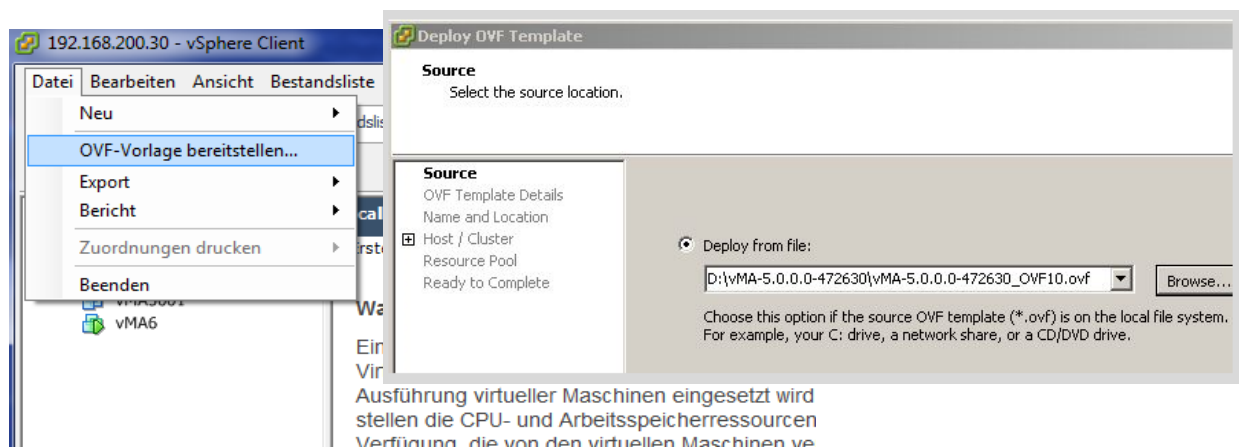


A safety solution with VMware requires Host(s) with the latest version of VMware ESXi, an UPS solution with SNMP adapter, a Workstation with vSphere client and installed vMA and communication module "RCCMD", that is the software module for the emergency shutdown in the virtual world. AEG Compact UPS solutions designed for the use with server infrastructure come with UPS management and shutdown software (CompuWatch) and communication module "RCCMD", that is a software module from CompuWatch for the shutdown of devices in the virtual world. AEG Compact UPS solutions designed for the user with server infrastructure come with 5 network licenses in box.

This document is intended to guide you through the installation of vMA,"RCCMD" from CompuWatch and the configuration of "RCCMD".

I. Installation of vMA

- Please follow the link to download VMware vMA (the size of software package may exceed 900MB):
<https://my.vmware.com/web/vmware/details?downloadGroup=VMA600&productId=490>
- Extract the downloaded vMA software package
- Start vSphere client and open "File" menu, select "Allocate OVF template", follow the instructions on the screen and implement the vMA in the network environment of VMware.

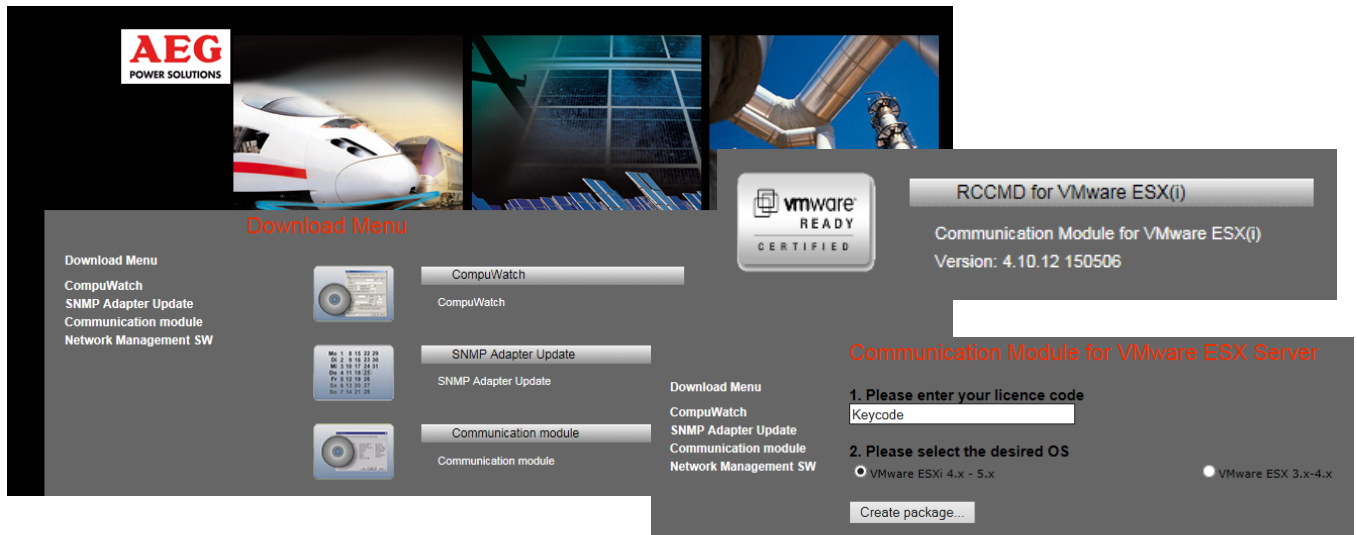


- Answer questions step by step
 - Name of vMA
 - Choose the Host
 - Choose the storage
 - Network configuration
- If the window "Ready to Complete" appears, push the button "Finish"
> Now the vMA will be installed with the entered parameters in the network environment
- Afterwards, the vMA may be started like a virtual server via "Power on"



II. Installation of RCCMD from CompuWatch

- Please follow the link to download the latest version of the communication module “RCCMD”;
<https://www.aegps.com/en/ees/data-it/ups-software/download>
and keep ready your CD-key for the authorization to download the VMware package
- “Communication module” > “RCCMD for VMware” > “Enter CD-Key” and “Create Package”



- Transfer the “rccmdinst64.tar file via FTP or SFTP client to the vMA
- Open a SSH connection (putty) to the vMA and login as vi-admin
- Extract “rccmdinst64.tar” on the vMA (command: tar -xvf rccmdinst.tar)
- Look for the installation-file and start the installation with command sudo ./installRCCMD.bin (sudo is a command to run programs with the security privileges of other user and superuser)
 - an interactive console installation menu appears.
- Select your desired language and answer the questions step by step.
 - Information on general handling and SysOS appears
 - License key
 - vMA name or IP address
 - After successful installation of the rccmd the module starts automatically

```

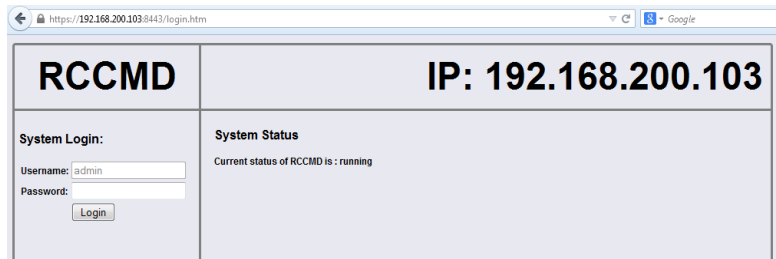
-----
Installation Complete
-----
Congratulations. RCCMD-Client has been successfully installed to:

  /usr/rccmd

PRESS <ENTER> TO EXIT THE INSTALLER: █
  
```

III. Configuration of RCCMD from CompuWatch

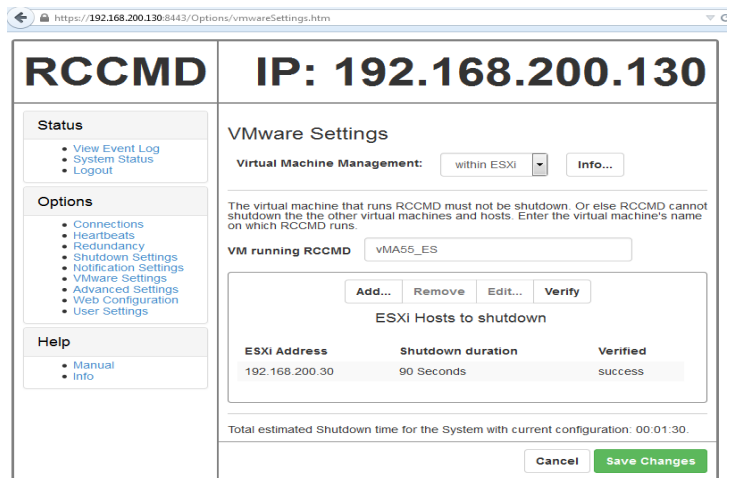
- Open your web browser and enter the IP-address of the vMA to get remote access to the vMA where RCCMD is running with the right port; https://<ip-address vMA>: 8443
- Login of RCCMD configuration page appears.



- Please login with the default access parameter
 - User: admin
 - Password: cs121-snmp
 - RCCMD configuration web page with menu items appears.

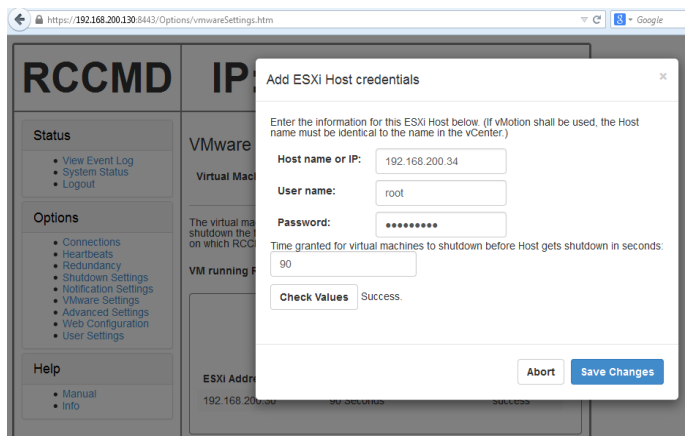
What are the basic configuration parameters?

- Connections
 - IP-address of SNMP adapter in the UPS
- Heartbeats
 - Test of connection to SNMP adapter
- VMware Settings
 - Shutdown of VMs and Host
- Virtual Machine Management
- Via ESXi
- Enter name of vMA (rccmd)
- Verify the ESXi Host
- Save Changes



More than one host

- Add Host and
- Enter necessary parameters
 - IP
 - User name
 - Password
- Check Values
- Save Changes



Last step to finish configuration

- Click on System Status
...and Restart "RCCMD"

RCCMD configuration using vCenter with integrated RCCMD TAB

- Connections
IP-address of SNMP adapter in the UPS
- Heartbeats
Test of connection to SNMP adapter
- VMware Settings
Shutdown of VMs and Host
 - Virtual Machine Management
 - by RCCMD
 - Virtual Machine behavior
 - Shutdown virtual machines
 - Put Host(s) into Maintenance
 - Maintenance timeout
 - IP, user name, Password
 - Enter name of vMA (rccmd)
 - Verify the ESXi Host(s)
 - Save Changes

RCCMD configuration using vCenter

- Select "Virtual Machine Management": „by RCCMD", if the hosts are managed by a vCenter Server. RCCMD must be configured to manage virtual machine handling in case of a shutdown event.
- Selecting "Virtual Machine Behaviour: Shutdown Virtual Machines" is safe choice. In this case RCCMD sends a shutdown signal via VMware Tools to the running virtual machines on each host.
- Selecting "Virtual Machines Behaviour": „Put Host(s) into Maintenance Mode" to send a host into maintenance, thereby triggering vMotion for the virtual machines. If maintenance mode fails, then the remaining hosts will proceed with the "Shutdown Virtual Machines Behavior".
- Enter the period of time after which to abort trying to reach Maintenance Mode. If Maintenance Mode is not reached after this time, then the remaining hosts will proceed with the „Shutdown Virtual Machines" behavior. This is the last resort to shut down the hosts and virtual machines.
- Click the "Save Changes" button prior of the leaving of this site to save your changes and restart RCCMD.

IV. Conclusion

- RCCMD software module from CompuWatch shuts down the VMs and the Host(s)
- Only “1” network license is necessary for VMware
- RCCMD configuration is easy to use
 - vSphere client
 - Enter ip address of vMA in browser
 - Connections (...IP address of UPS...)
 - Heartbeats (...communication test to UPS)
 - VMware Settings
 - Virtual Management: within ESXi
 - Verify host
 - Save changes
 - vCenter
 - Open vCenter and select TAB “RCCMD Client”
 - Connections (...IP address of UPS...)
 - Heartbeats (...communication test to UPS)
 - VMware Settings
 - Virtual Machine Management: by RCCMD
 - Virtual Machine behavior: Shutdown virtual machines or Put Host in maintenance
 - Enter IP, user, password
 - Verify hosts
 - Save Changes

Important terms used

VMware:	Virtual Machine ware
VMware ESXi x:	Versions of software product for VMware
Hypervisor:	VMware ESXi product for virtualization
VM, Guest:	Virtual Machine, virtual server
vSphere client:	Tool to manage and administrate VMware
vMA:	Virtual Management Assistant (general interface for application)
vCenter:	Management software for VMware on different hosts
vMotion:	Tool for maintenance mode to move VMs from host to host
Host:	The hardware for the VMware
RCCMD:	Remote Control Command module