

Deployment Guide

Version 2.0.8

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Document Revision History

July 18, 2017

• Initial release of documentation

August 21, 2017

• Static IP setup

OVA Download

The latest OVA file is available as a secure download hosted on Amazon S3.

Your professional services representative will provide you with a secure link to download the file when it becomes available.

OVA Deployment

Preparations

To set up Biblio, you must have:

- Biblio OVA
- Supported virtual infrastructure
- MySQL or Microsoft SQL compatible server
- Nginx compatible SSL certificate and SSL certificate key

OVA Deployment

Network

Port Usage

Protocol	Port	Direction	Purpose
HTTPS	443	Inbound	Biblio API
HTTPS	443	Outbound	VCC API
ТСР	3306	Outbound	MySQL Server
ТСР	1433	Outbound	Microsoft SQL Server
SSH	22	Inbound/Outbound	Cluster administration

OVA Deployment

System Requirements

Supported Platforms

VMware ESXI 5.5 and later are supported.

Cluster Size

The recommended size of a Biblio cluster is 1 node on 1 distinct physical host.

Virtual Machine Configuration

The minimum requirements for a Biblio node are:

CPU: 3 GHz dual core or 4 virtual processors

RAM: 8 GB

STORAGE: 80GB

The recommended requirements for a Biblio node are:

CPU: 3 GHz quad core or 8 virtual processors

RAM: 12 GB

STORAGE: 120GB, low-latency SATA or SSD drives

Browsers

The Biblio interface is supported on the latest versions of Firefox, Internet Explorer, Edge, Chrome, and Safari.

Biblio OVA Deployment

Deploying

Deploy the OVA on your platform as you would any other OVA. Refer to your platform's documentation for instructions on deploying OVA files.

Cluster Setup

Clusters are headless and all nodes are functionally identical.

Individual Node DNS Entries

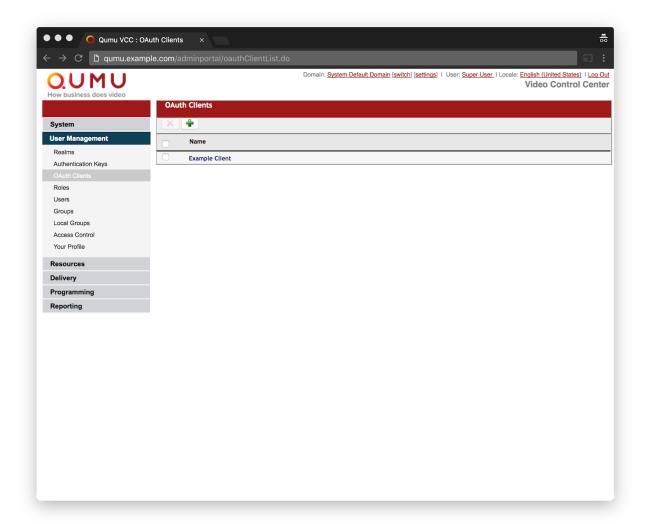
Individual nodes do not require distinct DNS entries but can be assigned one for administrative convenience.

SSL Certificates

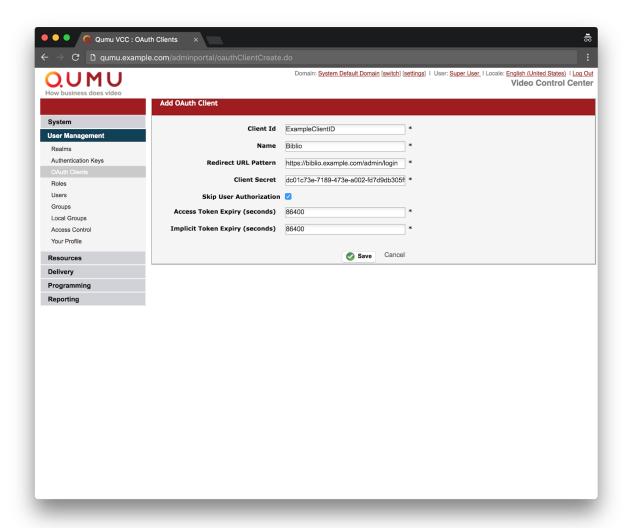
The SSL certificate and certificate key should be Nginx compatible. See - https://nginx.org/en/docs/http/configuring-https-servers.html - for more information.

OAuth Client

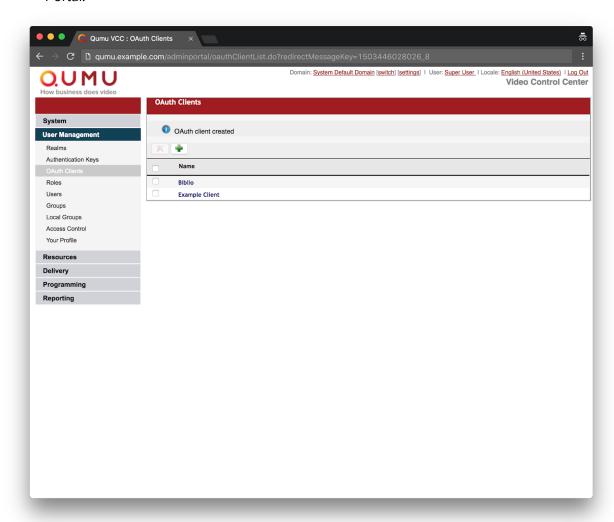
From the Qumu Video Control Center Admin Portal, navigate to User Management >
 OAuth Clients and click the green + button to add a new client



- 2. Enter the following values for a new OAuth Client and click **Save**. Make note of the values for use when <u>initializing the cluster</u>.
 - a. Client ID: [A recognizable value of your choice.]
 - b. Name: Biblio
 - c. Redirect URL Pattern: https://[BIBLIO_HOSTNAME]/admin/login
 - d. **Client Secret:** [A random value of your choice. https://www.uuidgenerator.net/ helps create these.]
 - e. Skip User Authorization: Checked
 - f. Access Token Expiry (seconds): 86400
 - g. Implicit Token Expiry (seconds): 86400



3. Confirm the OAuth client was created and exit the Qumu Video Control Center Admin Portal.

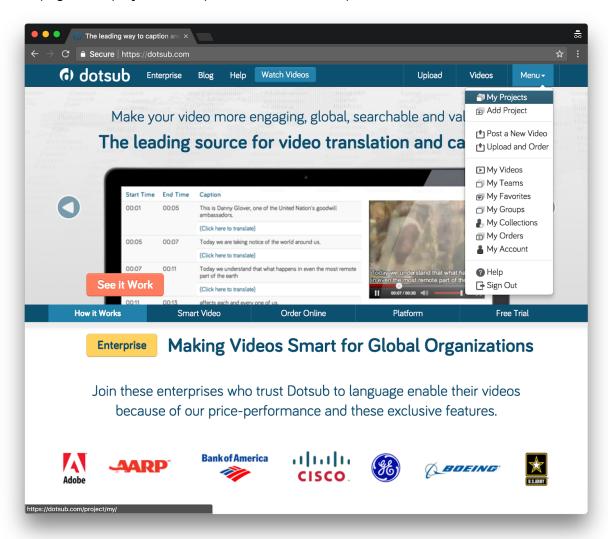


Dotsub Account Setup

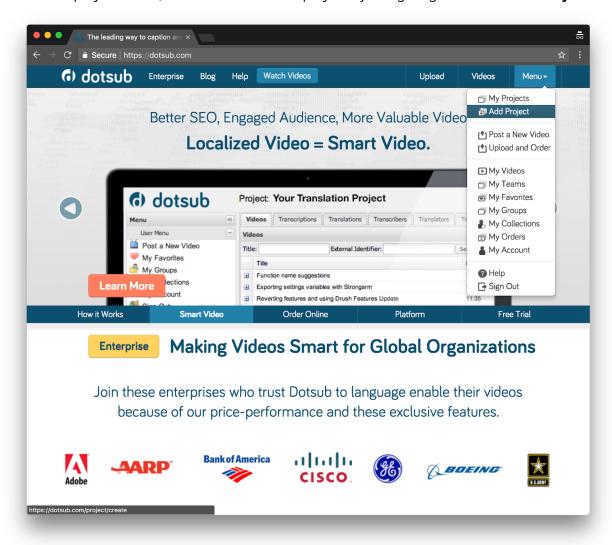
In a new browser window, please login to your account at https://dotsub.com. If you do not have a Dotsub account, please set one up.

Dotsub Project Setup

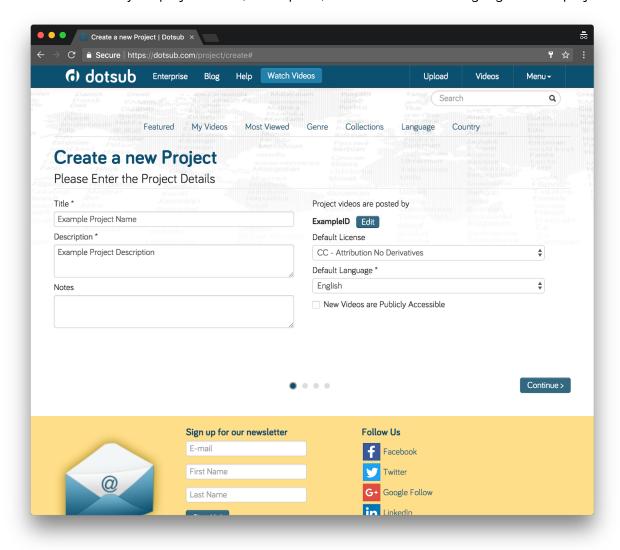
1. Go to the **My Projects** page by navigating to **Menu > My Projects** on the top right of the page. If no projects exist, please continue to step 2.



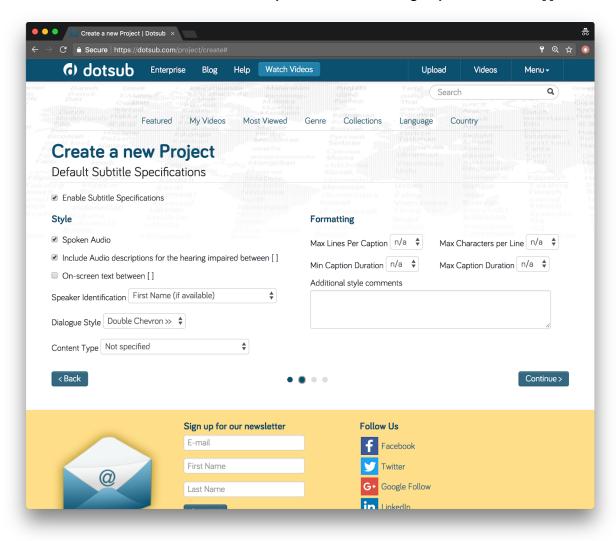
2. If no projects exist, create a new Dotsub project by navigating to Menu > Add Project.



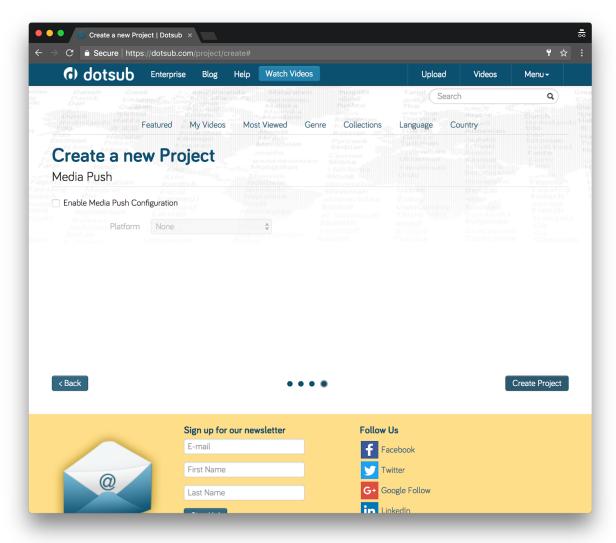
a. Give your project a title, description, and set the default language for this project.



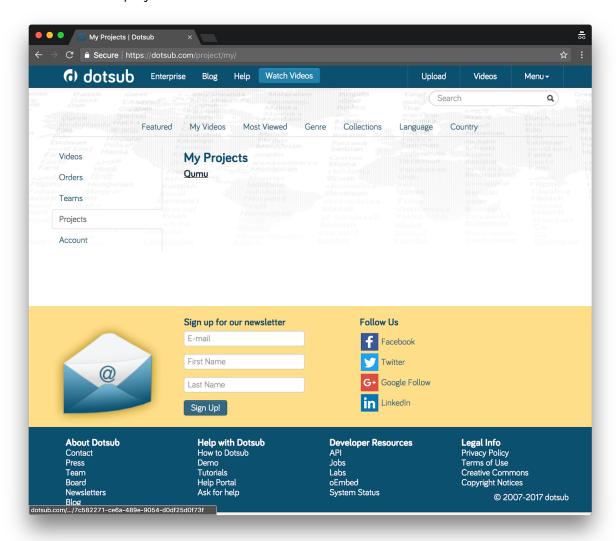
- b. Check Enable Subtitle Specifications and check the following style:
 - i. Include Audio descriptions for the hearing impared between []



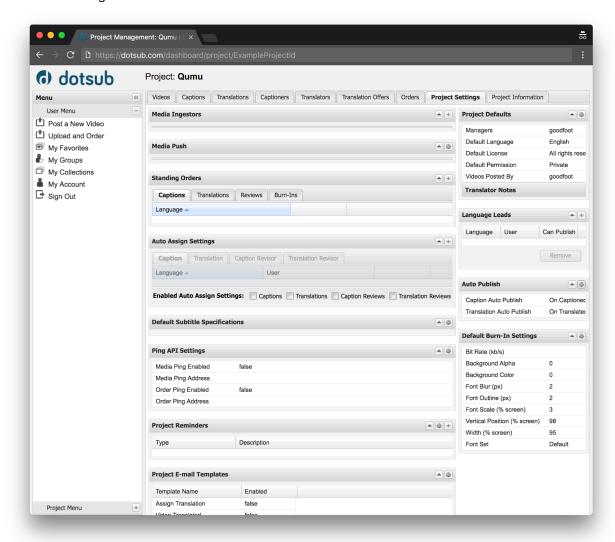
c. Skip Ingestor Settings, and skip Media Push. Click **Create Project** to complete the project setup.



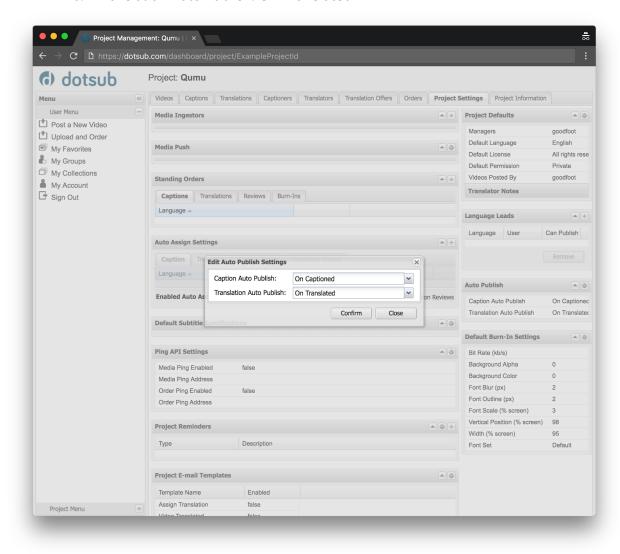
3. Click on the project that will be used for Biblio.



4. Navigate to the **Project Settings** tab and in the **Auto Publish** box, click on the gear icon on the right.



- 5. Please set the Auto Publish settings to the following:
 - a. Caption Auto Publish: On Captioned
 - b. Translation Auto Publish: On Translated



Click **Confirm** to complete the setup. You may now close the window.

Node Setup

Network Setup (DHCP)

By default, nodes use dynamic host configuration protocol (DHCP) on network device eth0. No additional network setup is required on DHCP systems.

Network Setup (Static IP)

For systems with statically allocated IP addresses:

- 1. Access the virtual machine terminal.
- 2. At the login prompt, enter:

```
username: ubuntu
password: ubuntu
```

3. Run the following command to switch to 'root' user:

```
sudo -s
```

```
ubuntu@ubuntu:~$ sudo -s
root@ubuntu:~#
```

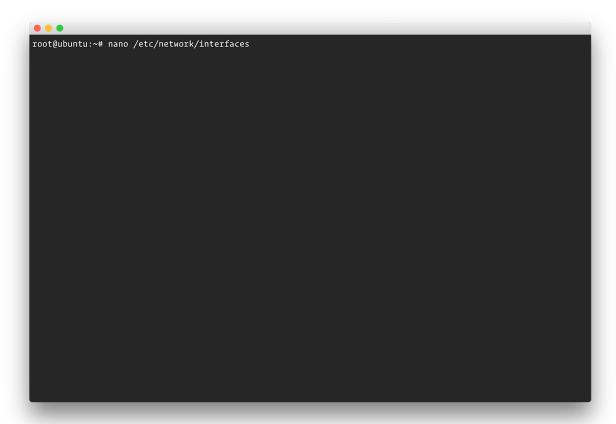
4. Verify the network interface, In this case it's enp0s3

ifconfig

```
root@ubuntu:~# ifconfig
         Link encap:Ethernet HWaddr 08:00:27:89:a8:15
         inet addr:10.0.1.79 Bcast:10.0.1.255 Mask:255.255.255.0
         inet6 addr: fe80::a00:27ff:fe89:a815/64 Scope:Link
         inet6 addr: 2604:2000:14c4:ff:a00:27ff:fe89:a815/64 Scope:Global
         UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
         RX packets:5758 errors:0 dropped:0 overruns:0 frame:0
         TX packets:6354 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1000
         RX bytes:2160284 (2.1 MB) TX bytes:6216879 (6.2 MB)
         Link encap:Local Loopback
         inet addr:127.0.0.1 Mask:255.0.0.0
         inet6 addr: ::1/128 Scope:Host
         UP LOOPBACK RUNNING MTU:65536 Metric:1
         RX packets:3915 errors:0 dropped:0 overruns:0 frame:0
         TX packets:3915 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1
         RX bytes:2545939 (2.5 MB) TX bytes:2545939 (2.5 MB)
root@ubuntu:~#
```

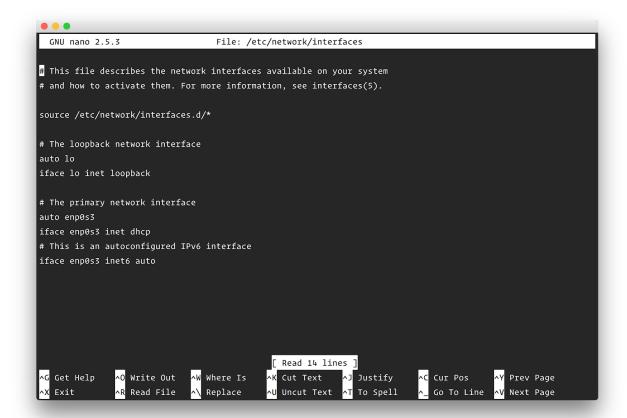
5. Open the network configuration file for editing:

nano /etc/network/interfaces



- 6. Review and modify the settings as needed.
 - If the primary network interface has a different name, the /etc/network/interfaces file may look little different.
 - The file will look similar to:

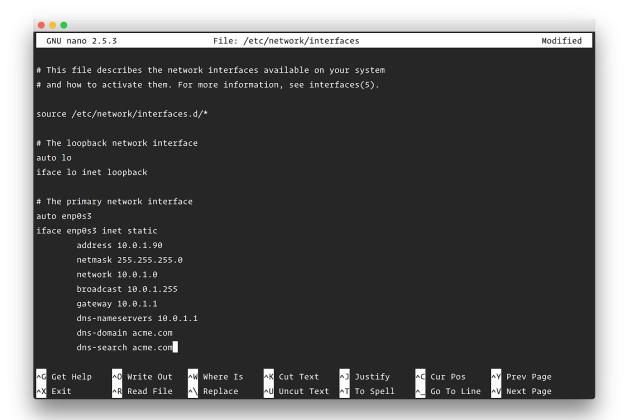
```
# The loopback network interface
auto lo
iface lo inet loopback
# The primary network interface
auto enp0s3
iface enp0s3 inet dhcp
# This is an autoconfigured IPv6 interface
iface enp0s3 inet6 auto
```



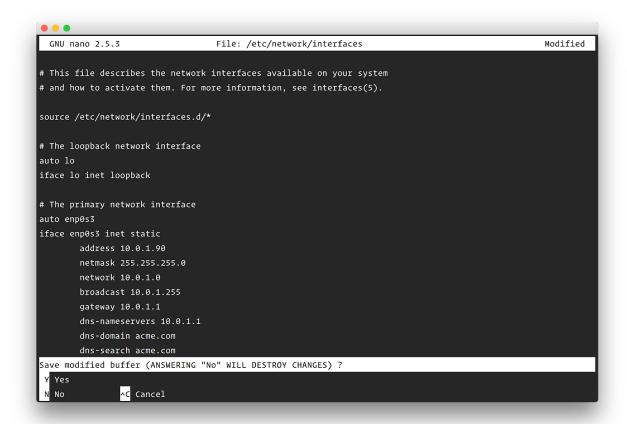
Your changes will most likely look similar to:

```
# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto enp0s3
iface enp0s3 inet static
   address 10.0.1.90
   netmask 255.255.255.0
   network 10.0.1.0
   broadcast 10.0.1.255
   gateway 10.0.1.1
   dns-nameservers 10.0.1.1
   dns-domain acme.com
   dns-search acme.com
```



- 7. When your modifications are completed press CTRL-X to exit.
- 8. Press the **Y** key to save your changes.

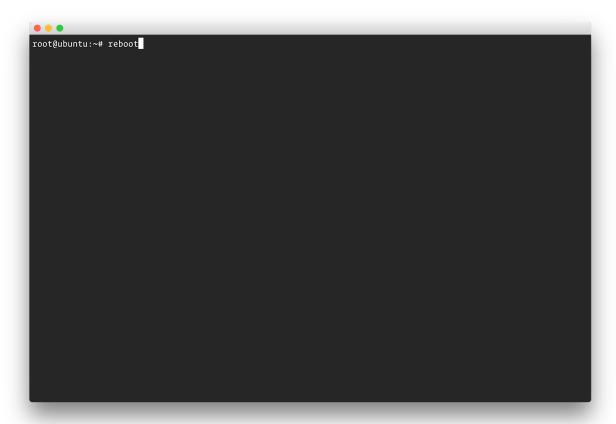


9. Press **ENTER** to save the file.



10. Reboot the machine:

reboot



- 11. After the system restarts, confirm that it was configured successfully.
 - Lookup ip address of the machine by running,

ifconfig

o Ping the configured IP address:

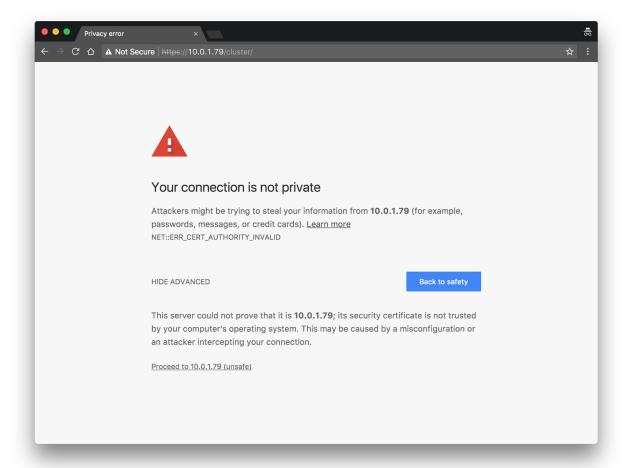
ping [configured IP address]

 Access https://[configured IP address]/cluster in a web browser and check for the cluster setup screen.

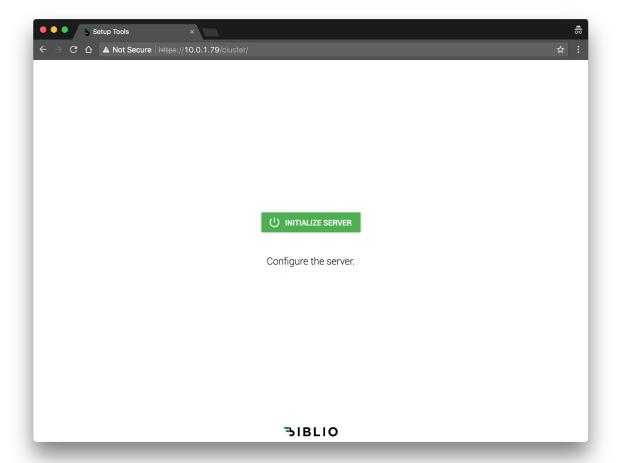
```
root@ubuntu:~# ifconfig
enp0s3
         Link encap:Ethernet HWaddr 08:00:27:89:a8:15
         inet addr:10.0.1.90 Bcast:10.0.1.255 Mask:255.255.25.0
         inet6 addr: fe80::a00:27ff:fe89:a815/64 Scope:Link
         inet6 addr: 2604:2000:14c4:ff:a00:27ff:fe89:a815/64 Scope:Global
         UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
         RX packets:192 errors:0 dropped:0 overruns:0 frame:0
         TX packets:123 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1000
         RX bytes:29842 (29.8 KB) TX bytes:19252 (19.2 KB)
         Link encap:Local Loopback
         inet addr:127.0.0.1 Mask:255.0.0.0
         inet6 addr: ::1/128 Scope:Host
         UP LOOPBACK RUNNING MTU:65536 Metric:1
         RX packets:160 errors:0 dropped:0 overruns:0 frame:0
         TX packets:160 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1
         RX bytes:11840 (11.8 KB) TX bytes:11840 (11.8 KB)
root@ubuntu:~#
```

Initialize Cluster

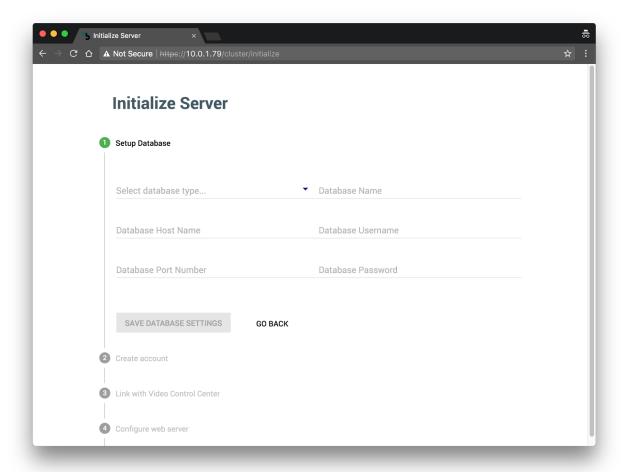
Visit the HTTPS /cluster path of the first node. If the node IP were 10.0.1.79, the address would be https://10.0.1.79/cluster. Proceed through the SSL certificate warnings.

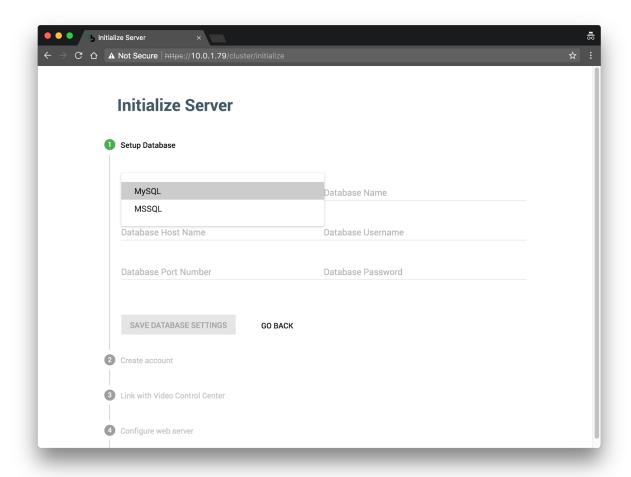


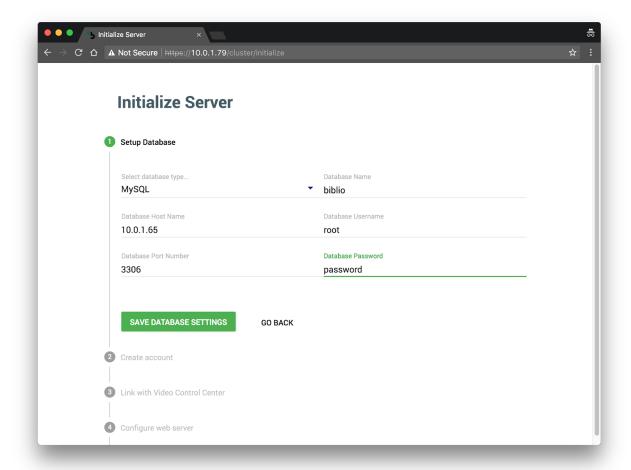
From the landing page, click on **Initialize Server**.



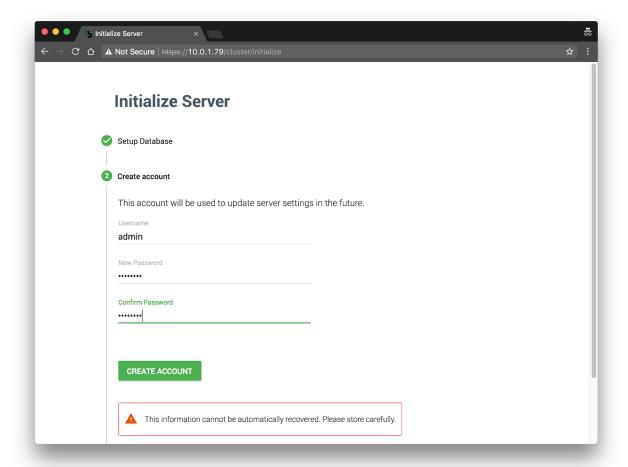
From **Initialize Server: Setup database**, enter the credentials of a previously set up MySQL or MSSQL database.



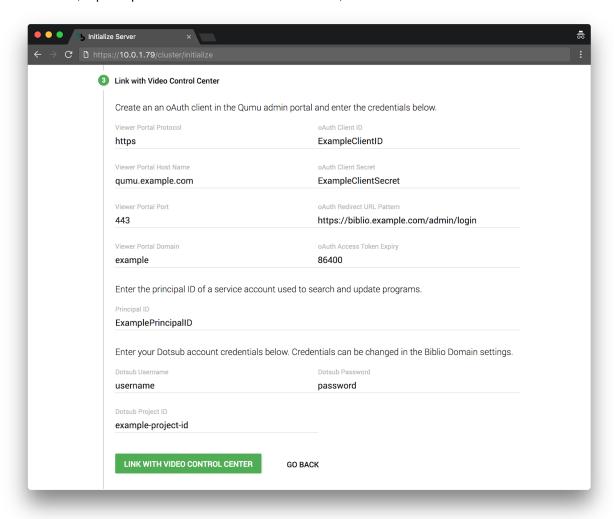




From **Initialize Server: Create account**, enter a username and password to create an account for cluster administration. Please note this information cannot be automatically recovered.



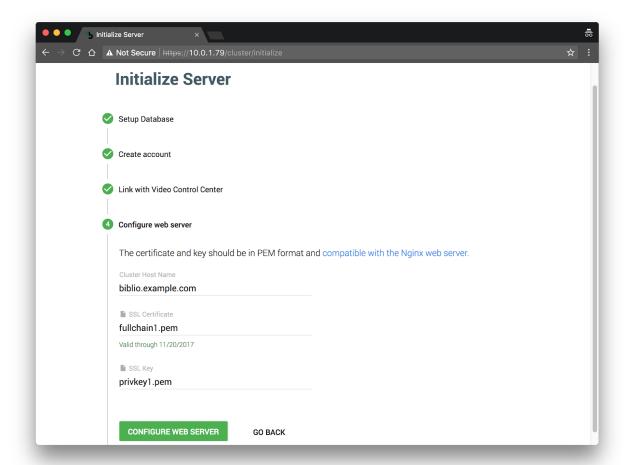
From **Initialize Server: Link with Video Control Center**, enter the Qumu Viewer Portal network and domain information. Enter the credentials of an oAuth client previously set up in the Qumu Admin Portal, a principal ID with administrative access, and the credentials of a Dotsub account.



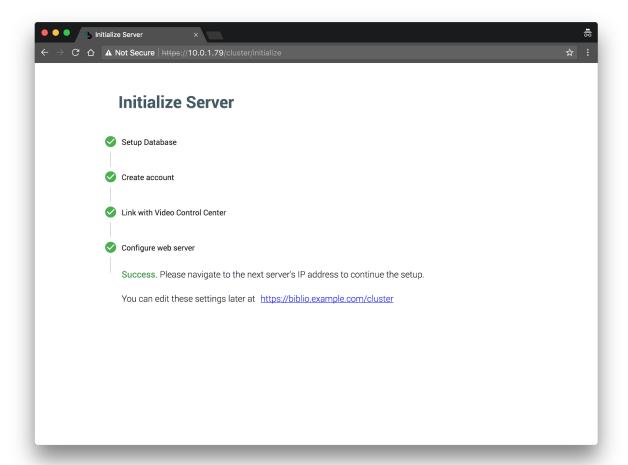
How to retrieve the principal ID from the Video Control Center:

- If the HTTPS path was vcc.example.com and the domain was qumu, the address would be:
 - https://vcc.example.com/viewerportal/services/rest/qumu/users/currentUser
- 2) The page should be displaying JSON data containing a field labeled **id**. Please enter the **id** into the **Principal ID** field in the setup screen.

From **Initialize Server: Configure web server**, enter the cluster hostname and associated SSL certificate and keys. These files should be <u>compatible with the Nginx web server</u>.

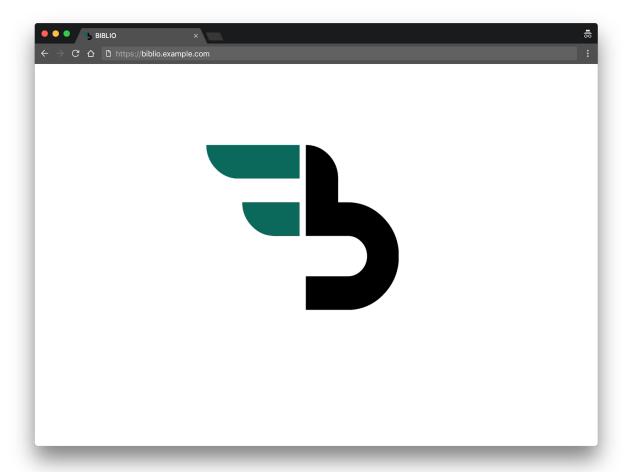


After completion, navigate to the next server's IP address to continue the setup. You can also click the link to navigate to server settings.



Verify DNS and SSL

Navigate to the HTTPS designated cluster hostname to verify setup. If the cluster hostname were **biblio.example.com**, the address would be **https://biblio.example.com**



Set up Custom Timeserver (Optional)

Ubuntu 16.04 by default uses the time server at **ntp.ubuntu.com**.

To change the default server, paste the following command in the terminal to edit the configuration file in the VIM editor:

sudo vim /etc/systemd/timesyncd.conf

Uncomment the NTP line by removing the hash and enter the desired time server address. For example, if the NTP time server was **time.google.com**, the entry would be **NTP=time.google.com**

Quit the editor by hitting **ESC**, and type **:wq** to save and exit. Hit **Enter**. Restart the time server by running the following command in the terminal:

```
systemctl restart systemd-timesyncd
```

To check the status of the timeserver, run the following command in the terminal:

```
systemctl status systemd-timesyncd
```