635 Config Tool** must be connected to the same broadcast domain as the 635 CPU.
- The Config Tool will find the panel by it's factory MAC Address.
- **Read the *600-635 Hardware Guide* for Installation/Product Safety and Requirements before installing.**

2.2.1 QUICK CHECKS FOR THE CPU:

The following items must be specifically set in a certain way to interface with the OtisSystem.

1. **Cluster/Loop ID:** The ID that the SG Software gave the elevator Loop (in the previous step B)
2. **Controller Unit ID:** should be 1 (recommended that no other panels are assigned to this loop)
3. **CPU number:** must be set to 1
4. **Network Settings:** IP Address, Gateway, Network Mask will be configured as needed to reside on the customer's LAN. A static IP Address is recommended.
5. **DHCP:** should be 'no' if you are using a static address. If you are using DHCP, then set DHCP to yes and have the IT Professional assign a leased address to the panel's MAC address.
6. **Event Server IP Address:** must match the IP Address of the Event Server that you set in previous step B-10). This is typically the same IP Address as the Communication Server.
7. **Connection Ports** should be set to 3001 for both the Event Server and for the Panel.
8. **You must save the settings of the CPU**

2.2.2 QUICK CHECKS FOR THE OEI and DPI BOARDS:

- The OEI BOARD ID must be '1' (this is at the factory and should not be changed).
- **The flash version of the OEI Board must match the CPU. (this is at the factory)**
- The DPI must be set to '2' or higher. (2 thru 17 is valid; do not duplicate board IDs)
- **Each DPI flash version must match the CPU. The DPI's will auto-update one at a time.**

WARNING: Do NOT INTERRUPT POWER to a DRM board, or panel, or CPU until all boards have completed flash update.

NOTE: In later versions of Flash (such as 10.4.15), the installer must initiate the flash by pressing the [Allow Board Update] in the GCS Loader Program of System Galaxy.

2.3 CONNECTING THE 635-CPU TO THE ETHERNET NETWORK (LAN)

Once the controller is configured, you can connect the 635 CPU to the corporate LAN.

The 635 CPU supports 100 MB via the onboard network connector.

- Both LED'S on the RJ45 network jack will be ON/SOLID when connection is established at 100 MB/ Base-T.
- **Only one LED will be ON/SOLID when connection is established at 10 MB (full duplex required).**

IMPORTANT: The network communication path between the 635-CPU and the System Galaxy Event Server must be unblocked (routers, hubs, switches, etc.) .

NOTE: Always consult the [635 Hardware Guide](#) and the [635 Config Tool Guide](#) for instructions that are not covered in this brief section.

2.4 CONNECTING THE OEI BOARD TO THE OTIS LAYER-3 SWITCH

Connect the 635 OEI Board to **PORT-21 of the OTIS LAYER-3 SWITCH**. Otis technicians are responsible for configuring and connecting the Otis DES, DER and all DEC's to their system.

TIP: A heartbeat will be established between the two Systems when the Galaxy Panel is online and the Otis DES is online. A tool such as Wireshark can be used to confirm the connection and heartbeats have been established.

2.5 ABOUT INSTALLING the SYSTEM GALAXY SOFTWARE

Detailed instructions for installing the System Galaxy 10.x software are found on the Install DVD (disk-1)



1. When the install DVD is inserted the Installation splash screen opens.
 - a. Select the *View Galaxy Installation Help* link at the top of the list t.
 - b. You must install Part 1 on every Galaxy computer
 You should read the **Part 1 Read-Me** file.
 Part- must be installed on all servers and clients even if you are upgrading an existing system from a prior version.
 - c. You will install Part 2 on every Galaxy computer
 You should read the **Part 2 Read-Me** file.
 For new installs, the full database install must be done on the computer that will server as the database server. This can be the same or different PC than the communication server.
 For upgrades, you must upgrade the database (instructions are in the Install Help)
 For all other Galaxy clients/servers you must install the ODBC Client components.
 - d. You will install part 3 on the Communication Server / Client choosing the appropriate option (i.e. Comm. Server, workstation, etc.). For upgrades, you must back up all files, reports, photos, badging templates and assets, and then uninstall the software before running Part-3. If you are using Card Exchange, consult the SG-10 CEX Badging Guide for details.
2. Once the software is properly installed, it must be registered within 14 days.
 - a. You can configure all the loops, controllers, readers, schedules, and elevator DEC's, operation modes, and Floor Groups before registering since the Otis options are not associated with registration options.
 - b. Refer to Chapter 5 of the System Galaxy Software User Guide for registering the system. Register the software & clients for the options purchased within the 14-day grace period.
 - c. You must contact Galaxy Dealer Support to get your registration code.
 - d. Your product level, options and product code must match your purchase agreement.

2.6 VERIFYING THE 635-CPU CONNECTS TO THE EVENT SERVICE

Once the Galaxy Communication Server is installed, the 635 CPU will initiate it's to the Event Service. It may take a couple of minutes for the CPU to negotiate the connection to the Event Service. You can verify the connection using the Service Monitor.

TIP: Start the **Service Monitor** from the Windows Start > All Programs > System Galaxy > Utilities > Service Monitor. You can 'pin' the monitor to the task bar for convenience.

1. (Windows-7 or higher) Open the GCS Service Monitor to view the Event service connections.
2. At the top of the Service Monitor window, click on the [Fill Services List] button.
3. Select (highlight) the Event Service in the left-hand list.
4. Click on the [Connect to Service] button at the bottom of the screen.
5. All controllers (CPU's) that have successfully connected will display in the list. You can find the Otis CPU by the IP Address listed in the Connections tab.

NOTES:

- If the CPU is not online after a reasonable amount of time, you should verify that you correctly configured the CPU IP, MAC, and Gateway Addresses. Also make sure that the DHCP flag is properly set (set "no" if you are using a 192 address; "yes" if you are using a dynamic address that is leased as a fixed address).
- Verify that the Event Server's IP address is correctly set. Make sure the CPU is using port 3001 to connect.
- Make sure the Ethernet cables for the Panel and for the Comm Server are connected and are properly pinned. You should use a normal 'straight thru' cat-5e Ethernet cable.
- Verify that port 3001 is not blocked at the Communication Server's Virus software or Windows firewall settings, or any network device (hub, router, etc.).

2.7 ADDING THE OTIS LOOP (Cluster) TO GALAXY SOFTWARE

Program the Elevator Loop into the System Galaxy Software. The 635-series panel must be assigned to a unique Cluster number. This must match the panel configuration in order to load any data to the panel.

NOTICE: IF you use the Galaxy Loop and Controller Wizard, you must remember to manually set the CPU type to “635” in the Controller Properties screen. *See the Section 3.8 of this guide and follow instructions carefully..*

1. Open the Loop Properties screen: from the menu **Configure > Hardware > Loops**
2. Once the Loop screen is open, click **Add New Loop/Cluster**.
 - **NOTE:** The Cluster (Loop) ID # is a unique number set by the system.
 - Record the cluster number to use when programming the 635-series CPU. The cluster ID in the CPU must match the system’s cluster number in this screen.
3. Enter a descriptive name for the Loop in the Loop Name field holds the (max. 50 characters).
4. The Serial Number field holds the serial number of the CPU. This number can be found on a label on the CPU.
5. Use the System Type droplist to select “600” (Otis interface is not compatible with 500-series)

The screenshot shows the 'Loop Properties' dialog box. It contains the following fields and controls:

- ID #:** A text box containing the value '1'.
- Ordering:** Two radio buttons labeled 'Order by ID' and 'Order by Name'. 'Order by Name' is selected.
- Name:** A text box containing 'Otis Elevator Loop' with a dropdown arrow on the right.
- Serial #:** A text box containing '02000001'.
- System Type:** A dropdown menu showing '600'.
- Buttons:** A vertical stack of five buttons on the right: 'Add New', 'Edit', 'Delete', 'Apply', and 'Cancel'.

Loop configuration is continued in the next section

2.2.3 CONNECTION SETTINGS TAB

1. Set the Connect Using droplist to “TCP/IP”.
2. Set the Event Server IP Address field to the IP address of the computer running the Event Server for this loop/cluster. The Event server is the computer where the Event Service will run. This is typically the same as the Communication Server.
3. The Remote Port field is set to 4003 for 600-series controllers. Do not set 3001 in this field.
4. The Communication Server field is the name or IP address of the Communication Server. The Communications Server is the PC where the GCS Communicator Service is running. If the PC you are working from is Communication Server, click This Computer button to auto-fill the computer name.

NOTE: On the Advanced Settings tab, you can set the **Time Schedule format** – will default to 15- minute format (recommended). You can set 1-minute format on 600-series Loops. *See the SG Software Guide Schedule Programming in Chapter 7 for details – or see the 1-Minute Schedule Guide.*

The screenshot shows the 'Connection Settings' tab of a software interface. At the top, there are fields for 'ID #' (1), 'Name' (Otis Elevator Loop), 'Serial #' (02000001), and 'System Type' (600). To the right of these fields are radio buttons for 'Order by ID' and 'Order by Name' (selected), and a vertical stack of buttons: 'Add New', 'Edit', 'Delete', 'Apply', and 'Cancel'. Below these fields is a tabbed interface with five tabs: 'Communication' (selected), 'Card Settings', 'Share Options', 'LED Options', and 'Advanced'. Under the 'Communication' tab, there are fields for 'Connect using:' (TCP/IP), 'Event Server IP:' (192.168.1.64), and 'Remote Port:' (4003). At the bottom, there is a 'Loop Communication Server:' field with the text 'W70360-TEST' and a 'This Computer' button next to it.

2.8 ADDING THE 635 CONTROL PANEL TO GALAXY SOFTWARE

IMPORTANT: the Galaxy Loop supports only one OEI Controller per loop.

IMPORTANT: the OEI Controller supports only one OEI board.

IMPORTANT: the OEI Controller can support up to 32 readers (16 DPIs). ALL DPI's must be used for elevator readers. Use a separate panel/loop for any readers that will not be linked to an Otis DEC.

2.8.1 ADDING THE PANEL & SETTING THE CPU MODEL

1. Open the Controller Properties screen from the menu *Configure > Hardware > 600 Controllers*
2. Select the Otis Elevator Loop/Cluster name.
3. Click the ADD NEW button to add the control panel.
 - **NOTE:** The System's (Unit) ID # should automatically be set to '1' since this is the only panel on this loop/cluster. (Galaxy recommends that no other panels are assigned to this loop).
 - This number must match the Unit number configured in the CPU.
4. Enter a **descriptive name** in the Controller Name field. The software sets a default name that indicates the loop/cluster ID and the control panel unit ID. You can edit the name to become a logical name that designates it as the Elevator Panel.
5. Select the **CPU Boards** tab, set the CPU-1 to be "635" Model. The serial number and IP Address will auto-populate the next time the connection is refreshed.
6. Click the **APPLY** button to save the Controller programming. This sets the daughter board list to include boards supported by the 635 CPU.

Cluster/Loop: Otis Elevator Loop

Controller ID: 1

Name: Cluster #: 1, Unit #: 1

Bypass loading: ☐

Buttons: Add New, Edit, Delete, Apply, Reports

Tabs: Interface Boards, CPU Boards, Alarm I/O Groups, Options

Select CPU:	Model #	Serial #	Last IP Address
CPU # 1	635	03000001	192.168.1.1

☐ Unused

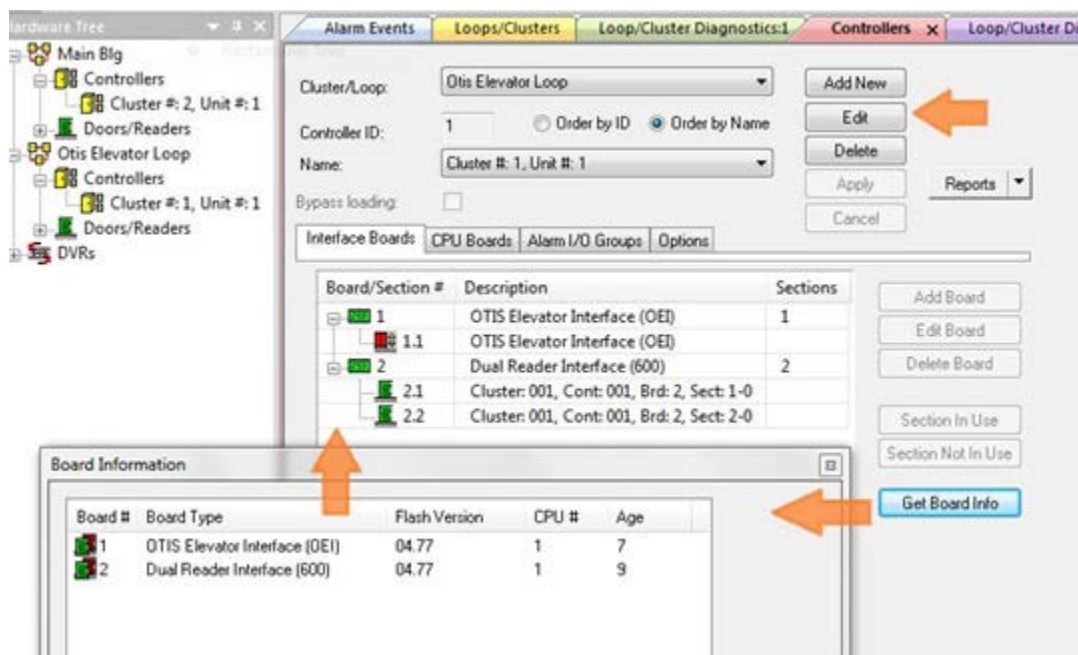
2.8.2 ADDING THE DRM & OEI BOARDS TO THE CONTROLLER

It is recommended to add the daughter boards to the control panel using the GET BOARD INFO button. This way you can add all the correct boards and their correct board numbers without guesswork. The control panel must already be configured and connected to the Event Server to use this method to add boards. Otherwise you must add the boards one-by-one and set their board numbers.

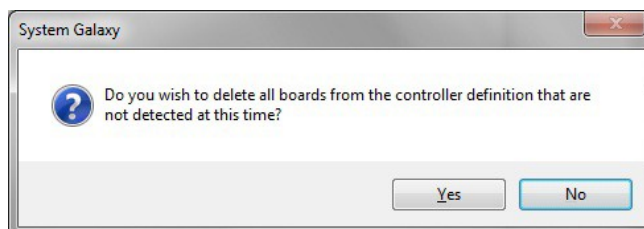
IMPORTANT: If you add boards manually, you must add the OEI BOARD first and set its board number to '1'. Any DRM boards must be set to '2' through '17', but they must match the board numbers actually used in the panel. DRM boards are not needed if the DEC's have embedded readers. If a turnstile is used to control access, the DRMs must be in the same Panel with the OEI Board.

IMPORTANT: When using the GET BOARD INFO button to add boards, you must have the panel connected to the Event Server and all the daughter boards must be connected on the data bus and picked up by the CPU. Make sure you have completed the hardware installation, configuration and all daughter boards are present when you issue the 'boards' command from the terminal emulator or show up in the 635 Config Tool's web page.

1. In the Controller Properties screen, click the **EDIT** button again to add the boards.
2. Click the **[Get Board Info]** button (the Board Info screen will open with list of boards). Galaxy automatically returns the list of boards that the CPU has connected on its data bus.
3. Click the **Save** button to accept /add the boards.



4. A confirmation dialog will appear asking you if you want to overwrite any existing board programming. Click YES to confirm you want to save and overwrite.

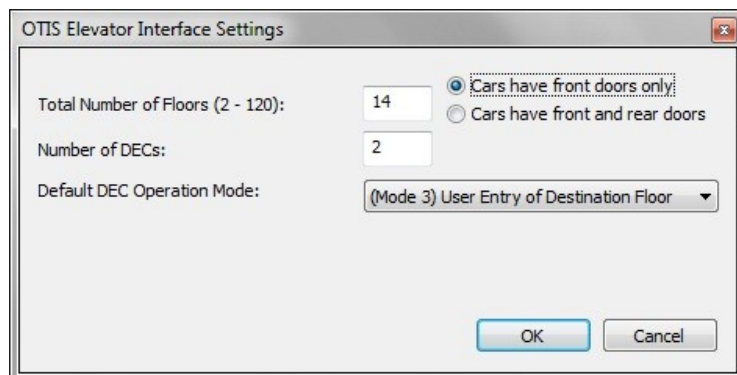


2.8.3 SETTING UP THE ELEVATOR FLOORS & DOORS

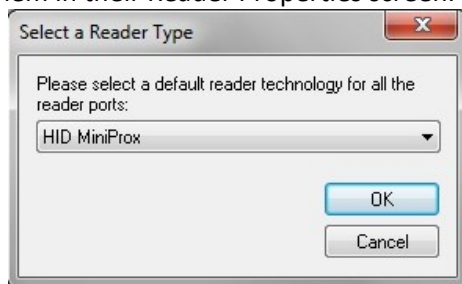
When you click the APPLY button to save this configuration, the system will prompt you to set up the Elevator Floors and Doors.

NOTES

- **The Floors & Doors programming screen allows you to add from 2 to 120 floors. These will be floors 0 thru 118.**
 - You must specify whether you want to have front doors only or both front and back doors.
 - If you need more than 119 floors, you can add them in the Otis Elevator Config screen.
 - If you need more doors later, you can add them in the Otis Elevator Config screen.
 - If you need to add negative floor numbers, you must add those manually from the Otis Elevator Config screen.
 - You can choose whether the Default Floor Group is set to Mode-2 or Mode-3. You can change this later if needed.
1. When you click the Apply button to save the Controller programming, the Otis Settings window opens.
 - a. Select the Version of Otis System you are integrating with (i.e. Otis v2 or Otis v3)
 - b. Select the Elevator Doors (i.e. Front Doors Only or Front and Rear Doors)
 - c. Enter the total number of floors.
 - d. Enter the total number of DEC's.
 - e. Select the Default DEC Mode number (i.e Mode 1, 2, 3 or 4 – you can change the DEC Mode later by assigning a different mode to the Floor Group programming).



2. Next the software will prompt you to choose a common reader technology type. Choose the most common/typical type you have installed on this controller. If there are some readers that use a different type technology, you must change them in their Reader Properties screen. Reader properties is in a later section.



2.9 ADDING OTIS ELEVATOR DEC's

In the *Otis Elevator Configuration screen*, you must add each DEC that will be installed in the building. *After the DEC is created, it can be linked to a reader.*

NOTE: Programming Floor Groups is discussed in a later section of this chapter.

1. Open the Otis Elevator Configuration screen, from menu **Configure > Hardware > Otis Elevator**.
2. Select the Otis cluster name and click EDIT button.
3. Under the DEC Properties list, click the [Add New DEC] button.
4. the DEC Properties dialog box opens, and you will enter a descriptive name.
5. Set the value of the IP Address' third octet and type the value of the last octet
6. Enable (check) any floor groups you will need for this DEC. Notice that Floor Group 0 is mandatorily set.
7. Click OK to save the DEC properties (a name and IP Address are required)
8. Click APPLY to save all your changes.

The screenshot shows the 'Otis Elevator Configuration' screen with the 'DEC Properties' dialog box open. The dialog box has the following fields and controls:

- Cluster:** 635 OTIS V3 Elevators (dropdown)
- Select OEI:** OEI 1.1.1 (dropdown)
- Description:** OEI 1.1.1 (text field)
- OTIS Version:** Version 3 (dropdown)
- Buttons:** Edit, Apply, Cancel, Reports (dropdown)

The 'DEC Properties' dialog box is titled 'OTIS Elevator DEC Properties' and contains the following fields and controls:

- DES:** OEI 1.1.1
- DES ID:** 1
- DEC ID:** 1
- Description:** DEC 1 (text field)
- DEC Reader Type:** Wiegand Standard (dropdown)
- IP Address:** 192.168.1.10 (text field with dropdowns for each octet)
- Allowed Floor Groups:**

Description	#
<input checked="" type="checkbox"/> Default Group	0
<input checked="" type="checkbox"/> Floor Group 1	1
<input type="checkbox"/> Floor Group 10	10
<input type="checkbox"/> Floor Group 2	2
<input type="checkbox"/> Floor Group 3	3
<input type="checkbox"/> Floor Group 4	4
<input type="checkbox"/> Floor Group 5	5

On the right side of the dialog box, there is a table with the following data:

ISS	ID
68.1.10	1
68.1.11	2

Below the table, there are three buttons: Edit Highlighted DEC, Add New DEC, and Delete DEC.

2.10 CONFIGURING THE OTIS READERS

In the *Reader Properties* screen, you must set each reader to be an Otis Elevator Readers and linkeach reader to the desired DEC.

NOTE: You need to coordinate with the Compass System administrator to share your mapping scheme with them.

NOTE: You must have created the DEC's before they will show up in the Reader Properties screen.

NOTE: Galaxy sets a default name for each reader that indicates which controller, DPI Board and section number they are wired to. You can and should rename the reader using a logical name that distinguishes which reader it is in the building – perhaps in relation to its location and which DEC it will be linked to.

1. Open the Reader Properties screen, from menu [Configure > Hardware > Readers](#).
2. Select the Otis cluster name and the OEI Controller name.
3. Select the reader port you want to configure and click EDIT button.
4. You can rename the reader to a logical descriptive name for the Reader.
5. The Reader Type must be Wiegand if the OTIS V3 DEC uses embedded reader (or you can set the ReaderType to the appropriate card format (Wiegand, ABA, etc.) if reader is separate/wired to Galaxy DRM board).
6. On the General tab, set the [Elevator Control Type] to 'OTIS/COMPASS Elevator'.
7. For the [Otis DEC] field, select the DEC you want this reader to be linked to.
 - IF the DEC has the embedded reader, you do not need to provide an IP address for the reader.
 - IF the DEC has a separate reader that is wired to Galaxy DRM, (for controlling a turnstile) then you must provide the IP address of the DEC it is associated with.

Loop: Otis Elevator Loop Control Unit: All Controllers Edit Apply Reports Cancel

Cluster: 001, Cont: 001, Brd: 2, Sect: 1-0 Notes:

Reader Name: Elevator Lobby DEC-1

Reader Type: HID MaxiProx Wiegand Standard

General Timing/Access Rules Relays 2 Settings Alarm Options Passback/Who's In Graphic Symbols Group/Interlock Options CCTV Events Access Rules DVR Camera Settings

☐ Disable Door Forced Open Message
☐ Disable Open Too Long Message
☐ Disable Door Closed Message
☐ Disable Request To Exit Message
☒ Unlock On Request To Exit
☐ Enable Duress
☐ Two Person Rule
☐ Energize Relay1 during Pre-Arm delay
☐ Lock when Door Contact closes
☐ Enable Photo Verification

☐ Time & Attendance Reader
☒ Event Log E-Mail Enabled
☒ Event Log RS-232 & TCP/IP Transmit Enabled
☒ Event Log File Output Enabled
☐ Reader Heartbeat Enabled
☐ Do Not Decrement Limited Swipe Usage Count

Door Supervision: No Supervision Resistors

Elevator Control Type: OTIS/COMPASS Elevator

Select OTIS Elevator DEC: DEC 1 MAIN LOBBY

2.11 CREATING SCHEDULES (for Floor Groups, & Access Groups)

Before you can assign a schedule to an Access Group or a Floor Group, you must create the Time Schedule in the Schedule Programming screen.

IMPORTANT: BEST PRACTICE: Create a separate, schedule for each Floor Group, which is dedicated for use only at that floor group - and not for use at other floor groups or at access groups, etc. Keep you schedules separate.

IMPORTANT: You may want separate schedules for Elevator Access Groups vs. the Access Groups used for interior doors. Planning needs are different for every system, so it is important to carefully consider the demands of your system.

IMPORTANT NOTICES

- All changes to Schedules Programming must be loaded to the Galaxy Elevator Panel using GCS Loader Utility.
- Also you will need to create schedules for cardholders who use interior doors on the appropriate loop/cluster.
- You must create the *schedules* before you can assign them to access groups or the User-defined Floor Groups (i.e. Floor Groups 1-10).
- For Floor Group schedules: green is active (on - supersedes lower groups) and red is inactive (off).
- For Floor Groups: schedules control when the Floor Group settings are in effect at a DEC – i.e. sets the DEC Mode, and controls which floors are Free floors and Authorized floors.
- For Access Group schedules: green is valid (authorized); red indicates is (not authorized at this time).

2.11.1 CREATING A SCHEDULE (for the Elevator Loop)

1. Open the Schedules Properties screen from the menu **Configure > Hardware > Schedules**.
2. Select the Otis Elevator Loop/Cluster name.
3. Click **Add New schedule**.
4. Enter a **descriptive name** for the schedule in the Name field. You may want to designate that the schedule is to be used with a floor group (e.g. by designating the FG #).

Loop: 635 OTIS V3 Elevators

Number: 2 ☐ Order by ID ☒ Order by Name

Schedule Name: General Hours (8 - 5)

Sunday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Monday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

5. Use your mouse to click & drag over the time segments for each day; changing to green or red as you desire.
 - Left-clicking the time capsules will change them to green (active/on; or allowed access)
 - Right-clicking the time capsules will change them to red (inactive/off; or denied access)

TIP: use the COPY feature to speed up programming by copying the setup of one day onto other days.

6. Enable (check) the [Affected By Holidays] option only if the schedule will be affected by a holiday schedule. Then for Holiday Settings, create schedules as they should work on holidays (i.e. all day red, half day green).
7. Click **APPLY** button to save changes.

Loop: Otis Elevator Loop

Number: 3 ☐ Order by ID ☒ Order by Name

Schedule Name: Allowed 8a - 5p

Sunday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Monday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Tuesday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Wednesday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Thursday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Friday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

Saturday: 1 2 3 4 5A6M? 8 9 10 11 1 2 3 4 5P6M? 8 9 10 11 Times

☒ Schedule is affected by holidays

the copy feature allows you to propagate the 'active' times from one day to another

"green" segments = active

when checked, the schedule is affected by holidays

2.12 CONFIGURING THE DEFAULT FLOOR GROUP (0)

The *Default Floor Group* is mandatorily assigned to every DEC (system-wide) and only uses the 'ALWAYS' schedule. Therefore it is important to carefully consider how you configure this floor group.

IMPORTANT NOTICES

- All changes to any Floor Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- The Default Floor Group only use the 'ALWAYS' active (24/7) time schedule. *See the following subsection for more information about the time schedules. It is the lowest ranking floor group and takes effect only when no other floor groups are in effect.*
- The Default Floor Group is always assigned to every DEC (system-wide) and is ALWAYS active and thus it takes effect UNLESS it is superseded by a user-defined floor group (1-10).
- A User-defined Floor Group (1-10) is only calculated if it is actually assigned to a DEC. If assigned it only supersedes the default floor group and any lower number user-defined floor group – and only when its schedule is active (green).
- Optional Floor Groups can override the Default DEC Mode when they become active. The DEC assumes the Mode of the highest number Floor group that is assigned and is active. *See following subsection about Setting Default Operation Mode.*
- Any floor that is enabled (checked) in the default group will always be free at every DEC in the system, unless it is overridden by a user-defined floor group.

1. Open the Otis Elevator Configuration screen, from menu [Configure > Hardware > Otis Elevator](#).
2. Select the Otis cluster name and OEI Board (these should be already selected if your system has only one Otis loop and only one elevator control panel)
3. Click EDIT button.
4. On the right side of the screen, select the 'Default Floor Group'.

The screenshot displays the 'Otis Elevator Configuration' interface. On the left, under 'DEC Properties', there are dropdowns for 'Cluster:' (Otis Elevator Loop), 'Select OEI:' (OEI 1.1.1), and a text field for 'Description:' (OEI 1.1.1). To the right of these are 'Edit', 'Apply', and 'Cancel' buttons. Further right is a 'Reports' dropdown. On the right side, the 'Floor Groups' section includes a 'Select Allowed Access Floor Group:' dropdown (Default Group), an 'Edit Group' button, a 'Select Operational Mode:' dropdown ((Mode 3) User Entry of Destination Floor), a 'Select Allowed Access Schedule:' dropdown (*** ALWAYS ***), and a table with columns 'Floor / Door Description' and 'Floor ...'. A 'Clear' button is at the bottom right of the table.

2.12.1 SETTING THE DEFAULT DEC MODE (System-wide Default)

The *Default Floor Group's DEC Mode* is always assigned to every DEC in the system (system-wide default). The *Default DEC Mode* is the only mode calculated for **every** DEC unless you assign an *Optional Floor Group* with a different mode to every DEC.

IMPORTANT – ‘ALWAYS’ Schedule : The *Default Floor Group (0)* only uses the ‘ALWAYS’ time schedule. In System Galaxy, the ‘ALWAYS’ time schedule is always active (on/green) every day/all day (i.e. 24/7).

- » The *Default Floor Group's* time schedule selection is set to ‘ALWAYS’ and cannot be changed.
- » The ALWAYS Time Schedule cannot be changed or deleted thru the *Time Schedule Programming* screen.

IMPORTANT – DEC Mode Override: Every DEC uses the *Default Mode* until it is overridden by a user defined *Floor Group(1-10)* which must be manually assigned to each DEC as needed. *User-defined Floor Groups* are only in effect when their time schedule is active (green) and only if they are assigned to a DEC.

IMPORTANT: Each DEC assumes the mode of the highest number Floor Group that is active and assigned to it.

1. Set the DEC Mode you wish to function when the Default DEC Mode is in effect. When deciding which mode to use, you should consider how you want every DEC to operate when no other floor groups are active (User-defined Floor Groups supersede the default floor group when their schedule becomes active)..

- **Mode-1 (Default Floor Only):** the DEC will prompt passenger to present a card. A card used in this mode must have a Default Floor assigned to them.
- **Mode-2 (Card 1st Operation):** the DEC will prompt passenger to present a card. A card mode must have a valid access at the time the card is swiped. Then the passenger can select a free or authorized floor.
- **Mode-3 (Floor 1st Operation):** the DEC will prompt passenger to enter a floor number. The passenger can enter a free or authorized floor. If the floor is authorized, the passenger will be prompted to present card.
- **Mode-4 (Present Card & Floor or Get Default Floor):** the DEC will prompt passenger to present a card. The passenger has 6 seconds to select a desired floor (free or authorized) – or – the “default-floor” cardholder can wait for the default floor to be detected. Either type of elevator card will work in this mode.

Floor Groups

Select Allowed Access Floor Group:
 Default Group Edit Group Name

Select Operational Mode:
 (Mode 3) User Entry of Destination Floor

Select Allowed Access Schedule:
 ALWAYS

Floor / Door Description	Floor ...
<input type="checkbox"/> Floor 13 (Main Door)	13
<input type="checkbox"/> Floor 12 (Main Door)	12

Clear All Check All

2.12.2 ADDING MORE DOORS & NEGATIVE FLOORS TO A FLOOR GROUP

If you need to add more doors, floors or negative floors, you must do so in the Otis Elevator Config. screen. With this manual method, each Floor/Door is added individually.

ALSO SEE: [PROGRAMMING THE DEFAULT FLOOR GROUP \(0\)](#)

TIP: You can also delete doors and floors from the Otis Elevator Config. screen as needed. You must be in edit mode and you must highlight the floor name you wish to delete.

1. While in edit mode, click the [Add New Floor] button. The Otis Elevator Floor Properties opens.
2. Enter the floor number you want to add (-127 to 127 is valid)
3. Select whether this floor will have a main door or back door
4. Enter a logical description for this floor/door
5. Click OK and the new floor will be added to the Floor/Door list view.

The screenshot shows the 'OTIS Elevator Floor Properties' dialog box overlaid on the 'Floor Groups' configuration screen. The dialog box has the following fields and options:

- DES: OEI 1.1.1
- DES ID: 1
- Floor ID: 0
- Floor Number: -2
- Description: Floor -2 (LL Freight back door)
- Door Type: ☐ Main Door, ☒ Rear Door

Annotations with orange arrows point to the following fields:

- 'enter floor number' points to the 'Floor Number' field.
- 'choose which door' points to the 'Main Door' and 'Rear Door' radio buttons.
- 'enter a floor name' points to the 'Description' field.

The background 'Floor Groups' screen shows a table with the following data:

Floor / Door Description	Floor ...
<input type="checkbox"/> Floor 13 (Main Door)	13
<input type="checkbox"/> Floor 0 (Main Door)	0
<input type="checkbox"/> Floor -1 (LL-1 back)	-1
<input type="checkbox"/> Floor-1 (LL-1 front)	-1

2.12.3 ENABLING THE DEFAULT FREE FLOORS (System-wide Default for all DEC's)

The *Default Free Floors* are assigned to all DEC's in the system at all times. These floors are never overridden by free floors from higher Optional Floor Groups. Free floors from Optional Floor Groups are added to the *default free floors* only when an Optional Floor Group's schedule is active (green). See the section on configuring Optional Floor Groups in this chapter.

IMPORTANT: Be aware that enabled free floors in the Default Floor Group are **ALWAYS** enabled/assigned to **every DEC in the entire system**, even when an Optional Floor Groups are also in effect.

IMPORTANT: Unassigned and inactive Optional Floor Groups do not add free floors to the DEC(s).

1. Enable the Default Free Floors as needed:

- To enable a free floor, you must 'check' its checkbox

TIP: If there is a front and back door on the elevator floor, you must check the doors you want to be free. Unchecked floor doors are not free.

- If you are using **Mode-3 (Floor 1st Operation)** all DEC's will prompt everyone to enter a floor number. Everyone must enter their destination floor number before needing/presenting an access card unless the DEC Mode is overridden by an Optional Floor Group whose mode is set to Mode-2.

TIP: If all or most of your DEC's need to be in Mode-3 all the time, or by default until overridden by an Optional Group, then it may be advisable to select Mode-3 as your default mode.

2. Click APPLY to save changes.

The screenshot shows the 'Floor Groups' configuration window. It includes dropdown menus for 'Select Allowed Access Floor Group' (set to 'Default Group'), 'Select Operational Mode' (set to '(Mode 3) User Entry of Destination Floor'), and 'Select Allowed Access Schedule' (set to '** ALWAYS **'). There are buttons for 'Edit Group Name', 'Clear All', 'Check All', 'Add New Floor', and 'Delete Highlighted Floor(s)'. A table lists floors from 0 to 13, each with a checkbox and a description. Floors 0 through 6 have their checkboxes checked, while floors 7 through 13 are unchecked. An orange arrow points to the checked checkbox for Floor 4, and an orange banner at the bottom states 'checked doors are free'.

Floor / Door Description	Floor ...	Checked
Floor 13 (Main Door)	13	<input type="checkbox"/>
Floor 12 (Main Door)	12	<input type="checkbox"/>
Floor 11 (Main Door)	11	<input type="checkbox"/>
Floor 10 (Main Door)	10	<input type="checkbox"/>
Floor 9 (Main Door)	9	<input type="checkbox"/>
Floor 8 (Main Door)	8	<input type="checkbox"/>
Floor 7 (Main Door)	7	<input type="checkbox"/>
Floor 6 (Main Door)	6	<input checked="" type="checkbox"/>
Floor 5 (Main Door)	5	<input checked="" type="checkbox"/>
Floor 4 (Main Door)	4	<input checked="" type="checkbox"/>
Floor 3 (Main Door)	3	<input checked="" type="checkbox"/>
Floor 2 (Main Door)	2	<input checked="" type="checkbox"/>
Floor 1 (Main Door)	1	<input checked="" type="checkbox"/>
Floor 0 (Main Door)	0	<input checked="" type="checkbox"/>

2.13 CONFIGURING USER-DEFINED FLOOR GROUPS (1-10)

The Optional Floor Group is can be assigned to any DEC in the system. The DEC assumes the Operating Mode and free floors of the Ranking Active Floor Group (highest number that is assigned and active). So it is important to carefully consider how you configure these floor groups.

User-Defined Floor Groups can be used to:

- temporarily override or change the DEC operating mode at assigned DEC.
- or temporarily add more free floors at assigned DEC.
- Or both (change the mode and add free floors)

You can assign a User-defined *Floor Group* to a any DEC or multiple DEC as needed.

It is also possible to permanently override a DEC Operating Mode if you give the Floor Group the ALWAYS schedule. Likewise, you can permanently add more free floors with this method. Only the DEC assigned to the “perma-override” Floor Group will be affected. Remember not to assign a higher ranking temporary floor group to these DEC unless you truly want to temporarily change the DEC mode and free floors.

IMPORTANT NOTICES & TIPS

- All changes to any Floor Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- Optional Floor Groups (1-10) use the time schedule you create/choose. See the earlier section about time schedules.
- When an Optional Floor Group’s schedule is inactive, its DEC mode is not considered or calculated and its free floors are no longer considered free.
- Each DEC Assumes the DEC Mode of the Ranking Active Floor Group (highest number that is assigned and active).
- Each DEC allows all the free floors from all assigned Floor Groups whose schedules are active.

2.13.1 CHANGING THE NAME OF A USER-DEFINED FLOOR GROUP

It is possible to change the name of a Floor Group to reflect something more logical to your system.

You can assign more than one floor group to a DEC. In this case, the DEC will use the settings of the highest assigned Floor group that is currently active (per the schedule). Lower groups are superseded.

For example: 'Main Entry Mode-3 + Free Flrs', 'Mode3 -Day', 'Mode2-Night', or 'Mode-1 with Turnstile' ~ choose a name that explains the purpose the Floor Group, Mode and when it is scheduled to be in effect (active).

It is advisable to retain the **Floor Group Number** in the naming scheme. You can always tell which groups really supersede other groups ('Mode3-Day - FG1', 'Mode2/Night - FG2') in case you have more than one floor group assigned to a DEC. Remember the system gives precedence to the highest number floor group that is assigned to a DEC and is currently active. The time schedules you assign to the floor group will determine when it is active (green = active; red = not active).

1. Open the Otis Elevator Configuration screen, from menu [Configure > Hardware > Otis Elevator](#).
2. Select the Otis cluster name and OEI Board (these should be already selected if your system has only one Otis loop and only one elevator control panel)
3. Click EDIT button.
4. On the right side of the screen, select the desired 'Floor Group' (1-10).
5. Click [Edit Group Name] to rename the group to a logical name in your system (ex: 'DEC-1 Added Free Floors').

Floor Groups

Select Allowed Access Floor Group:
DEC-1 Addit. Free Floors

Select Operational Mode:
(Mode 2) Access to Authorized Floor(s)

Select Allowed Access Schedule:
NIGHT MODE

edit a floor group name

Floor / Door Description	Floor ...
<input type="checkbox"/> Floor 13 (Main Door)	13
<input type="checkbox"/> Floor 12 (Main Door)	12

Clear All

Check All

2.13.2 CONFIGURING THE USER-DEFINED FLOOR GROUP (SCHEDULE & DEC MODE)

The *DEC Mode* for an *Optional Floor Group* should be assigned with careful consideration since it will override the *Default DEC Mode*. If the *Optional Floor Group's* is assigned to a DEC, the DEC will use the optional DEC Mode when its schedule is active. When the schedule becomes inactive, the DEC will return to the Default DEC Mode.

IMPORTANT NOTICES

- All changes to any DEC Programming must be loaded to the elevator panel using the GCS Loader Utility.
 - You can assign more than one *Optional Floor Group* to a DEC. In that case, the DEC uses the Mode from the Ranking Active Floor Group (highest number floor group that is active).
 - You can also assign an *Optional Floor Group* to more than one DEC. In that case, all the assigned DEC's will use the mode from the Ranking Active Floor Group (highest number floor group that is active).
1. **Select the schedule you want this floor group to operate on.**
 2. **Select the *Default DEC Mode* as desired. When deciding which mode to use, you should consider how you want the assigned DEC to operate when this Floor Groups is the *ranking active group*.**
 - **Mode-1 (Default Floor Only Operation):** the only cards that are valid at the DEC are cards that have a default floor configured in Cardholder screen (see the section how to assign a default floor)
 - **Mode-2 (Card 1st Operation):** the DEC's using this mode will prompt everyone to present a card before they can request a floor number (either an authorized floor or an allowed floor (free floor)).
 - **Mode-3 (User Entry Operation):** the DEC's using this mode anyone can enter a floor number before needing/presenting an access card. The passenger can freely choose any *allowed free floor* or request an authorized floor. If the requested floor is authorized, then the DEC will prompt for a card.
 - **Mode-4 (Combo Mode1/2 Operation (Card + Floor# or Default Floor):** the DEC will prompt everyone to present a card. The cardholder has 6 seconds to select a floor (programmable delay is configurable in the Otis System). A default card will wait the 6 seconds and get the default floor car.

Floor Groups

Select Allowed Access Floor Group:

DEC 1 Edit Group Name

Select Allowed Access Schedule:

(Mode 2) Access to Authorized Floor(s)

NIGHT MODE

set DEC operating mode

set DEC floor group schedule

Floor	Group Name	Rank
<input type="checkbox"/> Floor 12 (Main Door)	12	
<input type="checkbox"/> Floor 11 (Main Door)	11	

Check All Add New Floor

It is also possible to permanently override a Default DEC Mode if you give the Floor Group the ALWAYS schedule. Only the DEC's assigned to the "override" Floor Group will be affected. Remember not to assign a higher ranking temporary floor group unless you truly want to temporarily change it.

2.13.3 ENABLING THE ADDITIONAL FREE FLOORS (Assigned per Floor Group)

The *Additional Free Floors* are only allowed at any DEC that has been assigned to the Optional Floor Group the free floor belongs to. These floors are never overridden by free floors from higher Optional Floor Groups. Free floors from Optional Floor Groups do not override the *default free floors*. *Additional Free Floors* are added to the collection of free floors that are allowed at a DEC only when the Optional Floor Group's schedule is active (green).

IMPORTANT NOTICES

- All changes to any Floor Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- Do not duplicate a free floor that has already been assigned in the Default Floor Group.
- You do not need to duplicate a free floor that has already been assigned in an Optional Floor Group unless you need a different schedule.

1. Enable the Free Floors as needed: by placing a checkmark on the floor number.

- **TIP:** If there is a front and back door on the elevator floor, you must check the doors you want to be free. Unchecked floor doors are not free.

2. Click APPLY to save changes.

Floor Groups

Select Allowed Access Floor Group:
Default Group

Select Operational Mode:
(Mode 3) User Entry of Destination Floor

Select Allowed Access Schedule:
** ALWAYS **

Floor / Door Description	Floor ...
<input type="checkbox"/> Floor 13 (Main Door)	13
<input type="checkbox"/> Floor 12 (Main Door)	12
<input type="checkbox"/> Floor 11 (Main Door)	11
<input type="checkbox"/> Floor 10 (Main Door)	10
<input type="checkbox"/> Floor 9 (Main Door)	9
<input type="checkbox"/> Floor 8 (Main Door)	8
<input type="checkbox"/> Floor 7 (Main Door)	7
<input checked="" type="checkbox"/> Floor 6 (Main Door)	6
<input checked="" type="checkbox"/> Floor 5 (Main Door)	5
<input checked="" type="checkbox"/> Floor 4 (Main Door)	4
<input checked="" type="checkbox"/> Floor 3 (Main Door)	3
<input checked="" type="checkbox"/> Floor 2 (Main Door)	2
<input checked="" type="checkbox"/> Floor 1 (Main Door)	1
<input checked="" type="checkbox"/> Floor 0 (Main Door)	0

Buttons: Clear All, Check All, Add New Floor, Delete Highlighted Floor(s)

"checked" doors are free

2.14 CREATING ACCESS GROUPS (adding Elevator Floors to Access Group)

In the *Access Group Programming* screen, you must create each access group that you will need for the cardholders who use your elevator system.

IMPORTANT NOTICES

- All changes to Access Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- Any schedule you need for the access groups must already be created. If you have not created the time schedules, go to the Schedules screen and make your schedules. Close the Access Group screen to refresh its connection to the available schedules.
- It is recommended you use separate schedules for the elevator access groups than you used for floor groups.
- This way if you must change a schedule for a group of cardholders, you will not interfere with the floor groups.
- Elevator Access Groups must be created under the Otis Elevator Loop in order to provide access to elevator floors and the DEC readers that are mounted in the elevator lobbies.
- You cannot use Elevator Access Groups to give card access to interior doors, since Access Groups are loop-wide.
- Interior Door Access Groups must be created given privileges to the interior doors that the card needs to open.

2.14.1 CREATING AN ACCESS GROUP (Loop-wide)

1. Open the Access Group screen from the menu [Configure > Cards > Access Groups](#).
2. Select the Otis Elevator Loop/Cluster name.
3. Click Add New schedule.
4. Enter a *descriptive name* for the access group in the Name field. You may want to indicate which cardholder group and which schedule are represented [i.e. Floors 2-6 (8-5); Apex Offices 7a-7p; Building Maint. 6-9pm;]
5. (optional) Set the date and time the access group is to become active and/or expire only if the accessgroup will not be used immediately or will only be used for a certain length of time.
6. Do not check the Disable Access Group option (this option disables the access group and all its cardholders).

The screenshot displays the 'Access Group Programming' interface. On the left, there are labels for 'Loop:', 'Number:', 'Name:', 'Crisis Mode:', 'Activation Date & Time:', and 'Expiration Date & Time:'. The 'Loop:' dropdown is set to 'Otis Elevator Loop'. The 'Number:' field contains '1'. The 'Name:' field contains 'ALL FLOORS SEC'. The 'Crisis Mode:' dropdown is set to '** NO ACCESS GROUP **'. The 'Activation Date & Time:' field shows a calendar icon, a time field set to '12:00:00 AM', and a checkbox for 'Access Group Disabled'. The 'Expiration Date & Time:' field shows a calendar icon, a time field set to '11:59:59 PM', and the same 'Access Group Disabled' checkbox. On the right side, there are buttons for 'Add New', 'Delete', 'Edit', 'Apply', and 'Cancel'. A 'Reports' dropdown menu is also visible.

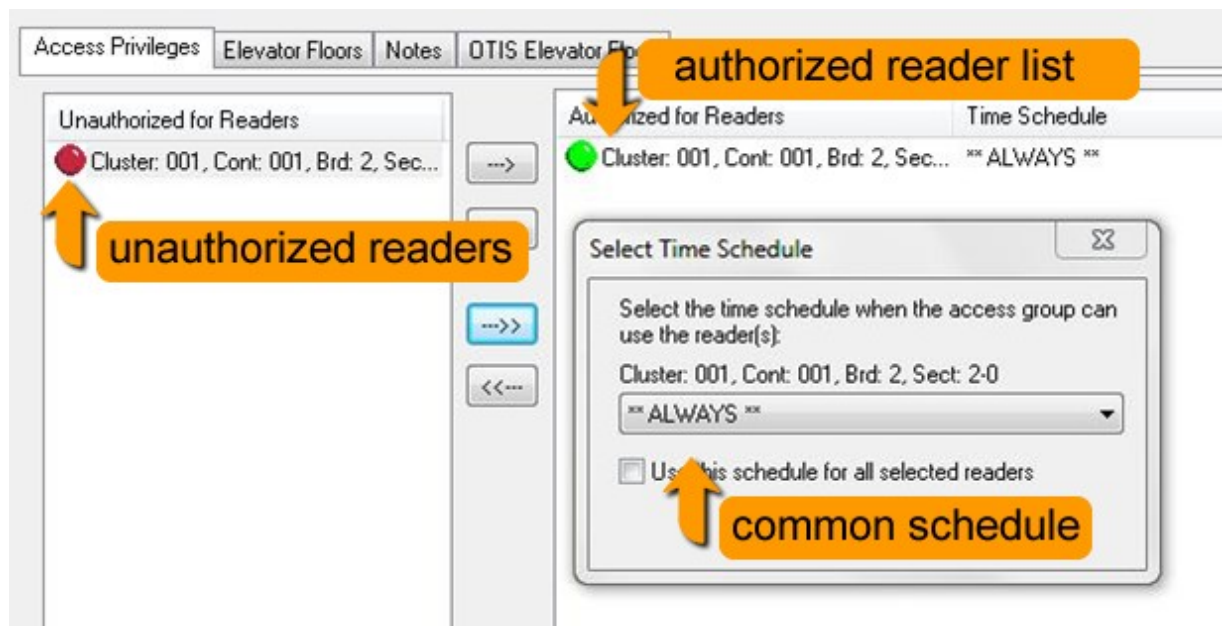
2.14.2 ADDING AUTHORIZED DEC READERS & TIME SCHEDULES (for Cardholder access)

On the *Access Privileges* tab there is a list of 'Unauthorized Readers' (with red icons) that are available on the elevator loop/cluster. Readers on an *interior door loop* will not appear on the *elevator loop*.

IMPORTANT NOTICES

- All changes to Access Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- Cardholders who need access to their interior doors once they reach their approved floor, will require a second access group to be created on the appropriate loop with the correct time schedules for those doors.
- Interior door schedules and access groups must be made under the loop/cluster that controls interior doors.
- If you have not given logical names to the DEC readers, you may want to do that before you proceed. Close and reopen the Access Group programming screen to pick up your changes. Then restart these steps to ensure proper programming.

1. Select the Access Privileges tab.
2. Using your mouse and the keyboard <Ctrl> key, select each DEC reader needed.
3. Click the [→] button to place the selected reader in the 'Authorized Reader' list. The Time Schedule dialog window will open to allow you to choose the schedule used for this person's access.
4. Choose the Schedule you want to give to the first reader in the list.
5. Set the [Use this schedule for all readers] option as needed:
 - Checking/enabling this option gives the chosen schedule to all the readers you have selected.
 - Unchecking this option will cause the software to prompt you to choose a schedule for each reader you are adding.
 - NOTE: you can also simply add the readers one-at-a-time if you find that less confusing.
 - will take this schedule unless you edit them individually (covered in a following step)



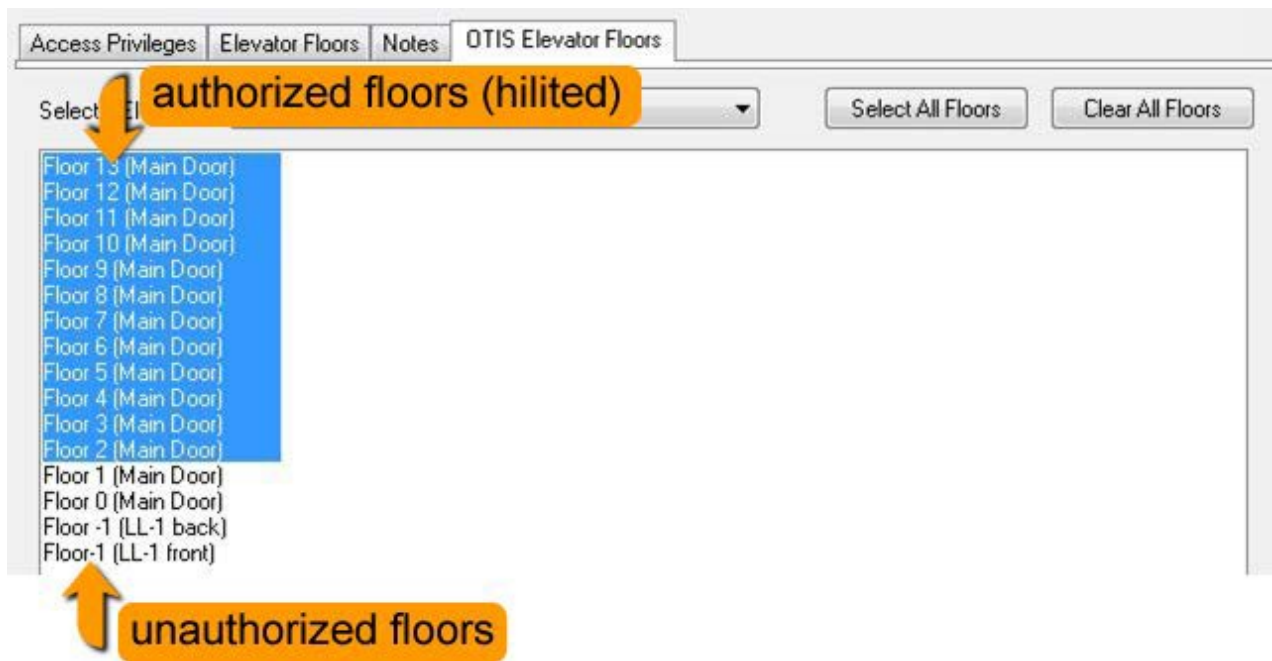
2.14.3 ADDING AUTHORIZED ELEVATOR FLOORS (for Cardholder access)

On the *Otis Elevator Floors* tab there is a list of Elevator Floors that are unselected (no blue highlights). These are available floors on the elevator loop/cluster. This tab does not appear on an *interior door loop*.

IMPORTANT NOTICES

- All changes to Access Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- You must give access to the elevator floors the cardholder needs to access.
- If you have not given logical names to the Elevator Floors, you may want to do that before you proceed. Close and reopen the Access Group programming screen to pick up your changes. Then restart these steps to ensure proper programming.
- If you have not finished adding any elevator floors that were not dynamically created when the elevator controller was added, then you should go do that before you proceed. Again you must refresh the Access Group screen by closing and reopening it to pick up the new floors.

1. Select the OTIS Elevator Floors tab.
2. Select the OEI Board – there should be one.
3. Using your mouse and the keyboard <Ctrl> key, select each Elevator Floor as needed.
 - a. Selected floors are highlighted blue
 - b. Unselected floors are not highlighted
4. Click APPLY button to save changes now unless you want to add notes before saving (see next section).



2.14.4 ADDING NOTES TO THE ELEVATOR ACCESS GROUP

On the *Notes tab* there is a text field provided that allows the system administrator to enter notes about the access group. This is a good place to save any pertinent information about this access group. For organizational purposes it is a good idea to place notes in the Elevator Access Groups that help you understand who uses this group and how to manage the group.

Likewise, it is a good idea to include notes on access groups for your interior door groups when you create them.

IMPORTANT NOTICES

- All changes to Access Group Programming must be loaded to the elevator panel using the GCS Loader Utility.
- Notes are optional and do not affect the functionality of the access group.

1. Select the Notes tab and enter information as desired.
2. Click APPLY button to save changes.



The screenshot shows a software interface with four tabs: 'Access Privileges', 'Elevator Floors', 'Notes', and 'OTIS Elevator Floors'. The 'Notes' tab is selected. Below the tabs, there is a section labeled 'Notes:' containing a text area with the text 'This access group is to be used for the Building Security Personnel.' and a vertical scrollbar. Below this, there is a section labeled 'Comments:' with an empty text area and a vertical scrollbar.

2.15 ASSIGNING ACCESS GROUPS TO CARDHOLDERS (for Elevator Floors)

In the Cardholder Programming screen, you must create a cardholder record and assign an access card with access privileges for the elevator readers & floors and any interior doors needed.

Consult the System Galaxy Software User Guide for any cardholder programming instructions that are outside the scope of this Otis Elevator interface document.

IMPORTANT NOTICES

- All changes to Cardholder Programming must be loaded to the elevator panel using the GCS Loader Utility.
- You can apply the elevator access privileges and interior door access privileges to the same card. But you can supply separate cards if you desire to manage cards that way.
- SG supports multiple access groups (up to 4 per loop) on the access card
- SG supports multiple loop privileges on one access card.
- SG support giving multiple access cards to one cardholder, if you desire to provide multiple credentials.

2.15.1 ADDING A NEW CARDHOLDER

1. Open the Cardholder screen from the menu [Configure > Cards > Cardholder](#).
2. If you are adding a new cardholder record, click **Add New**.
 - You must provide a last name for a new cardholder
 - Fill in and set any fields needed.
3. --OR --Select the Cardholder name if it already exists in the system and click **EDIT**.



2.15.2 ADDING A NEW CARD

1. Select the Card / Badge Settings tab
2. Select the CARD 1 from the droplist
3. Set the correct Card Technology that you will issue to the cardholder
4. Type in the Card Code in the fields provided. (if you have an enrollment reader you can simply place your mouse cursor inside the ID code field by clicking it in the field – when the blinking cursor is inside the ID code field, you can swipe the card at the enrollment reader. The code will auto-populate in the card code fields)
5. choose 'access card' for the card role
6. (optional) set the active date and expiration date as needed.

The screenshot displays a software interface for managing cards. At the top, there is a 'Select Card' dropdown menu currently set to 'Card 1', with 'Add New' and 'Delete' buttons to its right. The interface is divided into two main panels: 'Card Data' on the left and 'Card Options' on the right. The 'Card Data' panel includes a 'Card Description' text field with 'Card 1' entered, a 'Card Technology' dropdown menu set to '26 Bit Wiegand', a 'Facility Code' text field with '22', an 'ID Code' text field with '34678', a 'PIN /' text field, and a 'Card Role' dropdown menu set to 'Access Control'. The 'Card Options' panel contains several checkboxes: 'Card Disabled', 'Card Reversed', 'PIN Exempt', 'Duress Enabled', 'Passback Exempt', and 'Active Date'. Below these checkboxes is an 'Active Date' field showing '3/ 1/2012' with a calendar icon, and an 'Expire Date' dropdown menu set to 'No Expiration'.

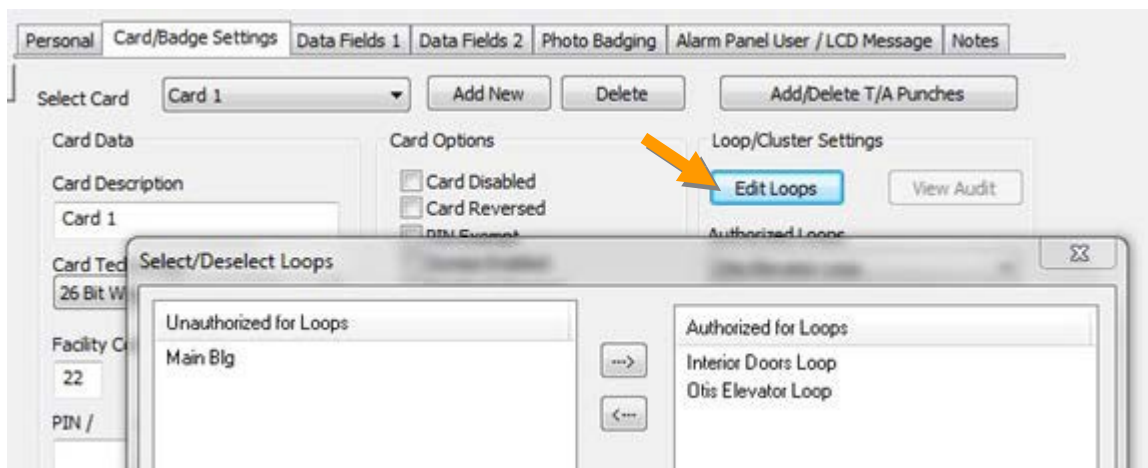
2.15.3 ASSIGNING LOOP PRIVILEGES TO THE CARDHOLDER

In the *Cardholder Programming* screen you must assign the Elevator Loop Privileges to the card. This is done on the Card/Badge Settings tab.

IMPORTANT NOTICES

- All changes to Cardholder Programming must be loaded to the elevator panel using the GCS Loader Utility.
- You must assign the Elevator Loop to the access card.
- You must assign the appropriate elevator access group to the access card.
- You can assign the interior door loops and access privileges to the same card or to a separate card, whichever is appropriate for your system.

1. once you have the basic information entered you can set the loop privileges
2. Select the Card / Badge Settings tab
3. Click the EDIT LOOPS button
4. Use the [→] button to move the elevator loop to the 'Authorized Loops' list. If you also want to assign the interior door loops to the same card, you can do that now. If you need to enroll a separate card for interior doors, then return to step 4 to do this after you are finished programming Card 1.
5. Click OK to return to the Card / badge Settings screen.



2.15.4 ASSIGNING ACCESS GROUPS TO THE CARD

In the *Card/Badge Settings tab* , you must assign the elevator Access Groups to the card.

IMPORTANT NOTICES

- All changes to Cardholder Programming must be loaded to the elevator panel using the GCS Loader Utility.
- You must assign the Elevator Loop to the access card before you can add the access groups.

After you have assigned the loop privileges, you can assign Access Groups to this card ...

1. begin by selecting the Elevator Loop Name.
2. use the four Access Group droplists to set access groups for this card. You can set up to four access groups. Personal Door programming is not supported for elevator loops.
3. If you are also setting interior door access you can now select that loop and then set the access groups for it. Again you can set up to four Access Groups for this loop. Personal Door programming is supported for interior door loops. Consult the SG 10 Software User Guide for details on how to program personal doors.

The screenshot displays the 'Loop/Cluster Settings' window. At the top, there are two buttons: 'Edit Loops' and 'View Audit'. Below these, the 'Authorized Loops' section features a dropdown menu currently set to 'Otis Elevator Loop', with an orange arrow pointing to it. Underneath is the 'Access Profile' section with an empty dropdown. The 'Select Access Groups' section contains four dropdown menus. The first is set to 'Otis all doors / FL 1-6', also indicated by an orange arrow. The remaining three dropdowns are all set to '** NO ACCESS GROUP **'.

2.15.5 ASSIGNING A DEFAULT FLOOR TO THE CARD

In the *Card/Badge Settings* tab, you can assign a default floor to the card. This is done whenever the card needs to be used at a DEC that is in Mode-1 or Mode-4

IMPORTANT NOTICES

- All changes to Cardholder Programming must be loaded to the elevator panel using the GCS Loader Utility.
- When the user presents a 'default floor' card to a DEC that is in Mode-1, the system dispatches a car to take the passenger to the assigned default floor. The cardholder doesn't enter any floor number.
- When the user presents a 'default floor' card to a DEC that is in Mode-4, the system waits for the allotted time out and then dispatches a car to take the passenger to the default floor only if the user didn't enter a floor during the designated time out (6 seconds/programmable in the Otis equipment) . The cardholder can enter a floor number if they want to, or just go to the default floor.

1. In this case you will use the *fourth access group* to select the default floor setting.

2. Then you will select the exact floor number that you want to assign to the card.

The screenshot displays the 'Card/Badge Settings' window. The 'Card Data' section includes fields for Card Description (Card 1), Card Technology (26 Bit Wiegand), Facility Code (96), ID Code (9101), PIN, and Card Role (Access Control). The 'Card Options' section has checkboxes for Card Disabled, Card Reversed, PIN Exempt, Duress Enabled, Passback Exempt, and Active Date, along with an Expire Date field (6/29/2016). The 'Loop/Cluster Settings' section includes a dropdown for Authorized Loops (635 OTIS V3 Elevators) and a dropdown for Access Profile. The 'Select Access Groups' section shows four groups, with the fourth group set to '** OTIS Elevator Default Floor **'. A dropdown menu for 'Select Default Floor' is open, showing a list of floors from 5 to 12, with 'Floor 8 (Main Door)' selected. An orange arrow points to the 'Select Default Floor' dropdown, and another orange arrow points to the 'Floor 8 (Main Door)' option in the list.

2.15.6 ASSIGNING OTIS 'SPECIAL DESTINATION FEATURES'

On the *Personal tab* you can enable the Otis Special Destination Features for a cardholder. These features are represented by checkbox options, which are cardholder-specific.

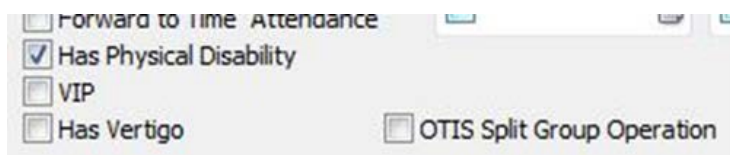
Otis Compass™ System must be specifically configured to recognize these Special Destination Features and respond to them by providing the appropriate passenger accommodation.

System Galaxy passes the special feature indicator to the Otis System when the card is presented at a DEC Reader (i.e. elevator reader). When these features are unchecked the indicators are not passed by SystemGalaxy.

SPECIAL DESTINATION FEATURES ARE SUPPORTED BY GALAXY:

Physical Disability:	When checked, this indicates the cardholder has a disability. The Otis system recognizes this indicator and can be set up to provide special accommodations (such as dispatch an adjacent car, extended time to board an elevator car, provide audible announcements at each floor).
Vertigo:	When checked, this indicates the cardholder experiences vertigo. The Otis system can be set up to accommodate this passenger by not dispatching them to a glass elevator.
VIP option:	When checked, this indicates the cardholder is a VIP. The Otis system can be set up to dispatch an empty elevator car that runs non-stop to the destination floor.
Split Group:	When checked, this indicates the cardholder belongs to a split group. The Otis system is set up to recognize this person as belonging to a separate group of passengers who use separate elevator cars that are not used by the general population, (such as service elevators where technical or service staff do not mix with regular guests).

1. Select the *Personal tab* and locate the special flags in the middle part of the screen under the main photograph.
2. Check the appropriate flag for the cardholder



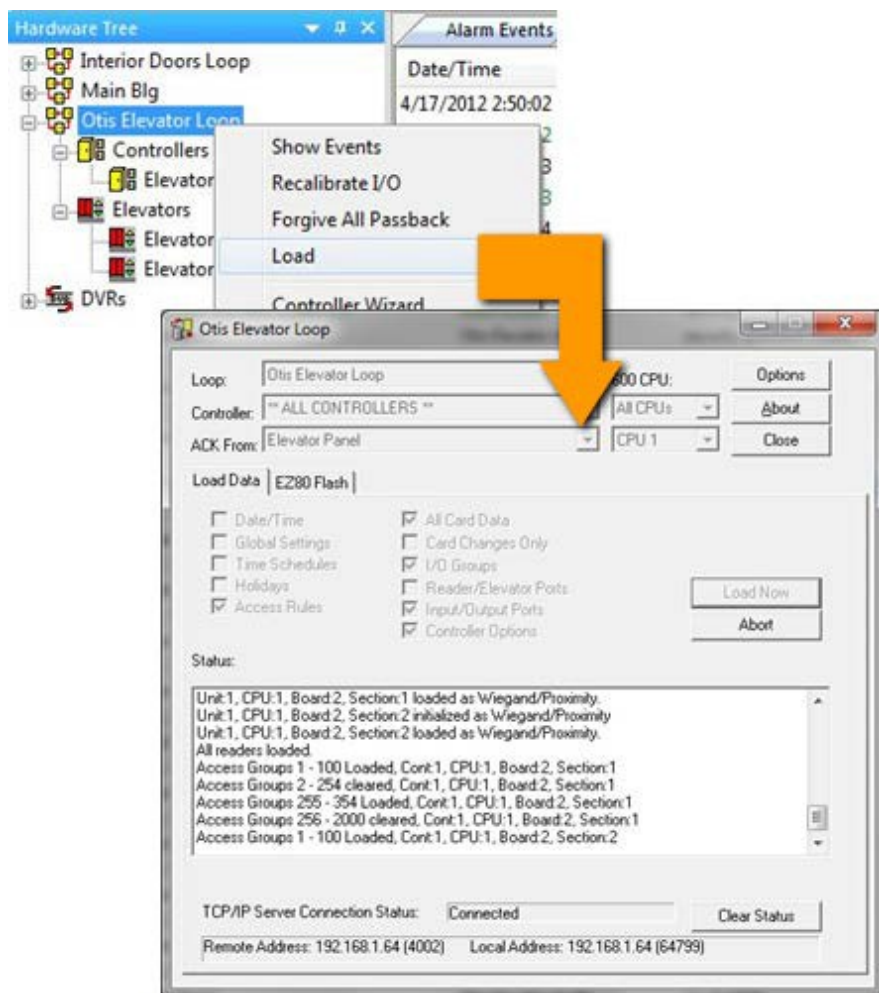
3 EVENT LOGGING AND REPORTS

This section covers the operational tasks, such as event logging and reports.

3.1 LOADING THE ELEVATOR PANEL

After you have completed the system programming, you must load the data to the elevator control panel. Data is loaded using the GCS Loader Utility. When you perform a load, the time, schedules, access groups, cards, floors, DECs, Floor Groups and other data is transmitted to the control panel and stored in the panel's memory.

1. Open the System Galaxy Hardware Tree from the menu [View > Hardware Tree](#).
2. Right click on the *Loop icon* for the Otis Elevator Loop.
3. Select LOAD from the context menu. The GCS Load Utility will open.



3.2 SYSTEM GALAXY ELEVATOR EVENTS

System Galaxy displays the elevator events in the *Event Logging screen for the elevator loop*. The following events that are logged from the elevator panel.

1. **Invalid Access Attempt** – is logged when a card is not authorized because the schedule is inactive or the card has not been assigned to an elevator access group that has permissions to use the DEC Reader that the event came from. The reader name is indicated along with the event
2. **Otis Audit – Invalid Credential Received from Security System** : this is the accompanying Otis event for the Invalid Access Attempt. It may indicate which floor/door was requested.
3. **Valid Access** - is logged when a card is authorized because the scheduled is active and the card is assigned to an access group that has permission to use that reader.
4. **Otis Audit – Bank #, Car # assigned** : this is the accompanying Otis event for the Valid Access event. It indicates which floor# was requested and which elevator Bank and Car # was dispatched. It is up to the passenger to board the correct elevator car and exit on the correct floor.
5. **Otis Audit – Destination Request not authorized** : this is the accompanying Otis event for a Valid Access event when the reader is not assigned to the cardholder's access group.
6. **FREE FLOORS** do not generate an event log to the panel from the Otis System. The Galaxy Panel does not log a card event because no card is used to request a free floor.

IMPORTANT NOTICES

- If the IP connection between the control panel and the event server are interrupted, the panel will remain fully functional (i.e. does not go into a degraded operating mode). The panel continues to function as programmed.
- The panel will retransmit its event buffer when the IP connection is restored.
- If you close the System Galaxy software or log out of System Galaxy or out of the Windows operating system (change operators), the event service and other Galaxy services are designed to continue running. Events continue logging to the database and are then available on system event reports.
- If you turn off (shut down) the computer running the Galaxy services, the elevator panel will remain fully functional (i.e. does not go into a degraded operating mode). The panel continues to function as programmed. The panel will retransmit its event buffer when the IP connection is restored.

Alarm Events - Otis Elevator Loop - X					
Date/Time	Device/Point	Event	User	Loop	PIN / Additional Inform...
4/17/2012 2:50:02 PM	Floor 8 (Main Door)	Otis Elevator Audit	security gramlich (Card 2)	Otis Elevator Loop	Bank A, Car 5 assigned
4/17/2012 2:50:02 PM	Cluster: 001, Cont: 001, Brd: 2, Sect: 2-0	Valid Access	security gramlich (Card 2)	Otis Elevator Loop	
4/17/2012 2:49:53 PM	Floor 7 (Main Door)	Otis Elevator Audit	security gramlich (Card 2)	Otis Elevator Loop	Bank A, Car 1 assigned
4/17/2012 2:49:53 PM	Cluster: 001, Cont: 001, Brd: 2, Sect: 2-0	Valid Access	security gramlich (Card 2)	Otis Elevator Loop	
4/17/2012 2:48:54 PM	Floor 0 (Main Door)	Otis Elevator Audit	lee lesley (Card 1)	Otis Elevator Loop	Invalid Credential Receive...
4/17/2012 2:48:54 PM	Cluster: 001, Cont: 001, Brd: 2, Sect: 2-0	Invalid Access Attempt	lee lesley (Card 1)	Otis Elevator Loop	
4/17/2012 2:48:43 PM	Floor 0 (Main Door)	Otis Elevator Audit	lee lesley (Card 1)	Otis Elevator Loop	Invalid Credential Receive...
4/17/2012 2:48:43 PM	Cluster: 001, Cont: 001, Brd: 2, Sect: 2-0	Invalid Access Attempt	lee lesley (Card 1)	Otis Elevator Loop	
4/17/2012 2:48:09 PM	Floor 12 (Main Door)	Otis Elevator Audit	lee lesley (Card 1)	Otis Elevator Loop	Bank A, Car 7 assigned
4/17/2012 2:48:08 PM	Cluster: 001, Cont: 001, Brd: 2, Sect: 1-0	Valid Access	lee lesley (Card 1)	Otis Elevator Loop	
4/17/2012 2:47:57 PM	Floor 10 (Main Door)	Otis Elevator Audit	lee lesley (Card 1)	Otis Elevator Loop	Bank A, Car 7 assigned

3.3 SYSTEM GALAXY ELEVATOR AUDIT REPORT

The Elevator Activity Report contains the logs from the elevator loop. The report is generated from the Otis Elevator Configuration screen. The same events are on this report as are logged in the Event screen. Free floors do not appear on this report since no card was used to gain access.

- **Invalid Access Attempt** – is logged when a card is not authorized because the schedule is inactive or the card has not been assigned to an elevator access group that has permissions to use the DEC Reader that the event came from. The reader name is indicated along with the event
- **Otis Audit – Invalid Credential Received from Security System: this is the accompanying Otis event for the Invalid Access Attempt. It may indicate which floor/door was requested.**
- **Valid Access** - is logged when a card is authorized because the scheduled is active and the card is assigned to an access group that has permission to use that reader.
- **Otis Audit – Bank #, Car # assigned:** this is the accompanying Otis event for the Valid Access event. It indicates which floor# was requested and which elevator Bank and Car # was dispatched. It is up to the passenger to board the correct elevator car and exit on the correct floor.
- **Otis Audit – Destination Request not authorized: this is the accompanying Otis event for a Valid Access event when the reader is not assigned to the cardholder's access group.**
- **FREE FLOORS** do not generate an event log to the panel from the Otis System. The Galaxy Panel does not log a card event because no card is used to request a free floor.

1. Open the Otis Elevator Configuration screen, from menu [Configure > Hardware > Otis Elevator](#).
2. Click REPORT button (TOP RIGHT CORNER).
3. Select the date & time range you want to view.
4. Click OK – the report will open in a separate Crystal Report window and can be printed or saved.

OTIS Elevator Activity			
			4/20/2012 3:38:20PM
Date Time	Person	Floor Requested	Additional Information
4/16/2012 1:17:08PM	security, gramlich	Floor 3 (Main Door)	Group 1, Car 2 assigned
4/16/2012 1:17:35PM	security, gramlich	Floor 7 (Main Door)	Group 1, Car 2 assigned
4/16/2012 1:17:43PM	security, gramlich	Floor 8 (Main Door)	Group 1, Car 2 assigned
4/16/2012 4:34:00PM	security, gramlich	Floor 3 (Main Door)	Group 1, Car 8 assigned
4/16/2012 4:37:06PM	security, gramlich	Floor 0 (Main Door)	Invalid Credential Received from Security System
4/16/2012 4:37:11PM	security, gramlich	Floor 0 (Main Door)	Invalid Credential Received from Security System
4/16/2012 4:37:14PM	security, gramlich	Floor 0 (Main Door)	Timeout Occurred, DEC Timed-Out waiting for Destination Request entry
4/16/2012 4:37:22PM	security, gramlich	Floor 0 (Main Door)	Invalid Credential Received from Security System
4/16/2012 4:42:08PM	security, gramlich	Floor 7 (Main Door)	Group 1, Car 1 assigned

4 Additional Troubleshooting, Resources, & Glossary

This chapter includes troubleshooting tips, resources and glossary. See chapter 1 for the Requirements and some Trouble shooting techniques listed for interrogating boards.

4.1 TROUBLESHOOTING

You can find out which DECS are online by interrogating the OEI board with special commands. To determine what DECS are listed at the OEI Board and their online status, you can use a terminal emulator to issue an “online” command and a “rows” command.

4.1.1 GALAXY OEI UPDATE MESSAGES TO OTIS SYSTEM & DECS

There are three times the **OEI Board** sends an update message to the Otis System. The update includes the DEC Operating Mode, the Operating Schedule, and the Public List of Floors(allowed).

1. A message is sent any time the OEI negotiates a connection to the Otis System. This occurs whenever the OEI board comes online, or when the Otis DES comes online.
2. A message is sent once per second for each DEC that is ‘pending’ an update. The OEI gets these pending updates from the CPU whenever a change occurs to a floor group. Floor Group updates happens for the following reasons.
 - a) Changes are made in the software programming of the floor group and loaded to the CPU.
 - b) When an existing floor group schedule becomes active or inactive.
3. A message is sent whenever a card authorization is issued from Galaxy. The authorization or denial is sent along with floor group programming up dates.

4.1.2 GET A LIST OF DECS AT THE OEI BOARD

IMPORTANT NOTES

- When the OEI board is connected to the network, the DES/DER will send the list of DECs and their configuration to the OEI. System Galaxy also sends its list of DECs and the floor group configuration to the OEI board.
- If a DEC goes offline after it was sent to the OEI, it will remain in the OEI list, but its status will change to 'OFFLINE'.
- If a DEC is programmed in Galaxy (and loaded to the panel), but is not present in the Otis configuration, then the DEC will be listed with an 'offline' status.

The **online command** will return the list of DECs that the OEI Board is communicating with through the Otis Compass System. If a DEC doesn't seem to be responding to the access control system or does not update its floor groups or DEC operating modes, you can query the DEC list to prove the OEI knows about the DECs. use a terminalemulator, such as Putty or HyperTerminal to issue the *online* command.

1. Connect one end of the Galaxy *hardware programming cable* to the OEI Board's 9-pin serial port.
2. Connect the other end to the PC's COM port (serial port).
3. And start the terminal emulator as appropriate and set up the connection parameters.
 - Bits per Second = 57,600K
 - Data Bits = 8
 - Parity = None
 - Stop Bits = 1
 - Flow Control = None
4. Type 'online' (without the quote marks) into the emulator window.
5. The Galaxy OEI Board will list every DEC that it knows about.
 - The DEC number/name, its IP Address, its assigned DEC Operating Mode, as well as its last known status (online vs. offline) will be displayed.
6. If a DEC is listed as 'offline' it could be because it has lost its network connectivity. Make sure the DEC is actually configured in the Otis System and is properly connected to the Otis system.

4.1.3 GET A LIST OF FLOOR GROUPS AT THE OEI BOARD

The **rows** command will return the list of Floor Groups that the OEI Board knows about. The Floor Groups are given a DEC Mode and the free floors are enabled as needed. If a DEC doesn't seem to be responding to the free floors or DEC operating modes, you can query the Floor Group List to prove whether the OEI knows about the Floor Groups. Use a terminal emulator, such as Putty or HyperTerminal to issue the *rows* command.

1. Connect one end of the Galaxy *hardware programming cable* to the OEI Board's 9-pin serial port.
2. Connect the other end to the PC's COM port (serial port).
3. Start the terminal emulator as appropriate and set up the connection parameters.
 - Bits per Second = 57,600K
 - Data Bits = 8
 - Parity = None
 - Stop Bits = 1
 - Flow Control = None
4. Type 'rows' (without the quote marks) into the emulator window.
5. The Galaxy OEI Board will return a list every Floor Group 0 and 1 thru 10.
 - The Floor Group number
 - The DEC Operating Mode assigned to the floor group
 - The free floors that are assigned to the floor group. The floors that are assigned free will be designated with an "A" for allowed. Floors that require authorization do not have a letter designation.

4.2 ADDITIONAL DOCUMENTATION RESOURCES

Title	Scope of Information
Galaxy 635 Hardware Manual	<i>Installation and configuration of Galaxy 600-635 Hardware</i>
System Galaxy v10 Software User Guide	<i>Configuration of System Galaxy software</i>
System Galaxy v10 System Specification	<i>System, OS, PC, Network requirements, etc.</i>
Galaxy 635 Configuration Tool	<i>How to install and use the browser-based configuration tool to configure hardware boards in the 635 panel.</i>

4.3 GLOSSARY (TERMS & ACRONYMS)

Allowed Floors (free access)	Elevator floors that are allowed free-access (e.g. free floors to general public); no access card required to dispatch an elevator car. Free floors are defined in the floor group programming.
Audit Message (Otis)	Otis event messages come back to SG. They include the cardholder identity, which floor was requested and which elevator car was dispatched by Otis. <i>Floor requests and car dispatches for free floors are not logged to System Galaxy.</i>
Authorized Floors (aka. restricted floors)	All floors are treated as authorized floors unless they are designated to be a free floor. Floors that require a passenger to present valid access credentials (card).
DEC (Otis)	(Destination Entry Computer); the Otis DEC is a keypad (push button or touch- screen) that is mounted in the elevator lobby. It allows a passenger to select a floor number from outside the elevator car and displays the <i>most-appropriate</i> car number for the person to board.
DEC Mode-1 (Otis)	(Default Floor Mode - DEC is restricted to “default floor cards only”) Users must present valid ‘Default Floor Card’ at the DEC reader – no floor selection is needed. NOTE: Once a default floor card is presented, an elevator car is dispatched.
DEC Mode-2 (Otis)	(Card 1st Mode - DEC keypad is restricted – i.e. “authorized occupants only”) Users must present valid credentials at the DEC reader before choosing a floor number. NOTE: The card must be valid in the Galaxy OEI Panel (i.e. have access to a floor through Galaxy cardholder access group rules). Once a card is presented and a floor number (free or valid) is chosen, an elevator car is dispatched.
DEC Mode-3 (Otis)	(Floor 1st Mode - DEC keypad open to public) User chooses a floor number at a DEC keypad before presenting an access card. An elevator car is dispatched if the floor is free. If the floor is restricted to authorization, the DEC will prompt user for card.
DEC Mode-4 (Otis)	(Floor 1st /or default floor - DEC is restricted to cardholders) User presents a valid card before chooses a floor number. An elevator car is dispatched if the floor is free or if the floor is in the assigned access group 1, 2, or 3. If user waits 6 seconds without selecting a floor, the Otis system dispatches a car to the default floor that is assigned to the card. If no floor is selected and no default floor is assigned to the card, the Otis will not dispatch a car.
Default Floor Card	(Assigned in Galaxy Cardholder Card Settings tab) You can assign a default floor in the 4th access group position for the card. You can assign additional elevator access in the 1st, 2nd, and 3rd Access groups as desired. Works in Modes 1 and 4.
DES / DER (Otis)	(Destination Server/Redirector);. The DES dispatches elevator cars using inputs from Galaxy OEI Board (card access and floor-group programming) to control the DEC.
Destination Features (Otis)	<i>Destination Features</i> are special indicators that identify when a passenger has special transportation needs (i.e. VIP, has a handicap, vertigo, split group, ...). These indicators are set in the Galaxy Cardholder Personal screen.
Floor Group 0, default	Mandatory default floor group, which is always assigned to every DEC in the system.
Floor Group(1-10), optional	Floor Groups (1 - 10) can be optionally assigned to any DEC (or multiple DEC). Floor groups control which DEC Mode is used at a DEC, as well as which (if any) elevator floor/doors are allowed free access.
OEI Panel (Galaxy)	Galaxy <i>elevator control panel</i> that provides elevator access control for Otis system.
OEI Board (Galaxy)	Galaxy ‘Otis Elevator’ Interface Board; connects via Ethernet to Otis Layer-3 switch. The OEI board is a modified CPU board.
SG (Galaxy)	SG acronym for System Galaxy; refers to the hardware or software (as appropriate).