



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'systemd.dnssd.5' command

\$ man systemd.dnssd.5

SYSTEMD.DNSSD(5) systemd.dnssd SYSTEMD.DNSSD(5)

NAME

systemd.dnssd - DNS-SD configuration

SYNOPSIS

network_service.dnssd

DESCRIPTION

DNS-SD setup is performed by systemd-resolved(8).

The main network service file must have the extension .dnssd; other extensions are ignored.

The .dnssd files are read from the files located in the system network directories /usr/lib/systemd/dnssd and /usr/local/lib/systemd/dnssd, the volatile runtime network directory /run/systemd/dnssd and the local administration network directory /etc/systemd/dnssd. All configuration files are collectively sorted and processed in lexical order, regardless of the directories in which they live. However, files with identical filenames replace each other. Files in /etc/ have the highest priority, files in /run/ take precedence over files with the same name in /usr/lib/. This can be used to override a system-supplied

configuration file with a local file if needed.

Along with the network service file foo.dnssd, a "drop-in" directory foo.dnssd.d/ may exist. All files with the suffix ".conf" from this directory will be parsed after the file itself is parsed. This is useful to alter or add configuration settings, without having to modify the main configuration file. Each drop-in file must have appropriate section headers.

In addition to /etc/systemd/dnssd, drop-in ".d" directories can be placed in /usr/lib/systemd/dnssd or /run/systemd/dnssd directories. Drop-in files in /etc/ take precedence over those in /run/ which in turn take precedence over those in /usr/lib/ or /usr/local/lib. Drop-in files under any of these directories take precedence over the main network service file wherever located.

[SERVICE] SECTION OPTIONS

The network service file contains a [Service] section, which specifies a discoverable network service announced in a local network with Multicast DNS broadcasts.

Name=

An instance name of the network service as defined in the section 4.1.1 of RFC 6763[1], e.g. "webserver".

The option supports simple specifier expansion. The following expansions are understood:

Table 1. Specifiers available

Specifier	Meaning	Details	
%"a"	Architecture	A short string	

? ? ? identifying the ?
? ? ? architecture of the ?
? ? ? local system. A ?
? ? ? string such as x86, ?
? ? ? x86-64 or arm64. ?
? ? ? See the ?
? ? ? architectures ?
? ? ? defined for ?
? ? ? ConditionArchitecture= ?
? ? ? in systemd.unit(5) ?
? ? ? for a full list. ?

??

"%A" ? Operating system ? The operating system ?

? ? image version ? image version ?
? ? ? identifier of the ?
? ? ? running system, as ?
? ? ? read from the ?
? ? ? IMAGE_VERSION= field ?
? ? ? of /etc/os-release. If ?
? ? ? not set, resolves to ?
? ? ? an empty string. See ?
? ? ? os-release(5) for more ?
? ? ? information. ?

??

"%b" ? Boot ID ? The boot ID of the ?

? ? ? running system, ?
? ? ? formatted as string. ?
? ? ? See random(4) for more ?
? ? ? information. ?

??

"%B" ? Operating system ? The operating system ?

? ? build ID ? build identifier of ?
? ? ? the running system, as ?

? ? ? read from the ?
? ? ? BUILD_ID= field of ?
? ? ? /etc/os-release. If ?
? ? ? not set, resolves to ?
? ? ? an empty string. See ?
? ? ? os-release(5) for more ?
? ? ? information. ?

??

"%H" ? Host name ? The hostname of the ?
? ? ? running system. ?

??

"%m" ? Machine ID ? The machine ID of the ?
? ? ? running system, ?
? ? ? formatted as string. ?
? ? ? See machine-id(5) for ?
? ? ? more information. ?

??

"%M" ? Operating system ? The operating system ?
? ? image identifier ? image identifier of ?
? ? ? the running system, as ?
? ? ? read from the ?
? ? ? IMAGE_ID= field of ?
? ? ? /etc/os-release. If ?
? ? ? not set, resolves to ?
? ? ? an empty string. See ?
? ? ? os-release(5) for more ?
? ? ? information. ?

??

"%o" ? Operating system ID ? The operating system ?
? ? ? identifier of the ?
? ? ? running system, as ?
? ? ? read from the ID= ?
? ? ? field of ?

? ? ? /etc/os-release. See ?
? ? ? os-release(5) for more ?
? ? ? information. ?
??
?"%v" ? Kernel release ? Identical to uname -r ?
? ? ? output. ?
??
?"%w" ? Operating system ? The operating system ?
? ? version ID ? version identifier of ?
? ? ? the running system, as ?
? ? ? read from the ?
? ? ? VERSION_ID= field of ?
? ? ? /etc/os-release. If ?
? ? ? not set, resolves to ?
? ? ? an empty string. See ?
? ? ? os-release(5) for more ?
? ? ? information. ?
??
?"%W" ? Operating system ? The operating system ?
? ? variant ID ? variant identifier of ?
? ? ? the running system, as ?
? ? ? read from the ?
? ? ? VARIANT_ID= field of ?
? ? ? /etc/os-release. If ?
? ? ? not set, resolves to ?
? ? ? an empty string. See ?
? ? ? os-release(5) for more ?
? ? ? information. ?
??
?"%" ? Single percent sign ? Use "%" in place of ?
? ? ? "%" to specify a ?
? ? ? single percent sign. ?
??

Type=

A type of the network service as defined in the section 4.1.2 of RFC 6763[1], e.g. "_http._tcp".

Port=

An IP port number of the network service.

Priority=

A priority number set in SRV resource records corresponding to the network service.

Weight=

A weight number set in SRV resource records corresponding to the network service.

TxtText=

A whitespace-separated list of arbitrary key/value pairs conveying additional information about the named service in the corresponding TXT resource record, e.g. "path=/portal/index.html". Keys and values can contain C-style escape sequences which get translated upon reading configuration files.

This option together with TxtData= may be specified more than once, in which case multiple TXT resource records will be created for the service. If the empty string is assigned to this option, the list is reset and all prior assignments will have no effect.

TxtData=

A whitespace-separated list of arbitrary key/value pairs conveying additional information about the named service in the corresponding TXT resource record where values are base64-encoded string representing any binary data, e.g.

"data=YW55IGJpbmFyeSBkYXRhCg==". Keys can contain C-style escape sequences which get translated upon reading configuration files.

This option together with `TxtText=` may be specified more than once, in which case multiple TXT resource records will be created for the service. If the empty string is assigned to this option, the list is reset and all prior assignments will have no effect.

EXAMPLES

Example 1. HTTP service

```
# /etc/systemd/dnssd/http.dnssd
[Service]
Name=%H
Type=_http._tcp
Port=80
TxtText=path=/stats/index.html t=temperature_sensor
```

This makes the http server running on the host discoverable in the local network given MulticastDNS is enabled on the network interface.

Now the utility "resolvectl" should be able to resolve the service to the host's name:

```
$ resolvectl service meteo._http._tcp.local
meteo._http._tcp.local: meteo.local:80 [priority=0, weight=0]
    169.254.208.106%senp0s21f0u2u4
    fe80::213:3bff:fe49:8aa%senp0s21f0u2u4
    path=/stats/index.html
    t=temperature_sensor
    (meteo/_http._tcp/local)
```

-- Data is authenticated: yes

"Avahi" running on a different host in the same local network should see the service as well:

```
$ avahi-browse -a -r
+ enp3s0 IPv6 meteo                Web Site      local
+ enp3s0 IPv4 meteo                Web Site      local
= enp3s0 IPv6 meteo                Web Site      local
  hostname = [meteo.local]
  address = [fe80::213:3bff:fe49:8aa]
  port = [80]
  txt = ["path=/stats/index.html" "t=temperature_sensor"]
= enp3s0 IPv4 meteo                Web Site      local
  hostname = [meteo.local]
  address = [169.254.208.106]
  port = [80]
  txt = ["path=/stats/index.html" "t=temperature_sensor"]
```

SEE ALSO

systemd(1), systemd-resolved.service(8), resolvectl(1)

NOTES

1. RFC 6763

<https://tools.ietf.org/html/rfc6763>

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