



# **K2 TX/MAM Server**

## **User Manual**

Document version: 2.2 - 12-20-2012

**Contents**

- 1 Grass Valley Product Support..... 3
- 2 About this document..... 3
- 3 Credentials ..... 3
- 4 Indicators and status information ..... 3
- 5 The K2 TX/MAM Server Backplane ..... 4
- 6 Configuring the TX/MAM servers' IP-addresses ..... 5
- 7 Configuring the TX/MAM main and backup database server and virtual IP-address ..... 5
- 8 Configuring time mode ..... 8
- 9 Configuring time settings..... 9
- 10 TX/MAM server network ports..... 10
- 11 Manually configuring the TX/MAM main and backup server..... 11
- 12 Failover, manual backup and restore of the TX/MAM servers..... 12
- 13 Appendix: Changing an IP-address ..... 14

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](mailto:callcentre@grassvalley.com)  
FAQ: <http://grassvalley.novosolutions.net/>  
Training: [https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab\\_page\\_id=-67&tab\\_id=6](https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab_page_id=-67&tab_id=6)



Documentation can be found on the Grassvalley website:  
[http://www.grassvalley.com/apps/doc\\_prodlst?super=broadcast&set=ips](http://www.grassvalley.com/apps/doc_prodlst?super=broadcast&set=ips) and  
[http://www.grassvalley.com/products/k2\\_edge](http://www.grassvalley.com/products/k2_edge).

## 2 About this document

This document applies to TX/MAM release 2.2.



Please refer to the Dell documentation for Safety Instructions.



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.

## 3 Credentials

The default credentials TX/MAM are:

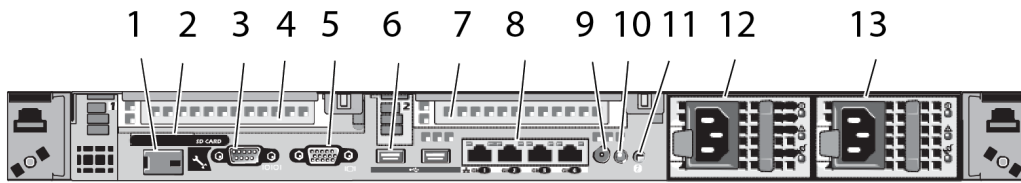
From command line:  
User: root  
Password: proot123

Via the web interface:  
User: sysdba  
Password: masterkey

## 4 Indicators and status information

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

## 5 The K2 TX/MAM Server Backplane



*TX/MAM back panel.*

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

## 6 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, as to keep this IP-address available for the backup TX/MAM server. Instead, a virtual IP-address is used.

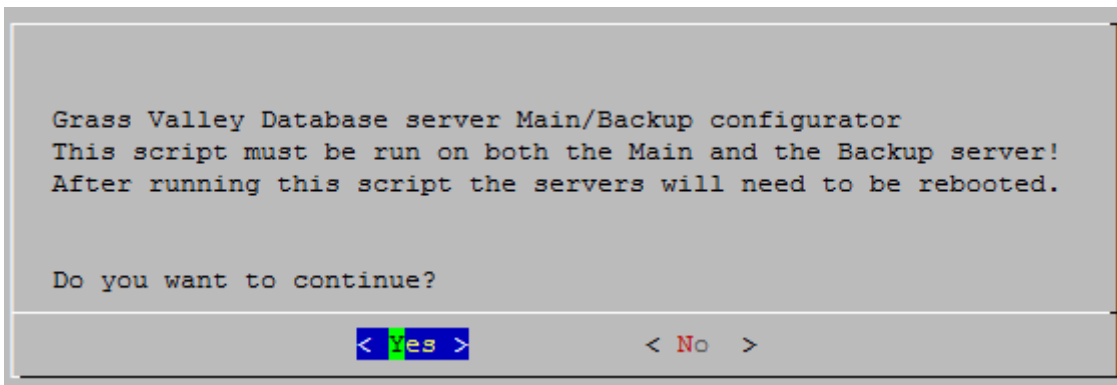
- Configure the TX/MAM servers' real IP-addresses, for example using Yast.
- Configure the TX/MAM servers' virtual IP-address as described in the next paragraph.

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

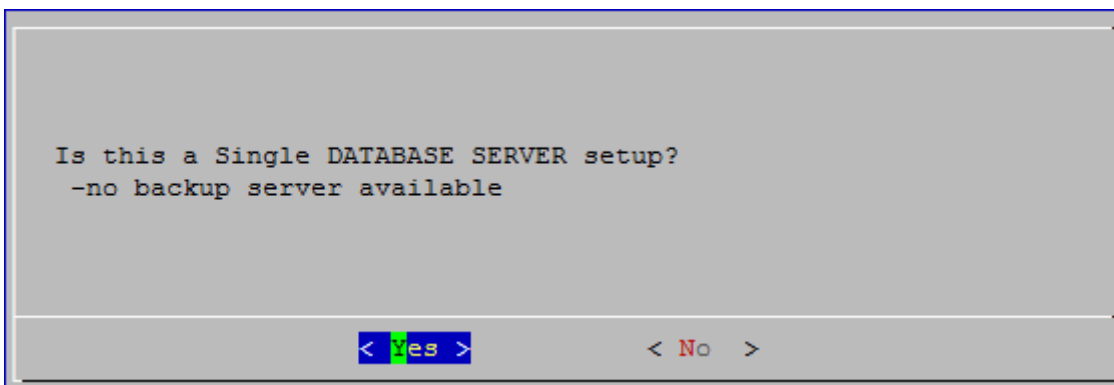
The main server automatically writes its backups to the backup server, and vice versa.

- To configure the TX/MAM server, run the script db\_configure:  
# /system/db\_configure <enter>

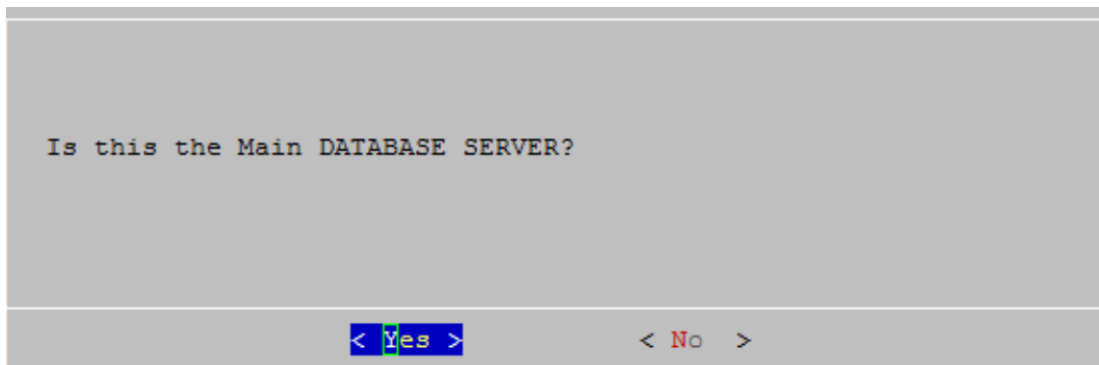
Now follow the screens below.



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

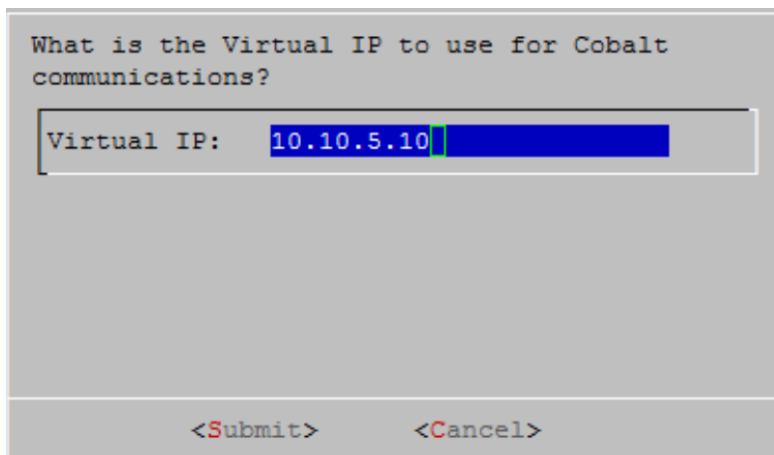


- Click **No**.

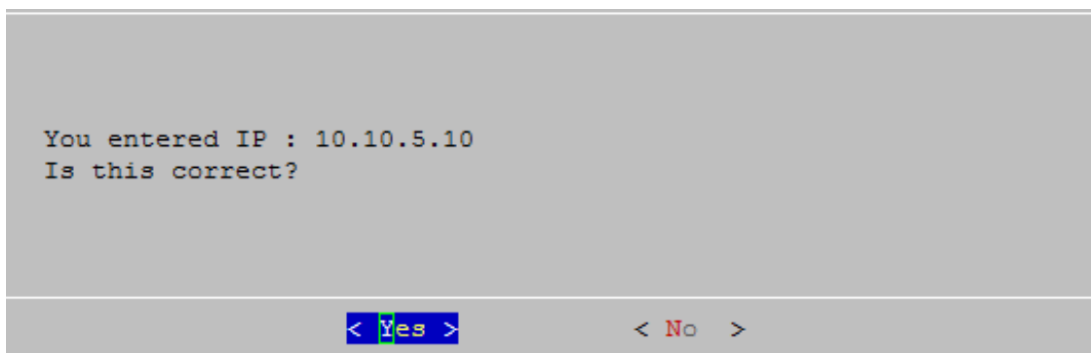


- Click **Yes** if you are configuring the main database server, **No** to configure the backup database server.

The examples below and above describe configuration of the main database server. 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.

## 8 Configuring time mode

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=
```



## 9 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`

## 10 TX/MAM server network ports

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

## 11 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.

## 12 Failover, manual backup and restore of the TX/MAM servers

An automatic backup is created and restored from the active to the standby database every hour by the `/etc/cron.backup/cob-bak` and `/etc/cron.restore/cob-restore` commands.

Workflow	Main TX/MAM server	Backup (standby) TX/MAM server
Normal situation	The main server is active and writes a backup to the backup server every hour.	The backup server is inactive. Database backups are written from the main to the backup server.
Creating a manual backup from the main server (usually not needed).	<pre># /etc/cron.backup/cob-bak &lt;enter&gt;</pre>	The database backup is written to the backup server.
<b>Failover from the main to the backup TX/MAM server</b>		
Deactivate the main server.	Deactivate the main server first:  Stop all services: <pre># /system/nexusproc stop all</pre> Edit the file <code>/system/STATUS</code> , set yes to no: <pre>active=no</pre>	The backup server is inactive.
Restore the database on the backup.	The main server is inactive.	Run the script: <pre>/etc/cron.restore/cob-restore</pre>
Activate the backup (standby) server.		Edit the file <code>/system/STATUS</code> , set no to yes: <pre>active=yes</pre> Start all services: <pre># /system/nexusproc start all</pre>
The backup server is now active.		The backup server is active.

<b>Going back from the backup to the main TX/MAM server</b>		
The backup server is active.	The main server is inactive.	The backup server is active and writes a database backup to the main server every hour.
To manually create a backup from the backup server (if no backup of the database is available on the main).	The database backup is written to the main server.	To manually create a backup on the backup server and write to the main: <pre># /etc/cron.backup/cob-bak &lt;enter&gt;</pre>
Restore the database on the main.	<pre>/etc/cron.restore/cob-restore</pre>	
Deactivate the backup server.		Stop all services: <pre># /system/nexusproc stop all</pre> Edit the file <b>/system/STATUS</b> , set yes to no: <pre>active=no</pre>
Activate the main.	Edit the file <b>/system/STATUS</b> , set no to yes: <pre>active=yes</pre> Start all services: <pre># /system/nexusproc start all</pre>	
Normal situation.	The main is active.	The backup server is inactive. Database backups are written to the backup server.

## 13 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.