



ACCESS CONTROL TEST PROCEDURE

Access Control Test procedure

Case study : IT company

The company consists of 24 employees (accounts), distributed on four floors: ground, first, second and third floor. Only one account has full access (Manager), other 23 employees have differently defined access times and rules, which will be explained in more detail later in text. In this example, there are 9 employees with access to Sales and Accounting, 2 employees with IT Center and Server Access, 3 employees with IT Center Access, 5 employees with Administration office access (Management), 2 Maintenance workers and 2 Guards.

Different zones are located at different floors. Each zone is created according to door access, therefore 8 doors equals 8 zones, which is shown in Figure 1. The company will be arranged according to Figure 1, Figure 2 and Figure 3.

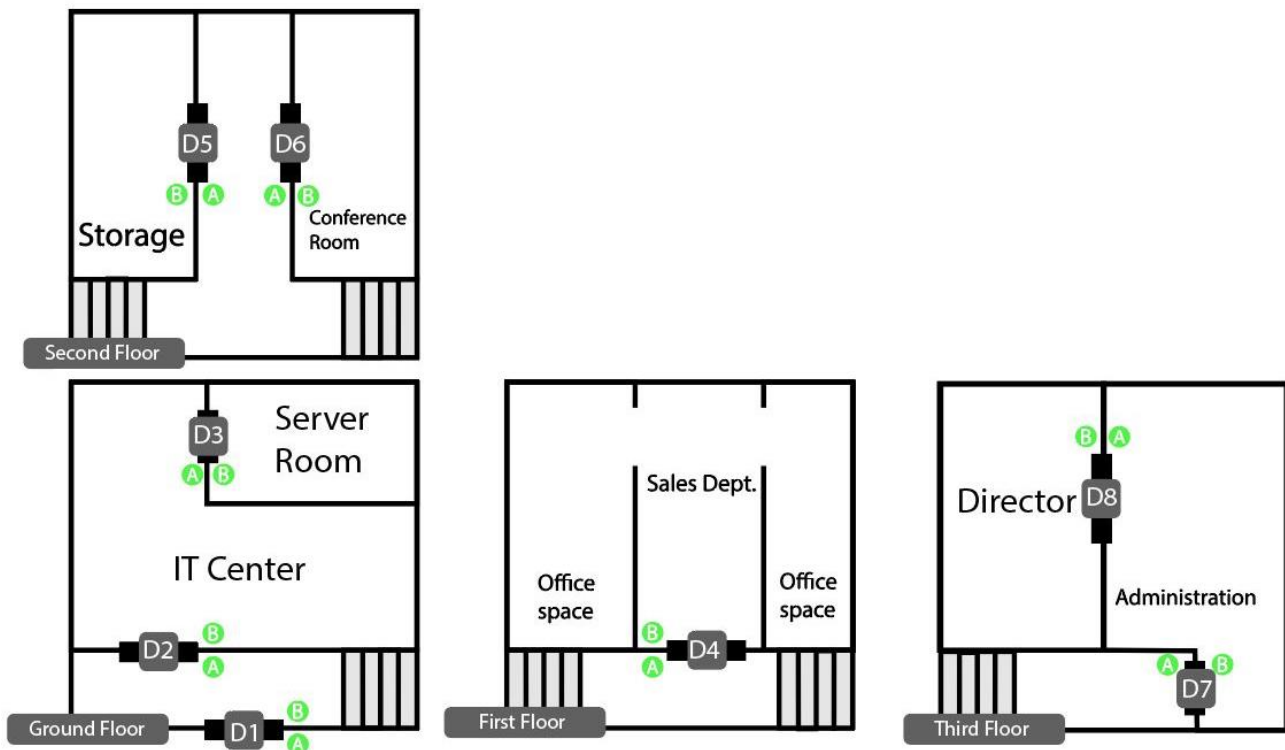


Figure 1 Zones

Monday to Friday Access Rules for Company Employees

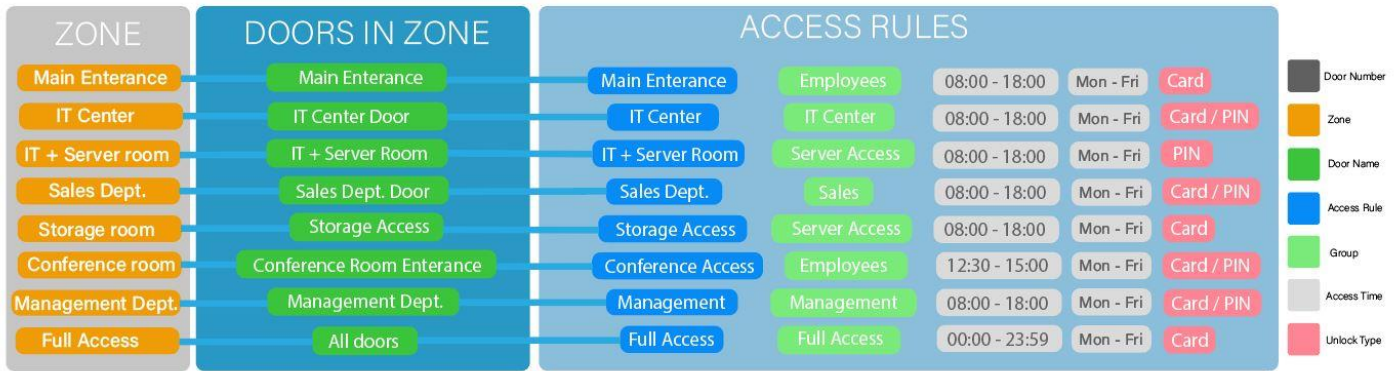


Figure 2 Access rules and times (Monday to Friday)

Monday to Sunday Access Rules for Company Employees

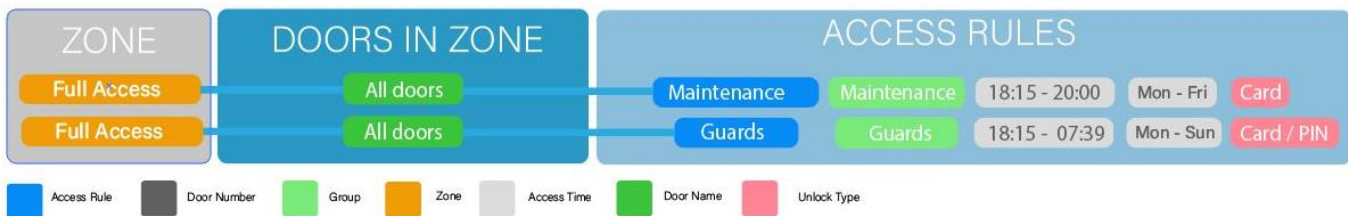


Figure 3 Access rules and times (Monday to Sunday)

Accounts Accounts control panel

#	Username	Email	Name	Groups	Enabled	Account type	PIN	Actions
1	sysadmin	sysadmin@ip-integra.com	System Administrator	Default Group X	sysadmin	System Administrator	Show PIN	
2	daniel.nicolosi.ceo	daniel.nicolosi@company.ceo.com	Daniel Nicolosi	Full access X	<input checked="" type="checkbox"/>	Manager	Show PIN	
3	joel.lau	joel.laurent@company.com	Joel Laurenz	Employees X Sales X Accounting X	<input checked="" type="checkbox"/>	User	Show PIN	
4	rut.dever	rut.devereux@company.com	Rut Devereux	Employees X Sales X Accounting X	<input checked="" type="checkbox"/>	User	Show PIN	
5	agus.dreir		Agus Dreier	Employees X Sales X Accounting X	<input checked="" type="checkbox"/>	User	Show PIN	
6	nereus.b		Nereus Both	Employees X IT Center X Server Access X	<input checked="" type="checkbox"/>	User	Show PIN	
7	priya.hlav	priya.hlavacek@company.com	Priya Hlavacek	Employees X IT Center X	<input checked="" type="checkbox"/>	User	Show PIN	
8	sana.aalder	sana.aalders@company.com	Sana Aalders	Employees X IT Center X	<input checked="" type="checkbox"/>	User	Show PIN	
9	agnese.ly	agnese.lyon@company.com	Agnese Lyon	Employees X IT Center X	<input checked="" type="checkbox"/>	User	Show PIN	

Figure 4 Accounts

After we have created all accounts, we divide them into groups based on the job position (i.e. if Joel Laurent is an accountant and a salesperson, he is included in both the Sales and Accounting Groups).

All the employees can be edited in the Employees group.

Group *Groups control panel*

Groups		Search	+ Add new
#	Name	Accounts	Actions
1	Default Group	sysadmin X	
2	Full access	daniel.nicolosi.ceo X	
3	Employees	joel.lau X rut.dever X agus.dreir X nereus.b X priya.hlav X sana.aalder X agnese.ly X oly.quin X ruben.leroy X avi.mosch X tamara.filip X emese.ber X dimitri.stef X justina.sanchez X alberta.iliev X anzo.stasi X rama.ho X danny.shea X stephen.mcafee X cari.salvatici X tamsyn.simonson X mehrab.kir X judith.te X	
4	Sales	joel.lau X rut.dever X agus.dreir X justina.sanchez X alberta.iliev X anzo.stasi X rama.ho X danny.shea X stephen.mcafee X	
5	Accounting	joel.lau X rut.dever X agus.dreir X justina.sanchez X alberta.iliev X anzo.stasi X rama.ho X danny.shea X stephen.mcafee X	
6	IT Center	nereus.b X priya.hlav X sana.aalder X agnese.ly X oly.quin X	
7	Server Access	nereus.b X oly.quin X	
8	Management	ruben.leroy X avi.mosch X tamara.filip X emese.ber X dimitri.stef X	
9	Maintenance	cari.salvatici X tamsyn.simonson X	
10	Guards	judith.te X mehrab.kir X	

Figure 5 Groups

In the device menu we change the name of each door in order to better describe it (i.e. if it is the door to the server room, we call it the Server Room).

Door	Power	Reader A			Reader B			Zones	Actions
		Type	Keypad	Tamper	Type	Keypad	Tamper		
Main entrance	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	Main Entrance ✗ Full Access ✗	
IT Center door	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	IT Center ✗ IT Center + Server Room ✗ Full Access ✗	
Server Room	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	IT Center + Server Room ✗ Full Access ✗	
Sales Department	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	Sales Dept. ✗ Full Access ✗	

Figure 6 Devices and doors

Door	Power	Reader A			Reader B			Zones	Actions
		Type	Keypad	Tamper	Type	Keypad	Tamper		
Storage room	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	Storage Room ✗ Full Access ✗	
Conference room	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	Conference Room ✗ Full Access ✗	
Management Dept.	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	Management Dept. ✗ Full Access ✗	
Director's office	✓	Wiegand 34	✗	✗	Wiegand 34	✗	✗	Full Access ✗	

Figure 7 Devices and their doors

Now we can configure the zones. For this scenario, we define every access point as its own zone (i.e. the door for Sales Department is in the Sales Dept. zone).

Zones *Zones control panel*

Zones + Add new

#	Name	Doors	Actions
1	Default Zone	Door 1 ✕ Door 2 ✕	
9	Main Entrance	Main entrance ✕	
10	IT Center	IT Center door ✕	
11	IT Center + Server Room	IT Center door ✕ Server Room ✕	
12	Sales Dept.	Sales Department ✕	
13	Storage Room	Storage room ✕	
14	Conference Room	Conference room ✕	
15	Management Dept.	Management Dept. ✕	
16	Full Access	Main entrance ✕ IT Center door ✕ Server Room ✕ Sales Department ✕ Storage room ✕ Conference room ✕ Management Dept. ✕ Director's office ✕	

Figure 8 Zones

Now we must create Access Time for every group, since not all employees can enter every room the at any time (i.e. employees have access to certain doors from 08:00 until 18:00, while guards for example have access from 18:15 until 23:59).

Access Times *Access Times control panel*

Edit access times

Name:

Start Date: Expire Date:

By Week Enabled: By Month Enabled:

Select Weeks: Week 1, Week 2, Week 3, Week 4, Week 5

Select Months: January, February, March, April, May

	01h	03h	05h	07h	09h	11h	13h	15h	17h	19h	21h	23h
Mon +					08:00 - 18:00							
Tue +					08:00 - 18:00							
Wed +					08:00 - 18:00							
Thur +					08:00 - 18:00							
Fri +					08:00 - 18:00							
Sat +												
Sun +												

Figure 9 Employees Access Time

Access Rules *Access Rules control panel*























Access Rules							+ Add new
#	Name	Group	Zone	Time range	Unlock Type	Holiday Enabled	Actions
1	Full Access	Full access	Full Access	Full access	Card or PIN	✓	 
12	IT Center	IT Center	IT Center	Employees (Monday to Friday)	Card or PIN	✓	 
13	IT Center + Server Room	Server Access	IT Center + Server Room	Employees (Monday to Friday)	PIN	✓	 
14	Sales Dept.	Sales	Sales Dept.	Employees (Monday to Friday)	Card or PIN	✓	 
15	Storage Access	Server Access	Storage Room	Employees (Monday to Friday)	Card	✓	 
16	Conference Room	Employees	Conference Room	Conference room access	Card or PIN	✓	 
17	Management	Management	Management Dept.	Employees (Monday to Friday)	Card or PIN	✓	 
18	Maintenance	Maintenance	Full Access	Maintenance workers	Card	✓	 
19	Guards	Guards	Full Access	Guards	Card or PIN	✓	 
20	Main entrance	Employees	Main Entrance	Employees (Monday to Friday)	Card	✓	 
21	Accounting	Accounting	Management Dept.	Employees (Monday to Friday)	Card or PIN	✓	 

Figure 10 Access Rules

There are in total 10 rules, according to the room to which employees must have access to. In case of the Server room access, the employees must have access to the doors of IT Center to get to the Server room, which can be seen from Figure 1.