



K2 TX/MAM Server

User Manual

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1 Grass Valley Product Support

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Documentation can be found on the grass valley website > Resources > Smart Playout Center.

2 About this document

This document applies to TX/MAM release 2.4.



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:

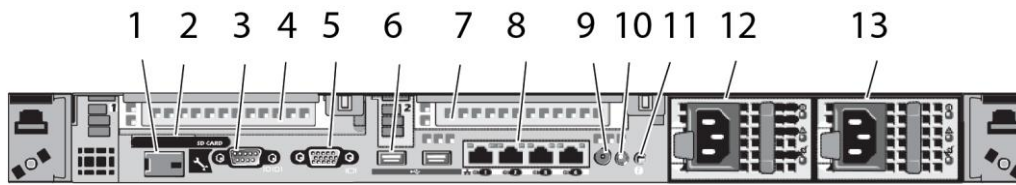
User: sysdba

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.

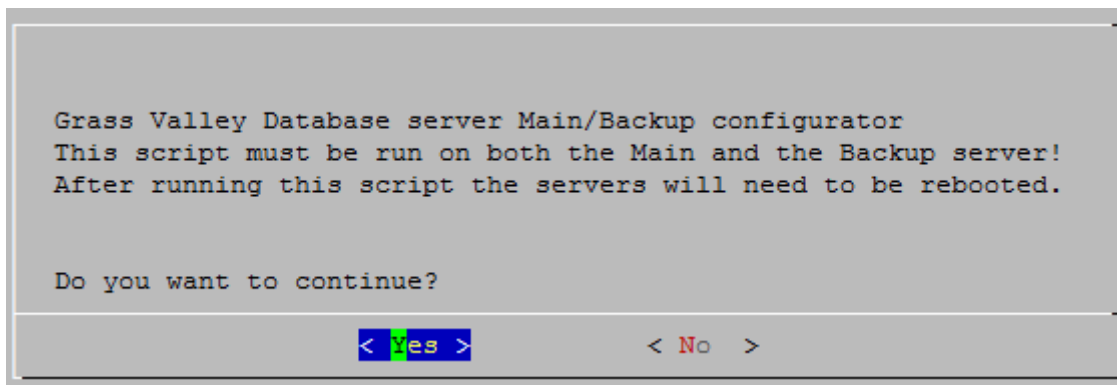
- Configure the TX/MAM servers' real IP-addresses, for example using Yast.
- Configure the TX/MAM servers' virtual IP-address as described in the next paragraph.

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

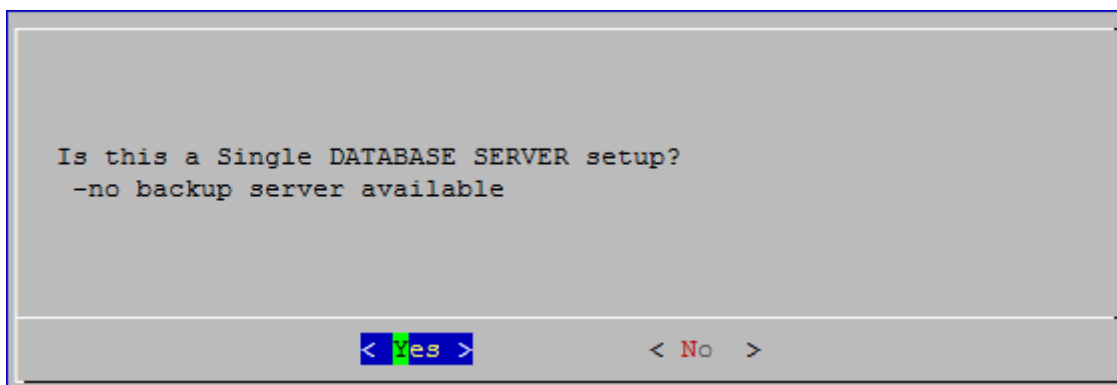
The main server automatically writes its backups to the backup server, and vice versa.

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

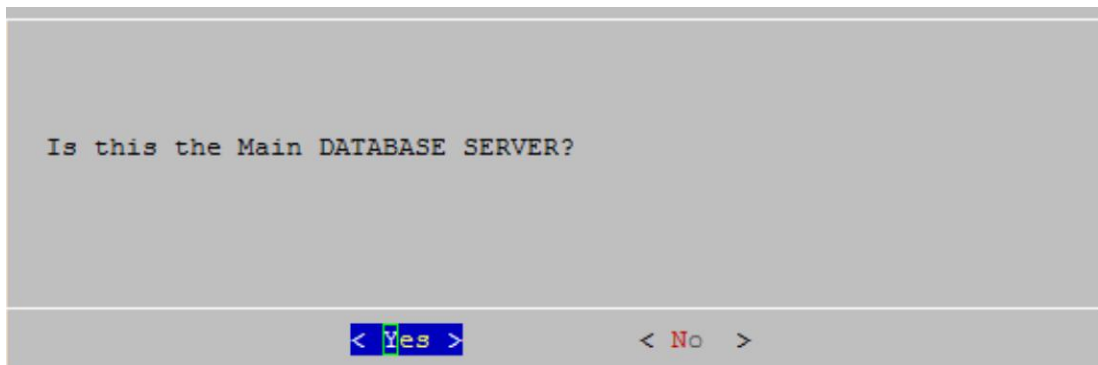
Now follow the screens below.



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

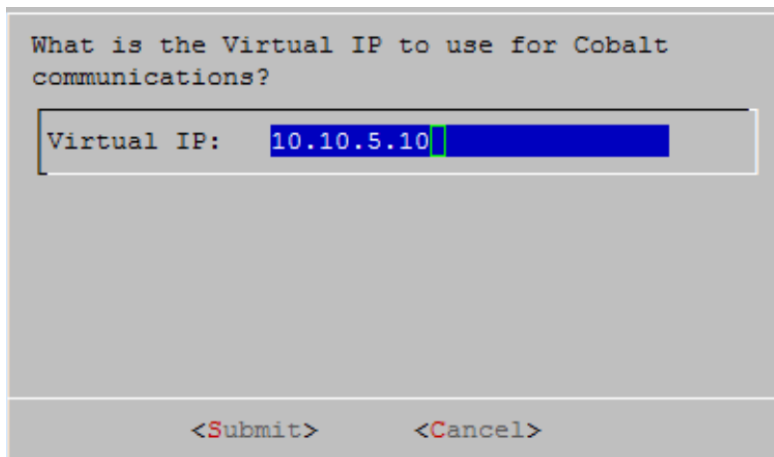


- Click **No**.

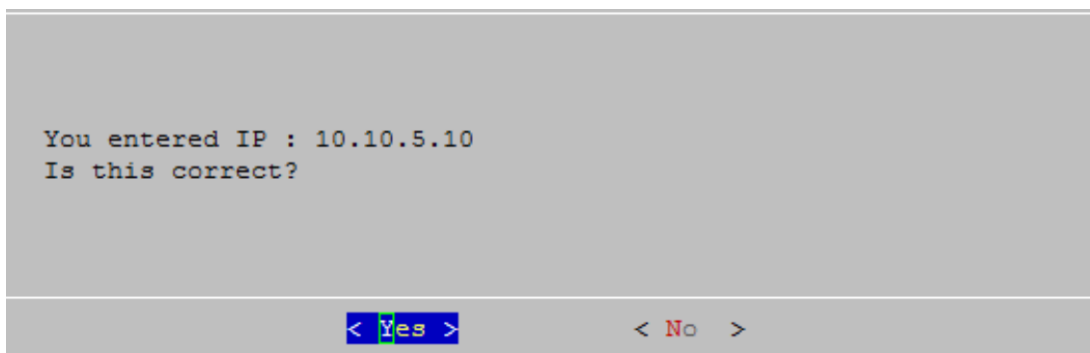


- Click **Yes** if you are configuring the main database server, **No** to configure the backup database server.

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 for the TX/MAM video player

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 `/usr/local/apache2/application/configs/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

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

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 <enter></pre>	The database backup is written to the backup server.
Failover from the main to the backup TX/MAM server		
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.

Going back from the backup to the main TX/MAM server		
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: # /etc/cron.backup/cob-bak <enter>
Restore the database on the main.	/etc/cron.restore/cob-restore	
Deactivate the backup server.		Stop all services: # /system/nexusproc stop all Edit the file /system/STATUS , set yes to no: active=no
Activate the main.	Edit the file /system/STATUS , set no to yes: active=yes Start all services: # /system/nexusproc start all	
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:

13.1 After changing the IP-address of the playout nodes

- 1) Change the playout node's IP-address in the TX/MAM Channel settings.

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

- 1) 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.

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

Example:

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

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

Example:

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

- 4) To change the IP-address in the POC desktop shortcuts properties



Right-click the POC icon on your desktop > **Properties** > **Shortcut**.

In the Target field fill in the TX/MAM servers' virtual IP-address.

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

1) On both the TX/MAM servers, in `/usr/local/apache2/application/configs/txmam.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/"
```

2) On the main TX/MAM server in `/system/objects/cobassets/bin/transfer_ftp.xml`, adjust the transfer metadata.

3) Then run the `/system/objects/cobassets/bin/set.sh` script.