How to Set Up Nameservers in a cPanel Environment

Overview

Nameservers match domain names to IP addresses. When a visitor attempts to find a website that your server hosts, their computer asks a name server for the IP address of the domain that they wish to view. The nameserver returns the IP address for your web server and directs the visitor to the correct page. You **must** publish records for your domain names to nameservers so that visitors can reach those sites. These nameservers communicate with other nameservers to distribute the records of sites that your server hosts. The propagation period is the amount of time that it takes for a domain's DNS records to spread across the Internet.

This document explains the methods that you can use to update your nameservers and how your choices affect your server.

- In all currently-supported cPanel & WHM versions, you can use a series of WHM interfaces to configure and update your nameservers.
- In cPanel & WHM version 74 and earlier, when you log in to WHM for the first time, the *Initial Setup Assistant* interface appears. The *Na meservers* section of this interface (*Step 4*) allows you to set up nameservers. We removed the *Initial Setup Assistant* interface in cPanel & WHM version 76.

Configure your nameservers

Configure via WHM interfaces Configure via the Initial Setup Assistant

Select a nameserver software.

Navigate to WHM's *Nameserver Selection* interface (*WHM >> Home >> Service Configuration >> Nameserver Selection*). Then, select the desired nameserver software and click *Save*.

> **Warning:**
> We deprecated the MyDNS and NSD nameservers in cPanel & WHM version 78 and plan to remove them a future release.
> We strongly recommend that you migrate to PowerDNS. For more information, read our cPanel Deprecation Plan.

> **Notes:**
> - For most servers, we recommend that you select *BIND*.
> - MyDNS does **not** support Certificate Authority Authorization (CAA) records, which certificate authorities use to determine if they can issue certificates for a domain.
> - MyDNS requires that you add external nameserver IP addresses to the `resolv.conf` file.
> - If you already use your registrar's DNS services, you can skip this step.

Configure your default nameservers.

Navigate to WHM's *Basic WebHost Manager Setup* interface (*WHM >> Home >> Server Configuration >> Basic WebHost Manager Setup*). At the bottom of the interface, enter the desired nameserver names in the text boxes and click *Save Changes*.

We recommend that you use the following guidelines when you name nameservers:

- The name **must** consist of a prefix, a dot (`.`), and your domain. The common convention for nameservers is to prefix your domain name with `ns1` (for example, `ns1.example.com` and `ns2.example.com`).
- Your nameservers **cannot** share a name.

- We **strongly** recommend that you use a domain that reflects your company's main homepage URL.

Add IP addresses.

To add IP addresses to your server, perform the following steps:

1. Navigate to WHM's *Add a New IP Address* interface (*WHM >> Home >> IP Functions >> Add a New IP Address*).
2. Enter the IP address or IP address range in the *New IP or IP range to add* text box.
3. Enter the subnet mask in the *Select a subnet mask for the IP or IPs above to use* text box.
4. Enter any IP addresses that you wish to exclude in the *IPs and IP ranges to exclude from the range of new IPs*.
5. Click *Submit*.

Create A or AAAA entries for your nameservers.

In WHM's *Basic WebHost Manager Setup* interface (*WHM >> Home >> Server Configuration >> Basic WebHost Manager Setup*), perform the following steps:

1. Next to the appropriate *Nameservers* text box, click *Configure Address Records*. A new window will appear.
2. The system will perform a DNS lookup on the nameserver that you entered.
   - To enter a different IPv4 address, enter a new value in the *Enter an IPv4 address to create an A record* text box or *Confirm the IPv4 address to create an A record* text box.
   - To enter a different IPv6 address, enter a new value in the *Enter an IPv6 address to create an AAAA record (optional)* text box.
3. Click *Configure Address Records*.
4. The system will display the results of your changes. Click *Close*.
5. Repeat these steps for each nameserver that you entered.

Create A entries for your hostname.

Navigate to WHM's *Add an A Entry for Your Hostname* interface (*WHM >> Home >> DNS Functions >> Add an A Entry for Your Hostname*). Enter your server's IP address in the available text box and click *Add Entry*.

Set up nameservers with your registrar.

After you configure your server's nameservers, you **must** register your nameservers with your registrar. When you register nameservers, you announce their existence to the rest of the internet. You do not perform this action in cPanel & WHM, but you **must** do it or your nameservers will **not** function.

Click the links to the right for registrar instructions for some of the most popular domain registrars. Each set of instructions assumes that the following statements are true:

- You have an account with the registrar.
- You have already registered your domain with that company.
- You have logged in to your account and are on the first screen that you see after you log in.

Instructions for the most popular domain registrars

⌄ 123-reg.co.uk

To register with 123-reg.co.uk, perform the following steps:

1. Scroll down and select the domain name for your nameserver (for example, `example.com` if you wish to register `ns1.example.com`).
2. Click *Modify domain*.
3. Click *Change Nameservers*.
4. Scroll down and enter the names for your primary and secondary nameservers in the *Nameserver 1* and *Nameserver 2* text boxes (for example, `ns1.example.com`).
5. Click *Change Nameservers*.
6. Enter the IP addresses for your nameservers.
7. Click *Change Nameservers*.

˅ DirectNIC

To register with DirectNIC, perform the following steps:

1. Click *Domain Manager*.
2. Click the *Change Nameserver Information* icon next to your domain.
3. Click the *Create Nameserver* link at the top of the interface.
4. Enter your nameservers hostname (for example, `ns1.example.com`).
5. Enter the appropriate IP address.
6. Repeat steps 3 through 5 for your second nameserver.

˅ Dotster

To register with Dotster, perform the following steps:

1. Click on *My Domains* at the top of the *Account Management* interface.
2. Click the domain for which you wish to register your nameservers.
3. Click *Register Nameserver*.
4. Enter the hostname (for example: `ns1.example.com`) for your rst nameserver.
5. Enter the IP address for this nameserver in the four text boxes that are provided. You will need to enter each octet of your IP address in its respective text box.
6. Click *Update*.
7. Repeat steps 3 through 6 for your second nameserver.

˅ DynaDot

To register with DynaDot, perform the following steps:

1. Click *Domain Names* on the right side of the interface.
2. Click *Nameservers* near the top of the interface.
3. Click the *Register a domain name server* link.
4. Enter the full name of your rst nameserver (for example: `ns1.example.com`) in the *Host Name* text box.
5. Enter the IP Address for that nameserver.
6. Click *Submit*.
7. Repeat steps 2 through 6 for your second nameserver.

˅ Enom

To register with Enom, perform the following steps:

1. Click *Select Domain Names*.
2. Click *Register DNS*.
3. Use the *Register a Nameserver Name* tool in the rst section of the interface to create your nameservers.

˅ GoDaddy

To register with GoDaddy, perform the following steps:

1. Under the *Domains* heading, click *All Domains*.
2. Locate the domain for which you wish to set up your nameservers.
3. Click the gear icon and select *Manage DNS*.
4. Click the *Settings* tab.
5. Under the *Host Names* setting, click *Manage*.

6. Click *Add Hostname*.
7. Enter the primary nameserver's name (for example, `ns1`) in the *Hostname* text box.
8. Enter the primary nameserver's IP address in the *IP Address* text box.
9. Click *Add*.
10. Repeat steps 6-9 for your secondary nameserver (for example, `ns2`)
11. Click *Save*.
12. Click *Edit Nameservers*.
13. Select *Custom*.
14. Enter the full hostnames of your two nameservers. (for example, `ns1.example.com` and `ns 2.example.com`)
15. Click *OK*.
16. Click *Save*.
17. The interface will process your request and display *"Set Nameservers: Your request has been submitted. Changes may take a few moments to take effect."*

NameCheap

To register with NameCheap, perform the following steps:

1. View the domains in your account.
2. Click on the domain.
3. Click *Nameserver Registration*.
4. Enter the IP addresses for each of your nameservers.
5. Click *Add Nameservers >> .*

Network Solutions

To register with Network Solutions, perform the following steps:

1. Click *Manage Host Servers* at the bottom left of the interface.

> **Note:**
> If this link fails to appear, use this alternate address.

2. Enter your rst nameservers hostname (for example: `ns1.example.com`) in the rst text box.
3. Click *Continue*.
4. Enter the IP address of your first nameserver.
5. Click *Continue*.
6. Conrm the changes to the host server.
7. Click *Apply Change*.
8. Click *Back to Account Manager Home*.
9. Click *OK*.
10. Repeat this process for your second nameserver.

OpenSRS

To register with OpenSRS, perform the following steps:

1. Click *Name Servers* at the top of the interface.
2. Scroll down, and click *Create or modify a name server which is based on...*
3. Scroll down.
4. Enter the name (for example: `ns1`) for your rst nameserver.
5. Enter the nameservers IP address.
6. Click *Create Name Server*.
7. Repeat steps 3 through 6 to add your second nameserver.

Register.com

To register with Register.com , perform the following steps:

1. Click on your domain name.
2. Click the *Advanced Technical Settings* link.

3. Click *Manage Registered Name Servers*.
4. Scroll down to *REGISTER NAME SERVER*.
5. Enter the desired prex for the first nameserver (for example: `ns1`).
6. Enter the IP Address (A Record) in the next text box.
7. Click *Continue*.
8. Repeat this process for your second nameserver

Notes:
- These steps assume that you successfully completed the cPanel & WHM installation process, logged in to WHM, and completed the first three sections of the *Initial Setup Assistant* interface.
- In cPanel & WHM version 64 and earlier, WHM's *Initial Setup Assistant* interface was the *Initial Setup Wizard* interface.
- We removed the configuration portions of the *Initial Setup Assistant* interface in cPanel & WHM version 76.

Select a nameserver software.

Select the desired nameserver software. cPanel & WHM offers the following options:

- *BIND*

Note:
For most servers, we recommend that you select *BIND*.

- *PowerDNS*
- *MyDNS*

Important:
- We deprecated the MyDNS and NSD nameserver software in cPanel & WHM version 78 and plan to remove them in a future release. We strongly recommend that you migrate to PowerDNS. For more information, read our cPanel Deprecation Plan.
- MyDNS does **not** support Certificate Authority Authorization (CAA) records, which certificate authorities use to determine if they can issue certificates for a domain.
- MyDNS requires that you add external nameserver IP addresses to the `resolv.conf` file.

- *NSD*
- *Disabled*

Note:
If you already use your registrar's DNS services, you can skip this step.

Name your nameservers.

Enter the desired name for each of your nameservers. We recommend that you use the following guidelines when you name nameservers:

- The name **must** consist of a prefix, a dot (.), and your domain name. The common convention for nameservers is to prefix your domain name with `ns1` (for example, `ns1.example.com` and `ns2.example.com`).
- Your nameservers **cannot** share a name.
- We **strongly** recommend that you use a domain that reflects your company's main homepage URL.

Create A entries and add IP addresses.

Select the desired options for your server's A entries and IP addresses.

- We **strongly** recommend that you select both the *Add "A Entries" for all Nameservers* and *Add "A Entries" for Hostname* checkboxes.
- If you do not enter IP addresses in the *Please enter an IP address for each of your nameservers* text boxes, the system automatically assigns available IP addresses from your server to each nameserver.

Set up nameservers with your registrar.

After you configure your server's nameservers, you **must** register your nameservers with your registrar. When you register nameservers, you announce their existence to the rest of the internet. You do not perform this action in cPanel & WHM, but you **must** do it or your nameservers will **not** function.

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To register with 123-reg.co.uk, perform the following steps:

1. Scroll down and select the domain name for your nameserver (for example, `example.com` if you wish to register `ns1.example.com`).
2. Click *Modify domain*.
3. Click *Change Nameservers*.
4. Scroll down and enter the names for your primary and secondary nameservers in the *Nameserver 1* and *Nameserver 2* text boxes (for example, `ns1.example.com`).
5. Click *Change Nameservers*.
6. Enter the IP addresses for your nameservers.
7. Click *Change Nameservers*.

˅ DirectNIC

To register with DirectNIC, perform the following steps:

1. Click *Domain Manager*.
2. Click the *Change Nameserver Information* icon next to your domain.
3. Click the *Create Nameserver* link at the top of the interface.
4. Enter your nameservers hostname (for example, `ns1.example.com`).
5. Enter the appropriate IP address.
6. Repeat steps 3 through 5 for your second nameserver.

˅ Dotster

To register with Dotster, perform the following steps:

1. Click on *My Domains* at the top of the *Account Management* interface.
2. Click the domain for which you wish to register your nameservers.
3. Click *Register Nameserver*.
4. Enter the hostname (for example: `ns1.example.com`) for your rst nameserver.
5. Enter the IP address for this nameserver in the four text boxes that are provided. You will need to enter each octet of your IP address in its respective text box.
6. Click *Update*.
7. Repeat steps 3 through 6 for your second nameserver.

˅ DynaDot

To register with DynaDot, perform the following steps:

1. Click *Domain Names* on the right side of the interface.
2. Click *Nameservers* near the top of the interface.
3. Click the *Register a domain name server* link.
4. Enter the full name of your rst nameserver (for example: `ns1.example.com`) in the *Host Name* text box.
5. Enter the IP Address for that nameserver.
6. Click *Submit*.
7. Repeat steps 2 through 6 for your second nameserver.

Enom

To register with Enom, perform the following steps:

1. Click *Select Domain Names*.
2. Click *Register DNS*.
3. Use the *Register a Nameserver Name* tool in the rst section of the interface to create your nameservers.

GoDaddy

To register with GoDaddy, perform the following steps:

1. Under the *Domains* heading, click *All Domains*.
2. Locate the domain for which you wish to set up your nameservers.
3. Click the gear icon and select *Manage DNS*.
4. Click the *Settings* tab.
5. Under the *Host Names* setting, click *Manage*.
6. Click *Add Hostname*.
7. Enter the primary nameserver's name (for example, `ns1`) in the *Hostname* text box.
8. Enter the primary nameserver's IP address in the *IP Address* text box.
9. Click *Add*.
10. Repeat steps 6-9 for your secondary nameserver (for example, `ns2`)
11. Click *Save*.
12. Click *Edit Nameservers*.
13. Select *Custom*.
14. Enter the full hostnames of your two nameservers. (for example, `ns1.example.com` and `ns2.example.com`)
15. Click *OK*.
16. Click *Save*.
17. The interface will process your request and display *"Set Nameservers: Your request has been submitted. Changes may take a few moments to take effect."*

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5. Click *Add Nameservers >> *.

Network Solutions

To register with Network Solutions, perform the following steps:

1. Click *Manage Host Servers* at the bottom left of the interface.

   > **Note:**
   > If this link fails to appear, use this alternate address.

2. Enter your rst nameservers hostname (for example: `ns1.example.com`) in the rst text box.

3. Click *Continue.*
4. Enter the IP address of your first nameserver.
5. Click *Continue.*
6. Conrm the changes to the host server.
7. Click *Apply Change.*
8. Click *Back to Account Manager Home.*
9. Click *OK.*
10. Repeat this process for your second nameserver.

⌄ OpenSRS

To register with OpenSRS, perform the following steps:

1. Click *Name Servers* at the top of the interface.
2. Scroll down, and click *Create or modify a name server which is based on...*
3. Scroll down.
4. Enter the name (for example: `ns1`) for your rst nameserver.
5. Enter the nameservers IP address.
6. Click *Create Name Server.*
7. Repeat steps 3 through 6 to add your second nameserver.

⌄ Register.com

To register with Register.com, perform the following steps:

1. Click on your domain name.
2. Click the *Advanced Technical Settings* link.
3. Click *Manage Registered Name Servers.*
4. Scroll down to *REGISTER NAME SERVER.*
5. Enter the desired prex for the first nameserver (for example: `ns1`).
6. Enter the IP Address (A Record) in the next text box.
7. Click *Continue.*
8. Repeat this process for your second nameserver.

Manage reseller nameservers.

After you configure your nameservers, you may wish to configure special nameservers for your server's resellers. We design cPanel & WHM to accommodate a white-label reseller experience, which allows customizable branding. You can configure hosting resellers to each use their own nameservers.

To edit nameserver names and assign nameserver IP addresses for individual reseller nameservers, use WHM's *Edit Reseller Nameservers and Privileges* interface (*WHM >> Home >> Resellers >> Edit Reseller Nameservers and Privileges*).

> **Note:**
> Resellers may use their own nameservers, but individual cPanel accounts **cannot** use their own nameservers.

Additional documentation

Suggested documentation For cPanel users For WHM users For developers

- How to Use MyDNS-NG

- How to Set Up Nameservers in a cPanel Environment

- How to Configure Reverse DNS for BIND in WHM

- Guide to DNS Cluster Configurations

- Server Profiles Roadmap

- How To Clear Your DNS Cache

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- How to Configure Reverse DNS for BIND in WHM
- Guide to DNS Cluster Configurations
- Server Profiles Roadmap

- WHM API 1 Functions - update_nameservers_config
- WHM API 1 Functions - addzonerecord
- WHM API 1 Functions - editzonerecord
- UAPI Functions - DNS::has_local_authority
- UAPI Functions - DCV::check_domains_via_http