



K2 TX/MAM Server

Installation and Service Manual

Document version: 2.2 - 12-20-2012

Contents

- 1 Grass Valley Product Support..... 3
- 2 About this document..... 3
- 3 Shipping kit contents 3
- 4 Credentials 3
- 5 Site preparation 4
 - 5.1 Physical Specifications 4
 - 5.2 Environmental Requirements 4
 - 5.3 Cable advice 4
- 6 Installation and configuration of the TX/MAM main and backup nodes 5
 - 6.1 Placing the servers in the rack and connecting cables 6
 - 6.2 Configuring the TX/MAM servers' IP-addresses 8
 - 6.3 Configuring the TX/MAM main and backup database server and virtual IP-address 8
 - 6.4 Configuring the ini-files 11
 - 6.5 Configuring ini-files 11
 - 6.6 Configuring time settings 12
- 7 Indicators and status information 12
- 8 Service Instructions 12
- 9 Appendix: TX/MAM server network ports..... 13
- 10 Appendix: Manually configuring the TX/MAM main and backup server 14
- 11 Appendix: Changing an IP-address 15

Copyright © Grass Valley USA, LLC. All rights reserved. This product may be covered by one or more U.S. and foreign patents.

1 Grass Valley Product Support

Contact information: <http://www.grassvalley.com/support/contact>
U.S Technical Support: +1 800-547-4989 or +1 530 478 4148 or E-mail: Please use our online form
All other countries Technical Support: +800 80 80 20 20 or +33 1 48 25 20 20 or E-mail:
callcentre@grassvalley.com
FAQ: <http://grassvalley.novosolutions.net/>
Training: https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab_page_id=-67&tab_id=6

2 About this document

This document applies to TX/MAM release 2.2.

This manual describes following topics:

- server installation
- initial setup
- service instructions



The K2 Edge Smart Playout Center Commissioning Manual and TX/MAM User Manual describe further configuration of TX/MAM.

3 Shipping kit contents

The shipping kit contains:

- K2 TX/MAM server
- Front
- Rack mount Kit
- Dell documentation
- USB-stick with documentation
- If applicable: software dongle
- Licenses



Please refer to the Dell documentation for Safety Instructions.

4 Credentials

The default credentials for the K2 TX/MAM Server are:

From command line:

User: root

Password: proot123

Via the web interface:

User: sysdba

Password: masterkey

5 Site preparation

5.1 Physical Specifications

Size (WxHxD)	424x44x795mm/16.7"x 1.7"x 31.2" (excl. connectors & front panel)
---------------------	--

5.2 Environmental Requirements

Operating environment	10°C to 25°C / 32°F to 86°F
Relative humidity	10% to 90% non-condensing

5.3 Cable advice

For HD-environments: use CAT 6/ CAT 6e cables and compatible connectors.

6 Installation and configuration of the TX/MAM main and backup nodes



The steps for installation and network configuration of the TX/MAM servers are:

- 1) Place the servers in the rack and connect cables.
- 2) Configure the TX/MAM servers' network settings.
- 3) Configure the main and backup server and the virtual IP-address.
- 4) Configure applicable ini-files.

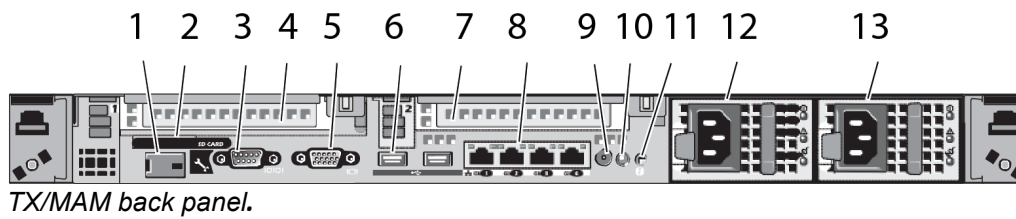


Do not use the Dell Quick Installation Guide provided with the Dell CD-ROM package. This guide includes instructions for using the OpenManage software CD-ROM to install an operating system, which is not necessary on the Grass Valley product.



Please refer to the Dell documentation for Safety Instructions.

6.1 Placing the servers in the rack and connecting cables



Item	
1	iDRAC6 Enterprise port (n/a)
2	VFlash media slot (n/a)
3	serial connector
4	PCIe slot
5	video connector
6	USB connectors
7	PCIe slot
8	Ethernet connectors Gb1-4
9	system status indicator
10	system status indicator
11	system identification button
12	power supply
13	power supply



Please refer to the Dell Getting started manual for instructions on how to place the systems in the rack.

1) Connect the system to the LAN.

Network cable LAN-8	Connect to Gb1
----------------------------	----------------

2) Optional – Connecting the Keyboard and Monitor

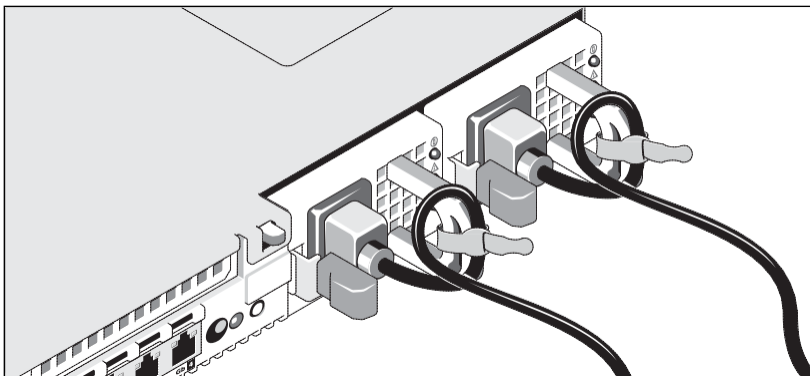
The connectors on the back of your system have icons indicating which cable to plug into each connector. Be sure to tighten the screws (if any) on the monitor's cable connector.

3) Connecting the power cords.

Power cables 12 -13	Connect the power cords
----------------------------	-------------------------

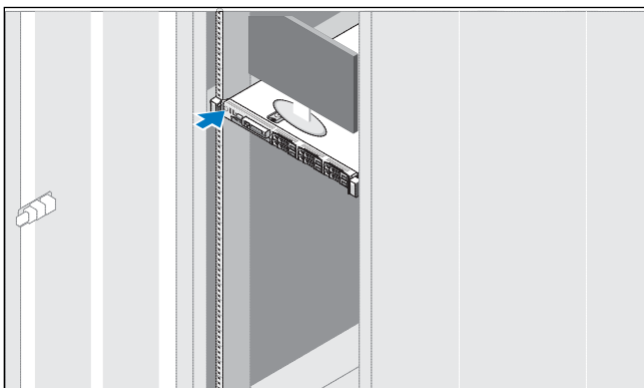
Connect the system's power cable(s) to the system and, if a monitor is used, connect the monitor's power cable to the monitor.

4) Securing the power cord.



Bend the system power cable into a loop as shown in the illustration and secure the cable with the provided strap. Plug the other end of the power cables into a grounded electrical outlet or a separate power source such as an uninterruptible power supply (UPS) or a power distribution unit (PDU).

5) Power on.



Press the power button on the system and the monitor. The power indicators should light.

6.2 Configuring the TX/MAM servers' IP-addresses

The TX/MAM servers do not use their own IP-address for communication with the Smart Playout Center applications and servers to keep this IP-address available for the backup TX/MAM server. Instead, a virtual IP-address is used.

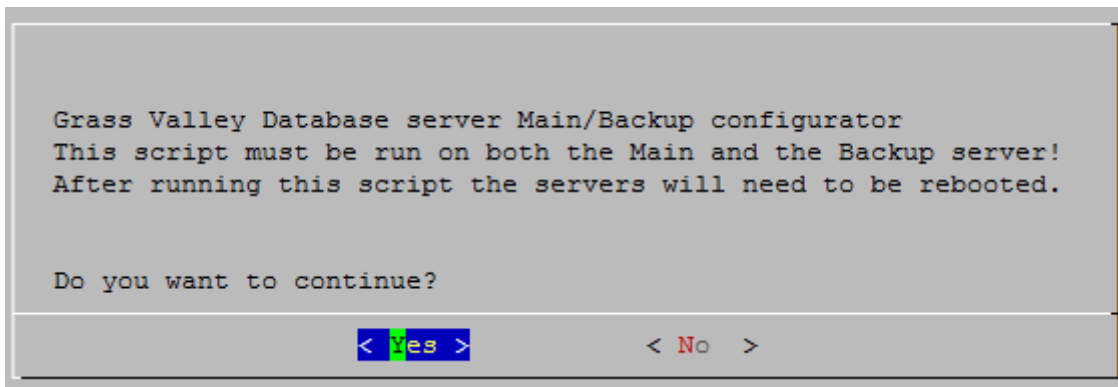
- Configure the TX/MAM servers' real IP-addresses, for example using Yast.
- Configure the TX/MAM servers' virtual IP-address as described in the next paragraph.

6.3 Configuring the TX/MAM main and backup database server and virtual IP-address

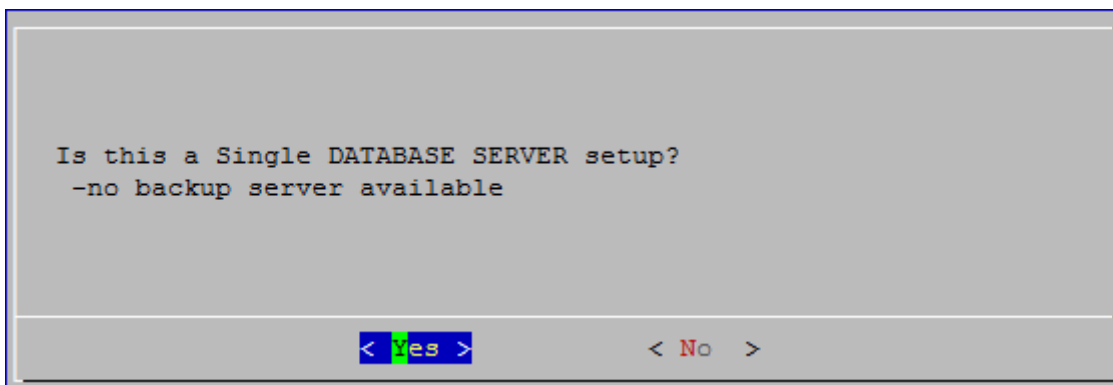
The main server automatically writes its backups to the backup server, and vice versa.

- To configure the TX/MAM server, run the script db_configure:
`# /system/db_configure <enter>`

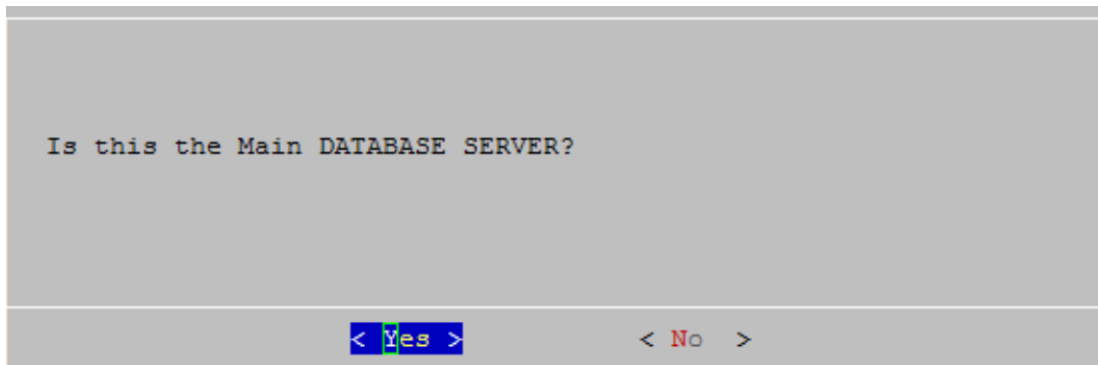
Now follow the screens below.



- Click **Yes** to continue, **No** to cancel.

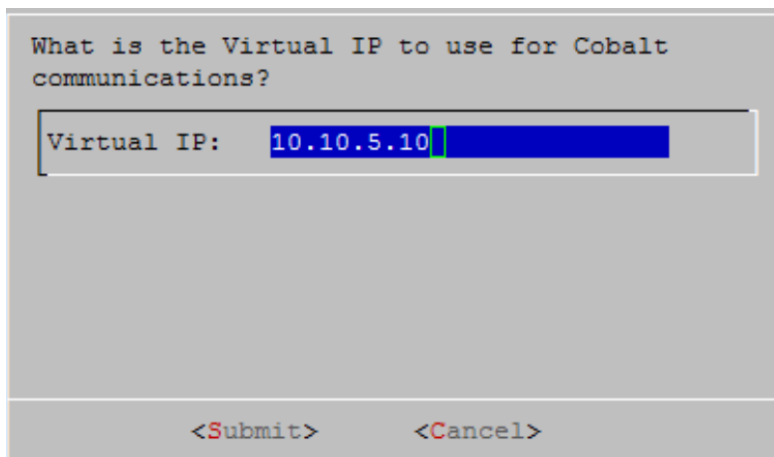


- Click **No**.

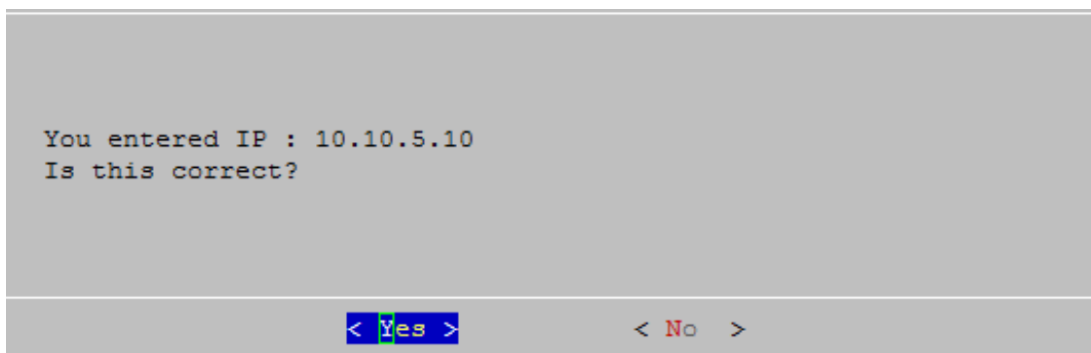


- Click **Yes** if you are configuring the main database server, **No** to configure the backup database server.

The examples below and above describe configuration of the main database server. Note that both servers need to be configured:



- Enter the TX/MAM servers' virtual IP-address. Keep in mind that you need to specify the same virtual IP for the main and backup database server. Note that the IP-address in the picture above is an example.
- Click **Submit** to continue, **Cancel** to cancel.



- Click **Yes** to continue, **No** to cancel. Note that the IP-address in the picture above is an example.

What is the REAL ip of the Backup DATABASE SERVER

Real IP: 10.10.5.11

<Submit> <Cancel>

- Enter the database server's real IP-address.
Note that the IP-address in the picture above is an example.
- Click **Submit** to continue, **Cancel** to cancel.
- Now reboot the server.
- Repeat these steps for the second server.
Use the same virtual IP-address for the main and backup server.

6.4 Configuring the ini-files

6.5 Configuring ini-files

On the K2Edge nodes, in `/etc/hosts` adjust MAIN-DB. Specify the virtual IP of the TX/MAM servers.

Example:

```
10.250.51.51 MAIN-DB
```



You can also specify the TX/MAM server via the IP Manager.

On both the TX/MAM servers, in `/usr/local/apache2/application/configs/application.ini`, adjust `project_options.serverip`. Specify the virtual IP of the TX/MAM servers.

Example:

```
project_options.serverip = "10.250.51.51"
```

On both the TX/MAM servers, in `usr/local/apache2/application/configs/ingest.ini`, adjust `ingest.assetHostIp`. Specify the virtual IP of the TX/MAM servers.

Example:

```
ingest.assetHostIp = "10.250.51.51"
```

On both the TX/MAM servers, set the time mode for the TX/MAM video player. The default is Relative. To change to absolute:

Edit the file `/system/objects/config/txmam.ini`.

```
[production]
VideoPlayer.timeMode=Absolute
```

On both the TX/MAM servers, edit the file `/system/objects/cobassets/bin/seq_brX.ini` (X= 0 to 3)

Example:

```
[SequencerSettings]
BladeIniFile=/system/blade.ini
BroadcastSet=BROADCAST0
AppNiceParameter=-n20
SendFormatCounter=1
NoDuplicateOptOutBlock=
PreloadTime(sec)=30
SendScriptCueCommand=0
TimeCodeStartType=Absolute
TimeCodeNoTCEnd=
```

6.6 Configuring time settings

On the TX/MAM servers, edit the file `/etc/ntp.conf`.

Go to:

```
## Outside source of synchronized time
##
## server xx.xx.xx.xx      # IP address of server
```

Edit the following line: `## server xx.xx.xx.xx # IP address of server`

- Remove the `#` hashes.
- Specify the NTP-server's IP-address.

Example:

```
## Outside source of synchronized time
##
server 192.33.96.102      # IP address of server
```

To activate, run the following command: `service ntp restart`

7 Indicators and status information

Please refer to the Dell documentation for an explanation of indicators and status information.

8 Service Instructions

Please refer to the Dell documentation for service instructions.

9 Appendix: TX/MAM server network ports

FTP	Default ports 20 and 21
SSH/SCP	Default port 22
Samba	Default ports 137,138 and 139
Cobalt database access	Default port 5020
Web based interface	Default port 80
TX/MAM hardware player	Default ports 5000 and 5001

10 Appendix: Manually configuring the TX/MAM main and backup server

On the active (main) TX/MAM server, the file **/system/STATUS** should contain:

```
active=yes
```

On the standby (backup) TX/MAM server, the file **/system/STATUS** should contain:

```
active=no
```

- Via samba (windows network share) the STATUS file can be found here: **\\<TX/MAM server IP-address>\delta\STATUS**
- When working from command line: **/system/STATUS**

To change a TX/MAM server from main to backup:

- On the main server, edit and save the file **/system/STATUS**:
Change `active=yes` to `active=no` and save the file.
- Run the `/system/nexusproc restart all` command.

To change a TX/MAM server from backup to main:

- On the backup server, edit and save the file **/system/STATUS**:
Change `active=no` to `active=yes` and save the file.
- Run the `/system/nexusproc restart all` command.

11 Appendix: Changing an IP-address

After changing the playout nodes', TX/MAM or FTP-servers' IP-address, following adjustments need to be made:

After changing the IP-address of the playout nodes:

Change the IP-address in Cobalt Asset Manager Channel settings.

After changing the virtual IP-address of the TX/MAM-servers:



On standalone demo systems, the `/system/txmam_fix_ip.sh` script can be used.

On the K2Edge nodes, in `/etc/hosts` adjust MAIN-DB. Specify the virtual IP of the TX/MAM servers.

Example:

```
10.250.51.51 MAIN-DB
```



You can also set the IP-address of the TX/MAM server via the IP Manager.

On both the TX/MAM servers, in `/usr/local/apache2/application/configs/application.ini`, adjust `project_options.serverip`. Specify the virtual IP of the TX/MAM servers.

Example:

```
project_options.serverip = "10.250.51.51"
```

On both the TX/MAM servers, in `usr/local/apache2/application/configs/ingest.ini`, adjust `ingest.assetHostIp`. Specify the virtual IP of the TX/MAM servers.

Example:

```
ingest.assetHostIp = "10.250.51.51"
```

After changing the IP-address of the FTP-server:

On both the TX/MAM servers, in `/usr/local/apache2/application/configs/videoftp.ini`, adjust:

`videoFtp.host` to the FTP-server IP
`videoFtp.user` to FTP-server user
`videoFtp.password` to FTP-server password
`videoFtp.path` to FTP-server path

Preferably adjust both the FTP and SMB-settings.

Example (SMB):

```
;Global
videoFtp.protocol = Smb

;Smb
videoFtp.Smb.user="delta"
videoFtp.Smb.password="delta"
videoFtp.Smb.host="10.250.51.51"
videoFtp.Smb.path="/system/objects/cobassets/media/browse/"
```

On the main TX/MAM server in `/system/objects/cobassets/bin/transfer_ftp.xml`, adjust the transfer metadata. Then run the `/system/objects/cobassets/bin/set.sh` script.