



TeamDrive
Sync your data fast & securely

**TeamDrive Web Portal Virtual
Appliance Installation**

Release 1.0.2.0

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INTRODUCTION

The TeamDrive WebPortal Virtual Appliance offers a pre-installed and ready-to-run TeamDrive WebPortal suitable for deployment in a virtualized environment like VMWare.

This document will guide you through the deployment and initial installation of the Virtual Appliance and the configuration of the TeamDrive Registration Server.

This Installation Guide outlines the deployment of a single node installation, where all required components are located on the same OS instance. Please consult the *TeamDrive WebPortal Administration Guide* for recommendations about scalability and/or high availability.

3.1 Requirements

3.2 Hardware Requirements

The hardware requirements depend on the number of users that will access the Web Portal. Exact sizing will depend on how heavily the portal is used and how many users access the portal concurrently.

To operate a TeamDrive Web Portal you need one or more **64-bit** systems.

CPU usage, RAM, disk storage and network requirements are describe below. Since the usage of a Web Portal can differ greatly, our recommendations are only approximate.

Note that the requirements describe here apply in particular to the system running the Docker host. The hardware requirements of the other components of the Web Portal are minimal in comparison, and can be set at approximately 10% of the power of the Docker service. See scaling for more details.

Please contact us via sales@teamdrive.net for further assistance.

3.2.1 CPU Requirements

To operate a TeamDrive Web Portal you we recommend at least one processor core per 24 users of the portal.

This estimate assumes that only about 10% of all users are actively performing some operation at any given moment. Increase the number of CPU cores If your estimate of the the number of active users is higher.

3.2.2 RAM Requirements

The Web Portal starts a Docker container running the TeamDrive Agent for each active user session. Each container requires about 100 MB of RAM.

You can assume that the number of containers running is greater than the number of active users (the number of users accessing the portal at any given time). This is because a container until the user session is closed due to an idle timeout.

3.2.3 Storage Requirements

The main storage requirement is for the Space data that is downloaded from the Hosting Service when a user enters a Space via the TeamDrive Web interface.

The storage requirements are relatively modest because only the “meta-data” (file names and directory structure) of a Space will be stored permanently on the Web Portal.

The rest of the disk space required consists of a file cache which is used for files in transit between the Hosting service and the end-user device. We recommend a cache size of at least 2 GB per user of the Web Portal plus about 4 MB per Space.

The speed of the storage system used will be decisive for the responsiveness of the Web Portal, in particular when entering a Space. We recommend a system that is capable of at least 100 IOPS per active user of the Portal. As a rule of thumb we assume that 10% of the users that use a Web Portal are active at any particular time. This means, for example, that if a portal serves 1000 users, then the the storage system should be capable of 10000 IOPS.

For Web Portals running on a cluster of host machines, the storage system must be mounted by all hosts in the cluster.

If a user’s account is idle for a certain period of time (for example 1 month), the Web Portal can be instructed to remove the user’s data. In this way, the storage can be freed up for other users.

If the user’s data is removed from the Web Portal host, the data is not lost, because the Space data is still stored and maintained by the Hosting Server. The only inconvenience for the user is that Spaces will have to be “re-entered” the next time the user logs in to the Web Portal.

3.2.4 Network Requirements

The bandwidth of the Web Portal’s network interface plays a vital role in defining the overall performance and responsiveness of the service.

When a user enters a Space, the meta data of the Space will be downloaded to the Web Portal. The speed of this operation will be effected by The speed inbound connections.

When a user accesses a file in a Space, the file is first downloaded to the the Web Portal disk cache for the user, where it is decrypted. The decrypted file is then transfered to the user’s device. As a result, the amount of inbound traffic is at least as high as the outgoing traffic.

The system must have IP connectivity, using a fixed IP address and a resolvable fully qualified domain name. This host name is basically the URL that users will use to access the Web Portal. The Web Portal itself needs to be able to properly resolve host names, too.

If the Web Portal is located behind a firewall, please ensure that it is reachable via HTTPS (TCP port 443) by a web browser.

During operation the Web Portal will need make API calls to an associated TeamDrive Registration Server. For this purpose the Web Portal must be able to establish outgoing HTTPS connections to the Registration Server.

It is possible to use an TeamDrive Authentication Service for the TeamDrive users of the Web Portal, or an external authentication for the administrators of the Web Portal. In this case, the Web Portal must be able to establish HTTP or HTTPS (depending on the configuration) with the host running the authentication service.

3.3 Hardware Requirements

The TeamDrive WebPortal Virtual Appliance is delivered in the form of a virtual machine image. Its main technical specifications are:

- Supported platforms: Oracle VirtualBox, VMWare vSphere 4 and VMWare vSphere 5 (VMWare Workstation 7 can be used for testing purposes)
- Minimum VM Memory: 2 GB

- vCPUs: 2
- HDD: 100GB
- Guest OS: CentOS 6 (64-bit)

3.4 Main Software components

The TeamDrive WebPortal comprises the following components and modules:

- Apache Web Server 2.2
- Docker 1.6.2 (or later)
- MySQL 5.1 (or later) Database Server
- TeamDrive Agent
- Yvva Runtime Environment version 1.3

VIRTUAL APPLIANCE INSTALLATION AND CONFIGURATION

4.1 Download and Verify the Virtual Appliance Image

A .zip Archive containing the virtual appliance's disk image and VM configuration can be obtained from the following URL:

<http://s3download.teamdrive.net/WebPortal/TD-Web-Portal-CentOS6-64bit-1.0.2.0.zip>

Download the .zip archive and the corresponding SHA1 checksum file:

<http://s3download.teamdrive.net/WebPortal/TD-Web-Portal-CentOS6-64bit-1.0.2.0.zip.sha1>

You should verify the SHA1 checksum to ensure that the zip archive is intact.

You can use the `sha1sum` command line utility on Linux to verify the integrity of the downloaded file.

For guidance on how to verify this checksum on other platforms, see the following articles:

- Apple Mac OS X: [How to verify a SHA-1 digest on Mac OS X](#)
- Microsoft Windows: [Availability and description of the File Checksum Integrity Verifier utility](#)

For additional safety, we recommend to verify the cryptographic signature of the zip archive as well.

You need to have a working GnuPG installation in order to verify this signature. The installation and configuration of GnuPG is out of the scope of this document — see the documentation at <https://gnupg.org/> for details.

The public TeamDrive Build GPG key can be downloaded from here:

<http://repo.teamdrive.net/RPM-GPG-KEY-TeamDrive>

Import the key into your keyring and double check it matches the fingerprint provided below:

```
$ gpg --fingerprint support@teamdrive.net
pub  2048R/9A34C453 2014-07-01
    Key fingerprint = 8F9A 1F36 931D BEFA 693B  9881 ED06 27A9 9A34 C453
uid                               TeamDrive Systems (RPM Build Key) <support@teamdrive.net>
sub  2048R/6048C568 2014-07-01
```

Each official release is signed with this TeamDrive GPG key. The signature can be obtained from the following URL:

<http://s3download.teamdrive.net/WebPortal/TD-Host-Server-CentOS6-64bit-1.0.2.0.zip.asc>

To verify the signature on a Linux operating system, the .zip and corresponding .asc file should be located in the same directory. Now run the following command:

```
$ gpg --verify TD-Web-Portal-CentOS6-64bit-beta-1.zip.asc
gpg: Signature made Do 27 Aug 2015 12:57:38 CEST using RSA key ID 9A34C453
gpg: Good signature from "TeamDrive Systems (RPM Build Key) <support@teamdrive.net>"
gpg: WARNING: This key is not certified with a trusted signature!
gpg:          There is no indication that the signature belongs to the owner.
Primary key fingerprint: 8F9A 1F36 931D BEFA 693B  9881 ED06 27A9 9A34 C453
```

The procedure on other platforms may vary, please consult the GnuPG documentation for details on how to accomplish this task.

4.2 Import the Virtual Appliance

After you have confirmed the integrity and authenticity, unzip the zip archive.

The archive contains four files, a virtual disk image (.vmdk), two virtual machine description files (.ovf) and a manifest file (.mf), containing the file names and SHA1 checksums.

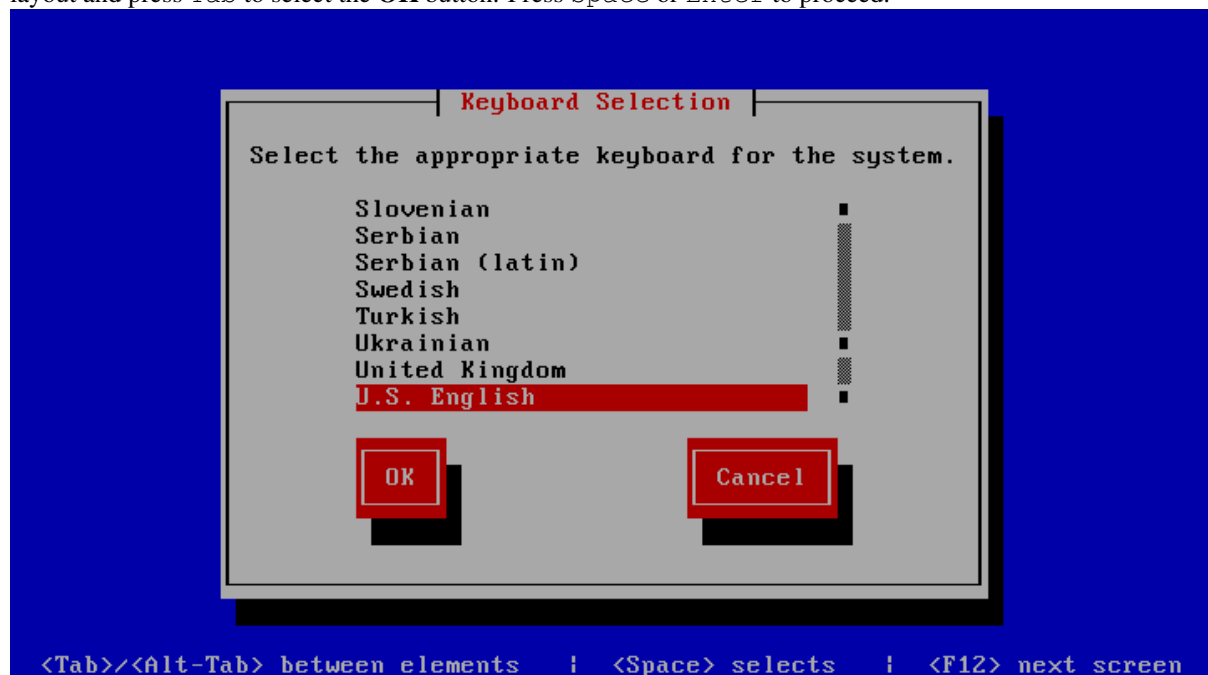
Import the virtual machine image according to the documentation of your virtualization technology and adjust the VM parameters (e.g. number of virtual CPUs, RAM) based on your requirements, if necessary.

Start up the virtual machine and observe the virtual machine's console output.

4.3 First Boot and Initial Configuration

When you boot up the VM image for the first time, the Operating System will perform a number of initial configuration steps, to customize the virtual machine for your environment. For more details on these individual steps, please refer to the *Red Hat Enterprise Linux 6 Installation Guide* at https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/6/html/Installation_Guide/index.html

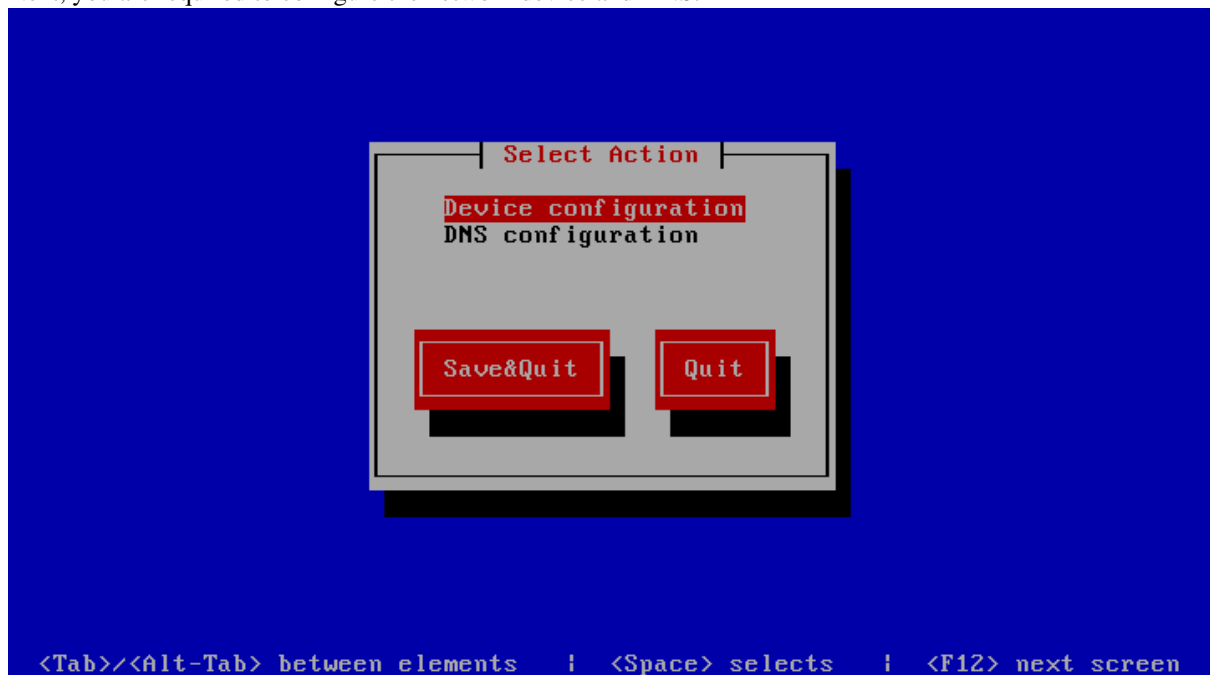
The first screen will prompt you to select your keyboard layout. Use the cursor keys to select the appropriate layout and press Tab to select the **OK** button. Press Space or Enter to proceed.



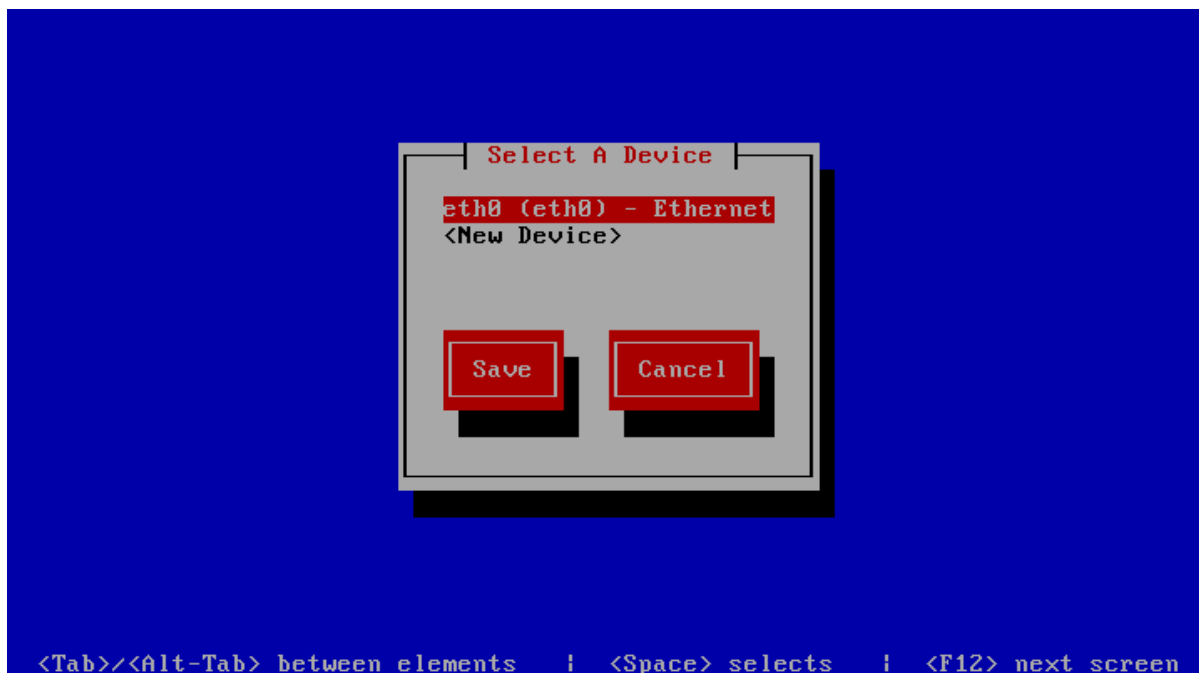
After loading the appropriate keymap, you will now be prompted to enter the password for the *root* user account. Choose a strong password here — the *root* user has full administrative privileges on a Linux system. The password won't be printed on the screen for security reasons, therefore you need to enter it twice to avoid typos.

```
Loading /lib/kbd/keymaps/i386/qwertz/de-latin1-nodeadkeys.map.gz
Changing password for user root.
New password:
Retype new password: _
```

Next, you are required to configure the network device and DNS.

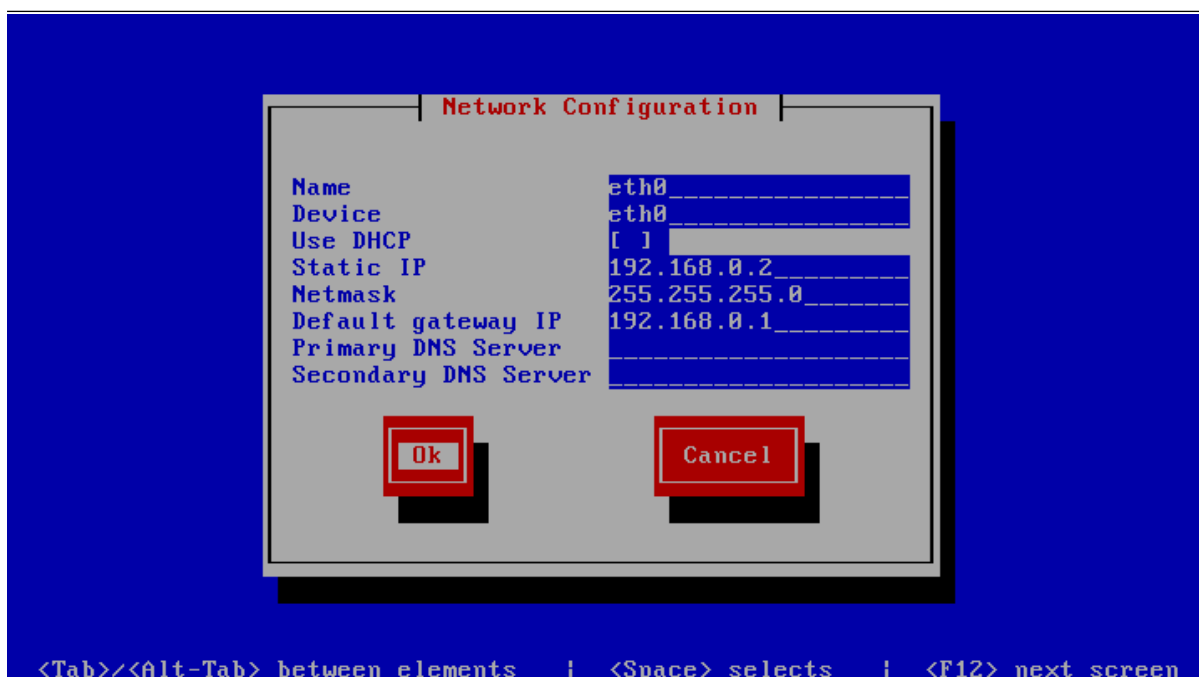


Press `Enter` to enter the device configuration screen. Select the network device which is usually named `eth0`. The hardware description (e.g. `AMD PCnet32` or `Ethernet`) depends on the virtual network card that your virtual machine has been configured with. Press `Enter` to get to the device configuration details.

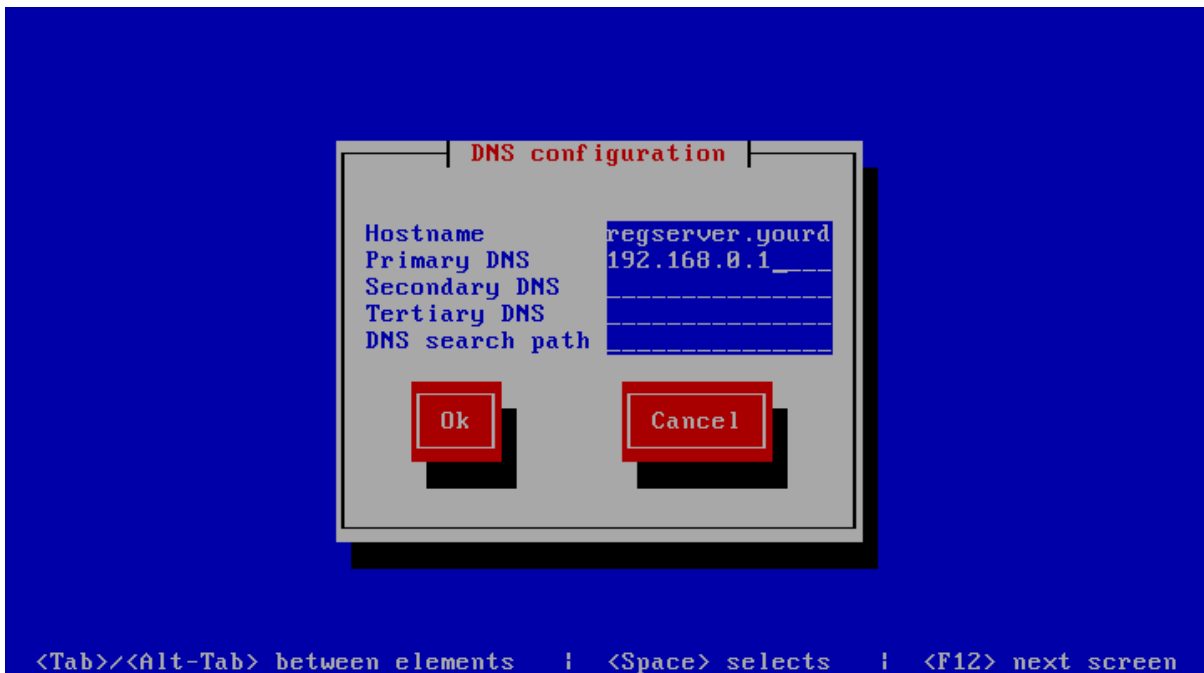


The network configuration screen allows you to specify the IP address and other network-related settings. Adjust these to your local requirements. Use the Tab key to move between elements. Select the **Ok** button and press Space or Enter to apply your changes. In the device selection screen, select the **Save** button to save the device configuration.

Note: Note that you should not use dynamic IP addresses (DHCP) for the TeamDrive WebPortal. The TeamDrive Service depends on static IP addresses and requires a resolvable fully qualified domain name.



Next, select the **DNS configuration** screen from the network configuration and adjust the DNS settings to match your environment. Enter the FQDN of your WebPortal Server as host name (e.g. webportal.yourdomain.com) into the **Hostname** field and add your DNS servers IP address(es). Select the **Ok** button to apply the DNS changes.

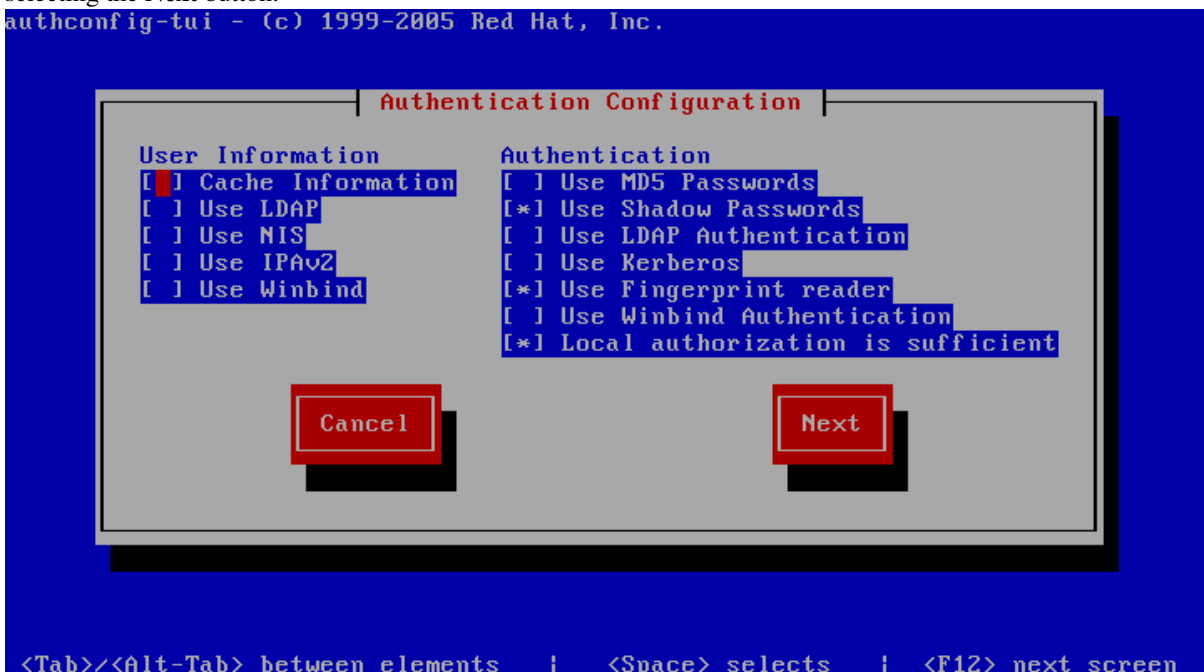


Select the **Save&Quit** button to proceed with the installation.

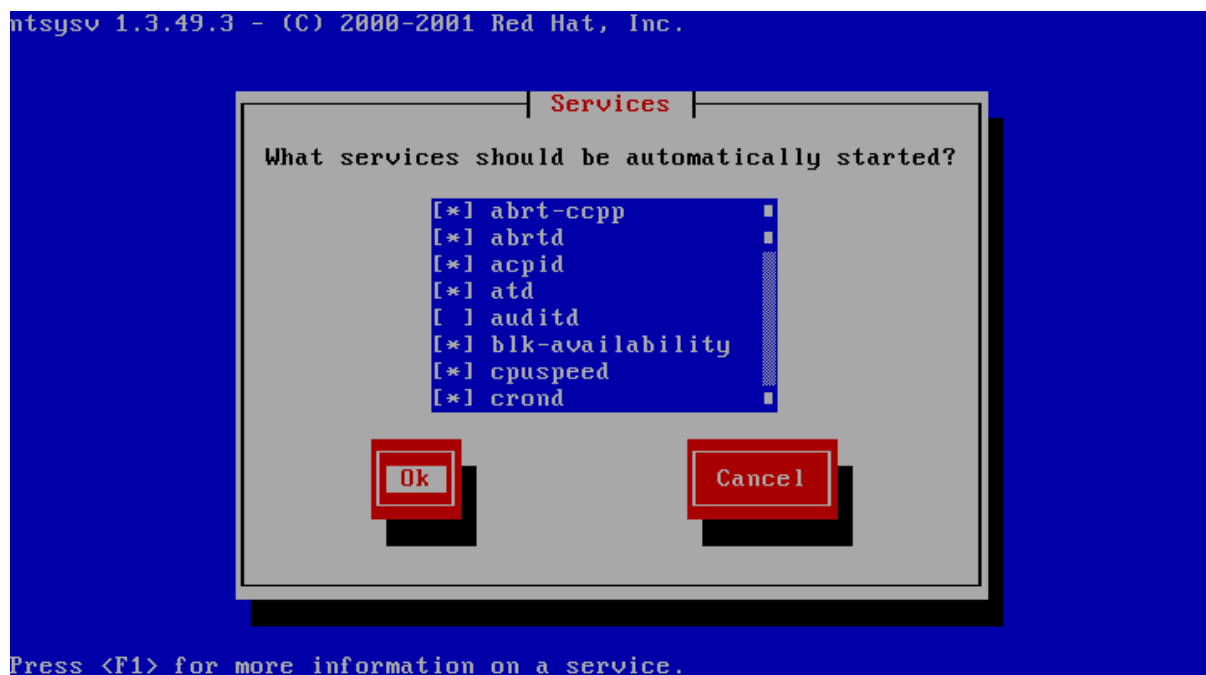
Note: A cloned CentOS image in a VMWare environment might exhibit problems updating the network interface. If you are observing issues when configuring the network interface, please follow these instructions: <http://alexcline.net/2011/11/15/reconfiguring-network-interfaces-in-centosrhel-systems-cloned-with-vcenter/>

The next screen allows you to modify the local user authentication configuration. Unless you have specific requirements for your local environment, it's safe to keep the proposed defaults and proceed with the installation by selecting the **Next** button.

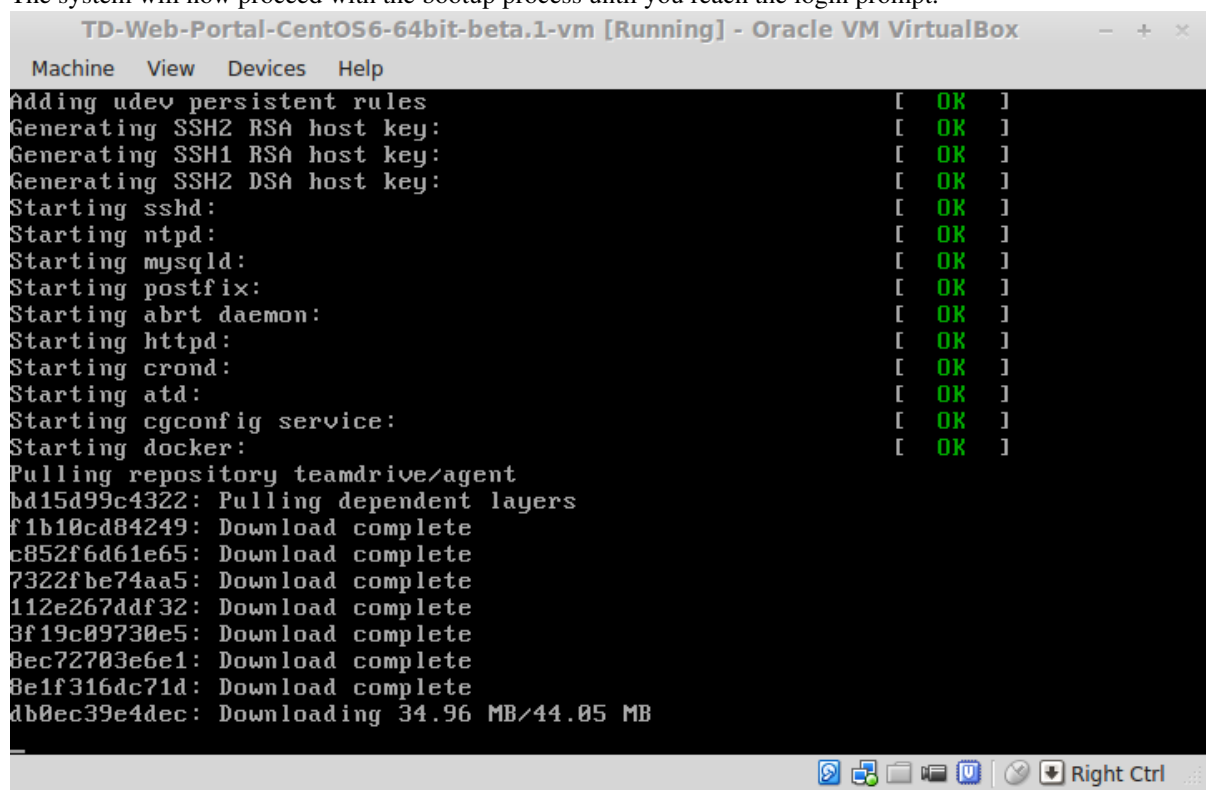
authconfig-tui - (c) 1999-2005 Red Hat, Inc.



The following screen will ask you to select which services should be started at system bootup time. Adjust these based on your requirements and local policies. Also make sure that the MySQL database (service `mysqld`) is enabled. Select the **Ok** button to proceed.



The system will now proceed with the bootup process until you reach the login prompt.



Note: Notice how the TeamDrive Agent container is downloaded from the TeamDrive Docker repository. This command in `/etc/rc.local` will also try to update the Agent container every time the VM is booted.

Log in as the `root` user, providing the login password you defined during the initial installation.

```
CentOS release 6.5 (Final)
Kernel 2.6.32-431.23.3.el6.x86_64 on an x86_64

regserver login: root
Password:
[root@regserver ~]# _
```

4.4 Updating the Installed Software Packages

As a first step, we strongly advise to perform an update of the installed software packages. New security issues or software bugs might have been discovered and fixed since the time the Virtual Appliance has been built.

This can be done using the `yum` package management tool. As a requirement, the Virtual Appliance needs to be connected to the network and needs to be able to establish outgoing HTTP connections to the remote RPM package repositories. To initiate the update process, enter the following command:

```
[root@localhost ~]# yum update -y
```

`yum` will first gather the list of installed packages and will then determine, if updates are available. If any updates need to be installed, the affected RPM packages will now be downloaded from the remote repositories and installed.

If the `yum` update installed any updated packages, consider performing a reboot before you proceed, to ensure that the updates are activated.

Note: Performing a regular update of all installed packages is an essential part of keeping your system secure. You should schedule a regular maintenance window to apply updates using `yum update` (and perform a reboot, to ensure that the system still boots up fine after these updates). Failing to keep up to date with security fixes may result in your system being vulnerable to certain remote exploits or attacks, which can compromise your system's security and integrity.

4.5 Changing the Default MySQL Database Passwords

The TeamDrive WebPortal Virtual Appliance uses the following default passwords for the MySQL database. We strongly suggest changing the passwords of the MySQL users `root` and `teamdrive` before connecting this system to a public network.

Account type	Username	Password (default)	New Password
MySQL Database Server	root	teamdrive	
MySQL Database Server	teamdrive	teamdrive	

To change the passwords for the MySQL root and teamdrive user, please use the following commands. First change the password for the root user:

```
[root@localhost ~]# mysqladmin -u root -pteamdrive password
Warning: Using a password on the command line interface can be insecure.
New password: <new password>
Confirm new password: <new password>
```

Next, log into the MySQL database as the root user (using the new password) and change the password for the user teamdrive:

```
[root@localhost ~]# mysql -u root -p
Enter password: <new password>

[...]

mysql> SET PASSWORD FOR 'teamdrive'@'localhost' = PASSWORD('<new password>');
Query OK, 0 rows affected (0.00 sec)

mysql> quit
Bye
```

Note: Take note of the new MySQL password for the teamdrive user, as you will need to change some configuration files using that password as outlined in the following chapters [Configuring the Registration Server's MySQL configuration](#) and [Administration Console MySQL Configuration](#).

4.6 Replacing the self-signed SSL certificates with proper certificates

In order to use SSL without any problems, you will need a properly signed SSL certificate (+ key) and an intermediate certificate (certificate chain) from a trusted authority.

Edit `/etc/httpd/conf.d/ssl.conf` and enter the absolute location of your files into the appropriate settings:

```
SSLCertificateFile /path/to/your_domain.crt SSLCertificateKeyFile /path/to/your_domain.key
```

Depending on your certificate provider and your security needs, you probably want to set

```
SSLCertificateChainFile /path/to/server-chain.crt
```

or

```
SSLCACertificateFile /path/to/gd_bundle.crt
```

While you are editing the `ssl.conf` file, have a look at the allowed protocols and the preferred ciphers. SSLv2 and SSLv3 should be disabled because of their known vulnerabilities:

```
SSLProtocol all -SSLv2 -SSLv3
```

Disable weak ciphers. At the time of writing, the following configuration provides improved security:

```
SSLHonorCipherOrder on SSLCipherSuite 'EECDH+ECDSA+AESGCM:EECDH+aRSA+AESGCM:EECDH+ECDSA:EE
```

After saving the changes, restart your httpd and watch out for errors:

```
service httpd restart
```

Now you can logout and proceed with the configuration via browser.

INITIAL WEB PORTAL CONFIGURATION

5.1 Associating the Web Portal with a Provider

Before you can activate your Web Portal you need to associate your Web Portal with a specific Provider account on the Registration Server. This can be performed via the Registration Server's Admin Console, which you can usually access via the following URL:

`https://regserver.yourdomain.com/adminconsole/`

Please see the Registration Server Manual for details. Note that Registration Server 3.5 is required to run a Web Portal.

Log in with your provider login and click the tab **Server Management** and then click on **Provider Settings**. In the section **Provider Settings**, click the tab labelled **API**.

Select the `API_WEB_PORTAL_IP` setting and click "Set" to activate The setting. Enter the IP address of the Web Portal and click "Save" to apply this change.

It is possible to associate the use of a single Web Portal with a number of Providers. If this is desirable, then follows the procedure above for the addition Providers.

Only users of the Providers associated in this manner will be able to access the Web Portal.

5.2 Activating the Web Portal

From a desktop system that can connect to the Web Portal via HTTPS, start a web browser like Mozilla Firefox, Google Chrome (or any other modern web browser) and start the configuration process by opening the following URL in your browser:

`https://webportal.yourdomain.com/admin/`

This should open the Web Portal Setup page. If you get an error message like "500 Internal Server Error", check the log files for any errors. See chapter *Web Installation: "500 Internal Server Error"* (page 23) for details.

Note: If you haven't replaced the server's self-signed default SSL certificate yet, your web browser most likely will complain about an untrusted/insecure connection. Either replace the SSL certificate with an appropriate one before you proceed, or ignore this message.

Alternatively, you can access the Setup Page via an unencrypted HTTP connection. You will have to uncomment the rewrite rules in the apache config file `/etc/httpd/conf.d/td-webportal.httpd.conf` in order to enabled HTTP access. When you access the setup page using HTTP you will be prompted to proceed using an insecure connection.

When everything is configured correctly, you will see the TeamDrive Host Server Setup page that will guide you through the initial configuration:

Fill out the fields according to your environment and requirements:

Admin Username The name of the user account with full administrative (superuser) privileges.

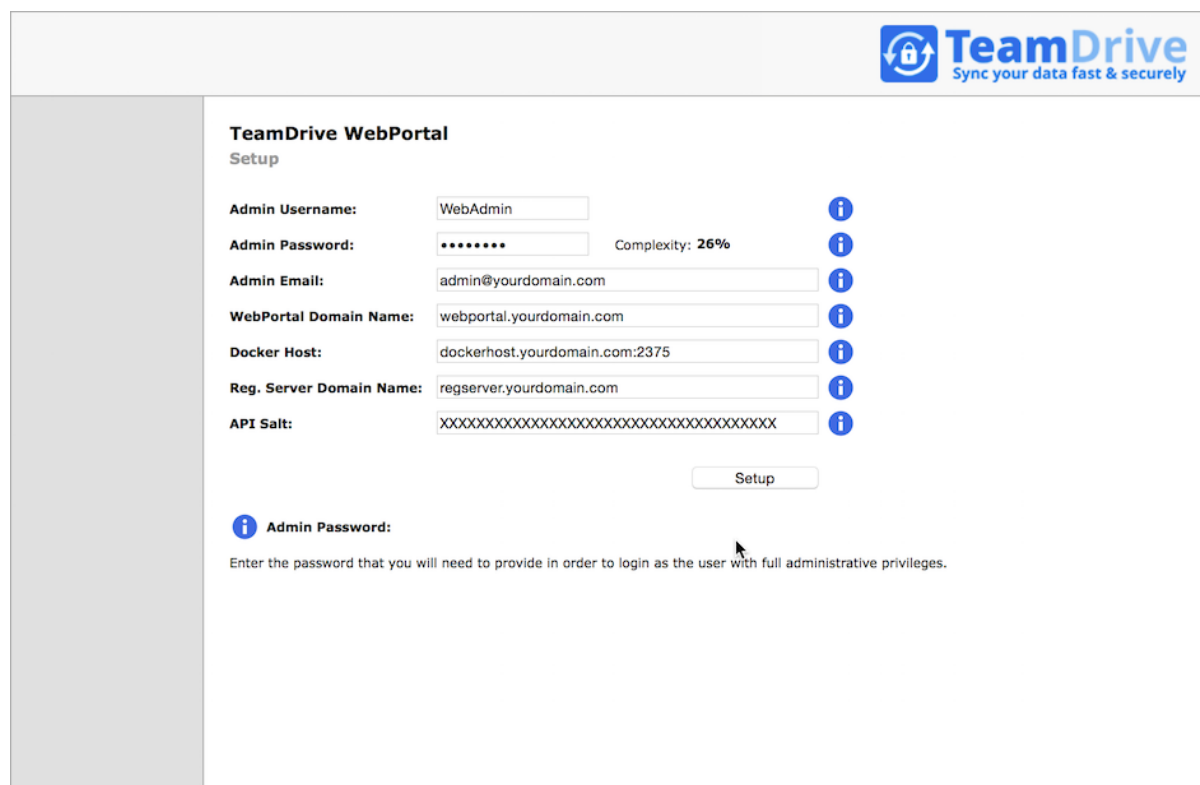


Fig. 5.1: Web Portal Setup Page

Admin Password The administrator password that you need to provide to login to the Web Portal Administration Console.

Admin Email The email address of the Administrator. This field is optional. This email address is used for 2-factor authentication (if enabled).

Web Portal Domain Name This is the domain name of the host running the Web Portal. It must be a fully-qualified and resolvable domain name.

Docker Host This is the domain name or IP address of the machine that will host the Docker containers. This may be a different machine to the machine running the Web Portal. The port of the the Docker daemon must be included, if the port is not 2375.

Setup will ping the Docker daemon to ensure that the contact can be established before the configuration process can complete.

Reg. Server Domain Name All Web Portals must be registered with a Registration Server. Enter the fully qualified domain name of the Registration Server. **Please contact TeamDrive Systems for the correct value if you don't manage your own Registration Server.**

On the Registration Server, then IP address of the Web Portal must be entered in the appropriate Provider `API_WEB_PORTAL_IP` setting. this will identify the Web Portal when it calls the Registration Server to check user credentials.

Setup will ping this host to ensure that the Registration Server is reachable.

API Salt The API Salt is a code that allows the Web Portal to validate calls to the Registration Server's API. This value must match the value of the `APIChecksumSalt` setting on the Registration Server to avoid "man in the middle"-attacks. Please consult the Registration Server Documentation on how to obtain it or contact TeamDrive Systems for the correct value if you don't manage your own registration server.

After you have entered all the required details, click **Setup** to initiate the Web Portal configuration and registration process with the Registration Server. An error will occur if the setup process is unable to contact the Registration Server or the Docker daemon.

This may be due to either network problems or incorrect input, as indicated by the error message.

5.3 Setup and Administration

Upon successful configuration, you will be presented with the Web Portal's Administration Console Login Screen.

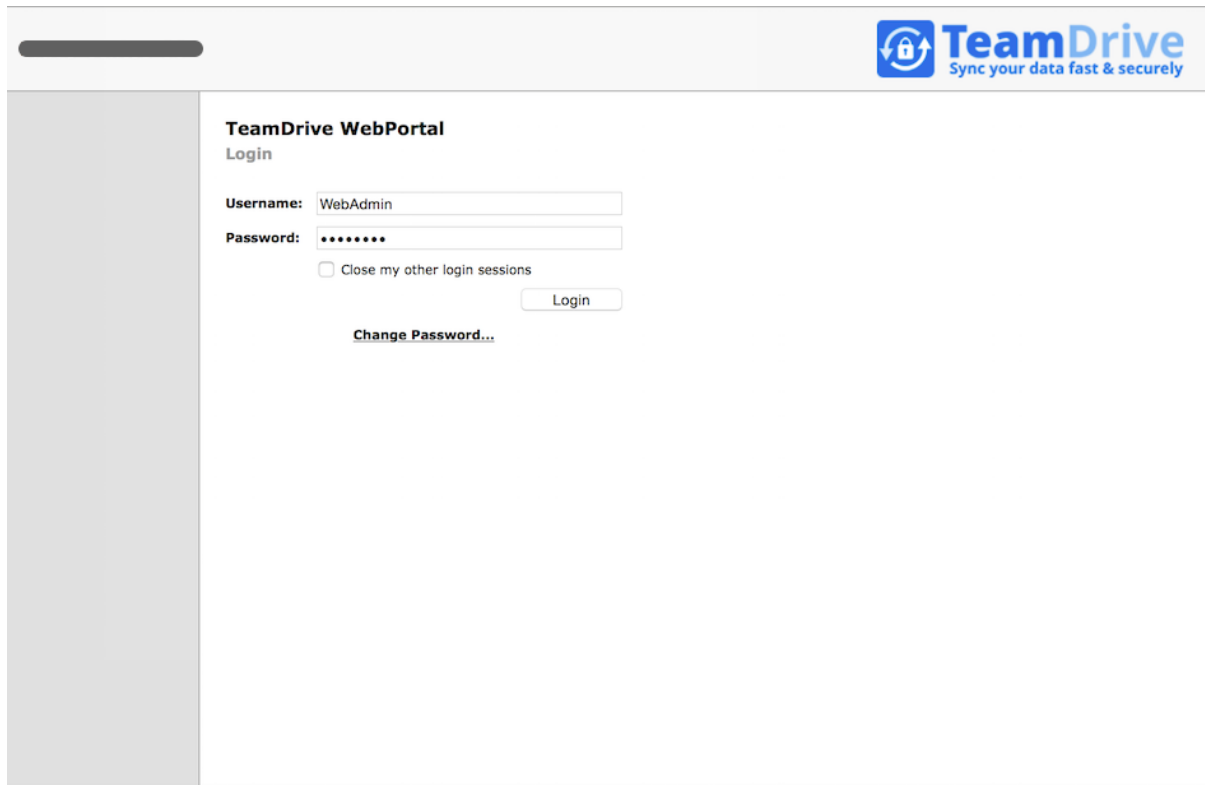


Fig. 5.2: Web Portal Admin Console: Login Screen

Enter the username and password you defined during the initial setup to log in.

Upon successful login, you will see the Web Portal's Administration Console Home Screen.

At this point, you have concluded the Web Portal's basic configuration and registration. See the *TeamDrive Web Portal Administration Guide* for more details on how to use the Administration Console and how to accomplish other configuration tasks.

5.4 Testing Web Access

The Web Portal has now been set up. To test its functionality, start a web browser and enter the URL of the Web Portal:

`https://webportal.yourdomain.com/`

Login to a user account belonging to one of the Providers associated with the Web Portal.

If login fails, check your username and password. If this is correct, begin by checking the Web Portals log file for errors.

The log file can be viewed by selecting the **Log Files** menu item and then clicking on **td-webportal.log** in the Web Portal's Administration Console.

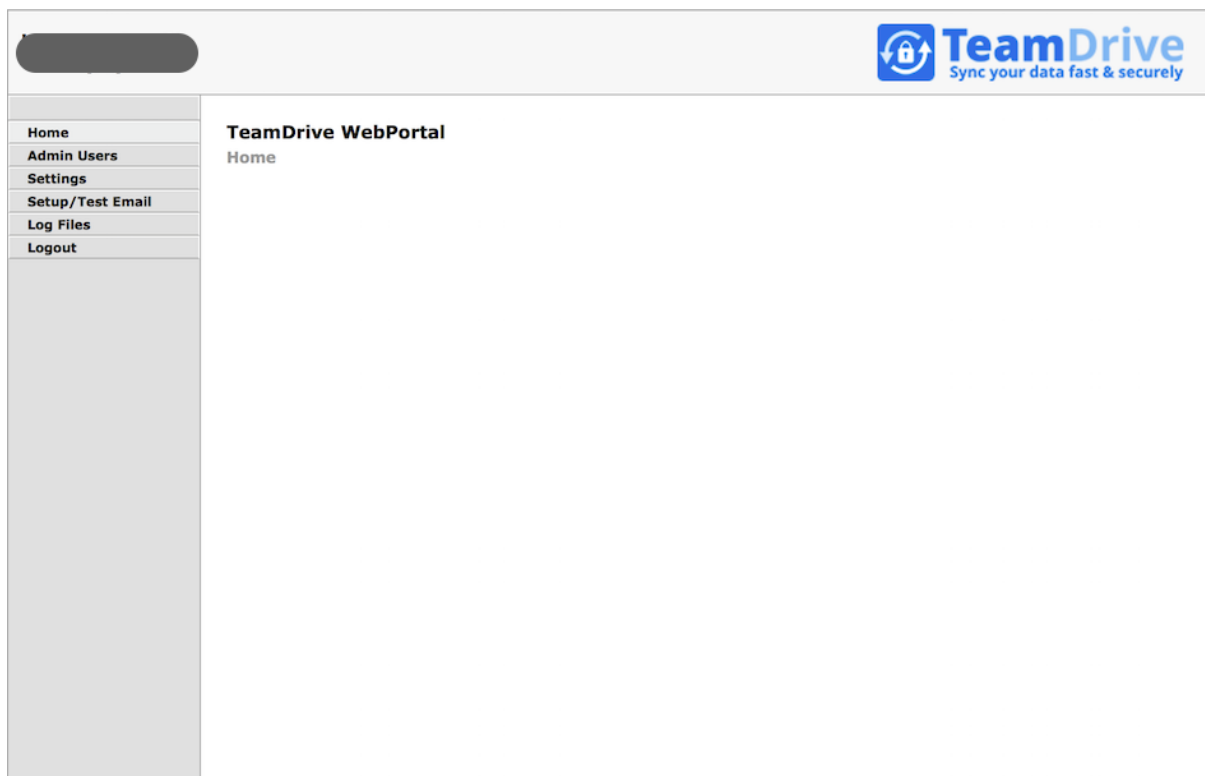


Fig. 5.3: Web Portal Admin Console: Home Screen

TROUBLESHOOTING

6.1 List of relevant configuration files

/etc/httpd/conf.d/td-webportal.httpd.conf: The configuration file that loads and enables the TeamDrive Web Portal Server-specific module for the the Apache HTTP Server: `mod_yvva.so`.

`mod_yvva.so` is responsible for providing the web-based Host Server Administration Console as well as an API used for authentication.

The file also contains various Apache “rewrite” rules required by the Web Portal.

Note: The rewrite rules in this file are disable by default. This is because it is assumed that HTTPS is always used to access the Web Portal.

Enable the rewrite rules only if you are certain that HTTP access may be used.

/etc/logrotate.d/td-webportal: This file configures how the log files belonging to the TeamDrive Web Portal are being rotated. See the `logrotate(8)` manual page for details.

/etc/td-webportal.conf: This file defines how the `td-webportal` background service is started using the `yvvad` daemon.

/etc/td-webportal.my.cnf: This configuration file defines the MySQL credentials used to access the `webportal` MySQL database. It is read by the Apache modules `mod_yvva` and the `yvvad` daemon that runs the `td-webportal` background tasks and the `yvva` command line client.

/etc/yvva.conf: This configuration file contains configuration settings specific to the Yvva Runtime Environment that effect the `mod_yvva` Apache module and the `yvva` command line shell.

6.2 List of relevant log files

In order to debug and analyse problems with the Web Portal configuration, there are several log files that you should consult:

/var/log/td-webportal.log: The log file for the Yvva runtime which provides the web-based Administration Console, the Web Portal authentication API. Errors that are incurred by the Web Portal background tasks are also written to this file.

Consult this log file when the Web Portal has issues in contacting the Registration Server, errors when handling API requests or problems with the Administration Console.

You can increase the amount of logging by changing the Yvva setting `log-level` from `notice` to `trace` or `debug` in the `yvva.conf` file:

```
log-level=trace
```

After changing `yvva.conf` you need to restart the Apache HTTP Server service using `service httpd restart`.

This log file is also used by the `td-webportal` background service. Checkk the log file verify that background tasks are being processed without errors.

The log file location can be configured by changing the file name passed to the `log-file` option in the configuration file `/etc/td-webportal.conf`. The log level can be increased by changing the default value notice for the `log-level` option to `trace` or `debug`.

Changing these values requires a restart of the `td-webportal` background process using `service td-webportal restart`.

/var/log/httpd/: The Apache HTTP Server's log files (e.g. `error_log`) might also contain additional relevant error messages that should be checked.

6.3 Enable Logging with Syslog

As outlined in *List of relevant log files* (page 21), the TeamDrive Web Portal logs critical errors and other notable events in a log file by default.

It is now possible to redirect the log output of the Yvva runtime components to a local `syslog` instance instead.

Syslog support is an essential feature for auditing, security and/or compliance reasons, as it allows you to funnel all log messages into a centralized syslog server.

This makes it easier to monitor the logs for critical events or errors and prevents tampering with the log files in case of a security breach. It also helps to maintain control over the disk space utilization on the server, as growing log files can't accidentally fill up the file system.

To enable syslog support, the log file name in the `log-file` setting has to be replaced with the keyword `syslog`. Optionally, a custom process identifier can be supplied, by appending it to the `syslog` keyword, using a colon as the separator, e.g. `log-file=syslog:my_process_identifier`. If not used, the default process identifier will be used, which is the name of the Yvva component.

To enable syslog support for the Yvva-based `td-webportal` background service, edit the `log-file` setting in file `/etc/td-webportal.conf` as follows:

```
log-file=syslog:webp-bkgr
```

You need to restart the `td-webportal` background service via `service td-webportal restart` in order to activate this change. If the `log-level` is set to `debug` you will now see log messages appearing in `/var/log/messages`:

```
Jun 23 11:57:33 localhost webp-bkgr: notice: yvvad startup
Jun 23 11:57:33 localhost webp-bkgr: notice: Using config file:
/etc/td-webportal.conf
Jun 23 11:57:33 localhost webp-bkgr: notice: No listen port
Jun 23 11:57:33 localhost webp-bkgr: notice: yvvad running in repeat 60
(seconds) mode
```

To enable syslog support for the Web Portal API and Administration Console, edit the `/etc/yvva.conf` file as follows:

```
log-file=syslog:webp-httd
```

You need to restart the Apache HTTP Server via `service httpd restart` in order to activate this change. If the `log-level` is set to `debug` you will now see log messages appearing in `/var/log/messages`:

```
Jun 23 12:06:04 localhost webp-httd: notice: mod_yvva 1.2.1 (May 21 2015
11:00:12) startup OK
```

6.4 Common errors

6.4.1 Web Installation: “500 Internal Server Error”

This error can be triggered by several error conditions. Check the log file `/var/log/td-webportal.log` for details.

Some common errors include:

```
[Error] -12036 (2002): Can't connect to local MySQL server through socket
'/var/lib/mysql/mysql.sock' (25)
[Error] "startup.yv" (80)
```

The local MySQL Server’s socket file can’t be opened. This could either be a permission problem, or the MySQL Server is simply not available. Check that MySQL is actually up and running (e.g. by running `service mysqld status`) and restart it, if necessary. If the error persists, check the MySQL error log file (usually `/var/log/mysqld.log`) for hints.

Similarly, an error like the following one indicates that a remote MySQL Server might not be answering (e.g. because of a firewall rule or because it’s not running):

```
[Error] -12036 (2003): Can't connect to MySQL server on
'mysql.yourdomain.com' (107)
[Error] "startup.yv" (80)
```

If you see Access denied errors like the following one:

```
[Error] -12036 (1045): Access denied for user 'teamdrive'@'localhost' (using
password: YES)
[Error] "startup.yv" (32)
```

Either the username or password used to connect to the MySQL Server are wrong. Double check that the MySQL username and password provided in `/etc/td-webportal.my.cnf` are correct, e.g. by trying to connect to the MySQL server using these credentials with the `mysql` command line client.

If you see the following error when connecting to a remote MySQL Server:

```
[Error] -12036 (1130): Host 'regserver.yourdomain.com' is not allowed to
connect to this MySQL server
[Error] "startup.yv" (80)
```

Check the TeamDrive MySQL user’s privileges on the remote MySQL server, e.g. by running `SHOW GRANTS FOR 'teamdrive'@'regserver.yourdomain.com';` and make sure that this user is allowed to connect to the MySQL server from the Registration Server’s host.

6.4.2 Errors When Accessing the Registration Server

If the Web Portal fails to contact the Registration Server, check the `/var/log/td-webportal.log` log file, as well as `/var/log/td-regserver.log` on the Registration Server for hints.

See the Troubleshooting chapter in the Registration Server Installation Manual for details.

Note: Note that Registration Server version 3.5 or later is required by the Web Portal.

6.4.3 Errors When Accessing the Docker

If the Web Portal fails to contact the Docker daemon, first check If docker can be accessed using the command line interface, for example:

```
[root@webportal install]# export DOCKER_HOST=tcp://<docker-host>:2375 [root@webportal in-
stall]# docker images
```

This command will list the available images. The Docker daemon must be accessible using TCP. How to configure docker for TCP access is explained here: [installing-docker](#).

If the Web Interface does not work correctly it may be that the reference to the Docker host is not correct in the `/etc/httpd/conf.d/ssl.conf` file.

Open up this file and check that the you have followed the instructions in section [configure-mod-ssl](#).

7.1 Abbreviations

PBT **PBT** is an object oriented language specifically designed for the programming of “server-side” functionality common to intra- and internet Web sites. A large share of the TeamDrive Host and Registration Server functionality is implemented in PBT. The code is parsed and executed by the Yvva application server components.

SAKH **Server Access Key HTTP** for TeamDrive 2.0 Clients

TDNS **Team Drive Name Service**

TDRS **Team Drive Registration Server**

TDSV Same as **SAKH**, but for TeamDrive 3.0 Clients: **Team Drive Server**

TSHS **Team Drive Scalable Host Storage**.

RELEASE NOTES - VERSION 1.0

8.1 Key features and changes

This is the initial release of the Web Portal.

8.2 Change Log - Version 1.0.x

8.2.1 1.0.2 (2015-12-07)

- Fixed container language settings so that Spaces with non-ascii characters in the name now work.
- Corrected re-direct to external login pages under certain circumstances.
- Login with an email address now works.
- The Portal no longer creates containers based on the case of the input username, instead the actual username is used. This prevents the creation of duplicate containers for the same user.
- The Web Portal session will now timeout after 15 minutes idle time. The user is then required to login again.
- Implemented reset password functionality. Login after password has been forgotten now works. The user will receive a temporary password via email which is used to set a new password and login.
- Note, new re-write must be added to `/etc/httpd/conf.d/ssl.conf`:

```
RewriteRule ^/requestResetPassword /yvva/requestResetPassword [PT] RewriteRule ^/tempPasswordLogin /yvva/tempPasswordLogin [PT]
```
- Fixed loading of favicon

8.2.2 1.0.1 (2015-10-27)

- OldImageRemovalTime setting was not visible.
- Updated WebPortal GUI to the latest 4.1.x version from the webfrontend branch.

8.2.3 1.0 (2015-10-08)

- Initial public release
- Web Portal 1.0 requires TeamDrive Agent version 4.0.12.1292 or later.

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