

WebControlEngine

Quick Installation Guide

Preconditions:

1. Managed switches „Cisco XXX-2960-XXX“ with LAN-BASE Firmware
2. Switches are configured with Telnet
3. Switches do NOT use usernames, just passwords.
4. Passwords for user-mode and privileged exec-mode might be different

Required Network-Data for Installation:

(Ask your Network Administrator for help or for those data)

1. Switch-Passwords (both, user and exec-mode password)
2. IP-Adresses for the switches which are used by the Computer-Rooms
3. new IP addresses and subnetmasks for:
 1. WebControlEngine Teacher-Access
 2. WebControlEngine Management-VLAN Access (optional)
4. IP addresses of all DNS servers, which are used by the students computers.
This is ESSENTIAL! If the students computers use a different nameserver then ist might be possible that allowed websites can not be reached but forbidden ones can.
5. You need a list with ALL switchports which are used by students computers.

Example:

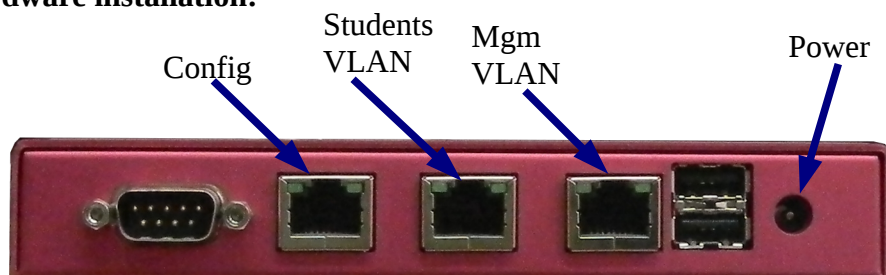
Switch NERO uses fa0/1-fa0/20 for students

Switch CICERO uses fa0/3-fa0/18 for students

Switch HANNIBAL uses fa0/0/1-fa0/0/30 for students

At the moment all students in a room must use one switch. If you need two switches, then the teachers must use two different room-controls.

Hardware installation:



1. put the WCE in a suitable place (dry and cool – operating temperature max. 70°C)
2. attach the power cable
3. use a Notebook-computer or a PC configured as DHCP client and connect it to the LEFTMOST Interface of the WCE.
4. Wait for an IP-Address, it should be 192.168.123.xyz
5. Open your preferred browser (Firefox, Edge, Chrome, ... anyone you like)
6. Enter this URL: <http://192.168.123.1/setup> into the browser address line. **Hint:** only a connection to the LEFTMOST interface may open this address.

Software configuration:

After entering this address <http://192.168.123.1/setup> you shall see 2 menu-items:

Hint: only a connection to the LEFTMOST interface may open this address!

NETWORK and ROOMS

Click into NETWORK and have your Network-Data at hand.

1. The 1st field is the address where the WCE can be reached. This address is for teachers.
2. The corresponding subnetmask.
3. The Default-Gateway of that network.
4. The 1st nameserver address **MUST** match the 1st DNS-address which are used by the students PCs! This is **REALLY IMPORTANT!**
5. The 2nd nameserver address (if used) **MUST** match the 2nd DNS-address which are used by the students PCs. This is **REALLY IMPORTANT!**
6. If your switches are in a **MANAGEMENT VLAN** (which we really recommend!) this address is the address of the **RIGHTMOST** network interface.
7. Click „SPEICHERN“ (that is **SAVE** in german ;)

Now the network is configured.

ATTENTION:

Due to security issues, **SETUP** is **ONLY** accessible from **CONFIG-Port!** (or a **VLAN** connected to this port, but we do **NOT** recommend that)

Be sure to connect the **MIDDLE** Port to a switchport which can reach the students **VLAN**, so all teachers can access the **WCE ROOM-CONTROL**.

Be sure to connect the **RIGHTMOST** Port to a switchport which can reach the **management VLAN**, so the **WCE** can reach and reconfigure your switches.

For your network technician:

The switch-config will be changed a little bit. This means: All students switchports will get an **ACL** which changes at any time at the teachers demand.

Setup ROOMS: on the top of the page there is a link to „Setup Rooms“ - click on it.

Enter the Roomlist which you have prepared (Point 5 form „Required network Data“ at page 1). The **ROOM-NAME** is the name a teacher needs, so use names which are known by the teachers.

The **START-Port** ist the **FIRST** port of a switch which has a student-computer.

The **STOP-Port** ist the **LAST** port of a switch which has a student-computer.

All port between those two are assumed to be student computers. This **CANNOT** be changed.

Cisco Password is the **USER-MODE** password.

Cisco Secret is the **PRIVILEGED-EXEC-MODE** password.

Switchtype is „Cisco 2960“ - „ProCurve 2690“ is not tested, use it at your own risk.

When you are done, press „SPEICHERN“ at the bottom of the screen.

TEACHERS :

1. Enter: <http://youripaddress>
2. Select ROOM
3. Select your requirement:
 1. Deny or permit complete Internet access – access to LAN addresses is ALWAYS granted!
 2. Allow some Domains – enter them in the line and press the yellow button „allow domains“
 3. Use a prepared plain text-file. Upload it and you are all set. For an example file use the click on the text „Example download here“
The file may contain many lines, one domain per line, a line starting with # (hashtag) is considered a comment and ignored.

Troubleshooting

Sometimes, WCE boots into MEMORY-TEST.
This can happen after a powerfail.

Unfortunately this is a SeaBIOS issue (PCEngines APU uses SeaBIOS).

When you hear a melodic beep at boot time, it runs into this MEM-Test.
If reboot does not work, do the following:

1. Attach a NULL-MODEM-Cable
2. Connect with RS232 using Hyperterm, PUTTY or minicom. Parameters: 115200, 8 , N, 1
3. Now MEMTEST can be seen.
4. Press ESC – now it should run perfectly
5. If not: press F10 to jump into boot menu
6. now there are 3 Items:
 1. SD card
 2. Payload [memtest]
 3. Payload [setup]
7. Press key [1] to boot
8. if it still fails, or if „1. SD card“ is missing
 1. unplug power cable
 2. wait at least 10 seconds
 3. plug in power cable
 4. if there is still no boot from SD card possible, your SD card is corrupted.
Please contact our support or your dealer.
support@schaffer-se.at