



**PANDORA**FMS  
E N T E R P R I S E

# Learning Guide

## PAT (EN) Technical Course

### Pandora FMS

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## 1. RULES

### 1.1 Requirements

For a better use of the course is necessary to have an intermediate knowledge of networks and Linux systems. We recommend to do previously the course "**NSP (EN): Networks and Systems for Pandora FMS**" in which there is a summary of everything necessary about network administration to be able to understand all the topics and manage Pandora FMS in an efficient way.

### 1.2 General evaluation system

The PAT Course: Pandora FMS Technical course is divided in a theoretical part and a practical part, being necessary to pass the theoretical part only to pass the course.

#### 1.2.1 Theoretical part

The theoretical part of the course comprises the resolution of 15 self-assessments covering each of the course topics, and a final self-assessment covering the entire course.

Topic self-assessments consist of 10 questions per self-assessment, minus Topic 1 which consists of 5 questions, where a minimum grade of 7 will be required to pass. There will be 2 attempts for each self-evaluation to pass it, with a period of 15 minutes to make each of the attempts. Within the attempts, the questions will be made in a sequential way, that is to say, if we pass to the next question, we will not be able to return to the previous one.

The final self-assessment consists of 30 questions, where a minimum grade of 7 will be required in order to pass. There will be 3 attempts with a time of 30 minutes to make each attempt.

Those students who do not manage to pass some self-evaluation will have to contact the tutor to look for a solution to their problem.

#### 1.2.2 Practical part

The practical part of the course consists of the resolution of 9 practical cases divided between each of the topics of the course.

For each practical case, a doc or pdf file with the student's proposed resolution must be provided. Without this answer the student will not be able to visualize the solution proposed for the practical case.

### 1.2.3 Additional observations

There is a general forum for doubts related to the Pandora FMS tool, as well as a specific forum for each topic where doubts related to the study of each topic can be raised.

Additionally, there will be a fixed tutoring schedule with the course teacher, where special cases of problems raised by students can be solved.

The information reflected in this course enables you to obtain the official PAT certification, which includes two tests: a theoretical test and a practical test. If you wish to obtain this certification, contact Ártica ST's commercial team to contract the service and the exams.

## 2. COURSE OBJECTIVES

Upon finishing this course, you will be able to:

1. **Instalar Pandora FMS.**
2. **Perform remote and local monitoring** (with agents)
3. **Manage the following features of Pandora FMS:** events, alerts, reports, graphical user views, network recognition and self-monitoring.

For this purpose, you will have the theory resources and complementary case studies at your disposition for a better understanding of the application.

At the end of each unit you will have a self-assessment to be able to consolidate the knowledge and verify the degree of comprehension obtained.

Also, you have links to Pandora FMS resources with which you can expand your knowledge.

## 3. COURSE STRUCTURE

The course includes the following thematic units:

1. **Pandora FMS: Preliminary Concepts.** This unit explains what Pandora FMS is, how it works, what advantages it provides and what technology it uses.
2. **Pandora FMS Architecture.** You will find out about the architecture of Pandora FMS, with all its components, its features and how they relate to each other.
3. **Introduction to monitoring with Pandora FMS.** We explain the ways in which Pandora FMS collects information (remote/local), the different types of monitoring,

the technologies used, the data types, the states and the concepts of agent and interval.

4. **Installation of Pandora FMS.** This unit describes the requirements and the necessary steps to perform a Pandora FMS installation. The various installation methods are specified, explaining the standard installation in detail. In this unit, the console update is also included.
5. **First steps in Pandora FMS.** Once Pandora FMS is installed, we will take a look at the menus that we will see when first accessing the console. In addition, we will see a fundamental pillar in the management of Pandora FMS, which are the groups of agents, and we will learn how to create our first agent from the web console.
6. **Remote Monitoring.** We will study the remote monitoring of equipment with ICMP, TCP, SNMP, WMI, and Netflow. Moreover, you will learn how to use recognition tools to detect new systems and assign monitoring patterns to them.
7. **Monitoring with software agents.** This section explains the fundamental aspects of monitoring with software agents or local monitoring. Follow the steps to install an agent and then learn how to configure it and perform the different available types of checks. You will also discover what is conditioned monitoring, programmed monitoring and Pandora FMS logs monitoring.
8. **Web monitoring.** You will discover what is web monitoring and how it is done in Pandora FMS. Through a series of examples you will learn how to perform these monitoring tasks to reproduce the entire navigation process.
9. **Synthetic modules and predictive monitoring.** You will learn about the characteristics of synthetic modules, which are operated and managed by the Prediction server. Also, you will learn to configure the two types of synthetic modules in Pandora FMS: arithmetic and average.
10. **Inventory.** In this unit you will learn what is the inventory in Pandora FMS, what can be inventoried, the ways of achieving it (locally or remotely) and how to see the information it contains through the inventory data viewer.
11. **Events in Pandora FMS.** The events in Pandora FMS show anything that happens in the system. In this topic we deal with everything related to the management and visualization of events.

12. **Alerts in Pandora FMS.** We explain the alert system in Pandora FMS, whose objective is to notify that something has happened, based on a template/action/command system. You will learn how to define and configure alerts for each situation accordingly.
13. **Data presentation and reports in Pandora FMS.** You will learn to define and configure the different types of reports available and their various displays, treating in detail each one of the views available in Pandora FMS.
14. **User management and ACL system.** After making a complete configuration of the environment, you will learn how to create, edit and delete users and assign them permissions over Pandora FMS elements.
15. **Additional features.** In this last unit you will discover additional functionalities of Pandora FMS not addressed in previous topics, such as the user permission system, maintenance monitoring stops, backup creation, task planning, massive operations on Pandora FMS elements or CSV import to create groups and agents.