



cockpit
IT Service Manager

Infrastructure - Machine room and rack management

FAQ document

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Introduction

I. Objectives

- To map datacenters (fire protection elements, furniture, piping, etc.)
- To identify the racks and equipment they contain
- To locate racks and equipment in the datacenters

II. Definitions

Datacenter: Room used to house computer systems and associated components (servers, storage systems, etc.)

Cold zone: Aisle where fresh air arrives (usually by the floor and the front of the servers).

Hot zone: Aisle where the hot air from the servers is evacuated (usually by the back of the servers).

Rack: The rack is the cabinet used to hold hardware and equipment.

[U] Rack unit: The rack unit (U) is the measure commonly used for the height of the equipment (1 U = 1.75 inches = 44.45 mm).

Width [blades]: The server blade is used as the unit to define the width of the racks.

Configuration

I. Datacenters

Menu: Infrastructure > Datacenters > Datacenters

Objective: To map the datacenters

Principle:

- A datacenter represent a room where servers are housed
- The datacenter plan is based on a grid, each square represents one floor slab

Properties:

In the menu to create or edit a datacenter.

Main fields	
Fields	Information
Name (mandatory)	1 to 50 characters
Organization of the axes (mandatory)	Choose whether the letters and numbers will be used on the abscissa (x-axis) or ordinate (y-axis) Each letter or number corresponds to 2 slabs
Number of slabs wide/ high	Set the dimensions of the datacenter by giving the number of slabs for height and width

Setting:

In the menu, click on "Configure" from a datacenter's contextual menu.

The menu consists of 8 tabs; each tab represents a map of the same datacenter with different information:

- Main: contains different types of equipment (furniture, fire equipment, racks, etc.) as well as non-material elements (cold zone, hot zone, etc.)

The other tabs essentially list piping and cables:

- Water entrance
- Water outlet
- Water detection
- Fire detection
- Fire extension
- Air conditioning water feed
- Air conditioning water drain

Operation:

- Select the item to add in the "Legend" section and click on the tiles in the map to indicate its location
- Some items are indicated in all the plans of a datacenter (the exits and the architectural elements)
- Rack location is not supported from this menu, that is in the rack management menu

II. Racks

Menu: Infrastructure > Datacenters > Server racks

Objective: To list and locate racks in the datacenters

Principles:

- A rack is linked to a datacenter
- The composition of a rack is shown by the front panel

Main fields	
Fields	Information
Datacenter (mandatory)	Select the datacenter where the rack is located The datacenters must therefore be created before the racks
Description (mandatory)	1 to 50 characters Two descriptions cannot be identical within the same datacenter
Dimensions / Height [U]	Indicate the height of the rack using rack units By default, the standard value is 42
Dimensions / Width [blades]	Specify the width in number of server blades The default value is 10
Placement	Click on the "Datacenter" button to delineate the location of the rack on the floor plan The location cannot overflow into elements already entered (cold / hot zones, etc.)
Attachment	Associate one (unique) attachment to the rack The file is renamed with the description of the rack and can be consulted from the menu

Note: The "Dimensions" fields indicate the capacity of the rack, its physical size is indicated by the "Location" field.

Setting:

From the menu, click on "Configure" from the context menu of a rack.

The plan presents the front face of the rack in the form of a grid:

- The number of U on the abscissa (x-axis)
- The number of blades on the ordinate (y-axis)
- Select the item to add in the "Legend" section (Disk, Power, etc.) and click on the boxes of the plan to indicate the location
- The location of the equipment is indicated but cannot be changed. Equipment is added from the equipment management menu

Operation:

- From the menu click on the "Locate in the datacenter" button of a rack, the datacenter plan is displayed and the rack is marked in red.
Click on the rack to view the plan and contents.

Click on the equipment to view or modify it.

- From the menu click on the "Display" button of a rack, the rack plan appears.

Click on the equipment to view or modify it.

Usage

Menu: Infrastructure > Equipment > Management

Objective: To reference the locations of the equipment in the racks

Operation:

In the menu, edit a piece of equipment.

In the equipment sheet, go to the "Properties" tab, "Location" section:

Main fields	
Fields	Information
Place	Free text
Datacenter	Select a datacenter, required in order to select a rack
Rack	Select a rack
Location in the rack	Click on the "Rack" button to display the rack plan Click on the boxes of the grid to delimit the location of the equipment then save The location coordinates of the equipment in the rack are entered automatically
Size [U]	Equipment height in U

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