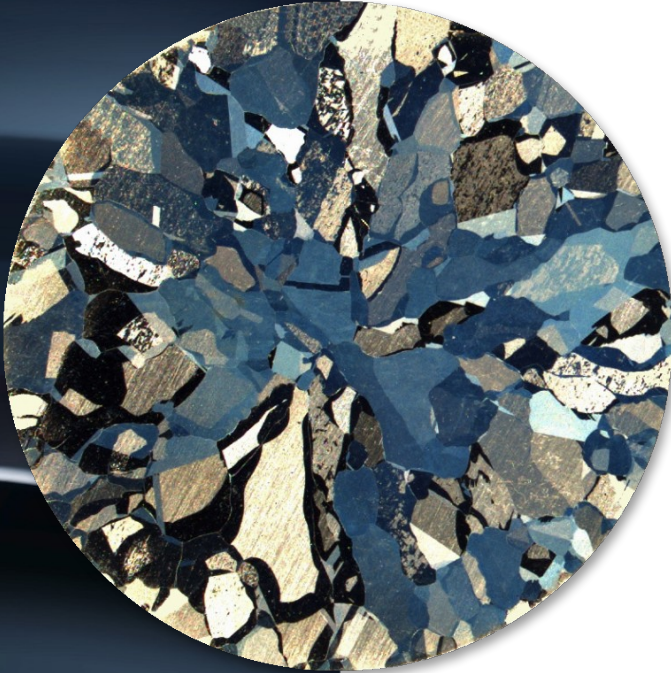


Software & Service for
Practical Materials Innovation



Matplus EDA[®]

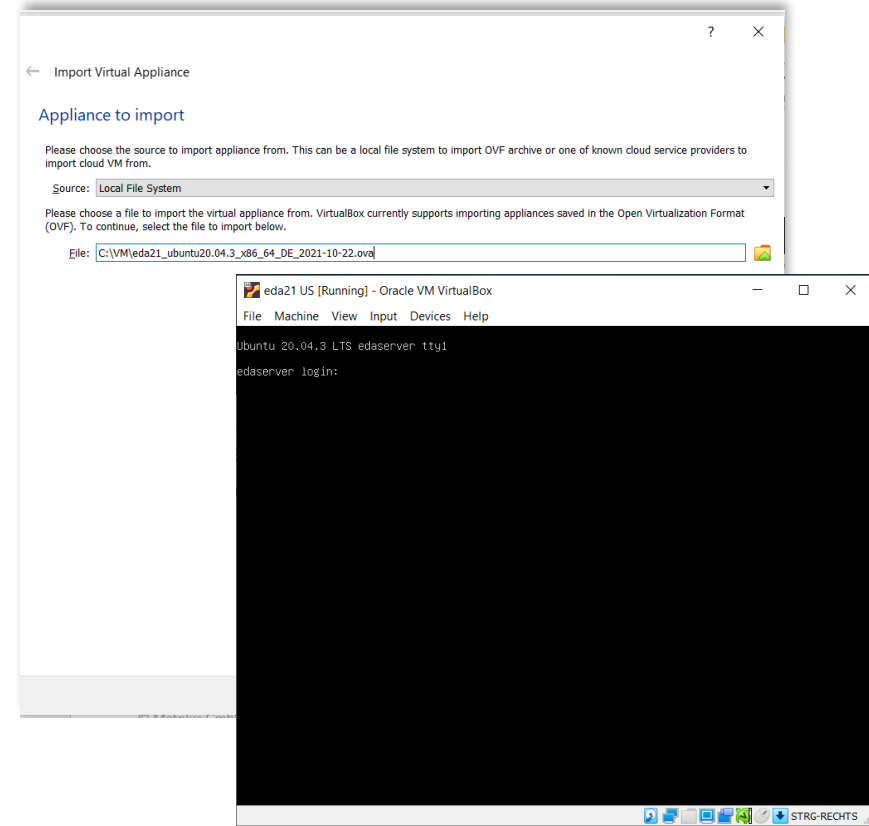
INSTALLATION OF APPLIANCE USING ORACLE VIRTUALBOX

Installation of Virtual Appliance 1



✓ Example using Oracle Virtual Box

- Import OVA Appliance
- Start the appliance
 - Ubuntu Linux Server
 - Headless, No GUI



Installation of Virtual Appliance 2



✓ Set Port Forwarding Rules

The screenshot shows the 'EDA - Settings' window with the 'Network' tab selected. The 'Network' tab has a sidebar with icons for General, System, Display, Storage, Audio, Network (highlighted with a red box), Serial Ports, USB, Shared Folders, and User Interface. The main area of the 'Network' tab shows settings for Adapter 1, including 'Enable Network Adapter' (checked), 'Attached to: NAT', 'Name:', 'Advanced' section with 'Adapter Type: Intel PRO/1000 MT Desktop (82540EM)', 'Promiscuous Mode: Deny', and 'MAC Address: 080027906CC3'. A red box highlights the 'Cable Connected' checkbox (checked) and the 'Port Forwarding' button.

The 'Port Forwarding Rules' dialog is open, showing a table of rules. The table has columns: Name, Protocol, Host IP, Host Port, Guest IP, and Guest Port. Two rules are listed: 'ssh' and 'madb'. The 'ssh' rule is highlighted with a blue background. The dialog has 'OK' and 'Cancel' buttons at the bottom.

Name	Protocol	Host IP	Host Port	Guest IP	Guest Port
ssh	TCP		22		22
madb	TCP		80		80

Installation of Virtual Appliance 3



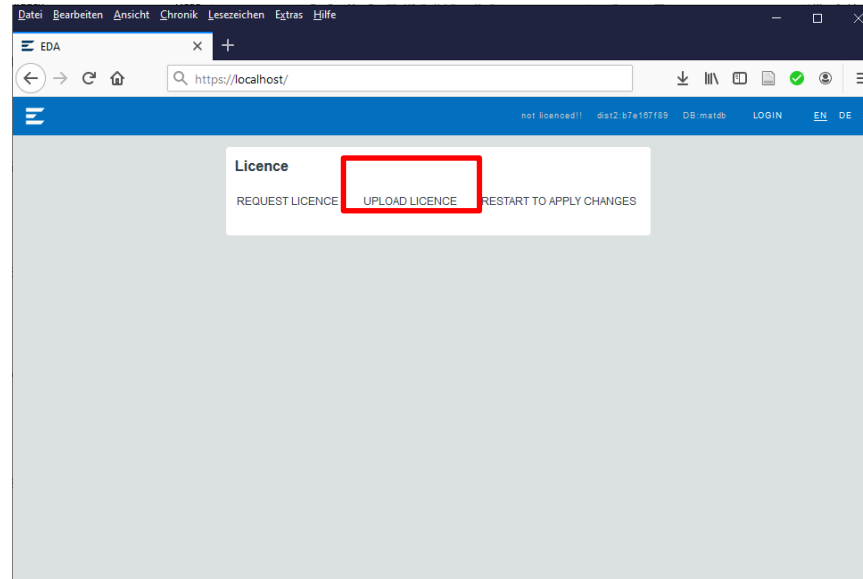
- ✓ Option: Configure HTTPS if the machine shall be used as a server in a network
- ✓ Call script “eda-enable-https.sh” (included in PATH)
- ✓ This script expects certificate (cert.pem) and private key (cert.key) at /home/matdb/ssl folder
- ✓ EDA will then listen to port 443

Note: MobaXterm is a free software which facilitates working with the EDA console and also provides a SCP functionality

Access EDA from your favourite browser



- ✓ Use <http://localhost> or <https://servername>
- ✓ The system tells you initially that there is no license attached



INSTALLATION

EDA VMWARE

Installation of Virtual Appliance 1



- ✓ Example using vmware
 - Import our OVA Appliance
 - Start the appliance as
 - Ubuntu Linux LTS Server
 - Headless, No GUI
 - Ports 22, 80, 443 are open

The screenshot displays a virtual machine management console with a top navigation bar containing tabs: Übersicht, Überwachen, Konfigurieren, Berechtigungen, Datenspeicher, Netzwerke, and Snapshots. The main content area is titled 'Gastbetriebssystem' and includes a terminal window on the left showing command-line output. To the right of the terminal are several configuration sections: 'Stromversorgungsstatus' (Eingeschaltet), 'Gastbetriebssystem' (Ubuntu Linux (64-bit)), 'VMware Tools' (Wird ausgeführt, Version: 11360), 'DNS-Name (1)' (edaserver), 'IP-Adressen (2)' (172.18.0.1, fe80::42:14ff:fec4:9b7f), and 'Verschlüsselung' (Nicht verschlüsselt). Below these are buttons for 'REMOTE CONSOLE STARTEN' and 'WEB-KONSOLE STARTEN'. On the far right, a 'Kapazität und Nutzung' section shows resource usage: CPU (97 MHz), Arbeitsspeicher (245 MB), and Speicher (105.74 GB). At the bottom, there are three panels: 'VM-Hardware' (listing CPU, Arbeitsspeicher, Festplatte, Netzwerkadapter, and Kompatibilität), 'Verwandte Objekte', and 'Tags' (showing 'Keine Tags zugewiesen').

Network Configuration of VA 1



#file: /etc/hosts

```
echo „Your_IP HOSTNAME" >> /etc/hosts
```

#file: /etc/hostname

```
echo "HOSTNAME" > /etc/hostname
```

#file: /etc/netplan/00-installer-config.yaml

This file must be updated inplace.

Check the current network interfaces of your server

```
sudo ip link show
```

```
root@va1:~# sudo ip link show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: ens32: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN mode DEFAULT group default qlen 1000
    link/ether 00:50:56:b2:c9:58 brd ff:ff:ff:ff:ff:ff
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN mode DEFAULT group default
    link/ether 02:50:96:94:00:00 brd ff:ff:ff:ff:ff:ff
```

In this example the second device is your interface to be configured.

Network Configuration VA 2



Step 1: create copy of origin file:

```
cp /etc/netplan/00-installer-config.yaml /etc/netplan/00-installer-config.yaml.old
```

Step 2: edit the content to look like this prepared sample

```
network:
  version: 2
  ethernets:
    enp0s3:                                # has to match local network interface (check with: ip link show)
      addresses:
        - 123.12.12.77
      gateway4: 123.12.12.5
      nameservers:
        search: []                          # dns search domains, comma separated (if required)
        addresses: [123.12.90.70,123.12.92.70]
```

Step 3: apply configuration change and reboot

```
netplan apply
```

```
reboot (reboot machine using ACPI Shutdown or external VMWare control)
```

Create Certificate Signing Request



In order to get a certificate

Login to the server as matdb.

```
openssl req -new \  
-newkey rsa:2048 -nodes -keyout ~/ssl/cert.key \  
-out ~/AHERSRVLNX39.csr \  
-subj "/C=DE/ST=XY/L=Wuppertal/O=Matplus GmbH/OU=IT/CN=yourdomain.com"
```

Installation of Virtual Appliance 3



- ✓ Configure HTTPS if the machine shall be used as a server in a network
- ✓ Call script
 - `sudo eda-enable-https.sh` (included in PATH)
- ✓ This script expects certificate (cert.pem) and private key (cert.key) at /home/matdb/ssl folder
- ✓ EDA will then listen to port 443

Note:

MobaXterm is a free software which facilitates working with the EDA headless console and also provides a SCP functionality

Thank you!



Uwe Diekmann

Matplus GmbH

Hofaue 55

D-42103 Wuppertal

Tel: + 49 (0)202 2978978 0

Fax + 49 (0)202 2978978 9

www.matplus.eu

contact@matplus.eu

