

# **TeamDrive Web Portal Administration**

Release 3.0.1.0

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# **CHAPTER**

# **ONE**

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#### **CHAPTER**

## **TWO**

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#### **CHAPTER**

# **THREE**

# INTRODUCTION

This document will guide you through the administration and advanced configuration of a TeamDrive Web Portal. When managing the TeamDrive Web Portal, we assume that you have basic knowledge of:

- Linux system administration:
  - Adding/configuring software packages
  - Editing configurations files
  - Creating user accounts
  - Assigning file ownerships and privileges
  - Creating and mounting file systems
  - Setting up environment variables
- Apache Web Server: installation and configuration, adding and enabling modules, modifying configuration files
- MySQL Database: installation and configuration, administration/maintenance, using the MySQL command line client, basic SQL
- Basic knowledge of application server technology

## TEAMDRIVE WEB PORTAL ADMINISTRATION

# 4.1 Disabling the Apache Access Log

In the default setup, Apache is used as a reverse proxy to route all calls from the TeamDrive browser App to the Docker containers. This can generate a large number of requests so there is no point in keeping the normal access log activated. We therefore recommend deactivating it in a production environment. Only the error log should be left enabled. To facilitate this, comment out the following line in the default httpd.conf:

```
# CustomLog logs/access_log combined
```

If problems occur, logging can be activated for a specific user (see http://httpd.apache.org/docs/2.4/mod/mod\_log\_config.html). e.g. all access to TeamDrive Agent using port 49153 will be logged (the required Apache logging module needs to be enabled again):

```
SetEnvIf Request_URI 49153 agent-49153
CustomLog logs/agent-49153-requests.log common env=agent-49153
```

Restart the Apache instance and check the log files for errors.

You can discover the port used by an agent by using the command:

```
[root@webportal ~]# docker ps -a | grep <username>
```

The port used will be in the 6th column of the output which has the form: 0.0.0.0:<agent-port>->4040/tcp, e.g. 0.0.0.0:49153->4040/tcp.

# 4.2 Changing an Admin User's Password

The Web Portal Administration Console can be accessed by all Admin Users by entering the correct username and password.

An existing user with administrative privileges can change his password directly via the Administration Console's login page or via the **Admin Users** page of the Administration Console.

On the login page, click on **Change Password...** to enable two input fields **New Password** and **Repeat Password** that allow you to enter the new password twice (to ensure you did not mistype it by accident). You also need to enter your username in the **Username** field and the current password in the **Password:** field above. Click **Login and Change Password** to apply the new password and log in.

You can also change your password while being logged into the Administration Console. If your user account has "Superuser" privileges, you can change the password of any admin user, not just your own one.

Click User List to open the user administration page.

The page will list all existing user accounts and their details.

Click the username of the account you want to modify. This will bring up the user's details page.

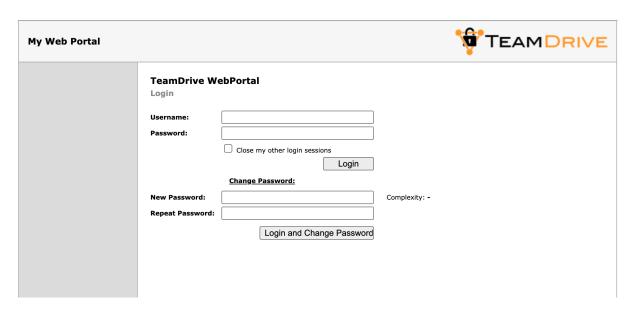


Fig. 4.1: Web Portal Administration Console: Change Password

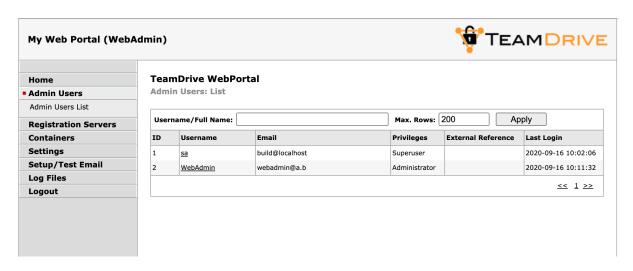


Fig. 4.2: Web Portal Administration Console: Admin Users List

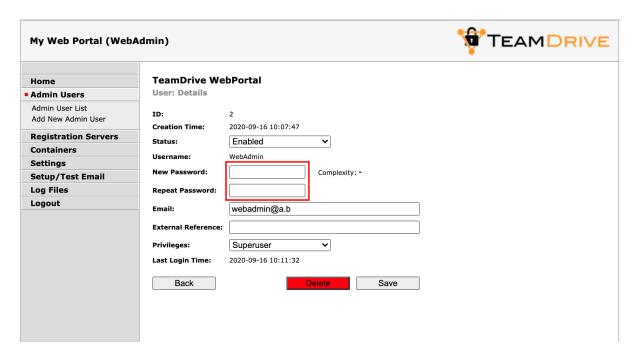


Fig. 4.3: Web Portal Administration Console: User Details

To change the password, enter the new password into the input fields **New Password** and **Repeat Password** and click **Save** to commit the change.

The new password will be required the next time this user logs into the Administration Console.

In case you lost or forgot the password for the last user with Superuser privileges (e.g. the default HostAdmin user), you need to reset the password by removing the current hashed password stored in the MySQL Database (Column Password, located in Table webportal.WP\_Admin). This can be performed using the following SQL query.

Log into the MySQL database using the teamdrive user and the corresponding database password:

```
[root@webportal ~]# mysql -u teamdrive -p
Enter password:
[...]
mysql> use webportal;
Database changed
mysql> SELECT * FROM WP_Admin WHERE UserName='WebAdmin'\G
ID: 1
      Status: 0
    UserName: WebAdmin
      Email: root@localhost
    Password: $2y$10$JIhziNetygYCeIXU3gXveue2BTqwCs4vwA6LHNUKZVt8V.U8jtkcW
ExtReference: NULL
  Privileges: Superuser
CreationTime: 2015-08-10 11:26:10
LastLoginTime: 2015-08-10 11:53:06
1 row in set (0.00 sec)
mysql> UPDATE WP_Admin SET Password='' WHERE UserName='HostAdmin';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> quit
```

Bye

Now you can enter a new password for the HostAdmin user via the login page as outlined above, by clicking the **Change Password** link, but leaving the **Password** field empty and only entering the new password twice, followed by clicking the **Login and Change Password** button.

# 4.3 Configure proxy for outgoing connections for docker and the containers

To use a proxy for outgoing connections you have configure 3 parts:

• docker: As described in the documentation:

```
https://docs.docker.com/config/daemon/systemd/#httphttps-proxy
```

add an:

```
Environment="HTTP_PROXY=http://proxy.example.com:80/"
```

in the already existing config file:

```
/etc/systemd/system/docker.service.d/startup_options.conf
```

• **container:** Use the custom build functionality as described in creating-white-label-agent-image to set the proxy within the container. Modify the setting BuildDockerfile and add the following line before the "yum -y update"-call:

```
RUN echo "proxy=http://proxy.example.com:80/" >> /etc/yum.conf
```

In case that your network only supports IPv4 add also this line:

```
RUN echo "ip_resolve=4" >> /etc/yum.conf
```

• **teamdrive:** Add the following option to the ClientSettings setting (teamdrive agent 4.6.11 build 2640 or newer required):

```
http-proxy=http://proxy.example.com:80/
```

After this you may need to rebuild the container immage depending on your setup, see *ClientSettings* (page 31) for details.

## 4.4 How to Enable Two-Factor Authentication

Two-factor authentication (2FA) can be enabled at two different areas:

- 2FA for the Web Portal Administrators
- 2FA for the users of the Web Portal

How to enable two-factor authentication for administrators is described in the section below (*Enabling Two-Factor Authentication for Administrators* (page 11)).

Two-factor authentication (2FA) for the Web Portal users requires the Registration Server version 3.6 or later. 2FA is implemented by the Registration Server using the Google Authenticator App (https://support.google.com/accounts/answer/1066447?hl=en).

To enable 2FA for users, set AuthServiceEnabled to True, and leave the associated settings: AuthLoginPageURL, AuthTokenVerifyURL and RegistrationURL blank.

As described in *Web Portal Settings* (page 23), these settings default to login and registration pages provided by the Web Portal. The Web Portal pages redirect to the associated pages provided by the Registration Server.

On the Registration Server the pages, can be optionally customised using the template system. The templates to be modified are: portal-login, portal-lost-pwd, portal-register, portal-activate, portal-login-ok, portal-goog-auth-setup, portal-goog-auth-login, and portal-goog-auth-login-ok.

If you would like to allow users to register directly via the Web Portal, then set RegistrationEnabled to True.

In order to setup two-factor authentication, users must be directed to the page:

https://webportal.yourdomain.com/portal/setup-2fa.html

This page provides instructions of how to configure Google Authentication for the user's account.

**Note:** Please check the apache ssl.conf for the additional RewriteRule in case you updated from WebPortal 1.0.5 to a newer version:

RewriteRule ^/portal(.\*)\$ /yvva/portal\$1 [PT]

See configure-mod-ssl for details.

On the Registration Server you must add the domain name of the Web Portal (as specified by WebPortalDomain) to Provider setting API\_WEB\_PORTAL\_IP. Modify this setting by adding the domain name on a line beneath the IP Address of the Web Portal which you have already set (as described in associate\_portal\_provider).

If the Web Portal is used by several Providers, only modify the API\_WEB\_PORTAL\_IP setting of one of the Providers. This will be the default Provider for users that register directly via the Web Portal.

# 4.5 Enabling Two-Factor Authentication for Administrators

The Web Portal Administration Console supports two-factor authentication via email. In this mode, an administrator with "Superuser" privileges that logs-in with his username and password must provide an additional authentication code that will be sent to him via email during the login process. This feature is disabled by default.

The TeamDrive Web Portal needs to be configured to send out these authentication email messages via SMTP. The Web Portal is only capable of sending out email using plain SMTP via TCP port 25 to a local or remote MTA.

If your remote MTA requires some form of encryption or authentication, you need to set up a local MTA that acts as a relay. See chapter *Installing the Postfix MTA* in the *TeamDrive Web Portal Installation Guide* for details.

Before you can enable two-factor authentication, you need to set up and verify the Web Portal's email configuration. This can be accomplished via the Host Server's Administration Console. You need to log in with a user account having "Superuser" privileges in order to conclude this step.

Click **Setup / Test Email** to open the server's email configuration page.

Fill out the fields to match your local environment:

**SMTP Server:** The host name of the SMTP server accepting outgoing email via plain SMTP. Choose localhost if you have set up a local relay server.

**Send Timout:** The timeout (in seconds) that the mail sending code should wait for a delivery confirmation from the remote MTA.

Sender Email Address: The email address used as the Sender email address during the SMTP delivery, e.g. postmaster@yourdomain.com. This address is also known as the "envelope address" and must be a valid email address that can accept SMTP-related messages (e.g. bounce messages).

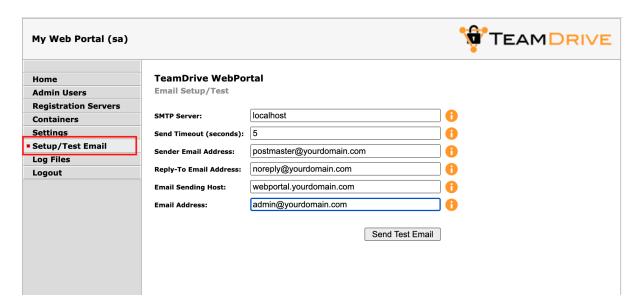


Fig. 4.4: Web Portal Admin Console: Email Setup / Test

**Reply-To Email Address:** The email address used as the "From:" header in outgoing email messages. Depending on your requirements, this can simply be a "noreply" address, or an email address for your ticket system, e.g. support@yourdomain.com.

**Email Sending Host:** The host name used in the HELO SMTP command, usually your Web Portal's fully qualified domain name.

**Email Address:** The primary administrator's email address. This address is the default recipient for all emails that don't have an explicit receiving address. During the email setup process, a confirmation email will be sent to this address.

After you've entered the appropriate values, click **Send Test Email** to verify the email setup. If there is any communication error with the configured MTA, an error message will be printed. Check your configuration and the MTA's log files (e.g. /var/log/maillog of the local Postfix instance) for hints.

If the configuration is correct and functional, a confirmation email will be delivered to the email address you provided. It contains an URL that you need to click in order to commit your configuration changes. After clicking the URL, you will see a web page that confirms your changes.

This concludes the basic email configuration of the Web Portal. Now you can enable the two-factor authentication by clicking **Settings** -> **UseTwoFactorAuth**. Change the setting's value from False to True and click **Save** to apply the modification.

Now two-factor authentication for the Administration Console has been enabled.

The next time you log in as a user with "Superuser" privileges, entering the username and password will ask you to enter a random secret code, which will be sent to you via email to the email address associated with your administrator account. Enter the code provdided into the input field **Authentication Code** to conclude the login process.

# 4.6 Changing the MySQL Database Connection Information

The Web Portal Apache module mod\_yvva as well as the yvvad daemon that performs the td-webportal background tasks need to be able to communicate with the MySQL management database of the Web Portal.

If you want to change the password of the teamdrive user or move the MySQL database to a different host, the following changes need to be performed.

To change the MySQL login credentials, edit the file /etc/td-webportal.my.cnf. The password for the teamdrive MySQL user in the [tdweb] option group must match the one you defined earlier:

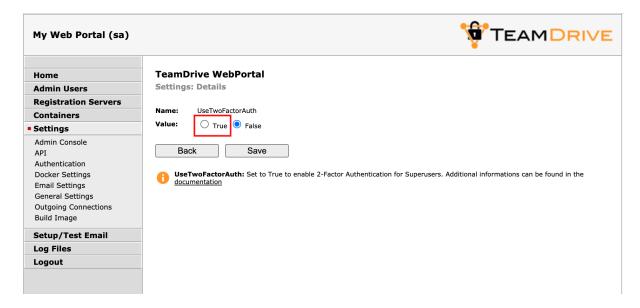


Fig. 4.5: Web Portal Admin Console: Use Two-Factor Authentication

```
[tdweb]
database=webportal
user=teamdrive
password=<password>
host=127.0.0.1
```

If the MySQL database is located on a different host, make sure to modify the host variable as well, providing the host name or IP address of the host that provides the MySQL service. If required, the TCP port can be changed from the default port (3306) to any other value by adding a port=<port> option.

# 4.7 Configuring Active Directory / LDAP Authentication Services

The Web Portal supports login using an External Authentication Service, for example Microsoft AD or LDAP.

**Note:** This section refers to the login of the TeamDrive users as apposed to the administrators of the Web Portal, which is described in the section: *Administrator Login using External Authentication* (page 14) below.

Whether to use such a service is automatically determined depending on the username or email address entered during login. This is assuming you are using the TeamDrive Agent version 4.6.11.2656 or later.

Unlike the TeamDrive client, or standalone TeamDrive Agent, you cannot login to the Web Portal without an existing user account. Registration is possible if you provide a "registration URL", by setting RegistrationURL.

External authentication is used if a user belongs to a Registration Server provider that has enabled external authentication by setting USE\_AUTH\_SERVICE to True, and by specifying AUTH\_LOGIN\_URL and VERIFY\_AUTH\_TOKEN\_URL URLs. Alternatively the email of the user is associated with named external authentication service. This is explained in how to manager domains and services on the Registration Server 4.5.

Please refer to Configuring External Authentication using Microsoft Active Directory / LDAP in the Team-Drive Registration Server Administration Guide for details of how to setup an External authentication service. In this document we describe only the aspects that are relevant to the Web Portal.

Exclusive use of a particular external authentication service is still supported by the Web Portal. This is activated by setting AuthServiceEnabled to True. When set to True, the Web Portal will immediately redirect users

to the the external service login page as specified by the AuthLoginPageURL setting (see also *AuthTokenVeri-fyURL* (page 25)). This limits the Web Portal login to only users of this external service, and is mostly supported for backwards compatibility with versions of the Web Portal before version 2.0.5.

In order for a Web Portal to access a external authentication service you must register the domain of the Web Portal with the external service. This is done by adding the domain of the portal domain to the \$allowed\_origins configuration parameter of the external service. For example:

```
$allowed_origins = array(
  "localhost:45454",
  "127.0.0.1:45454",
  "shop.domain.com",
  "webportal.domain.com");
```

Where webportal.domain.com is the domain of the Web Portal, as specified by the WebPortalDomain setting.

Note that in older versions of the external authentication service (Registration Server 3.6), the configuration parameter <code>\$webportal\_domain</code> was used in place of <code>\$allowed\_origins</code>. This implementation was restricted to the support of one login origin (for example one Web Portal), and should by upgraded to support multiple sources.

The external login page can either be embedded in the TeamDrive Agent GUI, or use the entire browser window. You can specify using embedded mode by setting UseEmbeddedLogin to True. In this case, the external login page will be shown embedded in an iFrame in the agent GUI.

However, not all external authentication service support embedding in a iFrame for security reasons (for example Microsoft Azure). The UseEmbeddedLogin setting refers to all authentication services used by the Web Portal, so if one of them does not support iFrames, then you need to set UseEmbeddedLogin to False (which is the default).

# 4.8 Administrator Login using External Authentication

The Administration Console of the Web Portal may use External Authentication such as LDAP or Active Directory. If the administrators of the Web Portal are stored and managed by such a service then it is possible to have the user credentials checked by the server, rather than stored and checked by the Web Portal database.

There are two system settings that control this behaviour: ExtAuthEnabled and ExtAuthURL. ExtAuthEnabled must be set to True. ExtAuthURL specifies a URL that will verify the external authentication.

On login, if external authentication is enabled, the Web Portal will perform a HTTP POST to the URL specified by <code>ExtAuthURL</code>, passing two parameters: username and password. The page is expected to return an XML reply of the following form:

```
<?xml version='1.0' encoding='UTF-8'?>
<teamdrive>
<user>
<id>unique-user-id</id>
<email>users-email-address</email>
</user>
</teamdrive>
```

If an error occurs, for example an "Incorrect login", then the ExtAuthURL page must return:

```
<?xml version='1.0' encoding='UTF-8'?>
<teamdrive>
<error>
<message>error-message-here</message>
</error>
</teamdrive>
```

Such a page can be easily implemented in PHP, for instance. An example implementation of the ExtAuthURL page for LDAP and Active Directory is available upon request from TeamDrive Systems (please contact sales@teamdrive.com).

# 4.9 Web Portal Backup Considerations

The extent to which backup and failover is performed depends entirely on the service level you wish to provide.

In order to secure the configuration of the Web Portal, you must make a backup of the webportal MySQL database. Loss of the database will require a complete re-install of the Web Portal.

Quick recovery from failure of the Web Portal can be provided by replicating the webportal database to a standby machine.

You should also ensure that you have a backup of all the configuration files describe here: config\_files. However, these files are rarely changed after the initial setup.

A standby Docker host is also recommended if a high level of availability is required. If the contents of the ContainerRoot is lost due to disk failure, or failure of the Docker host, users will have to re-enter their Spaces after they log into the Web Portal again. The only data that will be lost in this case are files that were being uploaded when the failure occurred, All other Space data is stored by the TeamDrive Hosting Service, and can be recovered from there.

In order to ensure a high level of availability, a standby Docker host may be used, and the contents of the ContainerRoot path can be copied to the standby system using rsync. Alternatives depend on the type of volume mounted at ContainerRoot. If the file system has sufficient redundancy and can be mounted by the standby system at any time, Then no further consideration are required.

Note that it is not necessary to make a backup of Docker containers, as these are automatically re-created when a user logs in.

# 4.10 Setting up Server Monitoring

It's highly recommended to set up some kind of system monitoring, to receive notifications in case of any critical conditions or failures.

Since the TeamDrive Web Portal is based on standard Linux components like the Apache HTTP Server and the MySQL database, almost any system monitoring solution can be used to monitor the health of these services.

We recommend using Nagios or a derivative like Icinga or Centreon. Other well-established monitoring systems like Zabbix or Munin will also work. Most of these offer standard checks to monitor CPU usage, memory utilization, disk space and other critical server parameters.

In addition to these basic system parameters, the existence and operational status of the following services/processes should be monitored:

- The MySQL Server (system process mysqld) is up and running and answering to SQL queries
- The Apache HTTP Server (httpd) is up and running and answering to http requests (this can be verified by accessing https://webportal.yourdomain.com/index.html and https://webportal.yourdomain.com/admin/index.html)
- $\bullet$  The td-webportal service is up and running (process name  ${\tt yvvad})$

# 4.11 Scaling a TeamDrive Web Portal Setup

When scaling the TeamDrive Web Portal we consider each component individually. There are four components that are relevant to this discussion: the Apache Web Server, the Docker host, the MySQL Database and the Load Balancer.

The simplest configuration places all components on one machine. This is the case which is largely described in this document. In this case, the Apache Web Server also fulfills the function of the Load Balancer. This is done by re-write rules which direct calls from the Web client to The associated Docker container.

Even in the case of a small scale setup, we recommend placing the Docker host on a separate system. This makes it easier to manage the resources required by Docker and the TeamDrive Agent running in the containers.

## 4.11.1 Apache Web Server

The Apache Web Server host is responsible for the management of the Web Portal. This includes: the Login page, the Administration Console and the background tasks.

The scaling requirements of this component are relatively limited as the task do not require much resources in terms of CPU, memory or disk space.

This means that a "scale-up" of the Apache Web Server host is probably quite sufficient to cope with a growing number of users.

Nevertheless, if the Web Portal access patterns require it, or simply to add redundancy it is possible to scale-out the Apache Web Server, by adding additional machines that run the identical Web Portal software.

In this case a Load Balancer is required to distribute requests to the various Apache hosts. This can be done on a simple round-robin basis or according to current load since the connections are stateless.

The Web Portal service which runs the various background task should be started on all Apache hosts.

The MySQL Database must also be moved to a separate system. See below for more details.

## 4.11.2 MySQL Database

Load on the database, and the volume of data is minimal on the Web Portal. For this reason, it should suffice to place the MySQL database on a dedicated server as the load increases on the Web Portal. Additional CPU's and memory can then be added to this system as required.

As mentioned above, if the Apache Web Server is scaled out, then it is necessary to place the MySQL database on a separate system even if this is not required for load reasons. If this is not done then the MySQL database can remain on the same system as The Apache Web Server.

#### 4.11.3 Docker Service

The specific hardware requirements of the system running the Docker service are describe here: hardware-requirements. In this section we discuss the issues involved in scaling out the Docker service.

Depending in the usage patterns you will find it necessary to begin scale-out of the Docker service when the number of Users exceeds about 1000. In other words, a working estimate is that the Web Portal requires appropriately one Docker host per 1000 users.

A requirement for scale-out of the Docker system is software that manages a cluster of Docker hosts. There are a number of such tools available, including: Swarm, Shipyard, Google Kubernetes and CoreOS.

An important requirement of such systems is that they support the standard Docker API, which is used by the Web Portal. If this is the case, then the Web Portal will be able to start and manage containers in the cluster without regard to the number of hosts in the cluster.

The container storage used by a Docker cluster must be mounted by all hosts in the cluster. This means that the storage must be placed on a shared storage medium like an NFSv4 server or shared disk file systems like OCFS2 or GFS2. Note that concurrent access of the same volume is required, but not concurrent access to the files on the volume. in other words, file locking is not an issue.

With Web Portal version 1.0.10 the support for Docker Swarm is approved, but only for the legacy standalone Swarm setup (https://docs.docker.com/swarm/overview/), because of the different service model in the Docker Engine v1.12.0 using the swarm mode.

The *DockerHost* (page 28) setting must be changed to the Swarm port (default 2377).

# 4.12 Upgrading the TeamDrive Web Portal

There are a number of aspects to upgrading the TeamDrive software used by the Web Portal: the Web Portal software, the structure of the MySQL database and the TeamDrive agent used by the Web Portal.

There is a dependency between two TeamDrive agent and the Web Portal because the Web Portal services the Web application that makes calls to the TeamDrive Agent. The Web Portal requires a MinimumAgentVersion and will make sure that you are running the required version of the TeamDrive Agent.

Since the TeamDrive agent is always backwards compatible with the Web application, you are free to use a more recent version than required. How to upgrade the TeamDrive agent is described in the following section: *Upgrading the Database Structure and Docker Container Image* (page 17).

Upgrading the TeamDrive Web Portal by first downloading the updated repository:

```
[root@webportal ~] # wget -0 /etc/yum.repos.d/td-webportal.repo \
http://repo.teamdrive.net/td-webportal.repo
```

and update the Web Portal packages using the RPM package manager:

```
[root@webportal ~] # yum update td-webportal yvva
```

An update simply replaces the existing packages while the service is running, and the services (httpd and td-webportal) are automatically restarted afterwards. After the packages are updated proceed with the next section to update database structure and the Docker Container Images.

Check the chapter releasenotes for the changes introduced in each new version. The release notes may also contain important notes that effect the upgrade itself.

# 4.13 Upgrading the Database Structure and Docker Container Image

The upgrade\_now command described below performs two functions: it upgrades the MySQL database structure, and the docker containers image used by the Web Portal. Note that some error may occur in both the Web Portal API and the Admin Console until this command has been execute. As a result, it is recommended that this step is performed immediately after the upgrade of the Web Portal software.

The Docker container image used is stored in the Container Image setting and is set to the minimum required agent version by default (see MinimumAgentVersion).

This means that the container image will automatically be updated when you manually increase the ContainerImage or a newer version of the Web Portal requires a newer MinimumAgentVersion.

The upgrade of a container image cannot occur "in-place". Instead, the old container must be removed, and a new container started which uses the new image.

During normal operation, containers are only removed when they are idle for a certain amount of time. This time is specified by the RemoveIdleContainerTime setting.

This means that if a container is in continuous use, then it will never by upgraded.

For this reason, a number of settings have been added to "force" upgrade of a container, even if the idle timeout is not exceeded. The settings that perform this task are <code>RemoveOldImages</code>, <code>OldImageTimeout</code> and <code>OldImageRemovalTime</code>.

RemoveOldImages must be set to True to enabled this functionality.

Docker container images are available from the TeamDrive public Docker repository on the Docker hub. Here you will find a list of the tagged images that are available:

```
https://hub.docker.com/r/teamdrive/agent/tags/
```

You can install or update an image and upgrade the database structure, start the yvva command line executable, and enter upgrade\_now;;.

This command will firsts perform any necessary database changes and then automatically check the Docker hub for the newest published agent:

and in case you are using a custom Docker container image, please follow the steps described in the chapter creating-white-label-agent-image. In case of upgrading from version 1.1 or below to a newer version, please follow the steps in *Upgrading a custom installation from Version 1.1 to 1.2* (page 19)

**Note:** If outgoing requests has to use a proxy server, follow the Docker documentation https://docs.docker.com/engine/admin/systemd/#http-proxy to set a proxy for Docker. Restart the Docker service after adding the proxy configuration.

The successfull updated image will set the ContainerImage setting accordingly, for example: teamdrive/agent:4.5.5.1838.

At this point the values of the settings OldImageTimeout and OldImageRemovalTime will take effect.

OldImageTimeout is the time, in seconds, that a container with an old image (an image other than ContainerImage) must be idle before it is removed. Zero means the container is removed immediately, even if it is running. Note, if RemoveOldImages is False, this setting is ignored.

OldImageRemovalTime specifies when containers with old images should be removed. Set this setting to a specific time of day (e.g. 03:00, format: hh:mm) or to a specific date (format YYYY-MM-DD hh:mm). This specifies the time when the upgrade will take place, which will force a running container to be removed and re-created.

If you want to force upgrade immediately, set this setting to "now". You can disable this setting by setting it to "never". In this case, upgrade is controlled by the <code>OldImageRemovalTime</code> setting.

You will find more on the upgrade process in the description of the tasks that actually perform this functions, see background-tasks.

# 4.14 CentOS Hardening

We recommend to harden the CentOS system as described in centoshardening.

After installation execute the script:

```
/opt/teamdrive/webportal/docker/os_hardening.sh
```

to automatically configure the hardening settings. Reboot the system afterwards, because the settings will ony be activate after a reboot.

Check the results with both tools:

```
inspec exec https://github.com/dev-sec/linux-baseline
lynis audit system
```

# 4.15 Move docker storage layer to external volume

The user data for the TeamDrive agent containers is located in /teamdrive and this will be the largest part of the necessary storage for hosting the Web-Portal.

Docker itself needs own storage for the container stogare layer as described in the docker documentation:

https://docs.docker.com/storage/storagedriver/

By default docker is using the overlay2 storage driver for all data which is stored in /var/lib/docker.

If necessary, the docker storage layer can be moved to a separate volume. How to setup this volume is described in the docker documentation:

https://docs.docker.com/storage/storagedriver/device-mapper-driver/#configure-direct-lvm-mode-for-production

# 4.16 Upgrading a custom installation from Version 1.1 to 1.2

**Note:** This step is only necessary when updating from a version 1.1 or below to version 1.2 (or later) to define your *Build Image* (page 33) settings. Once you set your build settings, the update process is identical to the normal update process with just executing upgrade\_now;; in the yvva command line.

The "White Label" GUI Web Portal RPM is no longer necessary and the existing package must be removed. Search for the old installed packages:

```
[root@webportal ~] # rpm -qa | grep "webportal-clientui"
```

and remove all listed packages using:

```
[root@webportal ~] # rpm -e <full package name>
```

Now download the updated repository:

```
[root@webportal ~] # wget -0 /etc/yum.repos.d/td-webportal.repo \
http://repo.teamdrive.net/td-webportal.repo
```

and update the Web Portal packages using the RPM package manager:

```
[root@webportal ~] # yum update td-webportal yvva
```

The Web Portal version 1.2 or later is capable of building a custom Docker image automatically. The description below assumes you are using a customised version of the TeamDrive Agent executable, or the Web-GUI.

Use the yvva command line (see below) or the Web Admin to fill in your *Build Image* (page 33) product information.

The following required values are necessary to build a customised Docker image:

- BuildBinaryName: The binary name of the linux agent ending with .bin.
- BuildProductName: The first part of the Agent archive (the tar.gz file). This value should be all lower-case. If not, please contact TeamDrive support.
- BuildProviderCode: Your 4 letter Provider code.

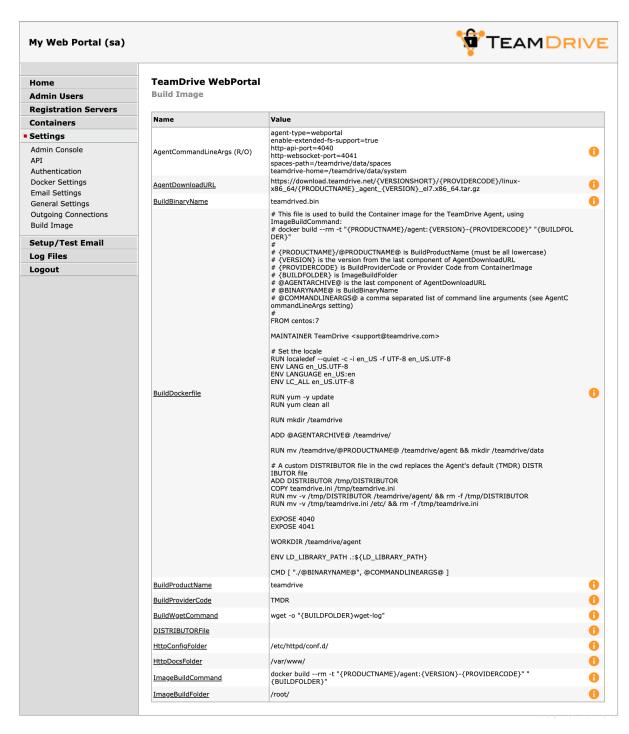


Fig. 4.6: Web Portal Admin Console: White label settings

In addition to set these values, it may be necessary to modify the following settings:

• AgentDownloadURL: By dafault this is the link to the TeamDrive download portal:

```
http://s3download.teamdrive.net/{VERSIONSHORT}/{PROVIDERCODE}/linux-x86_64/

$\text{PRODUCTNAME}_agent_{VERSION}_el7.x86_64.tar.gz}$
```

See *AgentDownloadURL* (page 33) for a detailed description of this value. If your Agent archive is not located on the TeamDrive portal, then you should set the value accordingly.

The {VERSION} placeholder will be replaced by the highest version specified by the ContainerImage and MinimumAgentVersion settings.

• DISTRIBUTORFile: The content for the DISTRIBUTOR file for the agent. If left empty the DISTRIB-UTOR file from the Agent archive (.tar.gz file) will be used.

To set your build settings using the yvva command line: Start yvva as root user and replace the following placeholders <your-...> with your values:

```
AppSetting:setSetting("BuildBinaryName", "<your-binary-name>");;
AppSetting:setSetting("BuildProductName", "<your-product-name>");;
AppSetting:setSetting("BuildProviderCode", "<your-provider-code>");;
```

#### to verify your values execute:

```
print AppSetting:getSettingAsString("BuildBinaryName");;
print AppSetting:getSettingAsString("BuildProductName");;
print AppSetting:getSettingAsString("BuildProviderCode");;
```

The optional parameters, AgentDownloadURL and DISTRIBUTORFile can be a set in a similar manner (line breaks are permitted in strings).

However, it is easier to change settings like DISTRIBUTORFile in the Web Admin.

After these values have been set correctly, you can build a new Docker images by starting the yvva command line, and running the following command:

```
upgrade_now;;
```

The Web Portal will try to download the required Agent archive version and build the new Docker image. The single steps will be logged to the console and will also show error messages if a step fails.

In case that the download fails or if you want to skip the download step, place your Agent archive in the ImageBuildFolder and the update process will use it to create the Docker image. The image will be used to retrieve and update the Web-GUI as required.

More information on the process is provided in the section creating-white-label-agent-image.

# **WEB PORTAL SETTINGS**

This chapter lists and describes the available configuration options for the TeamDrive Web Portal.

You can review and modify most of these via the TeamDrive Web Portal Admin Console by clicking **Settings**. Some settings are marked as read-only ("R/O"), they can not be changed.

The settings are grouped into sections:

## 5.1 Admin Console

#### 5.1.1 ExtAuthEnabled

Set this value to True to enable external authentication for the Administration Console. This should not be confued with the use of external authentication used by users of the Web Portal. See *Administrator Login using External Authentication* (page 14) for details.

#### 5.1.2 ExtAuthURL

This is the URL that is used by the Web Portal to verify the login of an Administrator, when using External Authentication. See *Administrator Login using External Authentication* (page 14) for details.

#### 5.1.3 ForceHTTPSUsage

Set to True if the Web Portal Admin Console must be accessed using HTTPS.

#### 5.1.4 Language

This is the default language used by the Web Portal Admin Console.

#### 5.1.5 MaxRecordsDisplayed

This setting determines the maximum number of records that may be retrieved from the database at any time. This parameter may only be changed by a Superuser.

#### 5.1.6 SessionTimeout

This is the idle time in seconds after which you are required to login to the Web Portal Admin Console again.

#### 5.1.7 UseTwoFactorAuth

Set to True to enable two-factor authentication for Superusers.

Note that this setting only applies to the user of the Web Portal Admin Console. The setting has nothing to do with the use of two-facter authentication used by the users of the portal. This is described in the section: *How to Enable Two-Factor Authentication* (page 10).

## 5.2 API

#### 5.2.1 APIAccessList

A list of IPs which are allowed to access the API of the Web Portal.

#### 5.2.2 APIChecksumSalt

To detect "man in the middle" attacks when sending API requests to the Web Portal, a random "salt value" is generated during the initial installation. The sender must add this salt value to his request before calculating the MD5 hash value of the API request content which will be sent to the Web Portal.

The checksum will be included in the URL, so that the Web Portal can check if the content was modified during the transport.

This setting is read-only and can not be changed via the Admin web interface.

#### 5.3 Authentication

#### 5.3.1 AuthLoginPageURL

This is URL of the login page which is used to login using the external Authentication Service. See *Configuring Active Directory / LDAP Authentication Services* (page 13) for details.

When AuthServiceEnabled is True, the Web Portal login page: https://webportal.yourdomain.com/portal/login.html, redirects to the page specified by this setting.

If AuthServiceEnabled is True, but this setting has no value, then the Portal Login page provided by the Registration Server (version 3.6 or later) is used by default.

The Registration Server Portal Login page also allows the use of Two-factor authentication using the Google Authentication App. In this case, Two-factor authentication can be setup using the page: https://webportal.yourdomain.com/portal/setup-2fa.html, which redirects to the webpage that provides this service on the Registration Server.

The Registration Server Portal pages are customisable using the templates provided. Details are available in the Registration Server documentation.

#### 5.3.2 AuthServiceEnabled

Since version 2.0.5 of the Web Portal, the setting is only required if you want to use a specific Authentication Service.

If AuthServiceEnabled is False the Web Portal automatically uses external authentication as required by the user, provided you are using TeamDrive Agent 4.6.11.2656 or later (WEBCLIENT-335).

The 4.6.11.2656 agent, first requires the user to enter an email (or username), and then based on this input the user is directed to the standard TeamDrive login, or the user's external authentication service.

Note that the domain of the Web Portal must be registered with all External Authentication services used by the users of the portal. This is done by adding the domain of the Web Portal to the <code>\$allowed\_origins</code> configuration setting of the external service.

If your external authentication service does not support this configuration parameter, then it will need to be updated.

When AuthServiceEnabled is set to True, you must ensure that AuthLoginPageURL (see *AuthLoginPageURL* (page 24)) and AuthTokenVerifyURL (*AuthTokenVerifyURL* (page 25)) are set correctly.

Once a Web Portal is configured for external authentication, it no longer supports regular login (i.e. authentication using the Registration Server).

In this case, the user will always be redirected to the external login page, and will not be able to access the standard login page provided by the TeamDrive Agent. This means that only users of this authentication service may then login.

See Configuring Active Directory / LDAP Authentication Services (page 13) for further using external authentication services.

## 5.3.3 AuthTokenVerifyURL

This URL is used to verify the token returned by the Authentication Service after success login by a TeamDrive user. See *Configuring Active Directory / LDAP Authentication Services* (page 13) for details.

By default, this setting is set to the Registration Server Portal verification URL: https://<reg-server-domain>/portal/verify.html

# 5.3.4 LicenseBuyURL

This URL will be displayed for a user, if **LicenseProfessionalRequired** is set and the user has no professional license.

#### 5.3.5 LicenseProfessionalRequired

Login at the Web Portal requires a professional license for the user.

#### 5.3.6 RegistrationEnabled

Set to True in order to allow users to register directly From the Web Portal. By default this value is set to False.

The setting RegistrationURL (see *RegistrationURL* (page 26)) specifies the URL that provides the registration page.

When RegistrationEnabled is set to True there are 2 possibilities, depending on whether AuthServiceEnabled (AuthServiceEnabled (page 24)) is set to True or False.

If AuthServiceEnabled is True, then registration uses the external Authentication Service mechanism which results in the user being logged-in, immediately after registration.

When AuthServiceEnabled is True, it is possible to use the customisable registration page provided by the Registration Server (version 3.6 or later). In this case RegistrationURL must not be set (see *RegistrationURL* (page 26)).

If AuthServiceEnabled is False, then the TeamDrive Agent Web-GUI provides a "Register Now" button which references this page specified by RegistrationURL, in the login dialog.

In this case, the page referenced by RegistrationURL is a custom developed web-page which performs registration using the Registration Server API and then redirects to the Web Portal login page: https://webportal.yourdomain.com/portal/login.html.

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## 5.3.7 RegistrationURL

This URL references a Web-page where a user can register as a TeamDrive user. Alternatively, if an external Authentication Service is being used this page allows users to register with this service.

This page will only be used of RegistrationEnabled is set to True.

The Web Portal register page: https://webportal.yourdomain.com/portal/register.html, automatically redirects to the page.

If RegistrationEnabled is True, but this setting has no value, then the Portal Registration page provided by the Registration Server (version 3.6 or later) is used by default. In this case, AuthServiceEnabled (see *AuthServiceEnabled* (page 24)) must be set to True.

If RegistrationEnabled is True and AuthServiceEnabled is False then this setting must reference a custom developed web-page which performs registration using the Registration Server API and then redirects to the Web Portal login page: https://webportal.yourdomain.com/portal/login.html.

## 5.3.8 UseEmbeddedLogin

This setting determines whether the Web Portal uses the embedded, or non-embedded form of external login / registration.

External authentication can be embedded in the TeamDrive Web GUI, or can the external authentication pages can be used directly. Set UseEmbeddedLogin to True in order to use the embedded login form.

By default, UseEmbeddedLogin is set to False if you upgrade from a previous version of the Web Portal that was using external authentication, otherwise, the default is True.

Accessing the Web Portal domain, for example: https://webportal.yourdomain.com, will automatically present the login in the embedded or non-embedded form, as specified by UseEmbeddedLogin.

You can now use "explicit" links to the login page in order to set the default provider code and language, for the login or registration.

For the non-embedded login form use the following explicit link:

and for the embedded login form use the following explicit link:

https://webportal.yourdomain.com/extauth/login.html?dist=CODE&lang=LG

where  ${\tt CODE}$  is the provider code, and  ${\tt LG}$  is the language code, for example  ${\tt en}$  or  ${\tt de}$ .

Note that the external authentication service must be able to handle the specified provider code and language.

# 5.4 Docker Settings

#### 5.4.1 Container Databases

This setting allows you to specify an alternative path for the SQLite databases used by the containers. If empty (the default value) then the SQLite database is placed with the rest of the data in the ContainerRoot directory.

When specified, the user-specific directory in this location will be mounted in the container under the path: "/team-drive/dbs". However, this path will only be used if you build a new image using the TeamDrive Agent version 4.6.12.2637 or later.

This version of the client supports the "-database-path" option which allows you to specify an alternative path for the SQLite database. When ContainerDatabases is set, the image build process will automatically add this option to the start parameters of the agent (see @USEDATABASEPATH in the BuildDockerfile setting).

#### 5.4.2 ContainerHosts

Specify a list of hosts and IP addresses that should be added to the "/etc/hosts" file of the container when it is started.

Use the same format as used in the "/etc/hosts", for example:

```
192.168.2.101 my.host.org alt.host.org
192.168.30.30 our.server.com
```

You can also use; or, in order to separate lines, for example:

```
192.168.2.101 my.host.org alt.host.org;192.168.30.30 our.server.com
```

The Docker "ExtraHosts" parameter is used to add the hosts specified here to the contaner on startup, so changes only take effect if a container is re-created.

#### 5.4.3 ContainerIdleTimeout

This is a timeout value in seconds that determines when the TeamDrive Agent running in a container will automatically shutdown, stopping the container. The default value is 15 minutes. This results in the user of the container loosing their session information, and login is required on the next access.

The value set here specifies the value of the idle-shutdown-timeout client setting (see *ClientSettings* (page 31)), which is written to the teamdrive.ini file.

If a SharedIniPath is specified then changes to this setting take affect when a container is restarted. Otherwise the Docker container image must be rebuilt for changes to take effect (see *SharedIniPath* (page 29) for a description of why this is the case).

## 5.4.4 ContainerImage

This is the name of the image that must be used when creating a new container. See *Upgrading the Database Structure and Docker Container Image* (page 17) for details.

Note that if the MinimumAgentVersion specifies a TeamDrive agent version that is higher than the version of the Agent specified by ContainerImage, then the container image used will be determined by MinimumAgentVersion.

#### 5.4.5 ContainerRoot

This is the absolute path that reference the directory in which all containers will store their user data.

Data in this location is stored in a sub-directory for each container. The sub-directory name is the username of the user of the container.

This user-specific directory is mounted in the container under the "/teamdrive/data" directory, which ensures that containers cannot access the data of other users.

#### 5.4.6 ContainerStorageTimeout

This is the time, in minutes, that a container must be idle before its storage is removed. Zero means that the container storage is never deleted. See *Upgrading the Database Structure and Docker Container Image* (page 17) for details.

#### 5.4.7 CurrentGUIVersion

The version of the installed GUI package. The update process will retrieve or build a new Docker container (see update process for details). The GUI package will be extracted from this container and the HTML pages, images and javascript code will be located in the apache document root. The GUI version should be identical to the ContainerImage version.

#### 5.4.8 DockerHost

This is the host name and port of the Docker daemon which runs the containers. See installing-docker for details.

#### 5.4.9 MinDockerDataSpaceAvailable

A minimum value in GB for the available Docker data space on the storage (see https://docs.docker.com/storage/storagedriver/overlayfs-driver/) If the minimum value is reached, no more Docker container for new users will be created. Set to 0 to disable checking the available Docker data space.

## 5.4.10 MinDockerMetaDataSpaceAvailable

A minimum value in GB for the available Docker meta data space on the storage (see https://docs.docker.com/storage/storagedriver/overlayfs-driver/) If the minimum value is reached, no more Docker container for new users will be created. Set to 0 to disable checking the available Docker meta data space.

## 5.4.11 MinimumAgentVersion

This setting is specifies the minimum TeamDrive Agent version that is required by the Web Portal. The setting may not be modified. If The current image used by containers has a Agent version that is earlier than MinimumAgentVersion, then upgrade of the containers will be forced by the Web Portal. This means that users may experience a spontaneous logout.

Following upgrade, Container Image will be set to the required image.

#### 5.4.12 MaxActiveContainer

A parameter to limit the currently active users. Set to 0 to disable the limitation.

## 5.4.13 OldImageRemovalTime

Use this setting to specify when containers with old images should be removed. You can set it to "now", to remove the containers immediately, if set to "never", then containers are only removed if the <code>OldImageTimeout</code> is exceeded. This value can also be set to a time (e.g. 03:00, format: hh:mm), or a date (format YYYY-MM-DD hh:mm). Note, if RemoveOldImages is False, this setting is ignored. See *Upgrading the Database Structure and Docker Container Image* (page 17) for details.

#### 5.4.14 OldImageTimeout

This is the time, in seconds, that a container with an old image must be idle before it is removed. Zero means the container is removed, even if it is running. Note, if RemoveOldImages is False, this setting is ignored. See *Upgrading the Database Structure and Docker Container Image* (page 17) for details.

#### 5.4.15 RemoveldleContainerTime

This is the time, in seconds, that a container must be idle before it is removed. Zero means that containers are never removed. See *Upgrading the Database Structure and Docker Container Image* (page 17) for details.

## 5.4.16 RemoveOldImages

Set to True if containers running an old image (i.e. not equal to ContainerImage) should be removed. See *Upgrading the Database Structure and Docker Container Image* (page 17) for details.

#### 5.4.17 SharedIniPath

Used SharedIniPath you can specify a global path for the teamdrive.ini file which is then used by all containers.

The recommended value for this settings is /teamdrive/\$\$global/ where /teamdrive is the value of ContainerRoot (see *ContainerRoot* (page 27)). In other words, place the teamdrive.ini in a directory called \$\$global in the ContainerRoot path.

When you set this path, the Web Portal will automatically create the teamdrive.ini file in the SharedIniPath location. If there is a non-empty teamdrive.ini file at this path, then you will not be able to set SharedIniPath because the Web Portal overwrites the contents of this file.

Do not edit the teamdrive.ini file directly. Instead specify the client settings you required using the ClientSettings setting (*ClientSettings* (page 31)).

When SharedIniPath is used, then changes ClientSettings which are written to the teamdrive.ini file when a container is restarted. If not the teamdrive.ini file is built into the Docker container image, and changes only take effect after rebuilding the image.

# 5.5 Container Swapping

When enabled container swapping will transfer containers that have not been used for a certain amount of time to a backup storage. This is done to free up space on the primary storage, used by the Docker systems.

This also allows containers to be transfered from one Docker host to another in order to balance load.

Only the state of the container in the form of the SQLite database, and the changed settings are stored.

#### 5.5.1 AWSProfile

This is the value of the "-profile" option for the Amazon CLI (aws).

#### 5.5.2 RunAsUser

The user which starts the agent. Rebuild container image after changing the user.

#### 5.5.3 RunAsGroup

The group the user in RunAsUser belongs to.

#### 5.5.4 ContainerUserID

The UID of the remapped user in the rootless docker environment.

## 5.5.5 ContainerGroupID

The GID of the remapped user in the rootless docker environment.

## 5.5.6 EnableSwapping

Set to True to enable container swapping.

## 5.5.7 ObjectStoreURL

The URL for accessing the object store.

## 5.5.8 StorageAccessKey

The object store access key.

## 5.5.9 StorageBucket

The object store bucket, or a path in the case of a file system (mount) backup storage.

#### 5.5.10 StorageSecret

The object store secret.

## 5.5.11 StorageType

The backup storage type. One of the following: azure, amazon, ionos or mount.

### 5.5.12 SwapBinary

Use this setting to specify an alternative binary CLI (command line interface) for the object store in use.

By default, /bin/az is used in the case of azure, /usr/local/bin/aws is used in the case of amazon and ionos, and /bin/cp is used for mount storage.

#### 5.5.13 UseSudo

Set to True if commands should be prefixed by sudo, in order to execute with root privileges.

# 5.6 Email Settings

# 5.6.1 EmailOriginHost

Specify the domain of the origin host, for emails sent by the server. See *Enabling Two-Factor Authentication for Administrators* (page 11) for details.

#### 5.6.2 EmailSendTimeout

Timeout in seconds, when sending an email. See *Enabling Two-Factor Authentication for Administrators* (page 11) for details.

### 5.6.3 EmailReplyToAddress

This is the email address that will appear in the Reply-To header of the email, and will be used by the email client if the user attempts to reply to emails sent by the Web Portal. See *Enabling Two-Factor Authentication for Administrators* (page 11) for details.

#### 5.6.4 EmailSenderAddress

The email address of the sender. This address is not directly visible to the email receiver. If an email bounces, a message will be sent to this address. See *Enabling Two-Factor Authentication for Administrators* (page 11) for details.

### 5.6.5 EmailSettingsToConfirm

A hash of the email settings that need to be confirmed before saving. See *Enabling Two-Factor Authentication for Administrators* (page 11) for details.

#### 5.6.6 SMTPServerHost

Domain name (and port) of the SMTP server used to send emails. See *Enabling Two-Factor Authentication for Administrators* (page 11) for details.

# 5.7 General Settings

### 5.7.1 AllowedProviders

This is a list of Provider codes of the users that may login to the Portal. If empty, any user may login to the Portal.

**Note:** Changes to the list will not be recognized by running container instances. You have to stop all running instances manually.

### 5.7.2 ClientSettings

This is a list of settings for the TeamDrive Agent running in all containers belonging to the Web Portal. In addition to these settings, the Web Portal automatically sets sqlite-synchronous=normal and idle-shutdown-timeout (which depends on the value of ContainerIdleTimeout).

If the setting SharedIniPath (see *SharedIniPath* (page 29)) is empty, then the client settings are added to the "/etc/teamdrive.ini" file which is built into the Docker container image.

If SharedIniPath is not empty, the then client settings are written to the teamdrive.ini file created in the directory specified by SharedIniPath.

This means if the client settings are changed, then they only take effect when the container is rebuild, if "SharedIniPath" is not specified. If a SharedIniPath is given, then the client setting changes take effect when a container is restarted.

### 5.7.3 MaxLoginRate

This is the maximum number of logins to the Web Portal within one minute. The default value is 20. The logins are averaged over 10 minutes so it is possible to exceed this number in bursts.

The object of this setting is to prevent Denial Service and other brute force attacks against the Web Portal login, by automated systems.

As a result, only IP numbers used more than 4 times over the last 10 minutes count towards the total. This means that a login from a little-userd IP address is not subject to this restriction.

If the rate is exceeded, the users will get an error message that login has been temporarily disable for security reasons, and that they should try again in a few minutes.

In addition, an email is sent to the administrators of the Web Portal, specifying the current login rate. This helps administrators to identify attacks on the Web Portal login.

## 5.7.4 MaxLoginLogAge

The Web Portal keeps a log of the logins, which includes the login name, and the IP address of the user. This setting specifies how long the log entries are preserved. By default this is 48 hours.

The purpose of the log is to detect possible abuse or denial of service attacks aimed at the Web Portal.

### 5.7.5 PrimaryRegistrationServer

Web Portals can be connected to a number or Registration Servers. The Primary Registration Server must be selected from the servers that have been registered. This can be done from the Registration Server list.

#### 5.7.6 ServerRoot

The installation directory of the Web Portal application. This setting is read-only, and cannot be changed after installation.

#### 5.7.7 WebPortalDomain

This is the domain name (or URL) of this service.

#### 5.7.8 WebPortalName

This name of this service. The name is displayed in the Web Portal Admin Console. The default value is the domain name of the service. The name is used for display purposes only, and may be set to any value.

# 5.8 Outgoing Connections

#### 5.8.1 UseProxy

Set this value to True in order to enable the use of a proxy for all outgoing connections of the Web Portal, and the TeamDrive Agent running in the Docker environment.

## 5.8.2 ProxyHost

This is the domain name (or IP address) and port number of the proxy to be used for outgoing connections. If not set, the UseProxy setting will be ignored.

Note that this setting is used for both HTTP and HTTPS connections.

### 5.8.3 NoProxyList

This is a comma separated list of domains and IP addresses that are to be contacted without the use of a proxy.

#### 5.8.4 ConnectionTimeout

The timeout in milliseconds when making outbound connections. The default is 30 seconds.

# 5.9 Build Image

The Build Image settings are used to build and, if necessary, customize the Docker container image for use with the Web Portal.

## 5.9.1 AgentCommandLineArgs

These are the command line arguments passed to the TeamDrive Agent when started in a container. This is a readonly value that is affected by the following settings: ContainerIdleTimeout, ContainerDatabases and SharedIniPath (see *AgentDownloadURL* (page 33), *ContainerDatabases* (page 26) and *SharedIniPath* (page 29)).

In addition, if SharedIniPath is empty, then the value set using ClientSettings will be added to the command line parameters.

When the container image is built, the value of this setting is substituted for the @COMMANDLINEARGS@ in the BuildDockerfile (see *BuildDockerfile* (page 34)).

#### 5.9.2 AgentDownloadURL

This URL is used to download the TeamDrive Agent archive (.tar.gz file).

By default the URL refers to the TeamDrive download portal:

```
http://download.teamdrive.net/{VERSIONSHORT}/{PROVIDERCODE}/linux-x86_64/

$\times{PRODUCTNAME}_agent_{VERSION}_el7.x86_64.tar.gz$
```

Before usage, the following substitutions are made:

- {PRODUCTNAME} is set to BuildProductName, after converting to all lowercase letters.
- {PROVIDERCODE} is set to the value of the BuildProviderCode setting.
- {VERSION} is set to the version of the Agent being built.
- {VERSIONSHORT} a short version of the version number of the archive, which does not include the "patch" number. Version numbers have the form: <major>.<patch>.<build>

If you have your own download portal, you can remove the placeholders as required.

If the required TeamDrive Agent archive is found in the build folder (ImageBuildFolder) the Web Portal will not attempt to download the archive.

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### 5.9.3 BuildBinaryName

BuildBinaryName is the name of TeamDrive Agent binary executable which is started when launching a Docker container. The executable is included in the Agent archive (.tar.gz file).

By default, this value is "teamdrived.bin".

#### 5.9.4 BuildDockerfile

The contents of the Dockerfile used by docker to build a new TeamDrive Agent image, as described in the Docker documentation: https://docs.docker.com/engine/reference/builder/.

A number of replacements are performed before the file is used:

- @AGENTARCHIVE@ is set to the last component of the AgentDownloadURL setting.
- @BINARYNAME@ is set to the value of the BuildBinaryName setting.
- @COMMANDLINEARGS@ is set to the value of the AgentCommandLineArgs setting.
- @PRODUCTNAME@ is set to BuildProductName, after converting to all lowercase letters.

Note the place-holder variable @IDLETIMEOUT@ (value of the ContainerIdleTimeout setting) has been deprecated. You should use @COMMANDLINEARGS@ instead as demonstrated by the default BuildDockerfile, as follows:

```
CMD [ \"./@BINARYNAME@\", @COMMANDLINEARGS@ ]
```

After substitution, the Web Portal uses the value of ImageBuildCommand to call docker to create the image.

#### 5.9.5 BuildProductName

This is the customisable Product name. The default Product name is "teamdrive".

Note that the Product name is required to be all lowercase letters.

This value is the first part of the name of the Agent archive (.tar.gz file) which contains the binary of the Team-Drive Agent, as specified by the last component of the AgentDownloadURL setting, for example: "team-drive\_agent\_4.5.5.1838\_el7.x86\_64.tar.gz".

When the Agent archive is unpacked, the Web Portal assumes that the top-level directory is the same as the value of this setting. In addition, when upgrading, the Web Portal will create a Docker image with a name of the form:

```
\verb| <build-product-name>/agent: < version-number> - < provider-code>.
```

The Web Portal also uses the image name to search the Docker hub before building a custom image.

### 5.9.6 BuildProviderCode

This is your 4 letter Provider code. This should correspond to the provider code specified in the DISTRIBUTOR file. By default, the Provide code is "TMDR".

## 5.9.7 BuildWgetCommand

This is a shell command calls the wget executable to download the TeamDrive Agent archive. Additional arguments (e.g. -O, -e and the download URL) will be added to this command as required.

The only reason to change this setting is to determine the "wget" executable to be used by add a path, or to specify a different location for the log file.

Before usage, {BUILDFOLDER} is set to the value of the ImageBuildFolder setting.

If the wget call fails, check the "wget-log" log file for details.

#### 5.9.8 DISTRIBUTORFile

This is the contents of the signed DISTRIBUTOR file to be used by the TeamDrive agent running in the container. This value replaces the contents of the DISTRIBUTOR file included in the Agent archive.

By default this value is empty, which means that the DISTRIBUTOR file in the Agent archive is used.

Please notice, that only signed DISTRIBUTOR files will be accepted. The signature will be checked during the creation of the docker image and at each start of the agent.

The default contents for the TeamDrive Agent are as follows:

```
code=TMDR
reg-server-list-url=http://reg.teamdrive.net/pbas/td2as/lis/regserverlist.htm
reg-server-name=TeamDriveMaster
reg-server-url=http://reg.teamdrive.net/pbas/td2as/reg/
notification-url=http://notification.teamdrive.net/pbas/td2as/reg/
media-server-url=http://media.teamdrive.net/pbas/td2as/reg/
update-program-url=http://reg.teamdrive.net/pbas/td2as/upd/update.xml
balance-url=http://balance.teamdrive.net/pbas/td2as/bal/balance.xml
log-upload-url=http://logupload.teamdrive.com/upload.php
redirector-url=http://www.teamdrive.com/redirector.php
ping-url=http://ping.teamdrive.net/ping.xml
enable-provider-panel-android=false
enable-provider-panel-ios=false
enable-provider-panel-linux=true
enable-provider-panel-mac=true
enable-provider-panel-win=true
```

### 5.9.9 HttpConfigFolder

The path to the Apache folder for configuration files, "/etc/httpd/conf.d/" by default. There is no need to change this setting if you are running the Web Portal on CentOS 7 or CentOS 8.

### 5.9.10 HttpDocsFolder

This must be set to the path to the Apache documents folder. By default, the value is "/var/www/". There is no need to change this setting if you are running the Web Portal on CentOS 6 or CentOS 7.

#### 5.9.11 ImageBuildCommand

This is a shell command which calls the docker executable to build a new Docker image. The only reason to change this setting is to determine the "docker" executable to be used by specifying the path of the executable.

Before usage, the following substitutions are made:

- {BUILDFOLDER} is set to the value of the ImageBuildFolder setting.
- {PRODUCTNAME} is set to BuildProductName, after converting to all lowercase letters.
- {PROVIDERCODE} is set to the value of the BuildProviderCode setting.
- {VERSION} is set to the version of the Agent being built.

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## 5.9.12 ImageBuildFolder

This is the folder in the filesystem where the files are created during the Docker image build process.

If the Agent archive cannot be downloaded then it may be copied manually to this directory before the build is initiated (see installing-agent-image).

The DISTRIBTOR file and the Dockerfile used to build the Docker image are created in this directory. Since these files are not deleted you can check the contents after the build is completed.

### **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 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.my.cnf: This configuration file defines the MySQL credentials used to access the webportal MySQL database. It is read by the Apache module 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\_yyva 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, and 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. Check the log file to 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, 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
'webportal.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 'webportal.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`@`webportal.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 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:

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```
[root@webportal install] # export DOCKER_HOST=tcp://<docker-host>:2375
[root@webportal install] # 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 you have followed the instructions in section configure-mod-ssl.

## **RELEASE NOTES - VERSION 3.0**

# 7.1 3.0.1 (YYYY-MM-DD)

This is a security update.

- A number of security issue have been fixed, please contact TeamDrive for further details.
- yvva 1.5.11 is required which includes measures to prevent "Log Poisoning" by encoding r and n characters (YVVA-52).

# 7.2 3.0.0 (2021-08-20)

The 3.0 release includes a several security bug fixes and a number of hardening measures, and is recommended to all users.

Please contact TeamDrive for further details.

Version 3.0 is an in-place upgrade to all previous versions running on CentOS 7.

On CentOS 8 the new version runs with Docker in "rootless mode", see:

https://docs.docker.com/engine/security/rootless/

Because of the added security due to rootless mode, and other CentOS 8 security updates, all users of the Web Portal are requested to transition to this version as soon as possible.

- Initial public release of 3.0.
- Set security headers in Apache configuration (WEBCLIENT-400).
- OS hardening and security update to Apache configuration (WEBCLIENT-385).
- Hardening of TeamDrive Agent (Agent Version >= 4.7.1.3011).
- Support for running Docker in rootless mode (only CentOS 8)

## **RELEASE NOTES - VERSION 2.0**

## 8.1 2.0.8 (2020-05-10)

- Fixed an access denied error when calling the Registration Server API to get information on a user that belongs to a another provider (i.e. a provider other than the Web Portal's provider).
- Fixed handling of email address change due to user deletion or if two users switch email addresses (WEBCLIENT-372).
- Added support for MySQL 8
- Set client version to 4.7.0.2944

## 8.2 2.0.7 (2020-12-16)

- If a user logs in with an email address that is not unique, the Web Portal will return an appropriate error (WEBCLIENT-358).
- Login with email will now re-direct to the correct Web Portal if necessary, provider Registration Server version 4.5.4 or later and TDNS version 2.0.2 is use (WEBCLIENT-357).
- Set client version to 4.6.12.2793

# 8.3 2.0.6 (2020-10-02)

- Login with a temporary password was not working when using an email address (WEBCLIENT-356).
- Fixed bug: the Web GUI not going directly to the external authentication login page when AuthServiceEnabled was set to True (WEBCLIENT-355).
- Entries separated by a newline in the ContainerHosts setting was not working correctly (WEBCLIENT-354).
- Fixed "Array index out of bounds" error when accessing the "Build Image" settings details page.

# 8.4 2.0.5 (2020-09-15)

• The "White Label" settings have been renamed to "Build Image" settings. In addition, the setting UseWhiteLabeldDockerImage has been removed and the WhiteLabelINIFileSettings setting has been rename to ClientSettings (see below).

UseWhiteLabeldDockerImage is no longer required because all Web Portals now use the image build settings to create a new Docker image on upgrade, if necessary.

The setting WhiteLabelIdleTimeout has been renamed to ContainerIdleTimeout and is now a "Docker Setting" (see *ContainerIdleTimeout* (page 27)).

The IdleContainerTimeout setting has been renamed to RemoveIdleContainerTime to better distinguish this value from ContainerIdleTimeout.

• Added SharedIniPath and AgentCommandLineArgs. Using SharedIniPath you can specify a global path for the "teamdrive.ini" file (WEBCLIENT-350).

WhiteLabelINIFileSettings has be rename to ClientSettings and is now a "General Setting". Client settings that are set using the ClientSettings setting are then written to the teamdrive.ini file. If a SharedIniPath is specified, then they are read by the all TeamDrive agents, when a container starts. If not, then the client settings are written to the /etc/teamdrive.ini file, which is part of the container image.

The AgentCommandLineArgs settings is a read-only variable that specifies the command line arguments that are passed to the TeamDrive agent when the container starts.

See SharedIniPath (page 29), AgentCommandLineArgs (page 33) and ClientSettings (page 31) for details.

- Added MaxLoginRate and MaxLoginLogAge settings. These settings are used to detect Denial of Service and other brute force attacks targeting the Web Portal login (WEBCLIENT-344). See *MaxLoginRate* (page 32) and *MaxLoginLogAge* (page 32) for details.
- Error messages returned by the Web Portal are now use the translation file provided by the TeamDrive Agent.
- Added ContainerHosts setting (see *ContainerHosts* (page 27)). Use this to specify entries for the "/etc/hosts" file of the container (WEBCLIENT-139).
- You can now configure a proxy during setup of the Web Portal (WEBCLIENT-338).
- If AuthServiceEnabled is False the Web Portal now uses external authentication as required by the user, provided you are using TeamDrive Agent 4.6.11.2656 or later (WEBCLIENT-335).

As before, if AuthServiceEnabled is True, then Web Portal uses a specific authentication service (as specified by AuthLoginPageURL and AuthTokenVerifyURL).

See AuthServiceEnabled (page 24) for more details.

• Moved settings SessionTimeout, ForceHTTPSUsage and ForceHTTPSUsage to Admin Console settings group.

Moved RegistrationEnabled and RegistrationURL to the Authentication settings group.

• The Web Portal will now redirect to another Web Portal, if a user attempts to login to the incorrect Web Portal (WEBCLIENT-333). This is done of the provider of the user is not in the list of AllowedProviders.

On the Registration Server of the user, you must set the WEBPORTAL\_API\_URL provider setting. This setting specifies the domain name of the Web Portal used by the provider. In addition, Registration Server version 4.5.4 is required. This version implements the "webportal" redirect required to implement this functionality.

If any of these conditions is not met, then the user will get the error message: "The provider you are registered to is not enabled for this web portal".

- Set the minimum client Agent version to 4.6.11.2707. This version support the Web Portal redirect, and includes some error message improvements.
- Setting the default distributor code, and language using the portal/login.html and extauth/login.html pages is not longer supported.

# 8.5 2.0.4 (2020-05-19)

• Added Multi-Registration Server support.

- Fixed agent download URL.
- All documents and security relavent data stored in containers run by the web portal are now encrypted when using TeamDrive Agent version 4.7 or later.

Encryption activates the so-called "super PIN" functionality implemented by Registration Server 4.2. When the super PIN is activated for an account the user is required to print out and save a 56-digit super PIN, and recovery URL (in the form of QR code) in a secure place.

After activation of the super PIN functionality the user can only access their account using their password, or the super PIN, or the recovery code (which can be retrieved using the recovery URL). Changing your password is also only possible using either the super PIN or recovery code.

- Changes made to support local encryption of inboxes. Encryption of inboxes required Registration Server version 4.2 or later, and TeamDrive Agent version 4.7 or later.
- Added ContainerDatabases setting (WEBCLIENT-334). This setting allows you to specify an alternative path for the SQLite databases used by the containers. Normally all data is placed in the ContainerRoot directory.

When specified the new location will be mounted in the container under the path: "/teamdrive/dbs". However, this path will only be used if you build a new image using the TeamDrive Agent version 4.6.12.2637 or later

This version of the client supports the "—database-path" option which allows you to specify an alternative path for the SQLite database. When ContainerDatabases is set, the image build process will automatically add this option to the start parameters of the agent (see @USEDATABASEPATH in the WhiteLabelDockerfile setting).

## 8.6 2.0.3 (2020-04-14)

- Changes for yvva 1.5.2 compatibility.
- Fixed a problem removing container data, remove directory was failing when a '\$' was in the path name.
- The Web Portal will now correctly use the database specified in the "td-webportal.my.cnf" file (WEBCLIENT-296). Previously the database name was hard-coded to "webportal".
- Fixed: in case of an exception the temporary file created by syscall() is not be deleted (WEBCLIENT-316).
- Fixed: HTML entities conversion problem when editing setting "WhiteLabelDockerfile" (WEBCLIENT-323).
- When the docker image in being updated, the Web GUI will now return the error "Upgrade in progress, please try again shortly", when the user attempts to login.
- Added API functions to enable and disabled a container (WEBCLIENT-324).
- Added support for "prelogin" call in order to support login changes (WEBCLIENT-327).
- Added "sqlite-synchronous=normal" as start parameter for the agents to reduce SQLite flush frequency
- Set client version to 4.6.10.2619

# 8.7 2.0.2 (2019-07-26)

• Increased MinimumAgentVersion to 4.6.7.2355.

## 8.8 2.0.1 (2019-06-11)

• Fixed problems the on demand creation and starting of containers that have been deleted (WEBCLIENT-304).

## 8.9 2.0.0 (2019-04-25)

**Note:** Please follow the new update process described in chapter *Upgrading the TeamDrive Web Portal* (page 17). The former separate GUI rpm package is not longer necessary. The standard Web Portal will update the docker Container image from the docker hub during the update step and will extract and update the files necessary for the GUI from this image. A white label Web Portal needs the white label agent .tar.gz to build a white label docker container image.

• Initial release of Web Portal 2.0.

## 8.9.1 Upgrading from previous versions of the Web Portal

As of version 2.0.4 you must run the upgrade\_now command from the console after installing a new version of the Web Portal.

This command updates the database structure and the docker image used by the Web Portal. The Admin Console may return errors, and other random errors may occur before the upgrade had been completed.

To update the database structure and docker image start yvva and execute upgrade\_now;;. This command also upgrade the container image used by the Web Portal. See the chapter *Upgrading the TeamDrive Web Portal* (page 17) for details.

### 8.9.2 Key features and changes

- Increased MinimumAgentVersion to 4.6.7.2328
- External authentication supports both login and registration. This feature can be activated by setting AuthServiceEnabled to True. To allow registration set RegistrationEnabled to True. If no AuthLoginPageURL or RegistrationURL page is specified then the Web Portal will use the "portal pages", provided by the Registration Server.
- External authentication can be embedded in the TeamDrive Web GUI, or can the external authentication pages can be used directly. A new setting: UseEmbeddedLogin, must be set to True in order to use the embedded login form.

By default, UseEmbeddedLogin is set to False if you upgrade from a previous version of the Web Portal that was using external authentication. Otherwise, the default is True. This is to ensure backwards compatibility, with previous versions that only supported the non-embedded form.

Accessing the Web Portal domain, for example: https://webportal.yourdomain.com, will automatically present the login in the embedded or non-embedded form, as specified by UseEmbeddedLogin.

• You can now use "explicit" links to the login page in order to set the default provider code and language, for the login or registration.

For the non-embedded login form use the following explicit link:

https://webportal.yourdomain.com/portal/login.html?dist=CODE&lang=LG

and for the embedded login form use the following explicit link:

https://webportal.yourdomain.com/extauth/login.html?dist=CODE&lang=LG

where CODE is the provider code, and LG is the language code, for example en or de.

Note that the external authentication service must be able to handle the specified provider code and language.

### 8.9.3 Administration Console

• Added a Container list page, which can be used to search for containers of a particular user and type. The container details page allows you to stop, start and delete containers.

Note that deleting a container will remove all the container data as well. This means that Web Portal users will find all spaces deactivated on next login. If the user looses his password he will also loose access to his data, unless he has a TeamDrive installation elsewhere.

## **RELEASE NOTES - VERSION 1.2**

## 9.1 1.2.3 (2019-01-15)

- Reset of Admin User's password as described in the documentation (i.e. by setting the password to blank in the database) was not working (WEBCLIENT-259).
- Added a illustrated overview of the Web Portal to the documentation, showing the connection to other components in the TeamDrive system (see introduciton\_to\_the\_teamdrive\_web\_portal).

## 9.2 1.2.2 (2018-11-06)

- The Web Portal supports now the Docker Community and Enterprise Edition and also still the old Commercially Supported version with the latest version 1.13 (from January 2017). Please notice, that the Docker CS version will be still maintained, but not further developed any more. Check the docker installation chapter for the differences between Docker CS and CE/EE installation.
- The Web Portal will only allow using signed DISTRIBUTOR files like the standard client. The signature will be checked during the creation of the docker image and at each start of the agent. Additional client settings must be moved to the new setting WhiteLabelINIFileSettings. If settings are still required in the DISTRIBUTOR file it must be signed by TeamDrive Systems for you.
- The current agent supports now web-sockets to refresh data in the browser without refreshing the page itself. To support web-socket connections, the apache module proxy\_wstunnel\_module must be enabled (See configure-apache-24 for details)
- Increased MinimumAgentVersion to 4.6.4.2183

# 9.3 1.2.1 (2017-11-29)

- Increased MinimumAgentVersion to 4.5.5.1838
- Upgrade will change the WhiteLabelAgentDownloadURL setting from ".../{PRODUCTNAME}\_agent\_{VERSION}\_x86\_64.tar.gz" to ".../{PRODUCTNAME}\_agent\_{VERSION}\_el7.x86\_64.tar.gz". this is done because the TeamDrive agent is now built in 2 versions: "el6" are built for CentOS 6, and "el7" versions are built for CentOS 7. It is assumed that the Web Portal is run on a CentOS 7 platform. If this is not the case, then you must manually change this setting to ".../{PRODUCTNAME}\_agent\_{VERSION}\_el6.x86\_64.tar.gz" (WEBCLIENT-255).
- Updated documentation to include new TeamDrive CI (WEBCLIENT-254).
- The Web Portal external authentication now handles transitioning to a new User Secret generation algorithm as implemented by Registration Server version 3.7.6.
- Bug fix: boolean settings were not correctly pre-selected.

• Several improvements have been made to the upgrade procedure which generates a new Docker image. The setting WhiteLabelAgentDownloadURL can now be left blank, of the Agent archive (.tar.gz file) has been placed manually in the build folder (WhiteLabelDockerBuildFolder).

If ContainerImage is set to image with a version number higher than the MinimumAgentVersion, then the Web Portal will build an image for the version specified by ContainerImage.

• Version 1.2.1 requires YVVA runtime version 1.4.4.

## 9.4 1.2.0 (2017-08-14)

**Note:** Please follow the new update process described in chapter *Upgrading the TeamDrive Web Portal* (page 17). The former separate GUI rpm package is not longer necessary. The standard Web Portal will update the docker Container image from the docker hub during the update step and will extract and update the files necessary for the GUI from this image. A white label Web Portal needs the white label agent .tar.gz to build a white label docker container image.

• Initial 1.2 release.

### 9.4.1 Key features and changes

- Simplified installing and updating the web portal and docker container for standard and white label configuration.
- Increased MinimumAgentVersion to 4.5.2.1775 to support PointInTime-Recovery and Read-Confirmations

### **RELEASE NOTES - VERSION 1.1**

## 10.1 1.1.0 (2017-04-10)

**Note:** When updating from an older version of the Web Portal, remove the DOCKER\_HOST setting in the apache config file /etc/sysconfig/httpd. It is not longer necessary.

If you update docker to version 1.12.6 the docker service might not start anymore as described in the docker release notes: https://github.com/docker/docker/releases/tag/v1.12.6 Please remove the file /etc/systemd/system/docker.service.d/web-portal.conf and add the --host=tcp://0.0.0.0:2375 instead to the OPTIONS parameters in /etc/sysconfig/docker as described in the docker configuration installing-docker chapter.

• Initial 1.1 release.

## 10.1.1 Key features and changes

- Added professional license required check (WEBCLIENT-233)
- Added setting to limit currently active users (WEBCLIENT-234)
- Added setting for minimum docker available data and meta data space. If minimum is reached, no more docker container will be created for new users (WEBCLIENT-235)
- Settings are now displayed in groups in the Admin Console (WEBCLIENT-237).
- Increased MinimumAgentVersion to 4.3.2.1681 to support space web access settings (TDCLIENT-2184). The webportal docker agent will be started with an additional setting agent-type=webportal to distinguish a standard and a webportal agent
- Added settings to support a Proxy for outgoing connections: UseProxy, ProxyHost and NoProxyList (WEBCLIENT-242). See *Outgoing Connections* (page 32) for details.
- Added the ConnectionTimeout setting which specifies a timeout for outgoing connections (see *Outgoing Connections* (page 32)).
- Added support for Docker Swarm. Docker Swarm is a native clustering for Docker. It turns a pool of Docker hosts into a single, virtual Docker host. Please notice, that only the legacy standalone Swarm is supported (https://docs.docker.com/swarm/overview/), because of the different service model in the Docker Engine v1.12.0 using the swarm mode. Change the DockerHost Web Portal setting from the standard docker port 2375 to the swarm port 2377 to switch from the standard docker API access to the swarm API access (WEBCLIENT-245).

## **RELEASE NOTES - VERSION 1.0**

## 11.1 1.0.9 (2017-02-10)

- Increased MinimumAgentVersion to 4.3.1.1656 to fix a bug when login with email address and magic usernames.
- · Revised chapter Web Portal Virtual Appliance with CentOS 7 and docker direct-lvm storage

## 11.2 1.0.8 (2017-02-07)

**Note:** After updating docker to version 1.12.6 the docker service might not start anymore as described in the docker release notes: https://github.com/docker/docker/releases/tag/v1.12.6 Please remove the file /etc/systemd/system/docker.service.d/web-portal.conf and add the --host=tcp://0.0.0.0:2375 instead to the OPTIONS parameters in /etc/sysconfig/docker as described in the docker configuration installing-docker chapter.

- Removed support for CentOS 6
- Fixed docker configuration
- Fixed PDF creation for this documentation
- Fixed download links for VM-Ware images

# 11.3 1.0.7 (2016-11-10)

- Increased MinimumAgentVersion to 4.2.2.1579 to support email notifications
- Fixed docker configuration
- Fixed apache 2.4 configuration

# 11.4 1.0.6 (2016-07-11)

**Note:** Updating the Host Server on CentOS 7 with "yum update" might update the apache to a newer version. This update could re-install the deleted "conf"-files in the folder /etc/httpd/conf.modules.d/ and will prevent starting the apache. Please follow the modified instruction to disable all modules in the "conf"-files instead of deleting them as described in configure-apache-24

• Improved Docker installation documentation (WEBCLIENT-219, WEBCLIENT-223).

• The Web Portal now checks if the user is authorised to access a Web Portal. A user is authorised to access a Web Portal if the Provider setting: ALLOW\_WEB\_PORTAL\_ACCESS is set to permit or ALLOW\_WEB\_PORTAL\_ACCESS is set to peruser and the user's "Web Portal Access" capability bit is set (a user-level setting).

When using external authentication, the same check is done if the Registration Server is version 3.6 or later. When using a Registration Server 3.5 or earlier, the Web Portal will not check the user's Web Portal access permissions (in the case of external authentication).

• Added setting AllowedProviders which is a list of Provider codes of the users that are allowed to login to the Web Portal.

An input field on the setup page allows this variable to set during installation of the Web Portal.

• The URL https://webportal.yourdomain.com/portal/authservice.html is now the target URL for external Authentication Services acting on behalf of the Web Portal.

In other words, in successful authorisation by an external Authentication Service, the user is redirected back to this page.

The Web Portal will may add certain arguments to AuthLoginPageURL and RegisterURL pages:

- "portal=true": This argument is always added to the URL. This is useful, in the case when the same
  Authentication Service is called by the TeamDrive Client and the Web Portal. The argument can be
  used to determine whether to redirect on successful login or not.
- "cookie=?": This argument will be added if the Authentication Service provided a cookie after the last successful login. The cookie is stored by the TeamDrive Agent.
- "error=?": This argument indicates that the Web Portal encountered an error after successful authorisation by the Authentication Service. It is a base-64 (URL) encoded string containing the error message. The error should be displayed in the login page served by the Authentication Service.
- Support CentOS 7 with Apache 2.4
- Increased MinimumAgentVersion to 4.2.0.1470 to support the space activities
- Added setting RegistrationEnabled (default False). This value must be set to True to allow registration of users directly via the Web Portal.
- Added login and registration pages: All of these pages redirect to the associated pages on the Registration Server. After login, or registration, the Registration Server redirects back to the Web Portal.
  - https://webportal.yourdomain.com/portal/login.html This page allows users to login using two-factor authentication, if this has been configured. /portal/login.html is now the default for the AuthLoginPageURL setting.
  - https://webportal.yourdomain.com/portal/register.html Using this page a user can register as a TeamDrive user without installing the TeamDrive Client. After registration the user has access to the Web Portal. /portal/register.html is now the default for the RegisterURL setting.
  - https://webportal.yourdomain.com/portal/lost\_pwd.html This page sends a temporary password to the user and allows the user to login and set a new password. The page is linked from /portal/login.html.
  - https://webportal.yourdomain.com/portal/setup-2fa.html Using this page the user can configure two-factor authentication using the Google Authenticator App.
  - The default of the "AuthTokenVerifyURL" setting is now: https://webportal.yourdomain.com/portal/ve

# 11.5 1.0.5 (2016-02-16)

• Fixed a problem on login with a user registered via the Registration Server API using email address as identification (WEBCLIENT-205).

• Use the -v option when removing containers. This ensures that the container volume is also removed (WEBCLIENT-204).

## 11.6 1.0.4 (2016-02-09)

· Framework synced with Host- and Reg-Server

## 11.7 1.0.3 (2016-02-02)

- Added setting MinimumAgentVersion which specifies the minimum version of the TeamDrive Agent that will work with the Web Portal. Upgrade to this version of the Agent is forced as soon as the new version of the Web Portal is online (WEBCLIENT-194).
- Updated documentation for Docker version 1.7.1
- Fixed Internet explorer caches API calls. (WEBCLIENT-186)
- Added description about the dependencies between Webportal, Provider and Reg-Server and normal and external Authentication. (WEBCLIENT-176)
- The performExternalAuthentication redirects to http://instead of https://. (WEBCLIENT-182)
- The getLoginInformation() API call now returns "registerUrl" if the setting RegistrationURL, is set on the Web Portal. (WEBCLIENT-179)
- Redirect to the login page when a request to an agent returns a 503 code. This requires a manual update to the ssl.conf, refer to the documentation on server installation and configuration. (WEBCLIENT-198)

# 11.8 1.0.2 (2015-12-07)

- Fixed container language settings so that Spaces with non-ascii characters in the name now work.
- Corrected redirect 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

# 11.9 1.0.1 (2015-10-27)

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

# 11.10 1.0.0 (2015-10-08)

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

### **CHAPTER**

# **TWELVE**

## **APPENDIX**

## 12.1 Abbreviations

**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, Registration Server and Webportal Server functionality is implemented in PBT. The code is parsed and executed by the Yvva application server components.

TDNS Team Drive Name Service

TDRS Team Drive Registration Server

TSHS Team Drive Scalable Host Storage.