

<b>Advanced Linux System Administration: Lab Exam (Topics 8-1)</b>	

**Prior Instructions:**

In the following link you will find a file named ExamenParcial.zip. Download it to a local folder, uncompress the file and add the machine to Virtualbox.

<http://www.ce.unican.es/OCW/SI/Eval/2014-15/ExamenParcial3.zip>

After booting the machine, log in as root user: login=root / password=root. **After finishing each exercise, power off the virtual machine and create a snapshot labeled Ej<X>Result (replace <X> with the exercise number).**

**Exercise 1 (1p).** Configure the automatic execution of the command vmstat every 10 minutes, redirecting its standard output to the file /var/log/vmstat.log. The new redirection must not remove the previous content of the log file. Every time this action is performed, a confirmation message is sent to the log file with the following text: “ ---- VMSTAT performed correctly ----”.

**Exercise 2 (0,5p).** In the \$HOME directory of user root, create a script named count\_reboots.sh that returns the number of times the machine has been rebooted during the last week.

**Exercise 3 (0,5p).** Identify the most CPU consuming process from user test. Kill that process and minimize the priority for the rest of processes of the user (without rebooting them).

**Exercise 4 (1p).** For the user test, limit the maximum file size that can be created to 1 MB. Make this limitation permanent (reboots). In a different terminal, log in as user test (password “temporal”), create a file of exactly the maximum size and another one of a larger size (1 KB more). Check to see if your limits work properly.

**Exercise 5 (1p).** Configure the network to allow internet access. This configuration must be static and permanent in time.

Network information:

Interface: eth0

IP: 10.0.2.15

Netmask: 255.255.255.0

Gateway: 10.0.2.1

DNS: 10.0.2.1

**Once you have finished the exam, copy the following files to the device provided by the teacher:**

**-ExamenParcial3.vbox**

**-Snapshots (whole folder)**