

Configuring DNS for Mobile Access Service Discovery

The Nasuni Mobile application needs the following information to access your Nasuni Filers: host address, port number, and user credentials. The administrator has several options for providing this information to configure the Nasuni Mobile application for users. Several of these methods simplify login, so that the user does not need to know the host or port.

Configuring the DNS for Mobile Access or Desktop Sync

To simplify user login to your Nasuni Filers, the administrator can configure the company DNS server entry to include the host and port necessary for Mobile Access or Desktop Sync. When the user logs into the Nasuni mobile application using their company email address and password, the application retrieves the host and port from the DNS to complete the login.

We present the general method of configuring the DNS, as well as considerations for using Microsoft Windows DNS Manager and third-party DNS configuration software.

Overview of configuring the DNS

The DNS includes records for locating and identifying computer services and devices with the underlying network protocols. You can find general DNS help and information on sites such as <https://support.dnsimple.com/categories/dns/>.

Mobile Access and Desktop Sync are looking for the following record types:

- A record.
- SRV record.
- TXT record.
- PTR record. If your ISP does not allow you to make a PTR record, you can make another TXT record, as described below.

In addition, if you do not have direct access to register a service, you might need to contact your ISP to register the "_nasunifiler" service.

You probably also have an SOA record created to define your domain. If using an ISP, your ISP probably created this SOA record for you.

A record type

For the A (Address) record type, the record is generally of the form:

```
<target> A <ip-address>
```

where:

<target> is the fully qualified domain name (FQDN) of the target host, as in the SRV record.

<ip-address> is the IP address of the target.

You probably already have an A record for your Nasuni Filer that maps your Nasuni Filer's fully qualified domain name (FQDN) to the IP address. Below is an example of how it might look:

```
myfiler.domainname.com. IN A 192.168.100.100
```

Note: Your ISP might or might not add the period at the end of the fully qualified domain name.

SRV record type

The SRV (Service) record is used to discover a service. In the case of Mobile Access or Desktop Sync, this is the "_nasunifiler" service.

For the SRV record type, the record is generally of the form:

```
<service-instance>._nasunifiler._tcp SRV <priority> <weight> <port>  
<target>.
```

where:

<service-instance> is the name that you give to the Mobile Access or Desktop Sync service you are offering. This is called the service instance name. This is the instance of the _nasunifiler._tcp service that the SRV record links to. The same service instance name is used in the PTR record.

_nasunifiler._tcp is the symbolic service name and the TCP protocol name, respectively, and must not be changed.

<priority> is used for advanced prioritization of multiple servers, otherwise set this to 0. This specifies the relative priority of this target, from 0 through 65535. Lowest number is highest priority. Priority and weight are only relevant when there is more than one SRV record with the same instance.

<weight> is also used for advanced prioritization of multiple servers, otherwise set this to 0. This represents the weight, which is used when there is more than one target with the same instance and with the same priority, from 0 through 65535. Higher number means greater weight and greater probability. 0 indicates no weighting should be applied. Priority and weight are only relevant when there is more than one SRV record with the same instance.

Note: Nasuni Mobile follows the DNS Service Discovery standard ([RFC 6763](#)) for priority and weight, and properly handles complex configurations with multiple Nasuni Filers using various priorities and weights. If you need assistance in setting up such a configuration, contact Nasuni Support.

<port> is the TCP port number where the Nasuni Filer is reachable. Usually: 443.

<target> is the fully qualified domain name (FQDN) of the target host. This must match the A record. Does not have to be in the same domain as the SRV record.

Note: Your ISP might or might not add the period at the end of the fully qualified domain name.

An example of the SRV record is:

```
mymobile._nasunifiler._tcp SRV 0 0 443 myfiler.domainname.com.
```

TXT record type

The TXT (Text) record is used to associate some arbitrary and unformatted text with a name.

For the TXT record type, the record should be of the form:

```
<service-instance>._nasunifiler._tcp TXT "txtvers=1"  
"companyfullname=<companyname>"
```

where:

<service-instance> is the name that you give to the Mobile Access or Desktop Sync service you are offering. This is called the service instance name. This is the instance of the `_nasunifiler._tcp` service that the SRV record links to. The same service instance name is used in the PTR record.

`_nasunifiler._tcp` is the symbolic service name and the TCP protocol name, respectively, and must not be changed.

<companyname> is the name of the company (optional).

Note: The `"txtvers=1"` parameter is necessary.

Here is an example TXT record:

```
myfiler._nasunifiler._tcp TXT "txtvers=1" "companyfullname=My Company"
```

PTR record type

A PTR (pointer) record provides a pointer to a canonical name. If you are using an ISP that does not allow you to add a PTR record, you can add a TXT record as a replacement. Below we describe both ways to do this.

Adding as a PTR Record

For the PTR record type, the record should be of the form:

```
_nasunifiler._tcp PTR <service-instance>._nasunifiler._tcp.mydomain.com
```

where:

<service-instance> is the name that you give to the Mobile Access or Desktop Sync service you are offering. This is called the service instance name. This is the instance of the `_nasunifiler._tcp` service that the SRV record links to. The same service instance name is used in the PTR record.

`_nasunifiler._tcp` is the symbolic service name and the TCP protocol name, respectively, and must not be changed.

`mydomain.com` is the domain name, if not specified globally.

Here is an example PTR record:

```
_nasunifiler._tcp PTR myfiler._nasunifiler._tcp.domainname.com
```



Adding as a TXT Record

Use this if you are not allowed to add a PTR record. Otherwise, see above.

For the TXT record type, the record should be of the form:

```
_nasunifiler._tcp.mydomain.com. TXT  
"PTR-V1=<service-instance>._nasunifiler._tcp.mydomain.com."
```

where:

`_nasunifiler._tcp` is the symbolic service name and the TCP protocol name, respectively, and must not be changed.

`mydomain.com` is the domain name, if not specified globally.

Note: *Your ISP might or might not add the period at the end of the domain name.*

`<service-instance>` is the name that you give to the Mobile Access or Desktop Sync service you are offering. This is called the service instance name. This is the instance of the `_nasunifiler._tcp` service that the SRV record links to. The same service instance name is used in the PTR record.

Here is an example TXT record:

```
_nasunifiler._tcp.mydomainname.com. TXT  
"PTR-V1=mymobile._nasunifiler._tcp.mydomainname.com."
```

Microsoft Windows DNS Manager

To use the Microsoft Windows DNS Manager to configure the DNS, follow these steps:

1. The screen for configuring the A record looks like this:

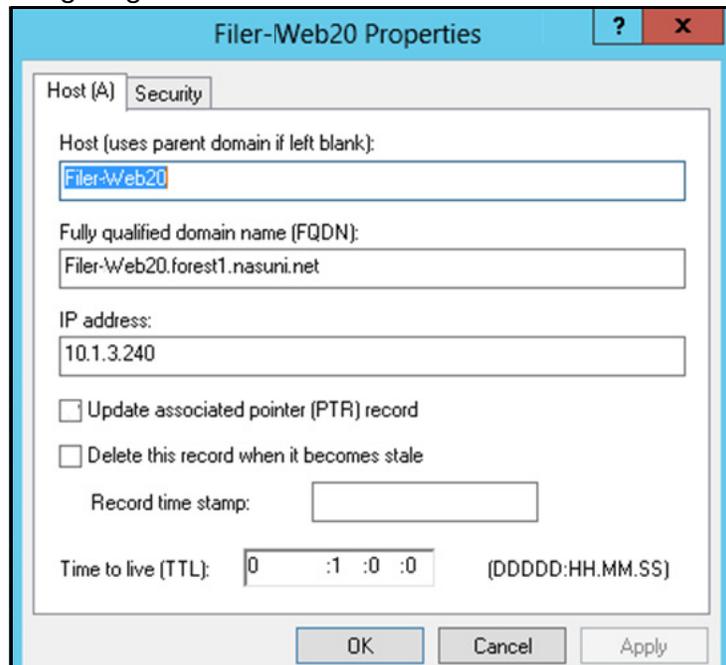


Figure 1-1: A record.

- a. In the **Host** text box, specify the DNS name of the target host, as in the SRV record. The **Fully qualified domain name (FQDN)** text box might be automatically populated, using the domain name.

- b. In the **IP address** text box, enter the IP address of the target.

Note: The “Update associated pointer (PTR) record” setting is for reverse lookup configurations, not for this DNS procedure.

- c. In the **Time to live (TTL)** text box, enter the TTL (time to live) as days, hours, minutes, and seconds.
- d. Click **OK**.



2. The screen for configuring the PTR record looks like this:

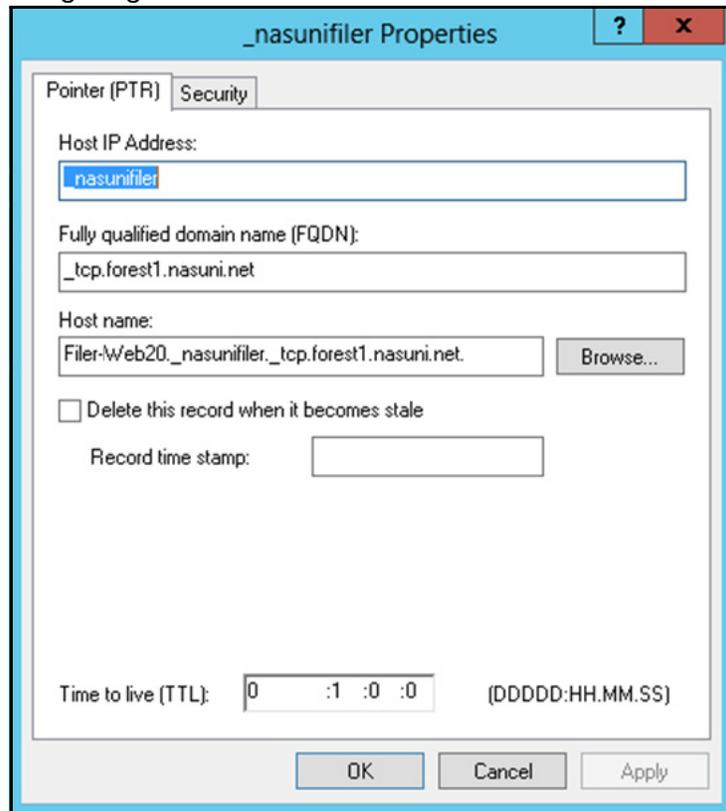


Figure 1-2: PTR record.

- a. In the **Host IP Address** text box, specify both the Nasuni Filer service and the TCP protocol:

```
_nasunifiler._tcp
```

The Windows DNS Manager might move the protocol to the **Fully qualified domain name (FQDN)** text box.

The **Fully qualified domain name (FQDN)** text box might be automatically populated, using the domain name.

- b. In the **Host name** text box, enter the name of the instance of the `_nasunifiler._tcp` service that the SRV record links to.

Your entry is automatically appended with the Nasuni Filer service, the TCP protocol, and the domain.

Whatever you enter here appears in the Mobile Access or Desktop Sync app: you can use the actual host name of the Nasuni Filer, or a name that users might recognize more easily.

Important: For some implementations, the PTR record MUST end with a period (.), while, for other implementations, the PTR record MUST NOT end with a period. It is suggested to omit the period and test the configuration. If the configuration does not work, try adding the period.

- c. In the **Time to live (TTL)** text box, enter the TTL (time to live) as days, hours, minutes, and seconds.
 - d. Click **OK**.
3. The screen for configuring the SRV record looks like this:

Figure 1-3: SRV record.

- a. The **Domain** text box might be populated automatically using the domain name. If not, enter the domain name.
- b. In the **Service** text box, enter the name of the instance of the `_nasunifiler._tcp` service, as in the PTR record, then append the Nasuni Filer service:

`._nasunifiler`

- c. In the **Protocol** text box, enter the protocol:

`_tcp`

- d. In the **Priority** text box, enter the priority, as discussed above.
- e. In the **Weight** text box, enter the weight, as discussed above.
- f. In the **Port number** text box, enter the port.

- g. In the **Host offering this service** text box, enter the actual host name of the Nasuni Filer, as a fully qualified domain name.

***Important:** For some implementations, the SRV record MUST end with a period (.), while, for other implementations, the SRV record MUST NOT end with a period. It is suggested to add the period and test the configuration. If the configuration does not work, try omitting the period.*

- h. In the **Time to live (TTL)** text box, enter the TTL (time to live) as days, hours, minutes, and seconds.
- i. Click **OK**.

4. The screen for configuring the TXT record looks like this:

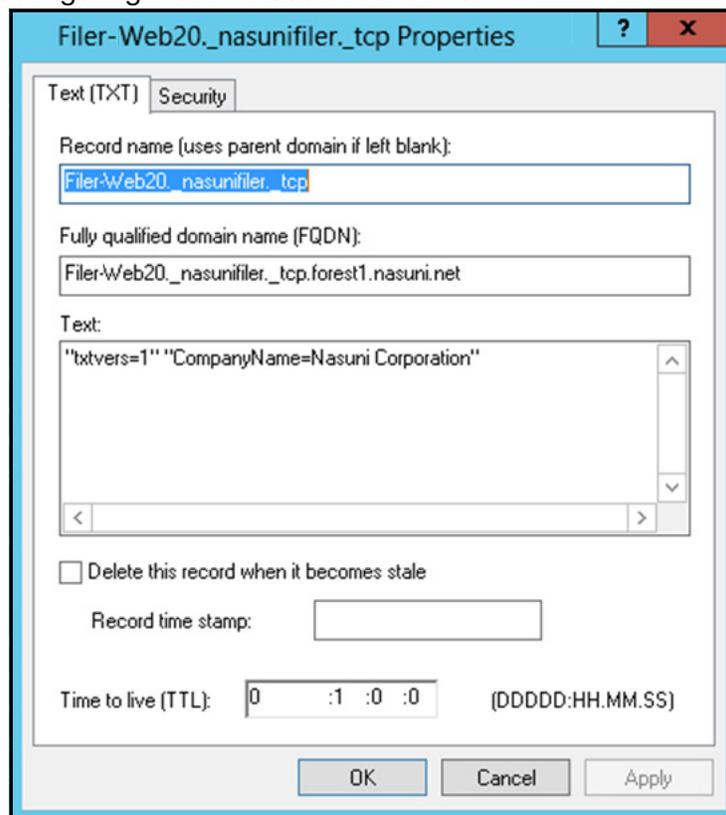


Figure 1-4: TXT record.

- a. In the **Record name** text box, enter the name of the instance of the `._nasunifiler._tcp` service, as in the PTR record, then append the Nasuni Filer service and protocol:

`._nasunifiler._tcp`

The **Fully qualified domain name (FQDN)** text box might be automatically populated, using the domain name.



- b. In the **Text** text box, you must enter the text:

```
"txtvers=1"
```

Any other text entries, such as the company name, are optional.

- c. In the **Time to live (TTL)** text box, enter the TTL (time to live) as days, hours, minutes, and seconds.
- d. Click **OK**.

Using third-party DNS configuration software

If you are using third-party software to configure DNS, ensure that the following is defined as a service:

```
_nasunifiler
```

Although you might not be able to specify other records, you might be able to specify the TXT record to define a PTR record. For example, the following TXT record specifies a PTR record:

```
_nasunifiler._tcp.mydomainname.com. TXT  
"PTR-V1=mymobile._nasunifiler._tcp.mydomainname.com."
```

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Nasuni Corporation | One Marina Park Drive, Boston, MA 02210 | 1.857.444.8500 | www.nasuni.com