



4PSA DNS Manager 1.3.5
User's Guide

Manual Version 0.50

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Table of Contents

Chapter 1. About 4PSA DNS Manager 1.3.5.....	5
1. Where to Use 4PSA DNS Manager	5
2. 4PSA DNS Manager 1.3.5 Features.....	6
Chapter 2. The Administrator Module	7
1. Performing Administrative Tasks.....	7
Managing Administrator Accounts.....	8
Managing User Sessions	10
Backing Up DNS Records	10
2. Managing Client Accounts	11
Creating a New Client Account.....	12
Turning Client ON/OFF.....	13
Editing Client Information	13
Managing Client Settings	13
Managing DNS Templates	17
Managing DNS Zones Remote Update Locations	19
Client Group Operations.....	21
3. Managing DNS Zones	23
Creating a New DNS Zone.....	24
Managing DNS Records.....	26
Managing DNS Zones	28
Removing DNS Zones.....	30
4. Setting Server Preferences.....	30
Setting Server-Wide DNS Templates.....	30
Setting SOA Parameters	32
Setting Interface Preferences.....	33
Managing Notifications.....	34
Managing Custom Buttons.....	35
Updating the License Key	37
Chapter 3. The Client Module	38
1. Managing DNS Zones	38
Editing Client Information	38
Creating a New DNS Zone.....	39

Managing DNS Records.....	42
Managing DNS Zones	44
Removing DNS Zones.....	44
Managing DNS Zones Remote Update Locations	45
Backing Up DNS Records	47
2. Managing Settings	48
Managing DNS Templates	48
Setting SOA Parameters	49
Setting Preferences	50
Chapter 4. Command Line Configuration	50
1. Low Level Engine Configuration	50
2. Interface Configuration.....	52
Chapter 5. Remote Update Location Configuration	53
1. 4PSA DNS Manager as the Secondary Server.....	53
2. 4PSA DNS Manager as the Primary Server	55
Appendix A. Server Compatibility.....	57

Chapter 1. About 4PSA DNS Manager 1.3.5

4PSA DNS Manager 1.3.5 is a server-level application that allows users to manage DNS Zones. With 4PSA DNS Manager you can create and manage DNS Zones and DNS Records, backup DNS Zones, manage DNS templates, gather DNS information from remote servers, etc. Due to its advanced features 4PSA DNS Manager is the ideal tool for automatic DNS management. 4PSA DNS Manager can load DNS Zone names from remote servers, regardless of the control panel or operating system that runs on these servers.

1. Where to Use 4PSA DNS Manager

Unlike other DNS management applications, 4PSA DNS Manager offers superior automation features and a friendly client level interface. Clients who use hosting services will find 4PSA DNS Manager a very easy to use solution. Most DNS applications are frustrating; it is a known fact that not even all administrators fully understand all DNS functions. With 4PSA DNS Manager this is history.

Below you can find several application targets:

- **Centralize DNS information from multiple servers.** You will be able to offer two name servers no matter how many hosting servers you have and what platform or control panel is used on these. The centralization process is automatic and you do not have to add DNS Zone information to the 4PSA DNS Manager server. Interface scripts for Plesk, Cpanel, Ensim, DirectAdmin, InterWorx Control Panel, Helm and Cobalt included.
- **Offer DNS redundancy.** 4PSA DNS Manager can act as a secondary DNS server, gathering Zone names from all the participant servers and automatically updating DNS Zone information.
- **Offer DNS hosting.** Hosting companies can use your services for DNS redundancy. Because no work is actually required to update the list of DNS Zones, DNS hosting becomes a very simple task. Clients will love the nice interface and the Zone validation.

2. 4PSA DNS Manager 1.3.5 Features

4PSA DNS Manager 1.3.5 offers the following features:

- Administrator and client management levels
- System designed for automatic DNS hosting
- Client permissions and limits
- Command line creation utilities
- Supports both RFC1912 and timestamp SOA Serial number formats
- DNS Zone Management:
 - Advanced Reverse DNS Zones management
 - Create DNS Zones in interface (single Zones or from file)
 - Master/Slave Zones supported
 - A, CNAME, NS, MX, PTR, TXT Records supported
 - Advanced Record management with server level and client level DNS templates support
 - Update DNS Zone information from remote servers (can fetch the list of DNS Zones added in any control panel interface)
 - Per server or per client Start of Authority (SOA) Records: refresh time, retry time, expire time, minimum TTL, default TTL
 - Automatic query of reverse DNS
- Remote update locations management:
 - Remote Zone types / Update interval
 - Remote update statistics
 - Advanced parallelism and QoS settings for maximum performance
- Backup DNS Zones in CSV format:
 - Server level backup (backups all DNS Zones on the server)
 - Client level backup (backups all DNS Zones owned by a client)
 - Backups separate DNS Zones
- Runs on RedHat servers. It can be installed on servers running Plesk (the Plesk server will be the centralized DNS server)

- Automatic import scripts for Plesk, Cpanel, Ensim, DirectAdmin, InterWorx Control Panel, Helm and Cobalt included in the package
- Create and manage client DNS templates
- DNS Server monitoring with administrator alerting
- Client / administrator / other event triggered email notifications
- Custom buttons support (you can interact with other systems)
- Users sessions management with advanced options
- Foreign and new .net domain names support
- Skinable interface (Lemon, XP, Metal styles available)
- Language packs capabilities

Chapter 2. The Administrator Module

You can login to the 4PSA DNS Manager interface at <http://installation.url/> using an Administrator account.



A default Administrator account is setup during 4PSA DNS Manager installation. The default administrator username is 'admin' and the password must be chosen during the installation.

The 4PSA DNS Manager navigation menu is available on the left side of the interface. The navigation menu provides an easy method for the administrator to manage client and administrator accounts, manage DNS Zones and Records, backup DNS Records, and manage server-wide settings.

1. Performing Administrative Tasks

The administrator can perform various administrative tasks: manage administrators' accounts, manage user sessions, and backup DNS Records. In order to

access this area, the administrator must follow the [Settings](#) link available in the navigation menu.

Managing Administrator Accounts

4PSA DNS Manager allows multiple accounts with administrative rights. In order to manage Administrator accounts, the administrator must click the **Admin accounts** button located in the Actions area.

In the Administrator accounts management page the administrator can add new accounts, view a list of existing accounts, search and delete a chosen account.

The following details are available in the Administrator accounts list:

Administrator name – The name of the person who owns the account with administrative rights

Company name – The name of the administrator's company

Creation date – The date when the Administrator account was created on the system

The information can be sorted by administrator name, company, or creation date by clicking the table header links.

Creating a New Administrator Account

In order to create a new account with administrative rights the administrator must click the **Add Admin account** button. In order to create the new Administrator account the administrator must enter all the required details:

Company name - This is the administrator's company name

Contact Name - This is used by the 4PSA DNS Manager to identify the administrator

Login - This is the username which is used by the administrator to access his 4PSA DNS Manager account

Password - This is the password used by the administrator to access his 4PSA DNS Manager account



Note

The **Login** name must be unique on the system.

The **Password** should be between 5 and 14 characters long and should not contain quotes, spaces or national alphabet characters. For security reasons the **Password** cannot be the same as the **Login** name.

Confirm Password - This is required to make sure the correct password is entered

Phone - This is the administrator's phone number

Fax - This is the administrator's fax number

E-mail - This is the administrator's email address, which is used as the default bounce address for the administrator's domains

Address - This is the administrator's postal address

City - This is the administrator's city

Postal/ZIP code - This is the administrator's ZIP or postal code

Country - This is the administrator's country

The required fields are marked with an asterisk. Click **OK** to create the new Administrator account. Click **Cancel**, if you want to return to the previous page without creating the account.

Editing Administrator Information

The administrator can modify existing Administrator account details. In order to edit an existing account, click the chosen administrator name in the list. The details of the chosen account can be modified.



Note

The **Login** name must be unique on the system.

The **Password** should be between 5 and 14 characters long and should not contain quotes, spaces or national alphabet characters. For security reasons the **Password** cannot be the same as the **Login** name.

The required fields are marked with an asterisk. Click **OK** to save the changes you have made. Click **Cancel**, if you want to return to the previous page without saving these changes.

Removing Administrator Accounts

In order to delete an Administrator account, check the checkbox corresponding to the chosen administrator name and click the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the accounts will be permanently deleted. Multiple accounts can be deleted at the same time.



Note

In the Administrator accounts list, the checkbox corresponding to the currently logged in administrator is disabled.

Managing User Sessions

4PSA DNS Manager allows the administrators to view a list of sessions established by the users who have logged in to the system. In order to manage user sessions, the administrator must click the **Sessions** button located in the Actions area.

In the User sessions management page the administrator can view a list of all sessions, search and terminate sessions. The following information is available:

T – This column displays the account type of the user who generated the corresponding session. This can be an Administrator account or a Client account.

Login – The username used to login

Name – The name of the corresponding user

Login time – The date and time (in month, day, year hh:mm:ss format) when the session was started

Expire time – The time left to the end of the user session



Note

Icons used in this manual for demonstrative purposes are from the **Lemon** skin available in 4PSA DNS Manager.

To end a session check the corresponding checkbox and follow the [Remove selected](#) link. 4PSA DNS Manager will ask your confirmation before terminating sessions. You can terminate one or more sessions at the same time.

In order to refresh the session list, follow the [Refresh](#) link.

Backing Up DNS Records

The administrator can create a CSV file backup of the DNS Records available on the server. The backup can be performed for all DNS Zones available on server, for all DNS Zones that belong to a client, and for a chosen DNS Zone.

Backing Up All DNS Zones on the Server

In order to create a local backup containing complete information for all DNS Zones available on the server, the administrator must follow the [DNS Zones](#) link available in the navigation menu.

Click the **Backup DNS Zones** button available in the Actions area. A file download dialog box opens. Select the name of the file and the path on your local machine where you want to save the file.

The file contains the list of the DNS Records for all the DNS Zones available on the server.

Backing Up Client DNS Zones

In order to create a local backup containing complete information for all DNS Zones that belong to a client, the administrator must follow the [Clients](#) link available in the navigation menu.

The list of registered clients is available in the Clients area. The administrator must click the chosen client name, then on the **Backup DNS Zones** button available in the Actions area.

A file download dialog box opens. Select the name of the file and the path on your local machine where you want to save the file. The file contains a list of the DNS Records for all the domains that belong to the chosen client.

Backing Up a DNS Zone

In order to create a local backup of a chosen DNS Zone available on the server, the administrator must follow the [DNS Zones](#) link available in the navigation menu.



In the DNS Zones area the administrator can view a list of DNS Zones available on server. Click the chosen DNS Zone name and next on the **Backup DNS Zone** button.

A file download dialog box opens. Select the name of the file and the path on your local machine where you want to save the file. The file contains a list of the DNS Records for the chosen domain.

2. Managing Client Accounts

The server administrator can manage client accounts: create new accounts; set client permissions and limits; create and manage client DNS templates; edit client information; manage DNS Zone remote update locations; and delete existing client accounts. In order to access this area, the administrator must follow the [Clients](#) link available in the navigation menu.

In the Clients management page the administrator can view a list of all registered clients, search and remove clients. The following details are available:

S – This column displays the status of the corresponding client. This can be  active or  inactive. Click the icon to change the status.

Client name – The name of the client

Company name – The name of the client's company

Creation date – The date when the Client account was created

DNS Zones – The number of DNS Zones the client has in 4PSA DNS Manager
The information can be sorted by status, client name, company name, creation date, and DNS Zone number by clicking the table header links.

The following action links are available:

Search – Search for a client name

Show all – Show all clients (to be used after a search limited the number of clients displayed)

Group operations – Select clients from the list and follow this link to make group changes to all clients selected

Remove selected – Select clients from the list and click this button to remove the client accounts from the server.

In the Custom buttons area you can view all the custom buttons available for the chosen client. Click the selected button in order to access the corresponding URL.

Creating a New Client Account

In order to create a new Client account the administrator must click the **Add Client account** button and enter the information required to create a new account.



The **Login** name must be unique on the system.

The **Password** should be between 5 and 14 characters long and should not contain quotes, spaces or national alphabet characters. For security reasons the **Password** cannot be the same as the **Login** name.

The required fields are marked with an asterisk. Click **OK** to create the new Client account. Click **Cancel**, if you want to return to the previous page without creating the account.

Turning Client ON/OFF

The administrator can turn Client accounts ON or OFF. In the Client management page the administrator must click the **Switch client ON/OFF** button to modify the status of the chosen client account.



Note

The status of the client account is available and can also be modified in the S column displayed in the Clients page.

Editing Client Information

The administrator can edit existing Client accounts. In the Client management page click the **Edit account details** button to modify the details of the chosen account.



Note

The **Login** name must be unique on the system.

The **Password** should be between 5 and 14 characters long and should not contain quotes, spaces or national alphabet characters. For security reasons the **Password** cannot be the same as the **Login** name.

The required fields are marked with an asterisk. Click **OK** to save the changes you have made. Click **Cancel**, if you want to return to the previous page without saving these changes.

Managing Client Settings

The administrator can manage the available custom buttons, the permissions and limits for a Client account. In the Client management page click the **Client settings** button available in the Actions area.

Custom Buttons Available for a Client

Click **Custom buttons** in order to manage the custom buttons available for the selected client. In this area you can add new buttons, edit and delete the available buttons.

In the custom buttons list the following details are available:

Button label – This field displays the name of the custom button

URL – This is the URL which will open in a pop-up window when you click the button



Note

You can use the `<zone_id>` and `<cl_id>` variables in URL. `<zone_id>` will be automatically replaced with the ID of the Zone, while `<cl_id>` with the ID of the client.

E.g.: `http://www.4psa.com/interface.php?client=<cl_id>&zone=<zone_id>`

Context help – This is the description of the button which will appear in the context help area on mouse-over.

The information can be sorted by button label, URL, and context help by clicking the table header links.

Adding Custom Buttons

In order to add a new button, click **Add custom button** available in the Actions area. In this area the following fields are available:

Button label – This field displays the name of the custom button.

URL – This is the URL which will open in a pop-up window, when you click the button.



Note

You can use the `<zone_id>` and `<cl_id>` variables in URL. `<zone_id>` will be automatically replaced with the ID of the Zone, while `<cl_id>` with the ID of the client.

E.g.: `http://www.4psa.com/interface.php?client=<cl_id>&zone=<zone_id>`

Context help – This is the description of the button which will appear in the context help area on mouse-over.

Click **OK** to update the button's details. Click **Cancel**, if you want to return to the previous page without saving the button.

Editing Custom Buttons

In order to edit the existing buttons click the button label link. You can modify the available fields, as presented before. Click **OK** to update the button's details. Click **Cancel**, if you want to return to the previous page without saving the changes.

Removing Custom Buttons

To remove a custom button, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the buttons will be permanently deleted. Multiple buttons can be deleted at the same time.

DNS Zone Settings for a Client

The administrator can change the following settings that apply to the domains belonging to the chosen client:

Refresh time - 32 bit time value in seconds. This is the length of time that the secondary name server should wait before checking with the primary server to see whether the data has been modified.



Tip

RFC 1912 recommends 1200 to 43200 seconds, if your data is volatile or 43200 (12 hours) if it is not.

Retry time - Signed 32 bit value in seconds. When a secondary name server requests for a Zone refresh from the primary server and this fails to respond, the secondary name server waits for the refresh time before attempting another Zone refresh after the failed attempt.

Expire time - Signed 32 bit value in seconds. This setting indicates when the Zone is no longer authoritative and new interrogation of the root servers is required. It applies to Slaves only.



RFC 1912 recommends 1209600 to 2419200 seconds (2-4 weeks).

Minimum TTL – This value is used as the default TTL for new Records created within the Zone. It is also used by other DNS servers to cache negative responses (for example when a Record does not exist).

Default TTL - Signed 32 bit value in seconds. This is the amount of time that Zone Records are kept in a remote host cache. It is recommended this value to be large. A short value will force remote servers to query the DNS server again for unchanged data.

When the administrator clicks the **Defaults** button, the fields will be automatically filled in with the recommended values. Click **Update** to save the changes.

Permissions

In order to manage permissions for the chosen client, check the corresponding checkboxes and click **Update**.

Allow to add remote update locations - When enabled, the client is allowed to add new remote update locations.

Allow to modify remote update locations - When enabled, the client is allowed to edit current remote update locations.

Allow to add DNS Zones - When enabled, the client is allowed to add new DNS Zones to the system and delete his Zones.

Allow to modify DNS Zone Records - When enabled, the client is allowed to modify the DNS Zones available in 4PSA DNS Manager by adding or deleting DNS Records.



You cannot disable this option, when the **Allow to add DNS Zones** setting is enabled, but it may be enabled, when the previous is disabled.

Allow to add DNS templates - When enabled, the client is allowed to add new DNS templates to the system and delete his templates.

Inverse DNS Zone management - Inverse DNS Zone management is a sensitive area because clients usually share inverse zones. Five levels of permissions are defined.

- Create inverse DNS Zones and add records in all zones / Allow other users to modify owned inverse DNS Zones
- Create inverse DNS Zones and add records in all zones / Do not allow other users to modify owned inverse DNS Zones
- Create inverse DNS Zones and add records in owned zones / Do not allow other users to modify owned inverse DNS Zones
- View only owned inverse DNS Zones / Do not allow other users to modify owned inverse DNS Zones
- Do not allow to manage inverse DNS Zones

These permissions levels describe the 4PSA DNS Manager behavior when using zones added in interface or from remote update locations.

Limits

In order to manage the limits that apply to the chosen client, edit the corresponding fields and click **Update**.

Maximum number of DNS Zones – This is the maximum number of DNS Zones that the client can add to the system.

Maximum number of remote update locations - This is the maximum number of remote update locations the client is allowed to add to the system.



Note

If you do not want to limit a parameter, check the Unlimited checkbox.

The currently used values are available next to these limits. You can not define limits below the currently used values.

Managing DNS Templates

The administrator can create and manage client DNS templates. The client DNS templates are available only to the client account where the template was created. When no client specific template is available, the client can choose the server template in the DNS Zone creation step.

In the Client management page click the **DNS templates** button to manage DNS templates for the chosen client. In the DNS templates page the administrator can add new templates, edit and delete existing templates.

Creating a New DNS Template

In order to add a DNS template, the administrator must write its name in the **Template name** field. Next select the record type and click **Add**. Each Record type has its own different setup, as presented in the DNS Records section in this manual.




Wherever you want the domain name to be automatically replaced by the name of the newly created domain, enter <domain> in the domain name field. In order to have an IP address automatically replaced, use the <ip> tag.

In this area the administrator can view the list of DNS Records included in the template. The following details are available:

Host – This field displays the host name or IP address of every DNS Record

Record type – This is the type of the DNS Record

Value – Depending on the Record type, this field displays an IP address, an alias, a name server, a host name, or a text.

M – By clicking the  icon, the administrator can edit the details of the corresponding DNS Record.

The administrator can also remove DNS Records from a template. Check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the Records will be permanently deleted. Multiple Records can be deleted at the same time.

Managing DNS Templates

In order to manage an existing DNS template, the administrator must click its name. In the DNS templates page he can add new templates, edit and delete existing templates, as explained before.

Removing DNS Templates

To remove a DNS template check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the

templates will be permanently deleted. Multiple templates can be deleted at the same time.

Managing DNS Zones Remote Update Locations



The remote update locations are files located on remote machines that contain DNS Zone information. 4PSA DNS Manager is able to automatically download and fetch these files using the HTTP protocol in order to load DNS Zone information from remote servers. The administrator can add new locations, view, search, edit, and remove existing remote update locations.



Note

For more details about remote update locations, including integration with a current infrastructure please check the 5. Chapter - Remote Update Location Configuration.

In the Client management page click the **Remote update** button to manage the remote update locations. The following details are available:

T – This column displays the type of the DNS Zones. This can be  Master or  Slave

Remote location – The URL where the file that contains update information can be found

Update interval – The time interval between two consecutive fetches of the remote location (refresh interval)

Last updated – The date and time (in month, day, year, hh:mm:ss format) when the last DNS Zone update from the corresponding remote location was performed

M – Click the  icon to edit the details of the remote update location

The information can be sorted by the remote update location name, the update interval, and the date of the last update by clicking the table header links.

Creating a New Remote Update Location

In order to add a new remote update location to the system the administrator must enter all the required details:

Remote update location - The URL of the file that contains the update information (only HTTP protocol is supported, non-SSL is recommended)

DNS Zone type - The type of the DNS Zones which will be fetched from this update location (master or slave)

File content type - The file on the remote location can contain either DNS Zone names (one per line) or complete DNS Zone Records

Update interval - The time interval between two consecutive fetches of the remote location

One more option is available, but it depends on the DNS Zone type. When the chosen type is master, the following field can be enabled:

Go to add slave DNS server IP addresses - When enabled, you will be redirected to a page where you can enter the IP addresses of one or more slave DNS servers.

When the chosen type is slave, the administrator **MUST** fill it in the following field:

Add master DNS server IP address - Enter the IP address of the master DNS server.




Note

Without this IP address the server will not be able to query Zone information.

The required fields are marked with an asterisk. Click **Update** to create the new remote update location.

Editing Settings of a Remote Update Location

The administrator can edit existing remote update locations. In order to modify the settings of an existing remote location, click the corresponding  **Modify** icon. The details of the chosen remote location can be modified in the new page.



Note

The DNS Zone type cannot be modified.

The required fields are marked with an asterisk. Click **Update** to save the changes you have made. Follow the [Up Level](#) link, if you want to return to the previous page without saving these changes.

Removing a Remote Update Location

In order to delete a remote update location, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the locations will be permanently deleted. Multiple locations can be deleted at the same time.

Removing Client Accounts

The administrator can remove Client accounts. A list with all accounts is available in the Clients management page.

To delete a Client account, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the accounts will be permanently deleted. Multiple accounts can be deleted at the same time.

Client Group Operations

The administrator can manage the DNS Zone settings, the permissions and the limits for selected clients.

In order to select clients, check the corresponding checkboxes and follow the [Group Operations](#) link. In the Clients Group Operations page the administrator can perform the chosen operations which will apply to all the selected clients.

DNS Zone Settings for a Client Group

The administrator can manage the following DNS Zone settings for the selected clients:

Refresh time - 32 bit time value in seconds. This is the length of time that the secondary name server should wait before checking with the primary server to see whether the data has been modified.



Tip

RFC 1912 recommends 1200 to 43200 seconds, if your data is volatile or 43200 (12 hours) if it is not.

Retry time - Signed 32 bit value in seconds. When a secondary name server requests for a Zone refresh from the primary server and this fails to respond, the secondary name server waits for the refresh time before attempting another Zone refresh after the failed attempt.

Expire time - Signed 32 bit value in seconds. This setting indicates when the Zone is no longer authoritative and new interrogation of the root servers is required. It applies to Slaves only.



Tip

RFC 1912 recommends 1209600 to 2419200 seconds (2-4 weeks).

Minimum TTL - This value is used as the default TTL for new Records created within the Zone. It is also used by other DNS servers to cache negative responses (for example when a Record does not exist).

Default TTL - Signed 32 bit value in seconds. This is the amount of time that Zone Records are kept in a remote host cache. It is recommended this value to be large. A short value will force remote servers to query the DNS server again for unchanged data.

When the administrator clicks the **Defaults** button, the fields will be automatically filled in with the recommended values. Click **Update** to save the changes.

Permissions for a Client Group

In order to manage permissions for the selected clients, the administrator must check the corresponding checkboxes and click **Update**. He can choose not to change the existing settings, can enable and disable the available permissions.

Allow to add remote update locations - When enabled, the client is allowed to add new remote update locations.

Allow to modify remote update locations - When enabled, the client is allowed to edit current remote update locations.

Allow to add DNS Zones - When enabled, the client is allowed to add new DNS Zones to the system and delete his Zones.

Allow to modify DNS Zone Records - When enabled, the client is allowed to modify the DNS Zones available in 4PSA DNS Manager by adding or deleting DNS Records.



Note

You cannot disable this option, when the **Allow to add DNS Zones** setting is enabled, but it may be enabled, when the previous is disabled.

Allow to add DNS templates - When enabled, the client is allowed to add new DNS templates to the system and delete his templates.

Limits for a Client Group

In order to manage the limits that apply to the selected clients, edit the corresponding fields and click **Update**.

Maximum number of DNS Zones - This is the maximum number of DNS Zones that the client can add to the system.

Maximum number of remote update locations - This is the maximum number of remote update locations the client is allowed to add to the system.



Note

If you do not want to limit a parameter, check the Unlimited checkbox.

The administrator can choose not to change the existing values, can change them and he can set the limits to unlimited for the selected clients.

3. Managing DNS Zones

The administrator can add new DNS Zones to the 4PSA DNS Manager system and manage the DNS Records for a Zone. In order to perform these tasks, the administrator must follow the [DNS Zones](#) link available in the navigation menu.

In this area the following details are available:

T - This column displays the type of the corresponding DNS Zones. This can be Master or Slave.

DNS Zone name - The name of the DNS Zone

Client name - The name of the client who owns the DNS Zone

First name server - The host name of the first name server registered on this DNS Zone

Creation date – The date when the Client account was created on the system
The information can be sorted by type, DNS Zone name, client name, and creation date by clicking the table header links.

Creating a New DNS Zone

In order to add a new DNS Zone, the administrator must click the **Add DNS Zone** button. In the DNS Zone management page click the name of the client who will be the owner of the new DNS Zone.

In this page you can add to the Client account a single DNS Zone, multiple DNS Zone names from a local file or multiple DNS Zones with complete DNS Records.

Adding a Single DNS Zone Name

In order to add a single DNS Zone name, the administrator must enter all the information required in the Add new DNS Zone name area.

DNS Zone name - Enter a valid DNS Zone name that is unique in the system. You can add a Forward Zone or a Reverse Zone in format IP.in-addr.arpa. If the name exists, it will not be added again.

DNS Zone template - The administrator can use the DNS Zone templates available or can choose not to use any template at all.

Template IP - This field is available when a DNS Zone template is selected. All occurrences of <ip> in the DNS Zone template will be replaced by this IP.

DNS Zone type - The type of the DNS Zone can be master or slave.

Two more options are available, but they depend on the DNS Zone type. When the chosen type is master, the following fields can be enabled:

Allow DNS Zone transfer – When enabled, allowed slave servers will be able to fetch the Zone information from the master server (in this case the 4PSA DNS Manager system).

Slave DNS servers IP addresses – When the **Allow DNS Zone transfer** option is enabled, you can enter in this area the IP addresses of the slave DNS servers. Click the plus/minus icons to add/remove fields for the slave IP addresses. The DNS Zone transfer will be allowed to these IP addresses only.

When the chosen type of the DNS Zone is slave, the following options **MUST BE** enabled:

Transfer DNS Zone from master servers – The DNS Zone information will be transferred from the master DNS servers with the IP addresses set in the field below.

Master DNS servers IP addresses – Enter in this area the IP addresses of the master DNS servers.

The required fields are marked with an asterisk. Click **OK** to create the new DNS Zone. Click **Cancel**, if you want to return to the previous page without creating the DNS Zone.

Adding Multiple DNS Zone Names

In order to add multiple DNS Zones from a file, the administrator must click the **Zone names from file** button available in the Actions area. The following fields are available:

Select file - Enter the name of the file that contains the DNS Zone names or click the **Browse...** button to locate the desired file.

DNS Zone template - The administrator can use the DNS Zone templates available on the system or can choose not to use any templates at all.

Template IP - This field is available when a DNS Zone template is selected. All occurrences of <ip> in the template will be replaced with this IP.



Note

It is strongly recommended to use a template when you add master DNS Zones, otherwise all the added DNS Zones will contain no Records.

DNS Zone Type - The type of the DNS Zone which can be master or slave

Two more options are available, but they depend on the DNS Zone type. When the chosen type is master, the following fields can be enabled:

Allow DNS Zone transfer - When enabled, allowed slave servers will be able to fetch the Zone information from the master server (in this case the 4PSA DNS Manager system).

Slave DNS servers IP addresses - When the **Allow DNS Zone transfer** option is enabled, you can enter in this area the IP addresses of the slave DNS servers. Click the plus/minus icons to add/remove fields for the slave IP addresses. The DNS Zone transfer will be allowed to these IP addresses only.

When the chosen type of the DNS Zone is slave, the following options **MUST BE** enabled:

Transfer DNS Zone from master servers - The DNS Zone information will be transferred from the master DNS servers with the IP addresses set in the field below.

Master DNS servers IP addresses - Enter in this area the IP addresses of the master DNS servers.

Click **OK** to create the new DNS Zone. Click **Cancel**, if you want to return to the previous page without creating the DNS zone. This may take some time depending on the size of the file you have specified.

Adding Multiple DNS Zones with Complete DNS Records

In order to add multiple DNS Zones with complete DNS Records, the administrator must click the **Full zones from file** button available in the Actions area. The following fields are available:

Select file - Enter the name of the file that contains the DNS Zone names or click the **Browse...** button to locate the desired file.

DNS Zone type - The type of the DNS Zones can be master or slave.

Two more options are available, but they depend on the DNS Zone type. When the chosen type is master, the following fields can be enabled:

Allow DNS Zone transfer - When enabled, allowed slave servers will be able to fetch the Zone information from the master server (in this case the 4PSA DNS Manager system).

Slave DNS servers IP addresses - When the **Allow DNS Zone transfer** option is enabled, you can enter in this area the IP addresses of the slave DNS servers. Click the plus/minus icons to add/remove fields for the slave IP addresses. The DNS Zone transfer will be allowed to these IP addresses only.

When the chosen type of the DNS Zone is slave, the following options **MUST BE** enabled:

Transfer DNS Zone from master servers - The DNS Zone information will be transferred from the master DNS servers with the IP addresses set in the field below.

Master DNS servers IP addresses - Enter in this area the IP addresses of the master DNS servers.

Click **OK** to create the new DNS Zone. Click **Cancel**, if you want to return to the previous page without creating the DNS zone. This may take some time depending on the size of the file you have specified.

Managing DNS Records

In order to manage DNS Records for a DNS Zone, the administrator must click the chosen DNS Zone name. In the DNS Zone management page the administrator can view several details:

DNS Zone type - This field displays the type of the DNS Zone, which can be Master or Slave.

Last DNS Zone update - This field displays the date when the DNS Zone was last updated by the user or from the remote update location

DNS Zone data source - The source of the last update. The DNS Zone can be updated from the interface or from a remote update location

The administrator can add new DNS Records, view and delete existing Records. Click the DNS Zone name to manage the Zone Records.



Note

For Slave DNS Zones you cannot add Records and the current Records are not displayed because the actual DNS Records are transferred from the master server(s).

In the list of existing DNS Records the following details are available:

Host – This field displays the host name or IP address of every DNS Record

Record type – This is the type of the DNS Record. Based on the DNS Zone type it can be:

For Forward DNS Zones

A = Address - This Record is used to translate host names to IP addresses

CNAME = Canonical Name - This Record is used to create additional host names, or aliases, for hosts in a domain

NS = Name Server - This Record defines an association between a given zone name and the name servers that store information for that zone. One zone can be associated with any number of name servers.

MX = Mail Exchange - This Record defines the location where mail should be delivered for the domain

TXT = Text - This Record defines the text that will be held by the DNS Zone.

For Reverse DNS Zones

NS = Name Server - This Record defines an association between a given zone name and the name servers that store information for that zone. One zone can be associated with any number of name servers.

PTR = Pointer - This Record defines the IP address and host name of individual hosts in the domain. It translates IP addresses into host names

Value – Depending on the Record type, this field displays an IP address, an alias, a name server, a host name, or a text.

M – By clicking the **Modify** icon, the administrator can edit the details of the corresponding DNS Record.

Adding DNS Records

In order to add a DNS Record, the administrator must select the Record type in the New DNS Record area and click **Add**. Each Record type has its own different setup, as presented in the DNS Records section in this manual.



Wherever you want the domain name to be automatically replaced by the name of the newly created domain, enter <domain> in the domain name field. In order to have an IP address automatically replaced, use the <ip> tag.

Removing DNS Records

To remove a DNS Record, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the Records will be permanently deleted. Multiple Records can be deleted at the same time.

Managing DNS Zones

In order to manage a DNS Zone, the administrator must click the chosen DNS Zone name and enter the DNS Zone management page.

In the Custom buttons area the administrator can access the custom buttons available for the selected DNS Zone.

In the Actions area the administrator can switch the Zone type from Master to Slave and vice-versa by clicking the **Switch to Master/Slave** button.

The administrator can also click the **DNS Zone transfer** button to enter the Transfer management page.

In this page are available several details about the DNS Zone, like Zone type and last DNS Zone update, and the administrator can add a transfer IP address.



Pay particular attention to the **Last DNS Zone update**. This is the time when the Zone was actually updated by the 4PSA DNS Manager low level program.

To add a **Master/Slave DNS server IP address** enter the IP address in the corresponding field and click **Update**.

In order to configure the custom buttons that can be viewed in the chosen DNS Zone management page, the administrator must click **Custom buttons**.

Custom Buttons Available for a DNS Zone

In this area you can add new buttons, edit and delete the available buttons. In the custom buttons list the following details are available:

Button label – This field displays the name of the custom button

URL – This is the URL which will open in a pop-up window when you click the button



Note

You can use the `<zone_id>` and `<cl_id>` variables in URL. `<zone_id>` will be automatically replaced with the ID of the Zone, while `<cl_id>` with the ID of the client.

E.g.: `http://www.4psa.com/interface.php?client=<cl_id>&zone=<zone_id>`

Context help – This is the description of the button which will appear in the context help area on mouse-over.

The information can be sorted by button label, URL, and context help by clicking the table header links.

Adding Custom Buttons

In order to add a new button, click **Add custom button** available in the Actions area. In this area the following fields are available:

Button label – This field displays the name of the custom button.

URL – This is the URL which will open in a pop-up window, when you click the button.



Note

You can use the `<zone_id>` and `<cl_id>` variables in URL. `<zone_id>` will be automatically replaced with the ID of the Zone, while `<cl_id>` with the ID of the client.

E.g.: http://www.4psa.com/interface.php?client=<cl_id>&zone=<zone_id>

Context help – This is the description of the button which will appear in the context help area on mouse-over.

Click **OK** to update the button's details. Click **Cancel**, if you want to return to the previous page without saving the button.

Editing Custom Buttons

In order to edit the existing buttons click the button label link. You can modify the available fields, as presented before. Click **OK** to update the button's details. Click **Cancel**, if you want to return to the previous page without saving the changes.

Removing Custom Buttons

To remove a custom button, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the buttons will be permanently deleted. Multiple buttons can be deleted at the same time.

Removing DNS Zones

To remove a DNS Zone check the checkbox corresponding to the chosen DNS Zone name and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the Zones will be permanently deleted. Multiple DNS Zones can be deleted at the same time.

4. Setting Server Preferences

The administrator can set server-wide preferences: DNS templates, SOA parameters, and interface preferences. In order to perform these tasks, the administrator must follow the [Settings](#) link available in the navigation menu.

Setting Server-Wide DNS Templates

The administrator can set server-wide DNS templates that can be used by any new DNS Zone added to the system. In order to manage DNS templates, the administrator must click the **DNS templates** button available in the Actions area. The server global DNS templates are available to all clients that have not setup their own DNS templates.

In the Server Global DNS Templates management page the administrator can add new server-wide DNS templates, edit and delete existing templates.

Creating a New Sever Global DNS Template

In order to add a DNS template, the administrator must write its name in the **Template name** field. Next select the Record type and click **Add**. Each Record type has its own different setup, as presented in the DNS Records section in this manual.




Wherever you want the domain name to be automatically replaced by the name of the newly created domain, enter <domain> in the domain name field. In order to have an IP address automatically replaced, use the <ip> tag.

In this area the administrator can view the list of DNS Records included in the template. The following details are available:

Host – This field displays the host name or IP address of every DNS Record

Record type – This is the type of the DNS Record

Value – Depending on the Record type, this field displays an IP address, an alias, a name server, a host name, or a text.

M – By clicking the  **Modify** icon, the administrator can edit the details of the corresponding DNS Record.

In order to add a new DNS Record to the server global DNS template, select the Record type in the New DNS Record area and click **Add**.

To remove a DNS Record from the template, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the Records will be permanently deleted. Multiple DNS Records can be deleted at the same time.

Managing Server Global DNS Templates

In order to manage an existing server global DNS template, the administrator must click its name. In the DNS template management page he can add new DNS Records, edit and delete existing Records, as explained before.

Removing Server Global DNS Templates

To remove a server-wide DNS template check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the templates will be permanently deleted. Multiple templates can be deleted at the same time.

Setting SOA Parameters

The SOA (Start of Authority) Record defines global parameters for the DNS Zone. There is only one SOA Record allowed in a DNS Zone file.

The default SOA parameters values for all the DNS Zones available on server can be modified in the DNS settings area. The administrator can manage the following options:

Refresh time - 32 bit time value in seconds. This is the length of time that the secondary name server should wait before checking with the primary server to see whether the data has been modified.



Tip

RFC 1912 recommends 1200 to 43200 seconds, if your data is volatile or 43200 (12 hours) if it is not.

Retry time - Signed 32 bit value in seconds. When a secondary name server requests for a Zone refresh from the primary server and this fails to respond, the secondary name server waits for the refresh time before attempting another Zone refresh after the failed attempt.

Expire time - Signed 32 bit value in seconds. This setting indicates when the Zone is no longer authoritative and new interrogation of the root servers is required. It applies to Slaves only.



Tip

RFC 1912 recommends 1209600 to 2419200 seconds (2-4 weeks).

Minimum TTL - This value is used as the default TTL for new Records created within the Zone. It is also used by other DNS servers to cache negative responses (for example when a Record does not exist).

Default TTL - Signed 32 bit value in seconds. This is the amount of time that Zone Records are kept in a remote host cache. It is recommended this value to be large. A short value will force remote servers to query the DNS server again for unchanged data.

When the administrator clicks the **Defaults** button, the fields will be automatically filled in with the recommended values. Click **Update** to save the changes.

Setting Interface Preferences

The server-wide interface preferences can be managed in the Preferences area. The administrator can set the following options:

Monitor DNS server – When enabled, 4PSA DNS Manager will monitor the DNS server. The system will send notification alerts to the email address specified in the field below, when the DNS server is down and will attempt to restart the server manually.

Automatically delete domains – Enable this option, if you wish that DNS Zones that are deleted from the remote server to be deleted from the 4PSA DNS Manager server also. When this option is enabled, DNS Zones that were updated via a remote update location are deleted when the remote update location is deleted. Also when a DNS Zone previously updated through a remote update location is deleted from this remote update location is also deleted in 4PSA DNS Manager. This setting helps administrators keep the 4PSA DNS Manager server perfectly synchronized with the remote update locations.



Note

Enable this function ONLY if you entirely understand its functionality.

Server administrator email – When the above field is enabled, this is the email address where alert messages are sent.



Note

4PSA DNS Manager monitoring script will attempt to restart the DNS server no more than the `$max_daily_restart` value which can be found in the `/usr/local/dnsmanager/dnsmanager.conf` file. For advanced configuration please check the 4. Chapter - Command Line Configuration.

Invalid login attempts - This is the maximum quantity of invalid login attempts allowed. Once a user has exceeded this value he will not be able to connect to 4PSA DNS Manager for the time specified in the field below.

Invalid login lock time - This is the lockout time for a user once the invalid login attempts counter has exceeded its maximum limit. Upon completion of the lockout time the invalid login attempts counter is reset to zero and the user is again given the ability to login to the 4PSA DNS Manager interface.

Session timeout - The time interval (in minutes) between the sessions start and expire time

Display - The number of lines displayed on a 4PSA DNS Manager interface page

Language - The language used for the 4PSA DNS Manager interface

Interface skin - The skin used for the 4PSA DNS Manager interface

Click **Update** to save the changes.

Managing Notifications

In order to manage the notification alerts sent by 4PSA DNS Manager the administrator must click the **Notifications** button available in the Server settings page. In this area you can choose the recipient of the notification, set the events when these notifications are sent, and modify the text of the notification.

You can enable 4PSA DNS Manager to send notifications to the administrators, clients, or to other email addresses. When the following events occur, 4PSA DNS Manager can send notification emails:


Client account creation - When enabled, 4PSA DNS Manager will send notifications to the selected users when a new Client account is created in the system.

DNS Zones limit reached - When enabled, 4PSA DNS Manager will send notifications to the selected users when the DNS Zones limit allowed for a client is reached.

Remote update locations limit reached - When enabled, 4PSA DNS Manager will send notifications to the selected users when the remote update locations limit allowed for a client is reached.



The administrator can receive notification emails only when new Client accounts are created in the system. The administrator notification is sent to the admin who created the client.

In order to modify the text of the notification, click the  **Modify** icon. In this page you can edit the chosen notification. You can write your own text in the notification text fields or you can use the default text provided by 4PSA DNS Manager by clicking **Defaults**.

The fields in square brackets that appear in the message body will be automatically replaced:

[client] - will be replaced by the name of the client added to the system

[client_login] - will be replaced by the login username of the affected client

[password] - will be replaced by the added client password

[email] - will be replaced by the added client email address

[dns_limit] - will be replaced by the DNS Zones limit that applies to the corresponding client

[url_limit] - will be replaced by the remote update locations limit that applies to the corresponding client



Note

If you delete or modify these fields the notification receivers will not see the details in the notification body. Make these changes on your own risk.

You must click **Update** to save the changes made or **Cancel** to go back without saving them.

Managing Custom Buttons

In order to manage the custom buttons available in 4PSA DNS Manager the administrator must click **Custom buttons** available in the Server settings page. In this area you can add new buttons, edit and delete the available buttons.

In the custom buttons list the following details are available:

Button label – This field displays the name of the custom button

URL – This is the URL which will open in a pop-up window when you click the button



Note

For buttons available at client level and DNS Zone level, you can use the `<zone_id>` and `<cl_id>` variables in URL. `<zone_id>` will be automatically replaced with the ID of the Zone, while `<cl_id>` with the ID of the client.

E.g.: `http://www.4psa.com/interface.php?client=<cl_id>&zone=<zone_id>`

Show level – This is the location where the button will be displayed. It can be at administrator level, client level, or DNS Zone level.

Level members – In this field you can view the 4PSA DNS Manager users who have access to this button. **E.g.:** A button can be available for all clients or for only one client.

The information can be sorted by button label, URL, and show level by clicking the table header links.

Adding Custom Buttons

In order to add a new button, click **Add custom button** available in the Actions area. In this area the following fields are available:

Button label – This field displays the name of the custom button.

URL – This is the URL which will open in another window when you click the button.



Note

For buttons available at client level and DNS Zone level, you can use the `<zone_id>` and `<cl_id>` variables in URL. `<zone_id>` will be automatically replaced with the ID of the Zone, while `<cl_id>` with the ID of the client.

E.g.: `http://www.4psa.com/interface.php?client=<cl_id>&zone=<zone_id>`

Context help – This is the description of the button which will appear in the context help area on mouse-over.

Show level – This is the location where the button will be displayed. It can be at administrator level, client level, or DNS Zone level.

Client ID / DNS Zone ID - When you have selected the client / DNS Zone level on the **Show level**, you can choose in this field the client / DNS Zone ID for which the button will be available. Use "-1" to make the button available to all clients / DNS Zones.

Click **OK** to update the button's details. Click **Cancel**, if you want to return to the previous page without saving the button.

Editing Custom Buttons

In order to edit the existing buttons click the button label link. You can modify the available fields, as presented before. Click **OK** to update the button's details. Click **Cancel**, if you want to return to the previous page without saving the changes.

Removing Custom Buttons

To remove a custom button, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the buttons will be permanently deleted. Multiple buttons can be deleted at the same time.

Updating the License Key

The administrator can update the 4PSA DNS Manager license key. In the Server settings page click the **Update license** button. The following fields are available:

Current license key - In this field is displayed the current license key code

License number - In this field you must enter the license key number

New license key - Enter the name of the file that contains the new license key or click the **Browse...** button to locate the desired file.



Note

The correct license number and key code are required in order to use 4PSA DNS Manager. Do not forget to fill in the key number before uploading the license code.

Click **Update** to save the changes.

Chapter 3. The Client Module



You can login to the 4PSA DNS Manager interface at <http://installation.url/> using a Client account.

The 4PSA DNS Manager navigation menu is available on the left side of the interface. The navigation menu provides an easy method for the client to manage DNS Zones and Records, backup DNS Records, and modify settings.

1. Managing DNS Zones

The client can add new DNS Zones to the 4PSA DNS Manager system and manage the DNS Records for a Zone. In order to perform these tasks, the client must follow the [DNS Zones](#) link available in the navigation menu.

In this area the following details are available:

T – This column displays the type of the corresponding DNS Zones. This can be  Master or  Slave.

Name – The name of the DNS Zone

First name server – The host name of the first name server registered on this DNS Zone

Creation date – The date when the Client account was created on the system

The information can be sorted by type, DNS Zone name, and creation date by clicking the table header links.

Editing Client Information

In order to modify his account's details, the client must click the **Client data** button available in the Actions area.

Company name - This is the client's company name

Contact Name - This is used by the 4PSA DNS Manager to identify the client

Login - This is the username which is used by the client to access his 4PSA DNS Manager account

Password - This is the password used by the client to access his 4PSA DNS Manager account



The **Login** name must be unique on the system.

The **Password** should be between 5 and 14 characters long and should not contain quotes, spaces or national alphabet characters. For security reasons the **Password** cannot be the same as the **Login** name.

Confirm Password - This is required to make sure the correct password is entered

Phone - This is the client's phone number

Fax - This is the client's fax number

E-mail - This is the client's email address, which is used as the default bounce address for the client's domains

Address - This is the client's postal address

City - This is the client's city

Postal/ZIP code - This is the client's ZIP or postal code

Country - This is the client's country

The required fields are marked with an asterisk. Click **OK** to save the changes you have made. Click **Cancel**, if you want to return to the previous page without saving these changes.

Creating a New DNS Zone

In order to add a new DNS Zone, the client must click the **New DNS Zones** button. He can add a single DNS Zone, multiple DNS Zone names from a local file or multiple DNS Zones with complete DNS Records.



Note

The client must be allowed by an administrator to add and manage DNS Zones.

Adding a Single DNS Zone Name

In order to add a single DNS Zone name, the client must enter all the information required in the Add new DNS Zone name area.

DNS Zone name - Enter a valid DNS Zone name that is unique in the system. You can add a Forward Zone or a Reverse Zone in format IP.in-addr.arpa. If the name already exists, it will not be added again

DNS Zone template – The client can use the DNS Zone templates available or can choose not to use any template at all

Template IP – This field is available when a DNS Zone template is selected. All occurrences of <ip> in the template will be replaced with this IP

DNS Zone type - The type of the DNS Zone which can be master or slave

Two more options are available, but they depend on the DNS Zone type. When the chosen type is master, the following fields can be enabled:

Allow DNS Zone transfer – When enabled, allowed slave servers will be able to fetch the Zone information from the master server (in this case the 4PSA DNS Manager system).

Slave DNS servers IP addresses – When the **Allow DNS Zone transfer** option is enabled, you can enter in this area the IP addresses of the slave DNS servers. Click the plus/minus icons to add/remove fields for the slave IP addresses. The DNS Zone transfer will be allowed to these IP addresses only.

When the chosen type of the DNS Zone is slave, the following options **MUST BE** enabled:

Transfer DNS Zone from master servers –The DNS Zone information will be transferred from the master DNS servers with the IP addresses set in the field below.

Master DNS servers IP addresses – Enter in this area the IP addresses of the master DNS servers.

The required fields are marked with an asterisk. Click **OK** to create the new DNS Zone. Click **Cancel**, if you want to return to the previous page without creating the DNS Zone.

Adding Multiple DNS Zone Names

In order to add multiple DNS Zones from a file, the client must click the **Zone names from file** button available in the Actions area. The following fields are available:

Select file - Enter the name of the file that contains the DNS Zone names or click the **Browse...** button to locate the desired file.

DNS Zone template – The client can use the DNS Zone templates available on the system or can choose not to use any template at all.

Template IP – This field is available when a DNS Zone template is selected. All occurrences of <ip> in the template will be replaced with this IP.



Note

It is strongly recommended to use a template when you add master DNS Zones; otherwise all the added DNS Zones will contain no records.

DNS Zone Type – The type of the DNS Zone which can be master or slave

Two more options are available, but they depend on the DNS Zone type. When the chosen type is master, the following fields can be enabled:

Allow DNS Zone transfer – When enabled, allowed slave servers will be able to fetch the Zone information from the master server (in this case the 4PSA DNS Manager system).

Slave DNS servers IP addresses – When the **Allow DNS Zone transfer** option is enabled, you can enter in this area the IP addresses of the slave DNS servers. Click the plus/minus icons to add/remove fields for the slave IP addresses. The DNS Zone transfer will be allowed to these IP addresses only.

When the chosen type of the DNS Zone is slave, the following options **MUST BE** enabled:

Transfer DNS Zone from master servers – The DNS Zone information will be transferred from the master DNS servers with the IP addresses set in the field below.

Master DNS servers IP addresses – Enter in this area the IP addresses of the master DNS servers.

Click **OK** to create the new DNS Zone. Click **Cancel**, if you want to return to the previous page without creating the DNS zone. This may take some time depending on the size of the file you have specified.

Adding Multiple DNS Zones with Complete DNS Records

In order to add multiple DNS Zones with complete DNS Records, the client must click the **Full Zones from file** button available in the Actions area. The following fields are available:

Select file - Enter the name of the file that contains the DNS Zone names or click the **Browse...** button to locate the desired file

DNS Zone type - The type of the DNS Zones which can be master or slave

Two more options are available, but they depend on the DNS Zone type. When the chosen type is master, the following fields can be enabled:

Allow DNS Zone transfer – When enabled, allowed slave servers will be able to fetch the Zone information from the master server (in this case the 4PSA DNS Manager system).

Slave DNS servers IP addresses – When the **Allow DNS Zone transfer** option is enabled, you can enter in this area the IP addresses of the slave DNS servers. Click the plus/minus icons to add/remove fields for the slave IP addresses. The DNS Zone transfer will be allowed to these IP addresses only.

When the chosen type of the DNS Zone is slave, the following options **MUST BE** enabled:

Transfer DNS Zone from master servers – The DNS Zone information will be transferred from the master DNS servers with the IP addresses set in the field below.

Master DNS servers IP addresses – Enter in this area the IP addresses of the master DNS servers.

Click **OK** to create the new DNS Zone. Click **Cancel**, if you want to return to the previous page without creating the DNS zone. This may take some time depending on the size of the file you have specified.

Managing DNS Records

In order to manage DNS Records for a DNS Zone, the client must click the chosen DNS Zone name. In the DNS Zone management page the client can view several details:

DNS Zone type - This field displays the type of the DNS Zone, which can be Master or Slave.

Last DNS Zone update - This field displays the date when the DNS Zone was last updated by the user or from the remote update location

DNS Zone data source - The source of the last update. The DNS Zone can be updated from the interface or from a remote update location

The client can add new DNS Records, view and delete existing Records.



The client must be allowed by an administrator to manage DNS Records.

In the list of existing DNS Records the following details are available:

Host – This field displays the host name or IP address of every DNS Record

Record type – This is the type of the DNS Record. Based on the DNS Zone type it can be:

For Forward DNS Zones

A = Address - This Record is used to translate host names to IP addresses

CNAME = Canonical Name - This Record is used to create additional host names, or aliases, for hosts in a domain

NS = Name Server - This Record defines an association between a given zone name and the name servers that store information for that zone. One zone can be associated with any number of name servers.

MX = Mail Exchange - This Record defines the location where mail should be delivered for the domain


TXT = Text - This Record defines the text that will be held by the DNS Zone.

For Reverse DNS Zones

NS = Name Server - This Record defines an association between a given zone name and the name servers that store information for that zone. One zone can be associated with any number of name servers.

PTR = Pointer - This Record defines the IP address and host name of individual hosts in the domain. It translates IP addresses into host names

Value - Depending on the Record type, this field displays an IP address, an alias, a name server, a host name or a text.

M - By clicking the  icon, the client can edit the details of the corresponding DNS Record.



For Slave DNS Zones you cannot add Records and the current Records are not displayed because the actual DNS Records are transferred from the master server(s).

Adding DNS Records

In order to add a DNS Record, the client must select the Record type in the New DNS Record area and click **Add**. Each Record type has its own different setup, as presented in the DNS Records section in this manual.



Wherever you want the domain name to be automatically replaced by the name of the newly created domain, enter <domain> in the domain name field. In order to have an IP address automatically replaced, use the <ip> tag.

Removing DNS Records

To remove a DNS Record, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the Records will be permanently deleted. Multiple Records can be deleted at the same time.

Managing DNS Zones

In order to manage a DNS Zone, the client must click the chosen DNS Zone name and enter the DNS Zone management page.

In the Actions area the client can switch the Zone type from Master to Slave and vice-versa by clicking the **Switch to Master/Slave** button. The client can also click the **DNS Zone transfer** button to enter the Transfer management page.

In this page are available several details about the DNS Zone, like Zone type, last DNS Zone update and DNS Zone data source, and the client can add a transfer IP address.



Pay particular attention to the **Last DNS Zone update**. This is the time when the Zone was actually updated by the low level program.

To add a **Master/Slave DNS server IP address** enter the IP address in the corresponding field and click **Update**.

Removing DNS Zones

To remove a DNS Zone check the checkbox corresponding to the chosen DNS Zone name and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the Zones will be permanently deleted. Multiple DNS Zones can be deleted at the same time.



Managing DNS Zones Remote Update Locations

The remote update locations are files located on remote machines that contain DNS Zone information. 4PSA DNS Manager is able to automatically download and fetch these files using the HTTP protocol in order to load DNS Zone information from remote servers. The client can add new locations, view, search, edit and remove existing remote update locations.



The client must be allowed by an administrator to add and manage DNS Zone remote update locations.


In the DNS Zones management page click the **Remote update** button to manage the remote update locations. In this area the following details are available:

T – This column displays the type of the DNS Zones. This can be  Master or  Slave.

Remote location – The URL where the file that contains update information can be found

Update interval – The time interval between two consecutive fetches of the remote location

Last updated – The date and time (in month, day, year, hh:mm:ss format) when the last DNS Zone update from the corresponding remote location was performed

M – Click this  **Modify** icon to edit the details of the remote update location



When the client is not allowed by an administrator to edit the DNS Zone remote update locations, he can only view the details of these remote locations.

The information can be sorted by the remote update location name, the update interval, and the date of the last update by clicking the table header links.

Creating a New Remote Update Location

In order to add a new remote update location to the system the client must enter all the required details:

Remote update location - The URL of the file that contains the update information (only HTTP protocol is supported, non-SSL is recommended)

DNS Zone type - The type of the DNS Zones which will be fetched from this update location (master or slave)

File content type - The file on the remote location can contain either DNS Zone names (one per line) or complete DNS Zone Records

Update interval - The time interval between two consecutive fetches of the remote location

One more option is available, but it depends on the DNS Zone type. When the chosen type is master, the following field can be enabled:

Go to add slave DNS server IP addresses - When enabled, you will be redirected to a page where you can enter the IP addresses of one or more slave DNS servers.

When the chosen type is slave, the client **must** fill in the following field:

Add master DNS server IP address - Enter the IP address of the master DNS server.




Note

Without this IP address the server will not be able to query Zone information.

The required fields are marked with an asterisk. Click **Update** to create the new remote update location.

Editing Settings of a Remote Update Location

When allowed by an administrator, the client can edit existing remote update locations. In order to modify the settings of an existing remote location, click the corresponding  **Modify** icon. The details of the chosen remote location can be modified in the new page.



Note

The DNS Zone type cannot be modified.

The required fields are marked with an asterisk. Click **Update** to save the changes you have made. Follow the [Up Level](#) link, if you want to return to the previous page without saving these changes.

When the client is not allowed to change remote update locations, he can only view this information.

Removing a Remote Update Location

In order to delete a remote update location, check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the location will be permanently deleted. Multiple locations can be deleted at the same time.

Backing Up DNS Records

The client can create a CSV file backup of all DNS Zones that belong to him and of a chosen DNS Zone.

Backing Up Client DNS Zones

In order to create a local backup containing complete information for all his DNS Zones, the client must click the **Backup DNS Zones** button available in the Actions area.

A file download dialog box opens. Select the name of the file and the path on your local machine where you want to save the file. The file contains a list of the DNS Records for all the domains that belong to your account.

Backing Up a DNS Zone

In order to create a local backup of a chosen DNS Zone available on the server, the client must click the chosen DNS Zone name available in the list. Next, click the **Backup DNS Zone** button.

A file download dialog box opens. Select the name of the file and the path on your local machine where you want to save the file. The file contains a list of the DNS Records for the chosen domain.

2. Managing Settings

The client can manage various settings: DNS templates, DNS settings, and interface preferences. In order to perform these tasks, the client must follow the [Settings](#) link available in the navigation menu.

Managing DNS Templates

The client can create and manage DNS templates. In the Settings management page click the **DNS templates** button to manage your DNS templates. In the DNS templates page you can add new templates, edit and delete existing templates.



Note

The client must be allowed by an administrator to create and manage DNS templates.

Creating a New DNS Template

In order to add a DNS template, the client must write its name in the **Template name** field. Next select the Record type and click **Add**. Each Record type has its own different setup, as presented in the DNS Records section in this manual.



Note

Wherever you want the domain name to be automatically replaced by the name of the newly created domain, enter <domain> in the domain name field. In order to have an IP address automatically replaced, use the <ip> tag.

In this area the client can also view a list of DNS Records which are included in the template. The following details are available:

Host – This field displays the host name or IP address of every DNS Record

Record type – This is the type of the DNS Record

Value – Depending on the Record type, this field displays an IP address, an alias, a name server, a host name, or a text.

When the client is allowed, he can also remove DNS Records from a template. Check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS

Manager will ask your confirmation before the Records will be permanently deleted. Multiple Records can be deleted at the same time.

Managing DNS Templates

When the client is allowed by an administrator, he can manage a DNS template by clicking its name. In the DNS templates page he can add new templates, edit and delete existing templates, as explained before.

Removing DNS Templates

When the client is allowed by an administrator, he can remove a DNS template. Check the corresponding checkbox and follow the [Remove Selected](#) link. 4PSA DNS Manager will ask your confirmation before the template will be permanently deleted. Multiple templates can be deleted at the same time.

Setting SOA Parameters

The SOA (Start of Authority) Record defines global parameters for the DNS Zone. There is only one SOA Record allowed in a DNS Zone file.

The default SOA parameters values for all the DNS Zones that belong to the client can be modified in the DNS settings area. The client can manage the following options:

Refresh time - 32 bit time value in seconds. This is the length of time that the secondary name server should wait before checking with the primary server to see whether the data has been modified.



Tip

RFC 1912 recommends 1200 to 43200 seconds, if your data is volatile or 43200 (12 hours) if it is not.

Retry time - Signed 32 bit value in seconds. When a secondary name server requests for a Zone refresh from the primary server and this fails to respond, the secondary name server waits for the refresh time before attempting another Zone refresh after the failed attempt.

Expire time - Signed 32 bit value in seconds. This setting indicates when the Zone is no longer authoritative and new interrogation of the root servers is required. It applies to Slaves only.

**Tip**

RFC 1912 recommends 1209600 to 2419200 seconds (2-4 weeks).

Minimum TTL – This value is used as the default TTL for new Records created within the Zone. It is also used by other DNS servers to cache negative responses (for example when a Record does not exist).

Default TTL - Signed 32 bit value in seconds. This is the amount of time that Zone Records are kept in a remote host cache. It is recommended this value to be large. A short value will force remote servers to query the DNS server again for unchanged data.

When the client clicks the **Defaults** button, the fields will be automatically filled in with the recommended values. Click **Update** to save the changes.

Setting Preferences

The client can manage interface settings in the Preferences area. The **Display** option available represents the number of lines displayed on a 4PSA DNS Manager interface page. Click **Update** to save the changes.

Chapter 4. Command Line Configuration

In order to customize 4PSA DNS Manager to meet your requirements, you must use the command line. In this way you can configure the low level engine and the 4PSA DNS Manager interface.

1. Low Level Engine Configuration

The file `/usr/local/dnsmanager/dnsmanager.conf` contains several directives which control the 4PSA DNS Manager low level behavior. These directives **CANNOT** be modified using the browser interface. You can modify them only if you fully understand their functionality.

The following directives are included in the list:

dburl – The hostname used by 4PSA DNS Manager low level scripts to connect to the database

dbname – The database name used by 4PSA DNS Manager. DO NOT CHANGE THIS VALUE AS 4PSA DNS MANAGER REQUIRES `psadnsmanager` database name

dbuser – The user 4PSA DNS Manager uses to connect to the database

dbpassword – The password 4PSA DNS Manager uses to connect to the database



Note

These values are modified during the product installation based on admin input. Do not change these values or you will experiment problems.

named_dir – The named root directory. On RedHat RPM installation, the named root directory in `/var/named/run-root`. Default: `/var/named/run-root`

secondary_dir – The root directory for secondary Zones, relative to the `named_dir`. Default: `/var/secondary`

temp_dir – The temporary working directory used by 4PSA DNS Manager. Default: `/usr/local/dnsmanager/tmp`

download_dir – The temporary directory used by 4PSA DNS Manager to download files with DNS Zone information from remote locations. Default: `/usr/local/dnsmanager/tmp/download`

download_url_timeout – The time granted to the download process of a file from a remote location. You may increase this value if you experience download problems. Default: 15 seconds.

max_daily_restart – The maximum number of Bind daemon restarts per day. This value is used by the 4PSA DNS Manager monitoring function. Default: 20.

max_download_childs – The maximum number of concurrent download processes. Default: 20.

max_file_size – The maximum size of a file 4PSA DNS Manager will download from a remote location. Default: 900 Kb.

update_all_recs_bin – The name of the script used by 4PSA DNS Manager to populate the database with DNS records. Default: `/usr/local/dnsmanager/bin/update_full_recs` DO NOT CHANGE THIS VALUE!

max_num_domains_in_file – The maximum number of DNS Zones which can exist in a remote update file. 4PSA DNS Manager will not process a larger number of DNS Zones. Default: 2000

max_num_records_per_domain – The maximum number of DNS Records per Zone. 4PSA DNS Manager will not process a larger number of Zone Records
Default: 250

zone_serial – DNS Manager can write the Zone serial number in two formats (RFC1912 and timestamp). Valid options: RFC and timestamp. Default: RFC.

daemon_name – The name of the Bind daemon. This name is used by 4PSA DNS Manager for monitoring and other operations. Default: `named`. DO NOT CHANGE THIS VALUE, UNLESS YOU UNDERSTAND WHAT IT MEANS!

log_level – The logging level used by `dnsmanager` [LOG_INFO, LOG_WARNING, LOG_ERR]

2. Interface Configuration

The file `$DNSMANAGER_INTERFACE_ROOT/plib/config.php` contains several directives which control the behavior of the 4PSA DNS Manager interface.



Note

`$DNSMANAGER_INTERFACE_ROOT` is the directory where 4PSA DNS Manager is installed.

\$dburl – The hostname used by 4PSA DNS Manager interface to connect to the database

\$dbname – The database name used by 4PSA DNS Manager interface. DO NOT CHANGE THIS VALUE!

\$dbuser – The user 4PSA DNS Manager interface uses to connect to the database

\$dbpassword – The password 4PSA DNS Manager interface uses to connect to the database

\$max_file_size - The maximum size of a file that can be uploaded using the 4PSA DNS Manager interface - Default: 102400 (bytes)

Chapter 5. Remote Update Location Configuration

4PSA DNS Manager is able to get files containing DNS Zones and full DNS Records information from remote servers. In order to be able to fetch this information, you have to setup on the remote server a cron job that prepares the list of the DNS Zones. Every time 4PSA DNS Manager updates its database with the information from this URL, the Records will be up to date.

Generating a list of DNS Zones on a server is a pretty straightforward job.

Let's assume for the sake of the demonstration that you have a Plesk server and you want to provide centralized DNS and redundancy for this server. The algorithm can be applied to as many servers as you want, no matter what control panel they have installed.

1. 4PSA DNS Manager as the Secondary Server

The easiest solution is to let 4PSA DNS Manager act as a slave DNS server for your multiple Plesk servers which have DNS Zones setup as primary.

In order to achieve this, the following requirements have to be met:

1. 4PSA DNS Manager is allowed to obtain DNS Zone information from the primary server
2. 4PSA DNS Manager knows the names of the DNS Zones which he must query the primary server for

In order to satisfy these two basic requirements, you have to configure the DNS server on the Plesk server to allow transfer from the 4PSA DNS Manager IP. As every DNS Zone created on a Plesk server it includes an ACL called `common-allow-transfer` and all you have to do is to include the IP of the 4PSA DNS Manager in this ACL as below:

```
acl common-allow-transfer {
    192.168.1.100
};
```

In this example the 4PSA DNS Manager IP address is 192.168.1.100. The file that has to be edited is the Bind main configuration file located at `/var/named/run-root/etc/named.conf` in a standard RedHat RPM install.



Note

Since Plesk uses its database to write the `named.conf` file, the best solution is to insert the IP address of the 4PSA DNS Manager server in the `psa` database. In this way you can be sure that the `named.conf` file will remain correct. To do this execute in the `psa` database:

```
mysql>INSERT INTO misc VALUES ('DNS_Allow_TransferXX','<Secondary Server IP>');
```

where: `XX` is a unique number (increment it to add more IP addresses)

`<Secondary Server IP>` is the IP of the 4PSA DNS Manager server

The second step is to let 4PSA DNS Manager obtain the list of the DNS Zones from the master server (Plesk server). In order to do this we will install on the Plesk server a program supplied in the 4PSA DNS Manager in the `/tools` directory.

The `plesk_zones.sh` is a shell script written by 4PSA for Plesk servers. It writes a file containing the name of all domains that exist on this server. The program accepts as argument the final destination file. All you have to do is to insert this file in `cron` and make sure that it will write the list of the domains to a directory which can be accessed over the web.

For example:

```
sh plesk_zones.sh /home/httpd/vhosts/mydomain.com/httpdocs/dnslist.txt
```

will dump the list of domains to a file that can be accessed over the web at:

```
http://www.mydomain.com/dnslist.txt
```



Note

Keep in mind that you must add the `plesk_zones.sh` invocation in `cron` on the Plesk server. In this way the `dnslist.txt` file will be updated on regular intervals and 4PSA DNS Manager will fetch the latest list of the domains available on the server.

Now you have to setup 4PSA DNS Manager to update the list of the DNS Zones from this location. This will be a remote update location in 4PSA DNS Manager.

2. 4PSA DNS Manager as the Primary Server

4PSA DNS Manager can act as a primary DNS server while updating the DNS Zone information from a remote server. In this case 4PSA DNS Manager will have to get full DNS Zone information from the remote server, not only the DNS Zone names like in the previous case. Once again we will have as an example a Plesk server.

In order to generate the full DNS Zones information on a Plesk server we will use a program supplied in the 4PSA DNS Manager in the `/tools` directory.

The `plesk_complete.sh` is a shell script written by 4PSA for Plesk servers. It writes a file containing the name of all domains which exist on this server and their full DNS Records. The program accepts as argument the final destination file. All you have to do is to insert this file in `cron` and make sure that it will write the list of the domains to a directory which can be accessed over the web.

For example:

```
sh plesk_complete.sh /home/httpd/vhosts/mydomain.com/httpdocs/zone.txt
```

will dump the list of the domains to a file that can be accessed over the web at :

```
http://www.mydomain.com/zone.txt
```



Note

Keep in mind that you must add the `plesk_zones.sh` invocation in `cron` on the Plesk server. In this way the `dnslist.txt` file will be updated on regular intervals and 4PSA DNS Manager will fetch the latest list of the domains available on the server.

Now you have to setup 4PSA DNS Manager to update the list of the DNS Zones from this location. This will be a remote update location in 4PSA DNS Manager.

Scripts to perform the same tasks can be written for any control panel. 4PSA will update the list of scripts that must be used on remote servers and will place them in the `/tools` directory.

With current version of 4PSA DNS Manager are shipped update scripts for Plesk, Ensim, Cpanel, DirectAdmin, InterWorx Control Panel, Helm and Cobalt.

Appendix A. Server Compatibility

You have to download the build based on the operating system installed on your machine.

The file `dns_manager_buildRedhat7xXXX.tar.gz` provides compatibility with the following operating systems:

- RedHat Linux 7.3
- RedHat Enterprise Linux 2.1

The file `dns_manager_buildRedhat9xXXX.tar.gz` provides compatibility with the following operating systems:

- RedHat Linux 9
- RedHat Enterprise Linux 3.0
- RedHat Enterprise Linux 4.0
- Fedora Linux Core 1
- Fedora Linux Core 2
- Fedora Linux Core 3

The file `dns_manager_buildSuseXXX.tar.gz` provides compatibility with the following operating systems:

- Suse Linux 9.1
- Suse Linux 9.2

The file `dns_manager_buildDebianXXX.tar.gz` provides compatibility with the following operating systems:

- Debian 3.1

The file `dns_manager_buildMandrakeXXX.tar.gz` provides compatibility with the following operating systems:

- Mandrake 10

The file `dns_manager_buildFreeBSD4XXX.tar.gz` provides compatibility with the following operating systems:

- FreeBSD 4.9
- FreeBSD 4.10

The file `dns_manager_buildFreeBSD5XXX.tar.gz` provides compatibility with the following operating systems:

- FreeBSD 5.3