Rocky Enterprise Linux 9.2 Manual Pages on command 'nm-settings-dbus.5'

$ man nm-settings-dbus.5

NM-SETTINGS-DBUS(5) Configuration NM-SETTINGS-DBUS(5)

NAME

nm-settings-dbus - Description of settings and properties of NetworkManager connection profiles on the D-Bus API

DESCRIPTION

NetworkManager is based on a concept of connection profiles, sometimes referred to as connections only. These connection profiles contain a network configuration. When NetworkManager activates a connection profile on a network device the configuration will be applied and an active network connection will be established. Users are free to create as many connection profiles as they see fit. Thus they are flexible in having various network configurations for different networking needs.

The connection profiles are handled by NetworkManager via settings service and are exported on D-Bus (/org/freedesktop/NetworkManager/Settings/<num> objects). The conceptual objects can be described as follows:

Connection (profile)

A specific, encapsulated, independent group of settings describing

all the configuration required to connect to a specific network. It is referred to by a unique identifier called the UUID. A connection is tied to a one specific device type, but not necessarily a specific hardware device. It is composed of one or more Settings objects.

Setting

A group of related key/value pairs describing a specific piece of a Connection (profile). Settings keys and allowed values are described in the tables below. Keys are also referred to as properties. Developers can find the setting objects and their properties in the libnm-core sources. Look for the *_class_init functions near the bottom of each setting source file.

The settings and properties shown in tables below list all available connection configuration options. However, note that not all settings are applicable to all connection types. NetworkManager provides a command-line tool nmcli that allows direct configuration of the settings and properties according to a connection profile type. nmcli connection editor has also a built-in describe command that can display description of particular settings and properties of this page.

connection setting

General Connection Profile Settings.

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?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

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?auth-retries ? int32 ? -1 ? The number of ?

? ? ? ? retries for the ?

? ? ? ? authentication. ?

? ? ? ? Zero means to ?

? ? ? ? try ?
? ? ? ? indefinitely; -1 ?
? ? ? ? means to use a ?
? ? ? ? global default. ?
? ? ? ? If the global ?
? ? ? ? default is not ?
? ? ? ? set, the ?
? ? ? ? authentication ?
? ? ? ? retries for 3 ?
? ? ? ? times before ?
? ? ? ? failing the ?
? ? ? ? connection. ?
? ? ? ? ?
? ? ? ? Currently, this ?
? ? ? ? only applies to ?
? ? ? ? 802-1x ?
? ? ? ? authentication. ?

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?autoconnect ? boolean ? TRUE ? Whether or not ?
? ? ? ? the connection ?
? ? ? ? should be ?
? ? ? ? automatically ?
? ? ? ? connected by ?
? ? ? ? NetworkManager ?
? ? ? ? when the ?
? ? ? ? resources for ?
? ? ? ? the connection ?
? ? ? ? are available. ?
? ? ? ? TRUE to ?
? ? ? ? automatically ?
? ? ? ? activate the ?

? ? ? ? connection, ?
? ? ? ? FALSE to require ?
? ? ? ? manual ?
? ? ? ? intervention to ?
? ? ? ? activate the ?
? ? ? ? connection. ?
? ? ? ? ?
? ? ? ? Autoconnect ?
? ? ? ? happens when the ?
? ? ? ? circumstances ?
? ? ? ? are suitable. ?
? ? ? ? That means for ?
? ? ? ? example that the ?
? ? ? ? device is ?
? ? ? ? currently ?
? ? ? ? managed and not ?
? ? ? ? active. ?
? ? ? ? Autoconnect thus ?
? ? ? ? never replaces ?
? ? ? ? or competes with ?
? ? ? ? an already ?
? ? ? ? active profile. ?
? ? ? ? ?
? ? ? ? Note that ?
? ? ? ? autoconnect is ?
? ? ? ? not implemented ?
? ? ? ? for VPN ?
? ? ? ? profiles. See ?
? ? ? ? "secondaries" as ?
? ? ? ? an alternative ?
? ? ? ? to automatically ?
? ? ? ? connect VPN ?
? ? ? ? profiles. ?

? ? ? ? ?

? ? ? ? If multiple ?

? ? ? ? profiles are ?

? ? ? ? ready to ?

? ? ? ? autoconnect on ?

? ? ? ? the same device, ?

? ? ? ? the one with the ?

? ? ? ? better ?

? ? ? ? "connection.autoconnect-priority" ?

? ? ? ? is chosen. If ?

? ? ? ? the priorities ?

? ? ? ? are equal, then ?

? ? ? ? the most ?

? ? ? ? recently ?

? ? ? ? connected ?

? ? ? ? profile is ?

? ? ? ? activated. If ?

? ? ? ? the profiles ?

? ? ? ? were not ?

? ? ? ? connected ?

? ? ? ? earlier or their ?

? ? ? ? "connection.timestamp" ?

? ? ? ? is identical, ?

? ? ? ? the choice is ?

? ? ? ? undefined. ?

? ? ? ? ?

? ? ? ? Depending on ?

? ? ? ? "connection.multi-connect", ?

? ? ? ? a profile can ?

? ? ? ? (auto)connect ?

? ? ? ? only once at a ?

? ? ? ? time or multiple ?

? ? ? ? times. ?

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?autoconnect-priority ? int32                ? 0       ? The autoconnect priority in range  ?
?            ?                    ?        ? -999 to 999. If the connection is  ?
?            ?                    ?        ? set to autoconnect, connections    ?
?            ?                    ?        ? with higher priority will be       ?
?            ?                    ?        ? preferred. The higher number       ?
?            ?                    ?        ? means higher priority. Defaults    ?
?            ?                    ?        ? to 0. Note that this property      ?
?            ?                    ?        ? only matters if there are more     ?
?            ?                    ?        ? than one candidate profile to      ?
?            ?                    ?        ? select for autoconnect. In case    ?
?            ?                    ?        ? of equal priority, the profile     ?
?            ?                    ?        ? used most recently is chosen.      ?

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?autoconnect-retries  ? int32                ? -1      ? The number of times a connection   ?
?            ?                    ?        ? should be tried when               ?
?            ?                    ?        ? autoactivating before giving up.   ?
?            ?                    ?        ? Zero means forever, -1 means the   ?
?            ?                    ?        ? global default (4 times if not     ?
?            ?                    ?        ? overridden). Setting this to 1     ?
?            ?                    ?        ? means to try activation only once  ?
?            ?                    ?        ? before blocking autoconnect. Note  ?
?            ?                    ?        ? that after a timeout,              ?
?            ?                    ?        ? NetworkManager will try to         ?
?            ?                    ?        ? autoconnect again.                 ?

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?autoconnect-slaves   ? NMSettingConnectionAutoconnectSlaves ?        ? Whether or not slaves of this  ?
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? ? (int32) ? ? connection should be ?
? ? ? ? automatically brought up when ?
? ? ? ? NetworkManager activates this ?
? ? ? ? connection. This only has a real ?
? ? ? ? effect for master connections. ?
? ? ? ? The properties "autoconnect", ?
? ? ? ? "autoconnect-priority" and ?
? ? ? ? "autoconnect-retries" are ?
? ? ? ? unrelated to this setting. The ?
? ? ? ? permitted values are: 0: leave ?
? ? ? ? slave connections untouched, 1: ?
? ? ? ? activate all the slave ?
? ? ? ? connections with this connection, ?
? ? ? ? -1: default. If -1 (default) is ?
? ? ? ? set, global ?
? ? ? ? connection.autoconnect-slaves is ?
? ? ? ? read to determine the real value. ?
? ? ? ? If it is default as well, this ?
? ? ? ? fallbacks to 0. ?

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?dns-over-tls ? int32 ? -1 ? Whether DNSOverTls (dns-over-tls) ?
? ? ? ? is enabled for the connection. ?
? ? ? ? DNSOverTls is a technology which ?
? ? ? ? uses TLS to encrypt dns traffic. ?
? ? ? ? ?
? ? ? ? The permitted values are: "yes" ?
? ? ? ? (2) use DNSOverTls and disabled ?
? ? ? ? fallback, "opportunistic" (1) use ?
? ? ? ? DNSOverTls but allow fallback to ?
? ? ? ? unencrypted resolution, "no" (0) ?
? ? ? ? don't ever use DNSOverTls. If ?

? ? ? ? unspecified "default" depends on ?
? ? ? ? the plugin used. Systemd-resolved ?
? ? ? ? uses global setting. ?
? ? ? ? ?
? ? ? ? This feature requires a plugin ?
? ? ? ? which supports DNSOverTls. ?
? ? ? ? Otherwise, the setting has no ?
? ? ? ? effect. One such plugin is ?
? ? ? ? dns-systemd-resolved. ?

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?gateway-ping-timeout ? uint32 ? 0 ? If greater than zero, delay ?
? ? ? ? success of IP addressing until ?
? ? ? ? either the timeout is reached, or ?
? ? ? ? an IP gateway replies to a ping. ?

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?id ? string ? ? A human readable unique ?
? ? ? ? identifier for the connection, ?
? ? ? ? like "Work Wi-Fi" or "T-Mobile ?
? ? ? ? 3G". ?

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?interface-name ? string ? ? The name of the network interface ?
? ? ? ? this connection is bound to. If ?
? ? ? ? not set, then the connection can ?
? ? ? ? be attached to any interface of ?
? ? ? ? the appropriate type (subject to ?
? ? ? ? restrictions imposed by other ?
? ? ? ? settings). ?

? ? ? ? ?
? ? ? ? For software devices this ?
? ? ? ? specifies the name of the created ?
? ? ? ? device. ?
? ? ? ? ?
? ? ? ? For connection types where ?
? ? ? ? interface names cannot easily be ?
? ? ? ? made persistent (e.g. mobile ?
? ? ? ? broadband or USB Ethernet), this ?
? ? ? ? property should not be used. ?
? ? ? ? Setting this property restricts ?
? ? ? ? the interfaces a connection can ?
? ? ? ? be used with, and if interface ?
? ? ? ? names change or are reordered the ?
? ? ? ? connection may be applied to the ?
? ? ? ? wrong interface. ?

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?lldp ? int32 ? -1 ? Whether LLDP is enabled for the ?
? ? ? ? connection. ?

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?llmnr ? int32 ? -1 ? Whether Link-Local Multicast Name ?
? ? ? ? Resolution (LLMNR) is enabled for ?
? ? ? ? the connection. LLMNR is a ?
? ? ? ? protocol based on the Domain Name ?
? ? ? ? System (DNS) packet format that ?
? ? ? ? allows both IPv4 and IPv6 hosts ?
? ? ? ? to perform name resolution for ?
? ? ? ? hosts on the same local link. ?
? ? ? ? ?

? ? ? ? The permitted values are: "yes" ?
? ? ? ? (2) register hostname and ?
? ? ? ? resolving for the connection, ?
? ? ? ? "no" (0) disable LLMNR for the ?
? ? ? ? interface, "resolve" (1) do not ?
? ? ? ? register hostname but allow ?
? ? ? ? resolving of LLMNR host names If ?
? ? ? ? unspecified, "default" ultimately ?
? ? ? ? depends on the DNS plugin (which ?
? ? ? ? for systemd-resolved currently ?
? ? ? ? means "yes"). ?
? ? ? ? ?
? ? ? ? This feature requires a plugin ?
? ? ? ? which supports LLMNR. Otherwise, ?
? ? ? ? the setting has no effect. One ?
? ? ? ? such plugin is ?
? ? ? ? dns-systemd-resolved. ?

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?master ? string ? ? Interface name of the master ?
? ? ? ? device or UUID of the master ?
? ? ? ? connection. ?

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?mdns ? int32 ? -1 ? Whether mDNS is enabled for the ?
? ? ? ? connection. ?
? ? ? ? ?
? ? ? ? The permitted values are: "yes" ?
? ? ? ? (2) register hostname and ?
? ? ? ? resolving for the connection, ?
? ? ? ? "no" (0) disable mDNS for the ?

? ? ? ? interface, "resolve" (1) do not ?
? ? ? ? register hostname but allow ?
? ? ? ? resolving of mDNS host names and ?
? ? ? ? "default" (-1) to allow lookup of ?
? ? ? ? a global default in ?
? ? ? ? NetworkManager.conf. If ?
? ? ? ? unspecified, "default" ultimately ?
? ? ? ? depends on the DNS plugin (which ?
? ? ? ? for systemd-resolved currently ?
? ? ? ? means "no"). ?
? ? ? ? ?
? ? ? ? This feature requires a plugin ?
? ? ? ? which supports mDNS. Otherwise, ?
? ? ? ? the setting has no effect. One ?
? ? ? ? such plugin is ?
? ? ? ? dns-systemd-resolved. ?

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?metered ? NMMetered (int32) ? ? Whether the connection is ?
? ? ? ? metered. ?
? ? ? ? ?
? ? ? ? When updating this property on a ?
? ? ? ? currently activated connection, ?
? ? ? ? the change takes effect ?
? ? ? ? immediately. ?

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?mptcp-flags ? uint32 ? 0 ? Whether to configure MPTCP ?
? ? ? ? endpoints and the address flags. ?
? ? ? ? If MPTCP is enabled in ?
? ? ? ? NetworkManager, it will configure ?

? ? ? ? the addresses of the interface as ?
? ? ? ? MPTCP endpoints. Note that IPv4 ?
? ? ? ? loopback addresses (127.0.0.0/8), ?
? ? ? ? IPv4 link local addresses ?
? ? ? ? (169.254.0.0/16), the IPv6 ?
? ? ? ? loopback address (::1), IPv6 link ?
? ? ? ? local addresses (fe80::/10), IPv6 ?
? ? ? ? unique local addresses (ULA, ?
? ? ? ? fc00::/7) and IPv6 privacy ?
? ? ? ? extension addresses (rfc3041, ?
? ? ? ? ipv6.ip6-privacy) will be ?
? ? ? ? excluded from being configured as ?
? ? ? ? endpoints. ?
? ? ? ? ?
? ? ? ? If "disabled" (0x1), MPTCP ?
? ? ? ? handling for the interface is ?
? ? ? ? disabled and no endpoints are ?
? ? ? ? registered. ?
? ? ? ? ?
? ? ? ? The "enabled" (0x2) flag means ?
? ? ? ? that MPTCP handling is enabled. ?
? ? ? ? This flag can also be implied ?
? ? ? ? from the presence of other flags. ?
? ? ? ? ?
? ? ? ? Even when enabled, MPTCP handling ?
? ? ? ? will by default still be disabled ?
? ? ? ? unless ?
? ? ? ? "/proc/sys/net/mptcp/enabled" ?
? ? ? ? sysctl is on. NetworkManager does ?
? ? ? ? not change the sysctl and this is ?
? ? ? ? up to the administrator or ?
? ? ? ? distribution. To configure ?
? ? ? ? endpoints even if the sysctl is ?

? ? ? ? disabled, "also-without-sysctl" ?
? ? ? ? (0x4) flag can be used. In that ?
? ? ? ? case, NetworkManager doesn't look ?
? ? ? ? at the sysctl and configures ?
? ? ? ? endpoints regardless. ?
? ? ? ? ?
? ? ? ? Even when enabled, NetworkManager ?
? ? ? ? will only configure MPTCP ?
? ? ? ? endpoints for a certain address ?
? ? ? ? family, if there is a unicast ?
? ? ? ? default route (0.0.0.0/0 or ::/0) ?
? ? ? ? in the main routing table. The ?
? ? ? ? flag "also-without-default-route" ?
? ? ? ? (0x8) can override that. ?
? ? ? ? ?
? ? ? ? When MPTCP handling is enabled ?
? ? ? ? then endpoints are configured ?
? ? ? ? with the specified address flags ?
? ? ? ? "signal" (0x10), "subflow" ?
? ? ? ? (0x20), "backup" (0x40), ?
? ? ? ? "fullmesh" (0x80). See ?
? ? ? ? ip-mptcp(8) manual for additional ?
? ? ? ? information about the flags. ?
? ? ? ? ?
? ? ? ? If the flags are zero (0x0), the ?
? ? ? ? global connection default from ?
? ? ? ? NetworkManager.conf is honored. ?
? ? ? ? If still unspecified, the ?
? ? ? ? fallback is "enabled,subflow". ?
? ? ? ? Note that this means that MPTCP ?
? ? ? ? is by default done depending on ?
? ? ? ? the "/proc/sys/net/mptcp/enabled" ?
? ? ? ? sysctl. ?

? ? ? ? ?
? ? ? ? NetworkManager does not change ?
? ? ? ? the MPTCP limits nor enable MPTCP ?
? ? ? ? via ?
? ? ? ? "/proc/sys/net/mptcp/enabled". ?
? ? ? ? That is a host configuration ?
? ? ? ? which the admin can change via ?
? ? ? ? sysctl and ip-mptcp. ?
? ? ? ? ?
? ? ? ? Strict reverse path filtering ?
? ? ? ? (rp_filter) breaks many MPTCP use ?
? ? ? ? cases, so when MPTCP handling for ?
? ? ? ? IPv4 addresses on the interface ?
? ? ? ? is enabled, NetworkManager would ?
? ? ? ? loosen the strict reverse path ?
? ? ? ? filtering (1) to the loose ?
? ? ? ? setting (2). ?

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?mud-url ? string ? ? If configured, set to a ?
? ? ? ? Manufacturer Usage Description ?
? ? ? ? (MUD) URL that points to ?
? ? ? ? manufacturer-recommended network ?
? ? ? ? policies for IoT devices. It is ?
? ? ? ? transmitted as a DHCPv4 or DHCPv6 ?
? ? ? ? option. The value must be a valid ?
? ? ? ? URL starting with "https://". ?
? ? ? ? ?
? ? ? ? The special value "none" is ?
? ? ? ? allowed to indicate that no MUD ?
? ? ? ? URL is used. ?
? ? ? ? ?

? ? ? ? If the per-profile value is ?
? ? ? ? unspecified (the default), a ?
? ? ? ? global connection default gets ?
? ? ? ? consulted. If still unspecified, ?
? ? ? ? the ultimate default is "none". ?

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?multi-connect ? int32 ? 0 ? Specifies whether the profile can ?
? ? ? ? be active multiple times at a ?
? ? ? ? particular moment. The value is ?
? ? ? ? of type NMConnectionMultiConnect. ?

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?permissions ? array of string ? ? An array of strings defining what ?
? ? ? ? access a given user has to this ?
? ? ? ? connection. If this is NULL or ?
? ? ? ? empty, all users are allowed to ?
? ? ? ? access this connection; otherwise ?
? ? ? ? users are allowed if and only if ?
? ? ? ? they are in this list. When this ?
? ? ? ? is not empty, the connection can ?
? ? ? ? be active only when one of the ?
? ? ? ? specified users is logged into an ?
? ? ? ? active session. Each entry is of ?
? ? ? ? the form ?
? ? ? ? "[type]:[id]:[reserved]"; for ?
? ? ? ? example, "user:dcbw:blah". ?
? ? ? ? ?
? ? ? ? At this time only the "user" ?
? ? ? ? [type] is allowed. Any other ?
? ? ? ? values are ignored and reserved ?

? ? ? ? for future use. [id] is the ?
? ? ? ? username that this permission ?
? ? ? ? refers to, which may not contain ?
? ? ? ? the ":" character. Any [reserved] ?
? ? ? ? information present must be ?
? ? ? ? ignored and is reserved for ?
? ? ? ? future use. All of [type], [id], ?
? ? ? ? and [reserved] must be valid ?
? ? ? ? UTF-8. ?

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?read-only ? boolean ? FALSE ? FALSE if the connection can be ?
? ? ? ? modified using the provided ?
? ? ? ? settings service's D-Bus ?
? ? ? ? interface with the right ?
? ? ? ? privileges, or TRUE if the ?
? ? ? ? connection is read-only and ?
? ? ? ? cannot be modified. ?

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?secondaries ? array of string ? ? List of connection UUIDs that ?
? ? ? ? should be activated when the base ?
? ? ? ? connection itself is activated. ?
? ? ? ? Currently, only VPN connections ?
? ? ? ? are supported. ?

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?slave-type ? string ? ? Setting name of the device type ?
? ? ? ? of this slave's master connection ?
? ? ? ? (eg, "bond"), or NULL if this ?

? ? ? ? connection is not a slave. ?

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?stable-id ? string ? ? This represents the identity of ?
? ? ? ? the connection used for various ?
? ? ? ? purposes. It allows to configure ?
? ? ? ? multiple profiles to share the ?
? ? ? ? identity. Also, the stable-id can ?
? ? ? ? contain placeholders that are ?
? ? ? ? substituted dynamically and ?
? ? ? ? deterministically depending on ?
? ? ? ? the context. ?
? ? ? ? ?
? ? ? ? The stable-id is used for ?
? ? ? ? generating IPv6 stable private ?
? ? ? ? addresses with ?
? ? ? ? ipv6.addr-gen-mode=stable-privacy. ?
? ? ? ? It is also used to seed the ?
? ? ? ? generated cloned MAC address for ?
? ? ? ? ethernet.cloned-mac-address=stable ?
? ? ? ? and ?
? ? ? ? wifi.cloned-mac-address=stable. ?
? ? ? ? It is also used as DHCP client ?
? ? ? ? identifier with ?
? ? ? ? ipv4.dhcp-client-id=stable and to ?
? ? ? ? derive the DHCP DUID with ?
? ? ? ? ipv6.dhcp-duid=stable-[llt,ll,uuid]. ?
? ? ? ? ?
? ? ? ? Note that depending on the ?
? ? ? ? context where it is used, other ?
? ? ? ? parameters are also seeded into ?
? ? ? ? the generation algorithm. For ?

? ? ? ? example, a per-host key is ?
? ? ? ? commonly also included, so that ?
? ? ? ? different systems end up ?
? ? ? ? generating different IDs. Or with ?
? ? ? ? ipv6.addr-gen-mode=stable-privacy, ?
? ? ? ? also the device's name is ?
? ? ? ? included, so that different ?
? ? ? ? interfaces yield different ?
? ? ? ? addresses. The per-host key is ?
? ? ? ? the identity of your machine and ?
? ? ? ? stored in ?
? ? ? ? /var/lib/NetworkManager/secret_key. ?
? ? ? ? See NetworkManager(8) manual ?
? ? ? ? about the secret-key and the host ?
? ? ? ? identity. ?
? ? ? ? ?
? ? ? ? The '$' character is treated ?
? ? ? ? special to perform dynamic ?
? ? ? ? substitutions at runtime. ?
? ? ? ? Currently, supported are ?
? ? ? ? "${CONNECTION}", "${DEVICE}", ?
? ? ? ? "${MAC}", "${BOOT}", "${RANDOM}". ?
? ? ? ? These effectively create unique ?
? ? ? ? IDs per-connection, per-device, ?
? ? ? ? per-boot, or every time. Note ?
? ? ? ? that "${DEVICE}" corresponds to ?
? ? ? ? the interface name of the device ?
? ? ? ? and "${MAC}" is the permanent MAC ?
? ? ? ? address of the device. Any ?
? ? ? ? unrecognized patterns following ?
? ? ? ? '$' are treated verbatim, however ?
? ? ? ? are reserved for future use. You ?
? ? ? ? are thus advised to avoid '$' or ?

? ? ? ? escape it as "$$". For example, ?
? ? ? ? set it to ?
? ? ? ? "${CONNECTION}-${BOOT}-${DEVICE}" ?
? ? ? ? to create a unique id for this ?
? ? ? ? connection that changes with ?
? ? ? ? every reboot and differs ?
? ? ? ? depending on the interface where ?
? ? ? ? the profile activates. ?
? ? ? ? ?
? ? ? ? If the value is unset, a global ?
? ? ? ? connection default is consulted. ?
? ? ? ? If the value is still unset, the ?
? ? ? ? default is similar to ?
? ? ? ? "${CONNECTION}" and uses a ?
? ? ? ? unique, fixed ID for the ?
? ? ? ? connection. ?

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?timestamp ? uint64 ? 0 ? The time, in seconds since the Unix ?
? ? ? ? Epoch, that the connection was last ?
? ? ? ? _successfully_ fully activated. ?
? ? ? ? ?
? ? ? ? NetworkManager updates the ?
? ? ? ? connection timestamp periodically ?
? ? ? ? when the connection is active to ?
? ? ? ? ensure that an active connection has ?
? ? ? ? the latest timestamp. The property ?
? ? ? ? is only meant for reading (changes ?
? ? ? ? to this property will not be ?
? ? ? ? preserved). ?

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?type ? string ? ? Base type of the connection. For ?
? ? ? ? hardware-dependent connections, ?
? ? ? ? should contain the setting name of ?
? ? ? ? the hardware-type specific setting ?
? ? ? ? (ie, "802-3-ethernet" or ?
? ? ? ? "802-11-wireless" or "bluetooth", ?
? ? ? ? etc), and for non-hardware dependent ?
? ? ? ? connections like VPN or otherwise, ?
? ? ? ? should contain the setting name of ?
? ? ? ? that setting type (ie, "vpn" or ?
? ? ? ? "bridge", etc). ?

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?uuid ? string ? ? A universally unique identifier for ?
? ? ? ? the connection, for example ?
? ? ? ? generated with libuuid. It should ?
? ? ? ? be assigned when the connection is ?
? ? ? ? created, and never changed as long ?
? ? ? ? as the connection still applies to ?
? ? ? ? the same network. For example, it ?
? ? ? ? should not be changed when the "id" ?
? ? ? ? property or NMSettingIP4Config ?
? ? ? ? changes, but might need to be ?
? ? ? ? re-created when the Wi-Fi SSID, ?
? ? ? ? mobile broadband network provider, ?
? ? ? ? or "type" property changes. ?
? ? ? ? ?
? ? ? ? The UUID must be in the format ?
? ? ? ? "2815492f-7e56-435e-b2e9-246bd7cdc664" ?
? ? ? ? (ie, contains only hexadecimal ?
? ? ? ? characters and "-"). ?

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?wait-activation-delay ? int32 ? -1 ? Time in milliseconds to wait for ?

? ? ? ? connection to be considered activated. ?

? ? ? ? The wait will start after the pre-up ?

? ? ? ? dispatcher event. ?

? ? ? ? ?

? ? ? ? The value 0 means no wait time. The ?

? ? ? ? default value is -1, which currently ?

? ? ? ? has the same meaning as no wait time. ?

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?wait-device-timeout ? int32 ? -1 ? Timeout in milliseconds to wait for ?

? ? ? ? device at startup. During boot, ?

? ? ? ? devices may take a while to be ?

? ? ? ? detected by the driver. This property ?

? ? ? ? will cause to delay ?

? ? ? ? NetworkManager-wait-online.service and ?

? ? ? ? nm-online to give the device a chance ?

? ? ? ? to appear. This works by waiting for ?

? ? ? ? the given timeout until a compatible ?

? ? ? ? device for the profile is available ?

? ? ? ? and managed. ?

? ? ? ? ?

? ? ? ? The value 0 means no wait time. The ?

? ? ? ? default value is -1, which currently ?

? ? ? ? has the same meaning as no wait time. ?

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?zone ? string ? ? The trust level of a the connection. ?

? ? ? ? Free form case-insensitive string (for ?
? ? ? ? example "Home", "Work", "Public"). ?
? ? ? ? NULL or unspecified zone means the ?
? ? ? ? connection will be placed in the ?
? ? ? ? default zone as defined by the ?
? ? ? ? firewall. ?
? ? ? ? ?
? ? ? ? When updating this property on a ?
? ? ? ? currently activated connection, the ?
? ? ? ? change takes effect immediately. ?

??
??????????????????????

6lowpan setting

6LoWPAN Settings.

???
?Key Name ? Value Type ? Default Value ? Value ?
? ? ? ? Description ?
???
?parent ? string ? ? If given, ?
? ? ? ? specifies the ?
? ? ? ? parent interface ?
? ? ? ? name or parent ?
? ? ? ? connection UUID ?
? ? ? ? from which this ?
? ? ? ? 6LowPAN ?
? ? ? ? interface should ?
? ? ? ? be created. ?
???

802-1x setting

IEEE 802.1x Authentication Settings.

??????????

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

??????????

?altsubject-matches ? array of string ? ? List of strings ?

? ? ? ? to be matched ?

? ? ? ? against the ?

? ? ? ? altSubjectName ?

? ? ? ? of the ?

? ? ? ? certificate ?

? ? ? ? presented by the ?

? ? ? ? authentication ?

? ? ? ? server. If the ?

? ? ? ? list is empty, ?

? ? ? ? no verification ?

? ? ? ? of the server ?

? ? ? ? certificate's ?

? ? ? ? altSubjectName ?

? ? ? ? is performed. ?

??

??????????

?anonymous-identity ? string ? ? Anonymous ?

? ? ? ? identity string ?

? ? ? ? for EAP ?

? ? ? ? authentication ?

? ? ? ? methods. Used ?

? ? ? ? as the ?

? ? ? ? unencrypted ?

? ? ? ? identity with ?

? ? ? ? EAP types that ?

? ? ? ? support ?

? ? ? ? different ?

? ? ? ? tunneled ?

? ? ? ? identity like ?

? ? ? ? EAP-TTLS. ?

??

??????????

?auth-timeout ? int32 ? 0 ? A timeout for ?

? ? ? ? the ?

? ? ? ? authentication. ?

? ? ? ? Zero means the ?

? ? ? ? global default; ?

? ? ? ? if the global ?

? ? ? ? default is not ?

? ? ? ? set, the ?

? ? ? ? authentication ?

? ? ? ? timeout is 25 ?

? ? ? ? seconds. ?

??

??????????

?ca-cert ? byte array ? ? Contains the CA ?

? ? ? ? certificate if ?

? ? ? ? used by the EAP ?

? ? ? ? method specified ?

? ? ? ? in the "eap" ?

? ? ? ? property. ?

? ? ? ? ?

? ? ? ? Certificate data ?

? ? ? ? is specified ?

? ? ? ? using a ?

? ? ? ? "scheme"; three ?

? ? ? ? are currently ?

? ? ? ? supported: blob, ?

? ? ? ? path and pkcs#11 ?

? ? ? ? URL. When using ?

? ? ? ? the blob scheme ?

? ? ? ? this property ?

? ? ? ? should be set to ?

? ? ? ? the ?

? ? ? ? certificate's ?

? ? ? ? DER encoded ?

? ? ? ? data. When using ?

? ? ? ? the path scheme, ?

? ? ? ? this property ?

? ? ? ? should be set to ?

? ? ? ? the full UTF-8 ?

? ? ? ? encoded path of ?

? ? ? ? the certificate, ?

? ? ? ? prefixed with ?

? ? ? ? the string ?

? ? ? ? "file://" and ?

? ? ? ? ending with a ?

? ? ? ? terminating NUL ?

? ? ? ? byte. This ?

? ? ? ? property can be ?

? ? ? ? unset even if ?

? ? ? ? the EAP method ?

? ? ? ? supports CA ?

? ? ? ? certificates, ?

? ? ? ? but this allows ?

? ? ? ? man-in-the-middle ?

? ? ? ? attacks and is ?

? ? ? ? NOT recommended. ?

? ? ? ? ?

? ? ? ? Note that ?

? ? ? ? enabling ?

? ? ? ? NMSetting8021x:system-ca-certs ?

? ? ? ? will override ?

? ? ? ? this setting to ?

? ? ? ? use the built-in ?

? ? ? ? path, if the ?

? ? ? ? built-in path is ?

? ? ? ? not a directory. ?

??

??????????

?ca-cert-password ? string ? ? The password used to access ?

? ? ? ? the CA certificate stored in ?

? ? ? ? "ca-cert" property. Only makes ?

? ? ? ? sense if the certificate is ?

? ? ? ? stored on a PKCS#11 token that ?

? ? ? ? requires a login. ?

??

??????????

?ca-cert-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle ?

? ? (uint32) ? ? the "ca-cert-password" ?

? ? ? ? property. ?

??

??????????

?ca-path ? string ? ? UTF-8 encoded path to a ?

? ? ? ? directory containing PEM or ?

? ? ? ? DER formatted certificates to ?

? ? ? ? be added to the verification ?

? ? ? ? chain in addition to the ?

? ? ? ? certificate specified in the ?

? ? ? ? "ca-cert" property. ?

? ? ? ? ?

? ? ? ? If ?

? ? ? ? NMSetting8021x:system-ca-certs ?

? ? ? ? is enabled and the built-in CA ?

? ? ? ? path is an existing directory, ?

? ? ? ? then this setting is ignored. ?

??

??????????

?client-cert ? byte array ? ? Contains the client ?

? ? ? ? certificate if used by the EAP ?

? ? ? ? method specified in the "eap" ?

? ? ? ? property. ?

? ? ? ? ?

? ? ? ? Certificate data is specified ?

? ? ? ? using a "scheme"; two are ?

? ? ? ? currently supported: blob and ?

? ? ? ? path. When using the blob ?

? ? ? ? scheme (which is backwards ?

? ? ? ? compatible with NM 0.7.x) this ?

? ? ? ? property should be set to the ?

? ? ? ? certificate's DER encoded ?

? ? ? ? data. When using the path ?

? ? ? ? scheme, this property should ?

? ? ? ? be set to the full UTF-8 ?

? ? ? ? encoded path of the ?

? ? ? ? certificate, prefixed with the ?

? ? ? ? string "file://" and ending ?

? ? ? ? with a terminating NUL byte. ?

??

??????????

?client-cert-password ? string ? ? The password used to access ?
? ? ? ? the client certificate stored ?
? ? ? ? in "client-cert" property. ?
? ? ? ? Only makes sense if the ?
? ? ? ? certificate is stored on a ?
? ? ? ? PKCS#11 token that requires a ?
? ? ? ? login. ?

???
??????????
?client-cert-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle ?
? ? (uint32) ? ? the "client-cert-password" ?
? ? ? ? property. ?

???
??????????
?domain-match ? string ? ? Constraint for server domain ?
? ? ? ? name. If set, this list of ?
? ? ? ? FQDNs is used as a match ?
? ? ? ? requirement for dNSName ?
? ? ? ? element(s) of the certificate ?
? ? ? ? presented by the ?
? ? ? ? authentication server. If a ?
? ? ? ? matching dNSName is found, ?
? ? ? ? this constraint is met. If no ?
? ? ? ? dNSName values are present, ?
? ? ? ? this constraint is matched ?
? ? ? ? against SubjectName CN using ?
? ? ? ? the same comparison. Multiple ?
? ? ? ? valid FQDNs can be passed as a ?
? ? ? ? ";" delimited list. ?

???

??????????

?domain-suffix-match	? string	?	? Constraint for server domain ?
?	?	?	? name. If set, this FQDN is ?
?	?	?	? used as a suffix match ?
?	?	?	? requirement for dNSName ?
?	?	?	? element(s) of the certificate ?
?	?	?	? presented by the ?
?	?	?	? authentication server. If a ?
?	?	?	? matching dNSName is found, ?
?	?	?	? this constraint is met. If no ?
?	?	?	? dNSName values are present, ?
?	?	?	? this constraint is matched ?
?	?	?	? against SubjectName CN using ?
?	?	?	? same suffix match comparison. ?
?	?	?	? Since version 1.24, multiple ?
?	?	?	? valid FQDNs can be passed as a ?
?	?	?	? ";" delimited list. ?

??

??????????

?eap	? array of string	?	? The allowed EAP method to be ?
?	?	?	? used when authenticating to ?
?	?	?	? the network with 802.1x. ?
?	?	?	? Valid methods are: "leap", ?
?	?	?	? "md5", "tls", "peap", "ttls", ?
?	?	?	? "pwd", and "fast". Each ?
?	?	?	? method requires different ?
?	?	?	? configuration using the ?
?	?	?	? properties of this setting; ?
?	?	?	? refer to wpa_supplicant ?
?	?	?	? documentation for the allowed ?
?	?	?	? combinations. ?

??
??????????

?identity ? string ? ? Identity string for EAP ?

? ? ? ? authentication methods. Often ?

? ? ? ? the user's user or login name. ?

??
??????????

?optional ? boolean ? FALSE ? Whether the 802.1X ?

? ? ? ? authentication is optional. If ?

? ? ? ? TRUE, the activation will ?

? ? ? ? continue even after a timeout ?

? ? ? ? or an authentication failure. ?

? ? ? ? Setting the property to TRUE ?

? ? ? ? is currently allowed only for ?

? ? ? ? Ethernet connections. If set ?

? ? ? ? to FALSE, the activation can ?

? ? ? ? continue only after a ?

? ? ? ? successful authentication. ?

??
??????????

?pac-file ? string ? ? UTF-8 encoded file path ?

? ? ? ? containing PAC for EAP-FAST. ?

??
??????????

?password ? string ? ? UTF-8 encoded password used ?

? ? ? ? for EAP authentication ?

? ? ? ? methods. If both the ?

? ? ? ? "password" property and the ?

? ? ? ? "password-raw" property are ?

? ? ? ? specified, "password" is ?

?   ?   ?   ? preferred.   ?

??

?password-flags   ? NMSettingSecretFlags ?   ? Flags indicating how to handle ?
?   ? (uint32)   ?   ? the "password" property.   ?

??

?password-raw   ? byte array   ?   ? Password used for EAP   ?
?   ?   ?   ? authentication methods, given ?
?   ?   ?   ? as a byte array to allow   ?
?   ?   ?   ? passwords in other encodings   ?
?   ?   ?   ? than UTF-8 to be used. If both ?
?   ?   ?   ? the "password" property and   ?
?   ?   ?   ? the "password-raw" property   ?
?   ?   ?   ? are specified, "password" is   ?
?   ?   ?   ? preferred.   ?

??

?password-raw-flags   ? NMSettingSecretFlags ?   ? Flags indicating how to handle ?
?   ? (uint32)   ?   ? the "password-raw" property.   ?

??

?phase1-auth-flags   ? uint32   ? 0   ? Specifies authentication flags ?
?   ?   ?   ? to use in "phase 1" outer   ?
?   ?   ?   ? authentication using   ?
?   ?   ?   ? NMSetting8021xAuthFlags   ?
?   ?   ?   ? options. The individual TLS   ?
?   ?   ?   ? versions can be explicitly   ?
?   ?   ?   ? disabled. TLS time checks can ?

? ? ? ? be also disabled. If a certain ?

? ? ? ? TLS disable flag is not set, ?

? ? ? ? it is up to the supplicant to ?

? ? ? ? allow or forbid it. The TLS ?

? ? ? ? options map to ?

? ? ? ? tls_disable_tlsv1_x and ?

? ? ? ? tls_disable_time_checks ?

? ? ? ? settings. See the ?

? ? ? ? wpa_supplicant documentation ?

? ? ? ? for more details. ?

??

??????????

?phase1-fast-provisioning ? string ? ? Enables or disables in-line ?

? ? ? ? provisioning of EAP-FAST ?

? ? ? ? credentials when FAST is ?

? ? ? ? specified as the EAP method in ?

? ? ? ? the "eap" property. Recognized ?

? ? ? ? values are "0" (disabled), "1" ?

? ? ? ? (allow unauthenticated ?

? ? ? ? provisioning), "2" (allow ?

? ? ? ? authenticated provisioning), ?

? ? ? ? and "3" (allow both ?

? ? ? ? authenticated and ?

? ? ? ? unauthenticated provisioning). ?

? ? ? ? See the wpa_supplicant ?

? ? ? ? documentation for more ?

? ? ? ? details. ?

??

??????????

?phase1-peaplabel ? string ? ? Forces use of the new PEAP ?

? ? ? ? label during key derivation. ?

? ? ? ? Some RADIUS servers may ?

? ? ? ? require forcing the new PEAP ?

? ? ? ? label to interoperate with ?

? ? ? ? PEAPv1. Set to "1" to force ?

? ? ? ? use of the new PEAP label. ?

? ? ? ? See the wpa_supplicant ?

? ? ? ? documentation for more ?

? ? ? ? details. ?

??

??????????

?phase1-peapver ? string ? ? Forces which PEAP version is ?

? ? ? ? used when PEAP is set as the ?

? ? ? ? EAP method in the "eap" ?

? ? ? ? property. When unset, the ?

? ? ? ? version reported by the server ?

? ? ? ? will be used. Sometimes when ?

? ? ? ? using older RADIUS servers, it ?

? ? ? ? is necessary to force the ?

? ? ? ? client to use a particular ?

? ? ? ? PEAP version. To do so, this ?

? ? ? ? property may be set to "0" or ?

? ? ? ? "1" to force that specific ?

? ? ? ? PEAP version. ?

??

??????????

?phase2-altsubject-matches ? array of string ? ? List of strings to be matched ?

? ? ? ? against the altSubjectName of ?

? ? ? ? the certificate presented by ?

? ? ? ? the authentication server ?

? ? ? ? during the inner "phase 2" ?

? ? ? ? authentication. If the list is ?

? ? ? ? empty, no verification of the ?

? ? ? ? server certificate's ?

? ? ? ? altSubjectName is performed. ?

??

??????????

?phase2-auth ? string ? ? Specifies the allowed "phase ?

? ? ? ? 2" inner authentication method ?

? ? ? ? when an EAP method that uses ?

? ? ? ? an inner TLS tunnel is ?

? ? ? ? specified in the "eap" ?

? ? ? ? property. For TTLS this ?

? ? ? ? property selects one of the ?

? ? ? ? supported non-EAP inner ?

? ? ? ? methods: "pap", "chap", ?

? ? ? ? "mschap", "mschapv2" while ?

? ? ? ? "phase2-autheap" selects an ?

? ? ? ? EAP inner method. For PEAP ?

? ? ? ? this selects an inner EAP ?

? ? ? ? method, one of: "gtc", "otp", ?

? ? ? ? "md5" and "tls". Each "phase ?

? ? ? ? 2" inner method requires ?

? ? ? ? specific parameters for ?

? ? ? ? successful authentication; see ?

? ? ? ? the wpa_supplicant ?

? ? ? ? documentation for more ?

? ? ? ? details. Both "phase2-auth" ?

? ? ? ? and "phase2-autheap" cannot be ?

? ? ? ? specified. ?

??

??????????

?phase2-autheap ? string ? ? Specified allowed "phase ?

? ? ? ? 2" inner EAP-based ?

? ? ? ? authentication method when ?

? ? ? ? TTLS is specified in the "eap" ?

? ? ? ? property. Recognized ?

? ? ? ? EAP-based "phase 2" methods ?

? ? ? ? are "md5", "mschapv2", "otp", ?

? ? ? ? "gtc", and "tls". Each "phase ?

? ? ? ? 2" inner method requires ?

? ? ? ? specific parameters for ?

? ? ? ? successful authentication; see ?

? ? ? ? the wpa_supplicant ?

? ? ? ? documentation for more ?

? ? ? ? details. ?

??

??????????

?phase2-ca-cert ? byte array ? ? Contains the "phase 2" CA ?

? ? ? ? certificate if used by the EAP ?

? ? ? ? method specified in the ?

? ? ? ? "phase2-auth" or ?

? ? ? ? "phase2-autheap" properties. ?

? ? ? ? ?

? ? ? ? Certificate data is specified ?

? ? ? ? using a "scheme"; three are ?

? ? ? ? currently supported: blob, ?

? ? ? ? path and pkcs#11 URL. When ?

? ? ? ? using the blob scheme this ?

? ? ? ? property should be set to the ?

? ? ? ? certificate's DER encoded ?

? ? ? ? data. When using the path ?

? ? ? ? scheme, this property should ?

? ? ? ? be set to the full UTF-8 ?

? ? ? ? encoded path of the ?

? ? ? ? certificate, prefixed with the ?

? ? ? ? string "file://" and ending ?

? ? ? ? with a terminating NUL byte. ?

? ? ? ? This property can be unset ?

? ? ? ? even if the EAP method ?

? ? ? ? supports CA certificates, but ?

? ? ? ? this allows man-in-the-middle ?

? ? ? ? attacks and is NOT ?

? ? ? ? recommended. ?

? ? ? ? ?

? ? ? ? Note that enabling ?

? ? ? ? NMSetting8021x:system-ca-certs ?

? ? ? ? will override this setting to ?

? ? ? ? use the built-in path, if the ?

? ? ? ? built-in path is not a ?

? ? ? ? directory. ?

??

??????????

?phase2-ca-cert-password ? string ? ? The password used to access ?

? ? ? ? the "phase2" CA certificate ?

? ? ? ? stored in "phase2-ca-cert" ?

? ? ? ? property. Only makes sense if ?

? ? ? ? the certificate is stored on a ?

? ? ? ? PKCS#11 token that requires a ?

? ? ? ? login. ?

??

??????????

?phase2-ca-cert-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle ?

? ? (uint32) ? ? the "phase2-ca-cert-password" ?

? ? ? ? property. ?

??
??????????
?phase2-ca-path ? string ? ? UTF-8 encoded path to a ?
? ? ? ? directory containing PEM or ?
? ? ? ? DER formatted certificates to ?
? ? ? ? be added to the verification ?
? ? ? ? chain in addition to the ?
? ? ? ? certificate specified in the ?
? ? ? ? "phase2-ca-cert" property. ?
? ? ? ? ?
? ? ? ? If ?
? ? ? ? NMSetting8021x:system-ca-certs ?
? ? ? ? is enabled and the built-in CA ?
? ? ? ? path is an existing directory, ?
? ? ? ? then this setting is ignored. ?

??
??????????
?phase2-client-cert ? byte array ? ? Contains the "phase 2" client ?
? ? ? ? certificate if used by the EAP ?
? ? ? ? method specified in the ?
? ? ? ? "phase2-auth" or ?
? ? ? ? "phase2-autheap" properties. ?
? ? ? ? ?
? ? ? ? Certificate data is specified ?
? ? ? ? using a "scheme"; two are ?
? ? ? ? currently supported: blob and ?
? ? ? ? path. When using the blob ?
? ? ? ? scheme (which is backwards ?
? ? ? ? compatible with NM 0.7.x) this ?
? ? ? ? property should be set to the ?
? ? ? ? certificate's DER encoded ?
? ? ? ? data. When using the path ?

?   ?   ?   ? scheme, this property should   ?
?   ?   ?   ? be set to the full UTF-8   ?
?   ?   ?   ? encoded path of the   ?
?   ?   ?   ? certificate, prefixed with the ?
?   ?   ?   ? string "file://" and ending   ?
?   ?   ?   ? with a terminating NUL byte.   ?
?   ?   ?   ? This property can be unset   ?
?   ?   ?   ? even if the EAP method   ?
?   ?   ?   ? supports CA certificates, but ?
?   ?   ?   ? this allows man-in-the-middle ?
?   ?   ?   ? attacks and is NOT   ?
?   ?   ?   ? recommended.   ?

??

?phase2-client-cert-password ? string ? ? The password used to access ?
?   ?   ?   ? the "phase2" client   ?
?   ?   ?   ? certificate stored in   ?
?   ?   ?   ? "phase2-client-cert" property. ?
?   ?   ?   ? Only makes sense if the   ?
?   ?   ?   ? certificate is stored on a   ?
?   ?   ?   ? PKCS#11 token that requires a ?
?   ?   ?   ? login.   ?

??

?phase2-client-cert-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle ?
?   ? (uint32)   ?   ? the   ?
?   ?   ?   ? "phase2-client-cert-password" ?
?   ?   ?   ? property.   ?

??

?phase2-domain-match ? string ? ? Constraint for server domain ?
? ? ? ? name. If set, this list of ?
? ? ? ? FQDNs is used as a match ?
? ? ? ? requirement for dNSName ?
? ? ? ? element(s) of the certificate ?
? ? ? ? presented by the ?
? ? ? ? authentication server during ?
? ? ? ? the inner "phase 2" ?
? ? ? ? authentication. If a matching ?
? ? ? ? dNSName is found, this ?
? ? ? ? constraint is met. If no ?
? ? ? ? dNSName values are present, ?
? ? ? ? this constraint is matched ?
? ? ? ? against SubjectName CN using ?
? ? ? ? the same comparison. Multiple ?
? ? ? ? valid FQDNs can be passed as a ?
? ? ? ? ";" delimited list. ?

??
??????????

?phase2-domain-suffix-match ? string ? ? Constraint for server domain ?
? ? ? ? name. If set, this FQDN is ?
? ? ? ? used as a suffix match ?
? ? ? ? requirement for dNSName ?
? ? ? ? element(s) of the certificate ?
? ? ? ? presented by the ?
? ? ? ? authentication server during ?
? ? ? ? the inner "phase 2" ?
? ? ? ? authentication. If a matching ?
? ? ? ? dNSName is found, this ?
? ? ? ? constraint is met. If no ?
? ? ? ? dNSName values are present, ?
? ? ? ? this constraint is matched ?

? ? ? ? against SubjectName CN using ?
? ? ? ? same suffix match comparison. ?
? ? ? ? Since version 1.24, multiple ?
? ? ? ? valid FQDNs can be passed as a ?
? ? ? ? ";" delimited list. ?

??
??????????

?phase2-private-key ? byte array ? ? Contains the "phase 2" inner ?
? ? ? ? private key when the ?
? ? ? ? "phase2-auth" or ?
? ? ? ? "phase2-autheap" property is ?
? ? ? ? set to "tls". ?
? ? ? ? ?
? ? ? ? Key data is specified using a ?
? ? ? ? "scheme"; two are currently ?
? ? ? ? supported: blob and path. When ?
? ? ? ? using the blob scheme and ?
? ? ? ? private keys, this property ?
? ? ? ? should be set to the key's ?
? ? ? ? encrypted PEM encoded data. ?
? ? ? ? When using private keys with ?
? ? ? ? the path scheme, this property ?
? ? ? ? should be set to the full ?
? ? ? ? UTF-8 encoded path of the key, ?
? ? ? ? prefixed with the string ?
? ? ? ? "file://" and ending with a ?
? ? ? ? terminating NUL byte. When ?
? ? ? ? using PKCS#12 format private ?
? ? ? ? keys and the blob scheme, this ?
? ? ? ? property should be set to the ?
? ? ? ? PKCS#12 data and the ?
? ? ? ? "phase2-private-key-password" ?

? ? ? ? property must be set to ?

? ? ? ? password used to decrypt the ?

? ? ? ? PKCS#12 certificate and key. ?

? ? ? ? When using PKCS#12 files and ?

? ? ? ? the path scheme, this property ?

? ? ? ? should be set to the full ?

? ? ? ? UTF-8 encoded path of the key, ?

? ? ? ? prefixed with the string ?

? ? ? ? "file://" and ending with a ?

? ? ? ? terminating NUL byte, and as ?

? ? ? ? with the blob scheme the ?

? ? ? ? "phase2-private-key-password" ?

? ? ? ? property must be set to the ?

? ? ? ? password used to decode the ?

? ? ? ? PKCS#12 private key and ?

? ? ? ? certificate. ?

??

??????????

?phase2-private-key-password ? string ? ? The password used to decrypt ?

? ? ? ? the "phase 2" private key ?

? ? ? ? specified in the ?

? ? ? ? "phase2-private-key" property ?

? ? ? ? when the private key either ?

? ? ? ? uses the path scheme, or is a ?

? ? ? ? PKCS#12 format key. ?

??

??????????

?phase2-private-key-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle ?

? ? (uint32) ? ? the ?

? ? ? ? "phase2-private-key-password" ?

? ? ? ? property. ?

??
??????????

```
?phase2-subject-match    ? string    ?    ? Substring to be matched     ?
?                        ?           ?    ? against the subject of the  ?
?                        ?           ?    ? certificate presented by the ?
?                        ?           ?    ? authentication server during ?
?                        ?           ?    ? the inner "phase 2"         ?
?                        ?           ?    ? authentication. When unset, no ?
?                        ?           ?    ? verification of the         ?
?                        ?           ?    ? authentication server       ?
?                        ?           ?    ? certificate's subject is    ?
?                        ?           ?    ? performed. This property    ?
?                        ?           ?    ? provides little security, if ?
?                        ?           ?    ? any, and should not be used. ?
?                        ?           ?    ?                             ?
?                        ?           ?    ? This property is deprecated ?
?                        ?           ?    ? since version 1.2.Use       ?
?                        ?           ?    ? "phase2-domain-suffix-match" ?
?                        ?           ?    ? instead.                    ?
```

??
??????????

```
?pin                     ? string    ?    ? PIN used for EAP            ?
?                        ?           ?    ? authentication methods.     ?
```

??
??????????

```
?pin-flags               ? NMSettingSecretFlags ?    ? Flags indicating how to handle ?
?                        ? (uint32)             ?    ? the "pin" property.            ?
```

??
??????????

?private-key	? byte array	?	? Contains the private key when ?
?	?	?	? the "eap" property is set to ?
?	?	?	? "tls". ?
?	?	?	? ?
?	?	?	? Key data is specified using a ?
?	?	?	? "scheme"; two are currently ?
?	?	?	? supported: blob and path. When ?
?	?	?	? using the blob scheme and ?
?	?	?	? private keys, this property ?
?	?	?	? should be set to the key's ?
?	?	?	? encrypted PEM encoded data. ?
?	?	?	? When using private keys with ?
?	?	?	? the path scheme, this property ?
?	?	?	? should be set to the full ?
?	?	?	? UTF-8 encoded path of the key, ?
?	?	?	? prefixed with the string ?
?	?	?	? "file://" and ending with a ?
?	?	?	? terminating NUL byte. When ?
?	?	?	? using PKCS#12 format private ?
?	?	?	? keys and the blob scheme, this ?
?	?	?	? property should be set to the ?
?	?	?	? PKCS#12 data and the ?
?	?	?	? "private-key-password" ?
?	?	?	? property must be set to ?
?	?	?	? password used to decrypt the ?
?	?	?	? PKCS#12 certificate and key. ?
?	?	?	? When using PKCS#12 files and ?
?	?	?	? the path scheme, this property ?
?	?	?	? should be set to the full ?
?	?	?	? UTF-8 encoded path of the key, ?
?	?	?	? prefixed with the string ?
?	?	?	? "file://" and ending with a ?
?	?	?	? terminating NUL byte, and as ?

? ? ? ? with the blob scheme the ?

? ? ? ? "private-key-password" ?

? ? ? ? property must be set to the ?

? ? ? ? password used to decode the ?

? ? ? ? PKCS#12 private key and ?

? ? ? ? certificate. ?

? ? ? ? ?

? ? ? ? WARNING: "private-key" is not ?

? ? ? ? a "secret" property, and thus ?

? ? ? ? unencrypted private key data ?

? ? ? ? using the BLOB scheme may be ?

? ? ? ? readable by unprivileged ?

? ? ? ? users. Private keys should ?

? ? ? ? always be encrypted with a ?

? ? ? ? private key password to ?

? ? ? ? prevent unauthorized access to ?

? ? ? ? unencrypted private key data. ?

??

??????????

?private-key-password ? string ? ? The password used to decrypt ?

? ? ? ? the private key specified in ?

? ? ? ? the "private-key" property ?

? ? ? ? when the private key either ?

? ? ? ? uses the path scheme, or if ?

? ? ? ? the private key is a PKCS#12 ?

? ? ? ? format key. ?

??

??????????

?private-key-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle ?

? ? (uint32) ? ? the "private-key-password" ?

? ? ? ? property. ?

??
??????????

?subject-match ? string ? ? Substring to be matched ?
? ? ? ? against the subject of the ?
? ? ? ? certificate presented by the ?
? ? ? ? authentication server. When ?
? ? ? ? unset, no verification of the ?
? ? ? ? authentication server ?
? ? ? ? certificate's subject is ?
? ? ? ? performed. This property ?
? ? ? ? provides little security, if ?
? ? ? ? any, and should not be used. ?
? ? ? ? ?
? ? ? ? This property is deprecated ?
? ? ? ? since version 1.2.Use ?
? ? ? ? "phase2-domain-suffix-match" ?
? ? ? ? instead. ?

??
??????????

?system-ca-certs ? boolean ? FALSE ? When TRUE, overrides the ?
? ? ? ? "ca-path" and "phase2-ca-path" ?
? ? ? ? properties using the system CA ?
? ? ? ? directory specified at ?
? ? ? ? configure time with the ?
? ? ? ? --system-ca-path switch. The ?
? ? ? ? certificates in this directory ?
? ? ? ? are added to the verification ?
? ? ? ? chain in addition to any ?
? ? ? ? certificates specified by the ?
? ? ? ? "ca-cert" and "phase2-ca-cert" ?
? ? ? ? properties. If the path ?

? ? ? ? provided with --system-ca-path ?

? ? ? ? is rather a file name (bundle ?

? ? ? ? of trusted CA certificates), ?

? ? ? ? it overrides "ca-cert" and ?

? ? ? ? "phase2-ca-cert" properties ?

? ? ? ? instead (sets ca_cert/ca_cert2 ?

? ? ? ? options for wpa_supplicant). ?

??

??????????

adsl setting

ADSL Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?encapsulation ? string ? ? Encapsulation of ?

? ? ? ? ADSL connection. ?

? ? ? ? Can be "vcmux" ?

? ? ? ? or "llc". ?

??

?password ? string ? ? Password used to ?

? ? ? ? authenticate ?

? ? ? ? with the ADSL ?

? ? ? ? service. ?

??

?password-flags ? NMSettingSecretFlags ? ? Flags indicating ?

? ? (uint32) ? ? how to handle ?

? ? ? ? the "password" ?

? ? ? ? property. ?

??

?protocol ? string ? ? ADSL connection ?

? ? ? ? protocol. Can ?

? ? ? ? be "pppoa", ?

? ? ? ? "pppoe" or ?

? ? ? ? "ipoatm". ?

??

?username ? string ? ? Username used to ?

? ? ? ? authenticate ?

? ? ? ? with the ADSL ?

? ? ? ? service. ?

??

?vci ? uint32 ? 0 ? VCI of ADSL ?

? ? ? ? connection ?

??

?vpi ? uint32 ? 0 ? VPI of ADSL ?

? ? ? ? connection ?

??

bluetooth setting

Bluetooth Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?bdaddr ? byte array ? ? The Bluetooth ?

? ? ? ? address of the ?

? ? ? ? device. ?

??

?type ? string ? ? Either "dun" for ?

? ? ? ? Dial-Up ?

? ? ? ? Networking ?

? ? ? ? connections or ?

? ? ? ? "panu" for ?

? ? ? ? Personal Area ?

? ? ? ? Networking ?

? ? ? ? connections to ?

?   ?   ?   ? devices   ?
?   ?   ?   ? supporting the   ?
?   ?   ?   ? NAP profile.   ?
??

bond setting

Bonding Settings.

Key Name	Value Type	Default Value	Value Description
interface-name	string		Deprecated in favor of connection.interface-name, but can be used for backward-compatibility with older daemons, to set the bond's interface name.
options	dict of string to string	{'mode': 'balance-rr'}	Dictionary of key/value pairs of bonding options. Both keys and values must be strings. Option names must contain only alphanumeric characters (ie, [a-zA-Z0-9]).

bridge setting

Bridging Settings.

?????

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?????

?ageing-time ? uint32 ? 300 ? The Ethernet MAC ?

? ? ? ? address aging ?

? ? ? ? time, in ?

? ? ? ? seconds. ?

??

?????

?forward-delay ? uint32 ? 15 ? The Spanning ?

? ? ? ? Tree Protocol ?

? ? ? ? (STP) forwarding ?

? ? ? ? delay, in ?

? ? ? ? seconds. ?

??

?????

?group-address ? byte array ? ? If specified, ?

? ? ? ? The MAC address ?

? ? ? ? of the multicast ?

? ? ? ? group this ?

? ? ? ? bridge uses for ?

? ? ? ? STP. ?

? ? ? ? ?

? ? ? ? The address must ?

? ? ? ? be a link-local ?

? ? ? ? address in ?

? ? ? ? standard ?

? ? ? ? Ethernet MAC ?

? ? ? ? address format, ?
? ? ? ? ie an address of ?
? ? ? ? the form ?
? ? ? ? 01:80:C2:00:00:0X, ?
? ? ? ? with X in [0, ?
? ? ? ? 4..F]. If not ?
? ? ? ? specified the ?
? ? ? ? default value is ?
? ? ? ? 01:80:C2:00:00:00. ?

???
?????

?group-forward-mask ? uint32 ? 0 ? A mask of group ?
? ? ? ? addresses to ?
? ? ? ? forward. Usually, ?
? ? ? ? group addresses in ?
? ? ? ? the range from ?
? ? ? ? 01:80:C2:00:00:00 ?
? ? ? ? to ?
? ? ? ? 01:80:C2:00:00:0F ?
? ? ? ? are not forwarded ?
? ? ? ? according to ?
? ? ? ? standards. This ?
? ? ? ? property is a mask ?
? ? ? ? of 16 bits, each ?
? ? ? ? corresponding to a ?
? ? ? ? group address in ?
? ? ? ? that range that ?
? ? ? ? must be forwarded. ?
? ? ? ? The mask can't ?
? ? ? ? have bits 0, 1 or ?
? ? ? ? 2 set because they ?
? ? ? ? are used for STP, ?

? ? ? ? MAC pause frames ?

? ? ? ? and LACP. ?

??

?????

?hello-time ? uint32 ? 2 ? The Spanning Tree ?

? ? ? ? Protocol (STP) ?

? ? ? ? hello time, in ?

? ? ? ? seconds. ?

??

?????

?interface-name ? string ? ? Deprecated in ?

? ? ? ? favor of ?

? ? ? ? connection.interface-name, ?

? ? ? ? but can be used ?

? ? ? ? for ?

? ? ? ? backward-compatibility ?

? ? ? ? with older ?

? ? ? ? daemons, to set ?

? ? ? ? the bridge's ?

? ? ? ? interface name. ?

??

?????

?mac-address ? byte array ? ? If specified, the MAC ?

? ? ? ? address of bridge. When ?

? ? ? ? creating a new bridge, ?

? ? ? ? this MAC address will be ?

? ? ? ? set. ?

? ? ? ? ?

? ? ? ? If this field is left ?

? ? ? ? unspecified, the ?

? ? ? ? "ethernet.cloned-mac-address" ?

? ? ? ? is referred instead to ?

? ? ? ? generate the initial MAC ?

? ? ? ? address. Note that setting ?

? ? ? ? "ethernet.cloned-mac-address" ?

? ? ? ? anyway overwrites the MAC ?

? ? ? ? address of the bridge ?

? ? ? ? later while activating the ?

? ? ? ? bridge. ?

? ? ? ? ?

? ? ? ? This property is ?

? ? ? ? deprecated since version ?

? ? ? ? 1.12.Use the ?

? ? ? ? "cloned-mac-address" ?

? ? ? ? property instead. ?

??

?????

?max-age ? uint32 ? 20 ? The Spanning Tree Protocol ?

? ? ? ? (STP) maximum message age, in ?

? ? ? ? seconds. ?

??

?????

?multicast-hash-max ? uint32 ? 4096 ? Set maximum size of multicast ?

? ? ? ? hash table (value must be a ?

? ? ? ? power of 2). ?

??

?????

?multicast-last-member-count ? uint32 ? 2 ? Set the number of queries the ?

? ? ? ? bridge will send before ?

? ? ? ? stopping forwarding a ?

? ? ? ? multicast group after a ?

? ? ? ? "leave" message has been ?

? ? ? ? received. ?

??

?????

?multicast-last-member-interval ? uint64 ? 100 ? Set interval (in deciseconds) ?

? ? ? ? between queries to find ?

? ? ? ? remaining members of a group, ?

? ? ? ? after a "leave" message is ?

? ? ? ? received. ?

??

?????

?multicast-membership-interval ? uint64 ? 26000 ? Set delay (in deciseconds) ?

? ? ? ? after which the bridge will ?

? ? ? ? leave a group, if no ?

? ? ? ? membership reports for this ?

? ? ? ? group are received. ?

??

?????

?multicast-querier ? boolean ? FALSE ? Enable or disable sending of ?

? ? ? ? multicast queries by the ?

? ? ? ? bridge. If not specified the ?

? ? ? ? option is disabled. ?

??

?????

?multicast-querier-interval ? uint64 ? 25500 ? If no queries are seen after ?

? ? ? ? this delay (in deciseconds) ?

? ? ? ? has passed, the bridge will ?

? ? ? ? start to send its own ?

? ? ? ? queries. ?

??
?????

?multicast-query-interval ? uint64 ? 12500 ? Interval (in deciseconds) ?
? ? ? ? between queries sent by the ?
? ? ? ? bridge after the end of the ?
? ? ? ? startup phase. ?

??
?????

?multicast-query-response-interval ? uint64 ? 1000 ? Set the Max Response Time/Max ?
? ? ? ? Response Delay (in ?
? ? ? ? deciseconds) for IGMP/MLD ?
? ? ? ? queries sent by the bridge. ?

??
?????

?multicast-query-use-ifaddr ? boolean ? FALSE ? If enabled the bridge's own ?
? ? ? ? IP address is used as the ?
? ? ? ? source address for IGMP ?
? ? ? ? queries otherwise the default ?
? ? ? ? of 0.0.0.0 is used. ?

??
?????

?multicast-router ? string ? ? Sets bridge's multicast ?
? ? ? ? router. Multicast-snooping ?
? ? ? ? must be enabled for this ?
? ? ? ? option to work. ?
? ? ? ? ?
? ? ? ? Supported values are: 'auto', ?
? ? ? ? 'disabled', 'enabled' to ?

? ? ? ? which kernel assigns the ?

? ? ? ? numbers 1, 0, and 2, ?

? ? ? ? respectively. If not ?

? ? ? ? specified the default value ?

? ? ? ? is 'auto' (1). ?

??

?????

?multicast-snooping ? boolean ? TRUE ? Controls whether IGMP ?

? ? ? ? snooping is enabled for this ?

? ? ? ? bridge. Note that if snooping ?

? ? ? ? was automatically disabled ?

? ? ? ? due to hash collisions, the ?

? ? ? ? system may refuse to enable ?

? ? ? ? the feature until the ?

? ? ? ? collisions are resolved. ?

??

?????

?multicast-startup-query-count ? uint32 ? 2 ? Set the number of IGMP ?

? ? ? ? queries to send during ?

? ? ? ? startup phase. ?

??

?????

?multicast-startup-query-interval ? uint64 ? 3125 ? Sets the time (in ?

? ? ? ? deciseconds) between queries ?

? ? ? ? sent out at startup to ?

? ? ? ? determine membership ?

? ? ? ? information. ?

??

?????

?priority ? uint32 ? 32768 ? Sets the Spanning Tree ?

? ? ? ? Protocol (STP) priority for ?

? ? ? ? this bridge. Lower values ?

? ? ? ? are "better"; the lowest ?

? ? ? ? priority bridge will be ?

? ? ? ? elected the root bridge. ?

??

?????

?stp ? boolean ? TRUE ? Controls whether Spanning ?

? ? ? ? Tree Protocol (STP) is ?

? ? ? ? enabled for this bridge. ?

??

?????

?vlan-default-pvid ? uint32 ? 1 ? The default PVID for the ?

? ? ? ? ports of the bridge, that is ?

? ? ? ? the VLAN id assigned to ?

? ? ? ? incoming untagged frames. ?

??

?????

?vlan-filtering ? boolean ? FALSE ? Control whether VLAN ?

? ? ? ? filtering is enabled on the ?

? ? ? ? bridge. ?

??

?????

?vlan-protocol ? string ? ? If specified, the protocol ?

? ? ? ? used for VLAN filtering. ?

? ? ? ? ?

? ? ? ? Supported values are: ?

? ? ? ? '802.1Q', '802.1ad'. If not ?

? ? ? ? specified the default value ?
? ? ? ? is '802.1Q'. ?

??
?????
?vlan-stats-enabled ? boolean ? FALSE ? Controls whether per-VLAN ?
? ? ? ? stats accounting is enabled. ?

??
?????
?vlans ? array of vardict ? ? Array of bridge VLAN objects. ?
? ? ? ? In addition to the VLANs ?
? ? ? ? specified here, the bridge ?
? ? ? ? will also have the ?
? ? ? ? default-pvid VLAN configured ?
? ? ? ? by the ?
? ? ? ? bridge.vlan-default-pvid ?
? ? ? ? property. ?
? ? ? ? ?
? ? ? ? In nmcli the VLAN list can be ?
? ? ? ? specified with the following ?
? ? ? ? syntax: ?
? ? ? ? ?
? ? ? ? $vid [pvid] [untagged] [, ?
? ? ? ? $vid [pvid] [untagged]]... ?
? ? ? ? ?
? ? ? ? where $vid is either a single ?
? ? ? ? id between 1 and 4094 or a ?
? ? ? ? range, represented as a ?
? ? ? ? couple of ids separated by a ?
? ? ? ? dash. ?

???

?????

bridge-port setting

Bridge Port Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?hairpin-mode ? boolean ? FALSE ? Enables or ?

? ? ? ? disables ?

? ? ? ? "hairpin mode" ?

? ? ? ? for the port, ?

? ? ? ? which allows ?

? ? ? ? frames to be ?

? ? ? ? sent back out ?

? ? ? ? through the port ?

? ? ? ? the frame was ?

? ? ? ? received on. ?

??

?path-cost ? uint32 ? 100 ? The Spanning ?

? ? ? ? Tree Protocol ?

? ? ? ? (STP) port cost ?

? ? ? ? for destinations ?

? ? ? ? via this port. ?

??

?priority ? uint32 ? 32 ? The Spanning ?

? ? ? ? Tree Protocol ?

? ? ? ? (STP) priority ?

? ? ? ? of this bridge ?

? ? ? ? port. ?

??

?vlans ? array of vardict ? ? Array of bridge ?

? ? ? ? VLAN objects. In ?

? ? ? ? addition to the ?

? ? ? ? VLANs specified ?

? ? ? ? here, the port ?

? ? ? ? will also have ?

? ? ? ? the default-pvid ?

? ? ? ? VLAN configured ?

? ? ? ? on the bridge by ?

? ? ? ? the ?

? ? ? ? bridge.vlan-default-pvid ?

? ? ? ? property. ?

? ? ? ? ? ?

? ? ? ? In nmcli the ?

? ? ? ? VLAN list can be ?

? ? ? ? specified with ?

? ? ? ? the following ?

? ? ? ? syntax: ?

? ? ? ? ? ?

? ? ? ? $vid [pvid] ?

? ? ? ? [untagged] [, ?

? ? ? ? $vid [pvid] ?

? ? ? ? [untagged]]... ?

? ? ? ? ? ?

? ? ? ? where $vid is ?

? ? ? ? either a single ?

? ? ? ? id between 1 and ?

? ? ? ? 4094 or a range, ?

? ? ? ? represented as a ?

? ? ? ? couple of ids ?

? ? ? ? separated by a ?

? ? ? ? dash. ?

??

cdma setting

CDMA-based Mobile Broadband Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?mtu ? uint32 ? 0 ? If non-zero, ?

? ? ? ? only transmit ?

? ? ? ? packets of the ?

? ? ? ? specified size ?

? ? ? ? or smaller, ?

? ? ? ? breaking larger ?

? ? ? ? packets up into ?

? ? ? ? multiple frames. ?

??

?number ? string ? ? The number to ?

? ? ? ? dial to ?

? ? ? ? establish the ?

? ? ? ? connection to ?

? ? ? ? the CDMA-based ?

? ? ? ? mobile broadband ?

? ? ? ? network, if any. ?

? ? ? ? If not ?

? ? ? ? specified, the ?

? ? ? ? default number ?

? ? ? ? (#777) is used ?

? ? ? ? when required. ?

??

?password ? string ? ? The password ?

? ? ? ? used to ?

? ? ? ? authenticate ?

? ? ? ? with the ?

? ? ? ? network, if ?

? ? ? ? required. Many ?

? ? ? ? providers do not ?

? ? ? ? require a ?

? ? ? ? password, or ?

? ? ? ? accept any ?

? ? ? ? password. But ?

? ? ? ? if a password is ?

? ? ? ? required, it is ?

? ? ? ? specified here. ?

??

?password-flags ? NMSettingSecretFlags ? ? Flags indicating ?

? ? (uint32) ? ? how to handle ?

? ? ? ? the "password" ?

? ? ? ? property. ?

??

?username ? string ? ? The username ?

? ? ? ? used to ?

? ? ? ? authenticate ?

? ? ? ? with the ?

? ? ? ? network, if ?

? ? ? ? required. Many ?

? ? ? ? providers do not ?

? ? ? ? require a ?

? ? ? ? username, or ?

? ? ? ? accept any ?

? ? ? ? username. But ?

? ? ? ? if a username is ?

? ? ? ? required, it is ?

? ? ? ? specified here. ?

??

dcb setting

Data Center Bridging Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?app-fcoe-flags ? NMSettingDcbFlags ? ? Specifies the ?

? ? (uint32) ? ? NMSettingDcbFlags ?

? ? ? ? for the DCB FCoE ?

? ? ? ? application. ?

? ? ? ? Flags may be any ?

? ? ? ? combination of ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1), ?

? ? ? ? NM_SETTING_DCB_FLAG_ADVERTISE ?

? ? ? ? (0x2), and ?

? ? ? ? NM_SETTING_DCB_FLAG_WILLING ?

? ? ? ? (0x4). ?

??

?app-fcoe-mode ? string ? ? The FCoE controller mode; ?

? ? ? ? either "fabric" or "vn2vn". ?

? ? ? ? ? ?

? ? ? ? Since 1.34, NULL is the ?

? ? ? ? default and means "fabric". ?

? ? ? ? Before 1.34, NULL was ?

? ? ? ? rejected as invalid and the ?

? ? ? ? default was "fabric". ?

??

?app-fcoe-priority ? int32 ? -1 ? The highest User Priority (0 ?

? ? ? ? - 7) which FCoE frames should ?

? ? ? ? use, or -1 for default ?

? ? ? ? priority. Only used when the ?

? ? ? ? "app-fcoe-flags" property ?

? ? ? ? includes the ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1) flag. ?

??

?app-fip-flags ? NMSettingDcbFlags ? ? Specifies the ?

? ? (uint32) ? ? NMSettingDcbFlags for the DCB ?

? ? ? ? FIP application. Flags may ?

? ? ? ? be any combination of ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1), ?

? ? ? ? NM_SETTING_DCB_FLAG_ADVERTISE ?

? ? ? ? (0x2), and ?

? ? ? ? NM_SETTING_DCB_FLAG_WILLING ?

? ? ? ? (0x4). ?

??

?app-fip-priority ? int32 ? -1 ? The highest User Priority (0 ?

? ? ? ? - 7) which FIP frames should ?

? ? ? ? use, or -1 for default ?

? ? ? ? priority. Only used when the ?

? ? ? ? "app-fip-flags" property ?

? ? ? ? includes the ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1) flag. ?

??

?app-iscsi-flags ? NMSettingDcbFlags ? ? Specifies the ?

? ? (uint32) ? ? NMSettingDcbFlags for the DCB ?

? ? ? ? iSCSI application. Flags may ?

? ? ? ? be any combination of ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1), ?

? ? ? ? NM_SETTING_DCB_FLAG_ADVERTISE ?

? ? ? ? (0x2), and ?

? ? ? ? NM_SETTING_DCB_FLAG_WILLING ?

? ? ? ? (0x4). ?

??

?app-iscsi-priority ? int32 ? -1 ? The highest User Priority (0 ?

? ? ? ? - 7) which iSCSI frames ?

? ? ? ? should use, or -1 for default ?

? ? ? ? priority. Only used when the ?

? ? ? ? "app-iscsi-flags" property ?

? ? ? ? includes the ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1) flag. ?

??

?priority-bandwidth ? array of uint32 ? ? An array of 8 uint values, ?

? ? ? ? where the array index ?

? ? ? ? corresponds to the User ?

? ? ? ? Priority (0 - 7) and the ?

? ? ? ? value indicates the ?

? ? ? ? percentage of bandwidth of ?

? ? ? ? the priority's assigned group ?

? ? ? ? that the priority may use. ?

? ? ? ? The sum of all percentages ?

? ? ? ? for priorities which belong ?

? ? ? ? to the same group must total ?

? ? ? ? 100 percents. ?

??

?priority-flow-control ? array of uint32 ? ? An array of 8 boolean values, ?

? ? ? ? where the array index ?

? ? ? ? corresponds to the User ?

? ? ? ? Priority (0 - 7) and the ?

? ? ? ? value indicates whether or ?

? ? ? ? not the corresponding ?

? ? ? ? priority should transmit ?

? ? ? ? priority pause. ?

??

?priority-flow-control-flags ? NMSettingDcbFlags ? ? Specifies the ?

? ? (uint32) ? ? NMSettingDcbFlags for DCB ?

? ? ? ? Priority Flow Control (PFC). ?

? ? ? ? Flags may be any combination ?

? ? ? ? of NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1), ?

? ? ? ? NM_SETTING_DCB_FLAG_ADVERTISE ?

? ? ? ? (0x2), and ?

? ? ? ? NM_SETTING_DCB_FLAG_WILLING ?

? ? ? ? (0x4). ?

??

?priority-group-bandwidth ? array of uint32 ? ? An array of 8 uint values, ?

? ? ? ? where the array index ?

? ? ? ? corresponds to the Priority ?

? ? ? ? Group ID (0 - 7) and the ?

? ? ? ? value indicates the ?

? ? ? ? percentage of link bandwidth ?

? ? ? ? allocated to that group. ?

? ? ? ? Allowed values are 0 - 100, ?

? ? ? ? and the sum of all values ?

? ? ? ? must total 100 percents. ?

??

?priority-group-flags ? NMSettingDcbFlags ? ? Specifies the ?

? ? (uint32) ? ? NMSettingDcbFlags for DCB ?

? ? ? ? Priority Groups. Flags may ?

? ? ? ? be any combination of ?

? ? ? ? NM_SETTING_DCB_FLAG_ENABLE ?

? ? ? ? (0x1), ?

? ? ? ? NM_SETTING_DCB_FLAG_ADVERTISE ?

? ? ? ? (0x2), and ?

? ? ? ? NM_SETTING_DCB_FLAG_WILLING ?

? ? ? ? (0x4). ?

??

?priority-group-id ? array of uint32 ? ? An array of 8 uint values, ?

? ? ? ? where the array index ?

? ? ? ? corresponds to the User ?

? ? ? ? Priority (0 - 7) and the ?

? ? ? ? value indicates the Priority ?

? ? ? ? Group ID. Allowed Priority ?

? ? ? ? Group ID values are 0 - 7 or ?

? ? ? ? 15 for the unrestricted ?

? ? ? ? group. ?

??

?priority-strict-bandwidth ? array of uint32 ? ? An array of 8 boolean values, ?

? ? ? ? where the array index ?

? ? ? ? corresponds to the User ?

? ? ? ? Priority (0 - 7) and the ?

? ? ? ? value indicates whether or ?

? ? ? ? not the priority may use all ?

? ? ? ? of the bandwidth allocated to ?

? ? ? ? its assigned group. ?

??

?priority-traffic-class ? array of uint32 ? ? An array of 8 uint values, ?

? ? ? ? where the array index ?

? ? ? ? corresponds to the User ?

? ? ? ? Priority (0 - 7) and the ?

? ? ? ? value indicates the traffic ?

? ? ? ? class (0 - 7) to which the ?

? ? ? ? priority is mapped. ?

??

dummy setting

Dummy Link Settings.

ethtool setting

Ethtool Ethernet Settings.

generic setting

Generic Link Settings.

gsm setting

GSM-based Mobile Broadband Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?apn ? string ? ? The GPRS Access ?

? ? ? ? Point Name ?

? ? ? ? specifying the ?

? ? ? ? APN used when ?

? ? ? ? establishing a ?

? ? ? ? data session ?

? ? ? ? with the ?

? ? ? ? GSM-based ?

? ? ? ? network. The ?

? ? ? ? APN often ?

? ? ? ? determines how ?

? ? ? ? the user will be ?

? ? ? ? billed for their ?

? ? ? ? network usage ?

? ? ? ? and whether the ?

? ? ? ? user has access ?

? ? ? ? to the Internet ?

? ? ? ? or just a ?

? ? ? ? provider-specific ?

? ? ? ? walled-garden, ?

? ? ? ? so it is ?

? ? ? ? important to use ?

? ? ? ? the correct APN ?

? ? ? ? for the user's ?

? ? ? ? mobile broadband ?

? ? ? ? plan. The APN ?

? ? ? ? may only be ?

? ? ? ? composed of the ?

? ? ? ? characters a-z, ?

? ? ? ? 0-9, ., and - ?

? ? ? ? per GSM 03.60 ?

? ? ? ? Section 14.9. ?

??

?auto-config ? boolean ? FALSE ? When TRUE, the ?

? ? ? ? settings such as ?

? ? ? ? APN, username, or ?

? ? ? ? password will ?

? ? ? ? default to values ?

? ? ? ? that match the ?

? ? ? ? network the modem ?

? ? ? ? will register to ?

? ? ? ? in the Mobile ?

? ? ? ? Broadband ?

? ? ? ? Provider ?

? ? ? ? database. ?

??

?device-id ? string ? ? The device unique ?

? ? ? ? identifier (as ?

? ? ? ? given by the WWAN ?

? ? ? ? management ?

? ? ? ? service) which ?

? ? ? ? this connection ?

? ? ? ? applies to. If ?

? ? ? ? given, the ?

? ? ? ? connection will ?

? ? ? ? only apply to the ?

? ? ? ? specified device. ?

??

?home-only ? boolean ? FALSE ? When TRUE, only ?

? ? ? ? connections to ?

? ? ? ? the home network ?

? ? ? ? will be allowed. ?

? ? ? ? Connections to ?

? ? ? ? roaming networks ?

? ? ? ? will not be made. ?

??

?mtu ? uint32 ? 0 ? If non-zero, only ?

? ? ? ? transmit packets ?

? ? ? ? of the specified ?

? ? ? ? size or smaller, ?

? ? ? ? breaking larger ?

? ? ? ? packets up into ?

? ? ? ? multiple frames. ?

??

?network-id ? string ? ? The Network ID ?

? ? ? ? (GSM LAI format, ?

? ? ? ? ie MCC-MNC) to ?

? ? ? ? force specific ?

? ? ? ? network ?

? ? ? ? registration. If ?

? ? ? ? the Network ID is ?

? ? ? ? specified, ?

? ? ? ? NetworkManager ?

? ? ? ? will attempt to ?

? ? ? ? force the device ?

? ? ? ? to register only ?

? ? ? ? on the specified ?

? ? ? ? network. This can ?

? ? ? ? be used to ensure ?

? ? ? ? that the device ?

? ? ? ? does not roam ?

? ? ? ? when direct ?

? ? ? ? roaming control ?

? ? ? ? of the device is ?

? ? ? ? not otherwise ?

? ? ? ? possible. ?

??

?number ? string ? ? Legacy setting ?

? ? ? ? that used to help ?

? ? ? ? establishing PPP ?

? ? ? ? data sessions for ?

? ? ? ? GSM-based modems. ?

? ? ? ? ? ?

? ? ? ? This property is ?

? ? ? ? deprecated since ?

? ? ? ? version ?

? ? ? ? 1.16.User-provided ?

? ? ? ? values for this ?

? ? ? ? setting are no ?

? ? ? ? longer used. ?

??

?password ? string ? ? The password used ?

? ? ? ? to authenticate ?

? ? ? ? with the network, ?

? ? ? ? if required. Many ?

? ? ? ? providers do not ?

? ? ? ? require a ?

? ? ? ? password, or ?

? ? ? ? accept any ?

? ? ? ? password. But if ?

? ? ? ? a password is ?

? ? ? ? required, it is ?

? ? ? ? specified here. ?

??

?password-flags ? NMSettingSecretFlags ? ? Flags indicating ?

? ? (uint32) ? ? how to handle the ?

? ? ? ? "password" ?

? ? ? ? property. ?

??

?pin ? string ? ? If the SIM is ?

? ? ? ? locked with a PIN ?

? ? ? ? it must be ?

? ? ? ? unlocked before ?

? ? ? ? any other ?

? ? ? ? operations are ?

? ? ? ? requested. ?

? ? ? ? Specify the PIN ?

? ? ? ? here to allow ?

? ? ? ? operation of the ?

? ? ? ? device. ?

??

?pin-flags ? NMSettingSecretFlags ? ? Flags indicating ?

? ? (uint32) ? ? how to handle the ?

? ? ? ? "pin" property. ?

??

?sim-id ? string ? ? The SIM card ?

? ? ? ? unique identifier ?

? ? ? ? (as given by the ?

? ? ? ? WWAN management ?

? ? ? ? service) which ?

? ? ? ? this connection ?

? ? ? ? applies to. If ?

? ? ? ? given, the ?

? ? ? ? connection will ?

? ? ? ? apply to any ?

? ? ? ? device also ?

? ? ? ? allowed by ?

? ? ? ? "device-id" which ?

? ? ? ? contains a SIM ?

? ? ? ? card matching the ?

? ? ? ? given identifier. ?

??

?sim-operator-id ? string ? ? A MCC/MNC string ?

? ? ? ? like "310260" or ?

? ? ? ? "21601" ?

? ? ? ? identifying the ?

? ? ? ? specific mobile ?

? ? ? ? network operator ?

? ? ? ? which this ?

? ? ? ? connection applies ?

? ? ? ? to. If given, the ?

? ? ? ? connection will ?

? ? ? ? apply to any ?

? ? ? ? device also ?

? ? ? ? allowed by ?

? ? ? ? "device-id" and ?

? ? ? ? "sim-id" which ?

? ? ? ? contains a SIM ?

? ? ? ? card provisioned ?

? ? ? ? by the given ?

? ? ? ? operator. ?

??

?username ? string ? ? The username used ?

? ? ? ? to authenticate ?

? ? ? ? with the network, ?

? ? ? ? if required. Many ?

? ? ? ? providers do not ?

? ? ? ? require a ?

? ? ? ? username, or ?

? ? ? ? accept any ?

? ? ? ? username. But if ?

? ? ? ? a username is ?

? ? ? ? required, it is ?

? ? ? ? specified here. ?

??

infiniband setting

Infiniband Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?mac-address ? byte array ? ? If specified, ?

? ? ? ? this connection ?

? ? ? ? will only apply ?

? ? ? ? to the IPoIB ?

? ? ? ? device whose ?

? ? ? ? permanent MAC ?

? ? ? ? address matches. ?

? ? ? ? This property ?

? ? ? ? does not change ?

? ? ? ? the MAC address ?

? ? ? ? of the device ?

? ? ? ? (i.e. MAC ?

? ? ? ? spoofing). ?

??

?mtu ? uint32 ? 0 ? If non-zero, ?

? ? ? ? only transmit ?

? ? ? ? packets of the ?

? ? ? ? specified size ?

? ? ? ? or smaller, ?

? ? ? ? breaking larger ?

? ? ? ? packets up into ?

? ? ? ? multiple frames. ?

??

?p-key ? int32 ? -1 ? The InfiniBand ?

? ? ? ? P_Key to use for ?

? ? ? ? this device. A ?

? ? ? ? value of -1 ?

? ? ? ? means to use the ?

? ? ? ? default P_Key ?

? ? ? ? (aka "the P_Key ?

? ? ? ? at index 0"). ?

? ? ? ? Otherwise, it is ?

? ? ? ? a 16-bit ?

? ? ? ? unsigned ?

? ? ? ? integer, whose ?

? ? ? ? high bit 0x8000 ?

? ? ? ? is set if it is ?

? ? ? ? a "full ?

? ? ? ? membership" ?

? ? ? ? P_Key. The ?

? ? ? ? values 0 and ?

? ? ? ? 0x8000 are not ?

? ? ? ? allowed. ?

? ? ? ? ?

? ? ? ? With the p-key ?

? ? ? ? set, the ?

? ? ? ? interface name ?

? ? ? ? is always ?

? ? ? ? "$parent.$p_key". ?

? ? ? ? Setting ?

? ? ? ? "connection.interface-name" ?

? ? ? ? to another name ?

? ? ? ? is not ?

? ? ? ? supported. ?

? ? ? ? ?

? ? ? ? Note that kernel ?

? ? ? ? will internally ?

? ? ? ? always set the ?

? ? ? ? full membership ?

? ? ? ? bit, although ?

? ? ? ? the interface ?

? ? ? ? name does not ?

? ? ? ? reflect that. ?

? ? ? ? Thus, not ?

? ? ? ? setting the high ?

? ? ? ? bit is probably ?

? ? ? ? not useful. ?

? ? ? ? ?

? ? ? ? If the profile ?

? ? ? ? is stored in ?

? ? ? ? ifcfg-rh format, ?

? ? ? ? then the full ?

? ? ? ? membership bit ?

? ? ? ? is automatically ?

? ? ? ? added. To get ?

? ? ? ? consistent ?

? ? ? ? behavior, it is ?

? ? ? ? best to only use ?

? ? ? ? p-key values ?

? ? ? ? with the full ?

? ? ? ? membership bit ?

? ? ? ? set. ?

??

?parent ? string ? ? The interface name of the ?

? ? ? ? parent device of this ?

? ? ? ? device. Normally NULL, but ?

? ? ? ? if the "p_key" property is ?

? ? ? ? set, then you must specify ?

? ? ? ? the base device by setting ?

? ? ? ? either this property or ?

? ? ? ? "mac-address". ?

??

?transport-mode ? string ? ? The IP-over-InfiniBand ?

? ? ? ? transport mode. Either ?

? ? ? ? "datagram" or "connected". ?

??

ipv4 setting

IPv4 Settings.

??

?????????

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?????????

?address-data ? array of vardict ? ? Array of IPv4 ?

? ? ? ? addresses. Each ?

? ? ? ? address ?

? ? ? ? dictionary ?

? ? ? ? contains at ?

? ? ? ? least 'address' ?

? ? ? ? and 'prefix' ?

? ? ? ? entries, ?

? ? ? ? containing the ?

? ? ? ? IP address as a ?

? ? ? ? string, and the ?

? ? ? ? prefix length as ?

? ? ? ? a uint32. ?

? ? ? ? Additional ?

? ? ? ? attributes may ?

? ? ? ? also exist on ?

? ? ? ? some addresses. ?

??

?????????

?addresses ? array of array ? ? Deprecated in ?

? ? of uint32 ? ? favor of the ?

? ? ? ? 'address-data' ?

? ? ? ? and 'gateway' ?

? ? ? ? properties, but ?

? ? ? ? this can be used ?

? ? ? ? for ?

? ? ? ? backward-compatibility ?

? ? ? ? with older ?

? ? ? ? daemons. Note ?

? ? ? ? that if you send ?

? ? ? ? this property ?

? ? ? ? the daemon will ?

? ? ? ? ignore ?

? ? ? ? 'address-data' ?

? ? ? ? and 'gateway'. ?

? ? ? ? Array of IPv4 ?

? ? ? ? address ?

? ? ? ? structures. ?

? ? ? ? Each IPv4 ?

? ? ? ? address ?

? ? ? ? structure is ?

? ? ? ? composed of 3 ?

? ? ? ? 32-bit values; ?

? ? ? ? the first being ?

? ? ? ? the IPv4 address ?

? ? ? ? (network byte ?

? ? ? ? order), the ?

? ? ? ? second the ?

? ? ? ? prefix (1 - 32), ?

? ? ? ? and last the ?

? ? ? ? IPv4 gateway ?

? ? ? ? (network byte ?

? ? ? ? order). The ?

? ? ? ? gateway may be ?

? ? ? ? left as 0 if no ?

? ? ? ? gateway exists ?

? ? ? ? for that subnet. ?

??

?????????

?auto-route-ext-gw ? NMTernary ? ? VPN connections will ?

? ? (int32) ? ? default to add the ?

? ? ? ? route automatically ?

? ? ? ? unless this setting is ?

? ? ? ? set to FALSE. ?

? ? ? ? ?

? ? ? ? For other connection ?

? ? ? ? types, adding such an ?

? ? ? ? automatic route is ?

? ? ? ? currently not ?

? ? ? ? supported and setting ?

? ? ? ? this to TRUE has no ?

? ? ? ? effect. ?

??

?????????

?dad-timeout ? int32 ? -1 ? Timeout in ?

? ? ? ? milliseconds used to ?

? ? ? ? check for the presence ?

? ? ? ? of duplicate IP ?

? ? ? ? addresses on the ?

? ? ? ? network. If an ?

? ? ? ? address conflict is ?

? ? ? ? detected, the ?

? ? ? ? activation will fail. ?

? ? ? ? A zero value means ?

? ? ? ? that no duplicate ?

? ? ? ? address detection is ?

? ? ? ? performed, -1 means ?

? ? ? ? the default value ?

? ? ? ? (either configuration ?

? ? ? ? ipvx.dad-timeout ?

? ? ? ? override or zero). A ?

? ? ? ? value greater than ?

? ? ? ? zero is a timeout in ?

? ? ? ? milliseconds. ?

? ? ? ? ? ?

? ? ? ? The property is ?

? ? ? ? currently implemented ?

? ? ? ? only for IPv4. ?

??

?????????

?dhcp-client-id ? string ? ? A string sent to the ?

? ? ? ? DHCP server to ?
? ? ? ? identify the local ?
? ? ? ? machine which the DHCP ?
? ? ? ? server may use to ?
? ? ? ? customize the DHCP ?
? ? ? ? lease and options. ?
? ? ? ? When the property is a ?
? ? ? ? hex string ?
? ? ? ? ('aa:bb:cc') it is ?
? ? ? ? interpreted as a ?
? ? ? ? binary client ID, in ?
? ? ? ? which case the first ?
? ? ? ? byte is assumed to be ?
? ? ? ? the 'type' field as ?
? ? ? ? per RFC 2132 section ?
? ? ? ? 9.14 and the remaining ?
? ? ? ? bytes may be an ?
? ? ? ? hardware address (e.g. ?
? ? ? ? '01:xx:xx:xx:xx:xx:xx' ?
? ? ? ? where 1 is the ?
? ? ? ? Ethernet ARP type and ?
? ? ? ? the rest is a MAC ?
? ? ? ? address). If the ?
? ? ? ? property is not a hex ?
? ? ? ? string it is ?
? ? ? ? considered as a ?
? ? ? ? non-hardware-address ?
? ? ? ? client ID and the ?
? ? ? ? 'type' field is set to ?
? ? ? ? 0. ?
? ? ? ? ?
? ? ? ? The special values ?
? ? ? ? "mac" and "perm-mac" ?

? ? ? ? are supported, which ?
? ? ? ? use the current or ?
? ? ? ? permanent MAC address ?
? ? ? ? of the device to ?
? ? ? ? generate a client ?
? ? ? ? identifier with type ?
? ? ? ? ethernet (01). ?
? ? ? ? Currently, these ?
? ? ? ? options only work for ?
? ? ? ? ethernet type of ?
? ? ? ? links. ?
? ? ? ? ?
? ? ? ? The special value ?
? ? ? ? "ipv6-duid" uses the ?
? ? ? ? DUID from ?
? ? ? ? "ipv6.dhcp-duid" ?
? ? ? ? property as an ?
? ? ? ? RFC4361-compliant ?
? ? ? ? client identifier. As ?
? ? ? ? IAID it uses ?
? ? ? ? "ipv4.dhcp-iaid" and ?
? ? ? ? falls back to ?
? ? ? ? "ipv6.dhcp-iaid" if ?
? ? ? ? unset. ?
? ? ? ? ?
? ? ? ? The special value ?
? ? ? ? "duid" generates a ?
? ? ? ? RFC4361-compliant ?
? ? ? ? client identifier ?
? ? ? ? based on ?
? ? ? ? "ipv4.dhcp-iaid" and ?
? ? ? ? uses a DUID generated ?
? ? ? ? by hashing ?

? ? ? ? /etc/machine-id. ?

? ? ? ? ?

? ? ? ? The special value ?

? ? ? ? "stable" is supported ?

? ? ? ? to generate a type 0 ?

? ? ? ? client identifier ?

? ? ? ? based on the stable-id ?

? ? ? ? (see ?

? ? ? ? connection.stable-id) ?

? ? ? ? and a per-host key. If ?

? ? ? ? you set the stable-id, ?

? ? ? ? you may want to ?

? ? ? ? include the ?

? ? ? ? "${DEVICE}" or ?

? ? ? ? "${MAC}" specifier to ?

? ? ? ? get a per-device key. ?

? ? ? ? ?

? ? ? ? If unset, a globally ?

? ? ? ? configured default is ?

? ? ? ? used. If still unset, ?

? ? ? ? the default depends on ?

? ? ? ? the DHCP plugin. ?

??

?????????

?dhcp-fqdn ? string ? ? If the ?

? ? ? ? "dhcp-send-hostname" ?

? ? ? ? property is TRUE, then ?

? ? ? ? the specified FQDN ?

? ? ? ? will be sent to the ?

? ? ? ? DHCP server when ?

? ? ? ? acquiring a lease. ?

? ? ? ? This property and ?

? ? ? ? "dhcp-hostname" are ?

? ? ? ? mutually exclusive and ?

? ? ? ? cannot be set at the ?

? ? ? ? same time. ?

??

?????????

?dhcp-hostname ? string ? ? If the ?

? ? ? ? "dhcp-send-hostname" ?

? ? ? ? property is TRUE, then ?

? ? ? ? the specified name ?

? ? ? ? will be sent to the ?

? ? ? ? DHCP server when ?

? ? ? ? acquiring a lease. ?

? ? ? ? This property and ?

? ? ? ? "dhcp-fqdn" are ?

? ? ? ? mutually exclusive and ?

? ? ? ? cannot be set at the ?

? ? ? ? same time. ?

??

?????????

?dhcp-hostname-flags ? uint32 ? 0 ? Flags for the DHCP ?

? ? ? ? hostname and FQDN. ?

? ? ? ? ?

? ? ? ? Currently, this ?

? ? ? ? property only includes ?

? ? ? ? flags to control the ?

? ? ? ? FQDN flags set in the ?

? ? ? ? DHCP FQDN option. ?

? ? ? ? Supported FQDN flags ?

? ? ? ? are ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_SERV_UPDATE ?

? ? ? ? (0x1), ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_ENCODED ?

? ? ? ? (0x2) and ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_NO_UPDATE ?

? ? ? ? (0x4). When no FQDN ?

? ? ? ? flag is set and ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_CLEAR_FLAGS ?

? ? ? ? (0x8) is set, the DHCP ?

? ? ? ? FQDN option will ?

? ? ? ? contain no flag. ?

? ? ? ? Otherwise, if no FQDN ?

? ? ? ? flag is set and ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_CLEAR_FLAGS ?

? ? ? ? (0x8) is not set, the ?

? ? ? ? standard FQDN flags ?

? ? ? ? are set in the ?

? ? ? ? request: ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_SERV_UPDATE ?

? ? ? ? (0x1), ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_ENCODED ?

? ? ? ? (0x2) for IPv4 and ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_SERV_UPDATE ?

? ? ? ? (0x1) for IPv6. ?

? ? ? ? ?

? ? ? ? When this property is ?

? ? ? ? set to the default ?

? ? ? ? value ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_NONE ?

? ? ? ? (0x0), a global ?

? ? ? ? default is looked up ?

? ? ? ? in NetworkManager ?

? ? ? ? configuration. If that ?

? ? ? ? value is unset or also ?

? ? ? ? NM_DHCP_HOSTNAME_FLAG_NONE ?

? ? ? ? (0x0), then the ?

? ? ? ? standard FQDN flags ?

? ? ? ? described above are ?

? ? ? ? sent in the DHCP ?

? ? ? ? requests. ?

??

?????????

?dhcp-iaid ? string ? ? A string containing the "Identity ?

? ? ? ? Association Identifier" (IAID) used by ?

? ? ? ? the DHCP client. The string can be a ?

? ? ? ? 32-bit number (either decimal, ?

? ? ? ? hexadecimal or or as colon separated ?

? ? ? ? hexadecimal numbers). Alternatively it ?

? ? ? ? can be set to the special values ?

? ? ? ? "mac", "perm-mac", "ifname" or ?

? ? ? ? "stable". When set to "mac" (or ?

? ? ? ? "perm-mac"), the last 4 bytes of the ?

? ? ? ? current (or permanent) MAC address are ?

? ? ? ? used as IAID. When set to "ifname", ?

? ? ? ? the IAID is computed by hashing the ?

? ? ? ? interface name. The special value ?

? ? ? ? "stable" can be used to generate an ?

? ? ? ? IAID based on the stable-id (see ?

? ? ? ? connection.stable-id), a per-host key ?

? ? ? ? and the interface name. When the ?

? ? ? ? property is unset, the value from ?

? ? ? ? global configuration is used; if no ?

? ? ? ? global default is set then the IAID is ?

? ? ? ? assumed to be "ifname". ?

? ? ? ? ?

? ? ? ? For DHCPv4, the IAID is only used with ?

? ? ? ? "ipv4.dhcp-client-id" values "duid" ?

? ? ? ? and "ipv6-duid" to generate the ?

? ? ? ? client-id. ?

? ? ? ? ?

? ? ? ? For DHCPv6, note that at the moment ?

? ? ? ? this property is only supported by the ?

? ? ? ? "internal" DHCPv6 plugin. The ?

? ? ? ? "dhclient" DHCPv6 plugin always ?

? ? ? ? derives the IAID from the MAC address. ?

? ? ? ? ?

? ? ? ? The actually used DHCPv6 IAID for a ?

? ? ? ? currently activated interface is ?

? ? ? ? exposed in the lease information of ?

? ? ? ? the device. ?

??

?????????

?dhcp-reject-servers ? array of string ? ? Array of servers from which DHCP ?

? ? ? ? offers must be rejected. This property ?

? ? ? ? is useful to avoid getting a lease ?

? ? ? ? from misconfigured or rogue servers. ?

? ? ? ? ?

? ? ? ? For DHCPv4, each element must be an ?

? ? ? ? IPv4 address, optionally followed by a ?

? ? ? ? slash and a prefix length (e.g. ?

? ? ? ? "192.168.122.0/24"). ?

? ? ? ? ?

? ? ? ? This property is currently not ?

? ? ? ? implemented for DHCPv6. ?

??

?????????

?dhcp-send-hostname ? boolean ? TRUE ? If TRUE, a hostname is sent to the ?

? ? ? ? DHCP server when acquiring a lease. ?

? ? ? ? Some DHCP servers use this hostname to ?

? ? ? ? update DNS databases, essentially ?

? ? ? ? providing a static hostname for the ?

? ? ? ? computer. If the "dhcp-hostname" ?

? ? ? ? property is NULL and this property is ?

? ? ? ? TRUE, the current persistent hostname ?

? ? ? ? of the computer is sent. ?

??

?????????

?dhcp-timeout ? int32 ? 0 ? A timeout for a DHCP transaction in ?

? ? ? ? seconds. If zero (the default), a ?

? ? ? ? globally configured default is used. ?

? ? ? ? If still unspecified, a device ?

? ? ? ? specific timeout is used (usually 45 ?

? ? ? ? seconds). ?

? ? ? ? ? ?

? ? ? ? Set to 2147483647 (MAXINT32) for ?

? ? ? ? infinity. ?

??

?????????

?dhcp-vendor-class-identifier ? string ? ? The Vendor Class Identifier DHCP ?

? ? ? ? option (60). Special characters in the ?

? ? ? ? data string may be escaped using ?

? ? ? ? C-style escapes, nevertheless this ?

? ? ? ? property cannot contain nul bytes. If ?

? ? ? ? the per-profile value is unspecified ?

? ? ? ? (the default), a global connection ?

? ? ? ? default gets consulted. If still ?

? ? ? ? unspecified, the DHCP option is not ?

? ? ? ? sent to the server. ?

??
?????????
?dns ? array of uint32 ? ? Array of IP addresses of DNS servers ?
? ? ? ? (as network-byte-order integers) ?

??
?????????
?dns-data ? array of strings ? ? Array of DNS name servers. This ?
? ? ? ? replaces the deprecated "dns" ?
? ? ? ? property. Each name server can also ?
? ? ? ? contain a DoT server name. ?

??
?????????
?dns-options ? array of string ? ? Array of DNS options as described in ?
? ? ? ? man 5 resolv.conf. ?
? ? ? ? ?
? ? ? ? NULL means that the options are unset ?
? ? ? ? and left at the default. In this case ?
? ? ? ? NetworkManager will use default ?
? ? ? ? options. This is distinct from an ?
? ? ? ? empty list of properties. ?
? ? ? ? ?
? ? ? ? The currently supported options are ?
? ? ? ? "attempts", "debug", "edns0", "inet6", ?
? ? ? ? "ip6-bytestring", "ip6-dotint", ?
? ? ? ? "ndots", "no-check-names", ?
? ? ? ? "no-ip6-dotint", "no-reload", ?
? ? ? ? "no-tld-query", "rotate", ?
? ? ? ? "single-request", ?
? ? ? ? "single-request-reopen", "timeout", ?
? ? ? ? "trust-ad", "use-vc". ?

? ? ? ? ?

? ? ? ? The "trust-ad" setting is only honored ?

? ? ? ? if the profile contributes name ?

? ? ? ? servers to resolv.conf, and if all ?

? ? ? ? contributing profiles have "trust-ad" ?

? ? ? ? enabled. ?

? ? ? ? ?

? ? ? ? When using a caching DNS plugin ?

? ? ? ? (dnsmasq or systemd-resolved in ?

? ? ? ? NetworkManager.conf) then "edns0" and ?

? ? ? ? "trust-ad" are automatically added. ?

??

?????????

?dns-priority ? int32 ? 0 ? DNS servers priority. ?

? ? ? ? ?

? ? ? ? The relative priority for DNS servers ?

? ? ? ? specified by this setting. A lower ?

? ? ? ? numerical value is better (higher ?

? ? ? ? priority). ?

? ? ? ? ?

? ? ? ? Negative values have the special ?

? ? ? ? effect of excluding other ?

? ? ? ? configurations with a greater ?

? ? ? ? numerical priority value; so in ?

? ? ? ? presence of at least one negative ?

? ? ? ? priority, only DNS servers from ?

? ? ? ? connections with the lowest priority ?

? ? ? ? value will be used. To avoid all DNS ?

? ? ? ? leaks, set the priority of the profile ?

? ? ? ? that should be used to the most ?

? ? ? ? negative value of all active ?

? ? ? ? connections profiles. ?

? ? ? ? ?
? ? ? ? Zero selects a globally configured ?
? ? ? ? default value. If the latter is ?
? ? ? ? missing or zero too, it defaults to 50 ?
? ? ? ? for VPNs (including WireGuard) and 100 ?
? ? ? ? for other connections. ?
? ? ? ? ?
? ? ? ? Note that the priority is to order DNS ?
? ? ? ? settings for multiple active ?
? ? ? ? connections. It does not disambiguate ?
? ? ? ? multiple DNS servers within the same ?
? ? ? ? connection profile. ?
? ? ? ? ?
? ? ? ? When multiple devices have ?
? ? ? ? configurations with the same priority, ?
? ? ? ? VPNs will be considered first, then ?
? ? ? ? devices with the best (lowest metric) ?
? ? ? ? default route and then all other ?
? ? ? ? devices. ?
? ? ? ? ?
? ? ? ? When using dns=default, servers with ?
? ? ? ? higher priority will be on top of ?
? ? ? ? resolv.conf. To prioritize a given ?
? ? ? ? server over another one within the ?
? ? ? ? same connection, just specify them in ?
? ? ? ? the desired order. Note that commonly ?
? ? ? ? the resolver tries name servers in ?
? ? ? ? /etc/resolv.conf in the order listed, ?
? ? ? ? proceeding with the next server in the ?
? ? ? ? list on failure. See for example the ?
? ? ? ? "rotate" option of the dns-options ?
? ? ? ? setting. If there are any negative DNS ?
? ? ? ? priorities, then only name servers ?

? ? ? ? from the devices with that lowest ?
? ? ? ? priority will be considered. ?
? ? ? ? ?
? ? ? ? When using a DNS resolver that ?
? ? ? ? supports Conditional Forwarding or ?
? ? ? ? Split DNS (with dns=dnsmasq or ?
? ? ? ? dns=systemd-resolved settings), each ?
? ? ? ? connection is used to query domains in ?
? ? ? ? its search list. The search domains ?
? ? ? ? determine which name servers to ask, ?
? ? ? ? and the DNS priority is used to ?
? ? ? ? prioritize name servers based on the ?
? ? ? ? domain. Queries for domains not ?
? ? ? ? present in any search list are routed ?
? ? ? ? through connections having the '~.' ?
? ? ? ? special wildcard domain, which is ?
? ? ? ? added automatically to connections ?
? ? ? ? with the default route (or can be ?
? ? ? ? added manually). When multiple ?
? ? ? ? connections specify the same domain, ?
? ? ? ? the one with the best priority (lowest ?
? ? ? ? numerical value) wins. If a sub ?
? ? ? ? domain is configured on another ?
? ? ? ? interface it will be accepted ?
? ? ? ? regardless the priority, unless parent ?
? ? ? ? domain on the other interface has a ?
? ? ? ? negative priority, which causes the ?
? ? ? ? sub domain to be shadowed. With Split ?
? ? ? ? DNS one can avoid undesired DNS leaks ?
? ? ? ? by properly configuring DNS priorities ?
? ? ? ? and the search domains, so that only ?
? ? ? ? name servers of the desired interface ?
? ? ? ? are configured. ?

??
?????????

?dns-search ? array of string ? ? List of DNS search domains. Domains ?
? ? ? ? starting with a tilde ('~') are ?
? ? ? ? considered 'routing' domains and are ?
? ? ? ? used only to decide the interface over ?
? ? ? ? which a query must be forwarded; they ?
? ? ? ? are not used to complete unqualified ?
? ? ? ? host names. ?
? ? ? ? ?
? ? ? ? When using a DNS plugin that supports ?
? ? ? ? Conditional Forwarding or Split DNS, ?
? ? ? ? then the search domains specify which ?
? ? ? ? name servers to query. This makes the ?
? ? ? ? behavior different from running with ?
? ? ? ? plain /etc/resolv.conf. For more ?
? ? ? ? information see also the dns-priority ?
? ? ? ? setting. ?
? ? ? ? ?
? ? ? ? When set on a profile that also ?
? ? ? ? enabled DHCP, the DNS search list ?
? ? ? ? received automatically (option 119 for ?
? ? ? ? DHCPv4 and option 24 for DHCPv6) gets ?
? ? ? ? merged with the manual list. This can ?
? ? ? ? be prevented by setting ?
? ? ? ? "ignore-auto-dns". Note that if no DNS ?
? ? ? ? searches are configured, the fallback ?
? ? ? ? will be derived from the domain from ?
? ? ? ? DHCP (option 15). ?

??
?????????

?gateway ? string ? ? The gateway associated with this ?
? ? ? ? configuration. This is only meaningful ?
? ? ? ? if "addresses" is also set. ?
? ? ? ? ?
? ? ? ? Setting the gateway causes ?
? ? ? ? NetworkManager to configure a standard ?
? ? ? ? default route with the gateway as next ?
? ? ? ? hop. This is ignored if ?
? ? ? ? "never-default" is set. An alternative ?
? ? ? ? is to configure the default route ?
? ? ? ? explicitly with a manual route and /0 ?
? ? ? ? as prefix length. ?
? ? ? ? ?
? ? ? ? Note that the gateway usually ?
? ? ? ? conflicts with routing that ?
? ? ? ? NetworkManager configures for ?
? ? ? ? WireGuard interfaces, so usually it ?
? ? ? ? should not be set in that case. See ?
? ? ? ? "ip4-auto-default-route". ?

??
?????????

?ignore-auto-dns ? boolean ? FALSE ? When "method" is set to "auto" and ?
? ? ? ? this property to TRUE, automatically ?
? ? ? ? configured name servers and search ?
? ? ? ? domains are ignored and only name ?
? ? ? ? servers and search domains specified ?
? ? ? ? in the "dns" and "dns-search" ?
? ? ? ? properties, if any, are used. ?

??
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?ignore-auto-routes ? boolean ? FALSE ? When "method" is set to "auto" and ?

? ? ? ? this property to TRUE, automatically ?

? ? ? ? configured routes are ignored and only ?

? ? ? ? routes specified in the "routes" ?

? ? ? ? property, if any, are used. ?

??

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?link-local ? int32 ? 0 ? Enable and disable the IPv4 link-local ?

? ? ? ? configuration independently of the ?

? ? ? ? ipv4.method configuration. This allows ?

? ? ? ? a link-local address (169.254.x.y/16) ?

? ? ? ? to be obtained in addition to other ?

? ? ? ? addresses, such as those manually ?

? ? ? ? configured or obtained from a DHCP ?

? ? ? ? server. ?

? ? ? ? ? ?

? ? ? ? When set to "auto", the value is ?

? ? ? ? dependent on "ipv4.method". When set ?

? ? ? ? to "default", it honors the global ?

? ? ? ? connection default, before falling ?

? ? ? ? back to "auto". Note that if ?

? ? ? ? "ipv4.method" is "disabled", then link ?

? ? ? ? local addressing is always disabled ?

? ? ? ? too. The default is "default". ?

??

?????????

?may-fail ? boolean ? TRUE ? If TRUE, allow overall network ?

? ? ? ? configuration to proceed even if the ?

? ? ? ? configuration specified by this ?

? ? ? ? property times out. Note that at ?

? ? ? ? least one IP configuration must ?

? ? ? ? succeed or overall network ?

? ? ? ? configuration will still fail. For ?

? ? ? ? example, in IPv6-only networks, ?

? ? ? ? setting this property to TRUE on the ?

? ? ? ? NMSettingIP4Config allows the overall ?

? ? ? ? network configuration to succeed if ?

? ? ? ? IPv4 configuration fails but IPv6 ?

? ? ? ? configuration completes successfully. ?

??

?????????

?method ? string ? ? IP configuration method. ?

? ? ? ? ?

? ? ? ? NMSettingIP4Config and ?

? ? ? ? NMSettingIP6Config both support ?

? ? ? ? "disabled", "auto", "manual", and ?

? ? ? ? "link-local". See the ?

? ? ? ? subclass-specific documentation for ?

? ? ? ? other values. ?

? ? ? ? ?

? ? ? ? In general, for the "auto" method, ?

? ? ? ? properties such as "dns" and "routes" ?

? ? ? ? specify information that is added on ?

? ? ? ? to the information returned from ?

? ? ? ? automatic configuration. The ?

? ? ? ? "ignore-auto-routes" and ?

? ? ? ? "ignore-auto-dns" properties modify ?

? ? ? ? this behavior. ?

? ? ? ? ?

? ? ? ? For methods that imply no upstream ?

? ? ? ? network, such as "shared" or ?

? ? ? ? "link-local", these properties must be ?

? ? ? ? empty. ?

? ? ? ? ?

? ? ? ? For IPv4 method "shared", the IP ?

? ? ? ? subnet can be configured by adding one ?

? ? ? ? manual IPv4 address or otherwise ?

? ? ? ? 10.42.x.0/24 is chosen. Note that the ?

? ? ? ? shared method must be configured on ?

? ? ? ? the interface which shares the ?

? ? ? ? internet to a subnet, not on the ?

? ? ? ? uplink which is shared. ?

??

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?never-default ? boolean ? FALSE ? If TRUE, this connection will never be ?

? ? ? ? the default connection for this IP ?

? ? ? ? type, meaning it will never be ?

? ? ? ? assigned the default route by ?

? ? ? ? NetworkManager. ?

??

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?replace-local-rule ? NMTernary ? ? Connections will default to keep the ?

? ? (int32) ? ? autogenerated priority 0 local rule ?

? ? ? ? unless this setting is set to TRUE. ?

??

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?required-timeout ? int32 ? -1 ? The minimum time interval in ?

? ? ? ? milliseconds for which dynamic IP ?

? ? ? ? configuration should be tried before ?

? ? ? ? the connection succeeds. ?

? ? ? ? ? ?

? ? ? ? This property is useful for example if ?

? ? ? ? both IPv4 and IPv6 are enabled and are ?

? ? ? ? allowed to fail. Normally the ?

? ? ? ? connection succeeds as soon as one of ?
? ? ? ? the two address families completes; by ?
? ? ? ? setting a required timeout for e.g. ?
? ? ? ? IPv4, one can ensure that even if IP6 ?
? ? ? ? succeeds earlier than IPv4, ?
? ? ? ? NetworkManager waits some time for ?
? ? ? ? IPv4 before the connection becomes ?
? ? ? ? active. ?
? ? ? ? ?
? ? ? ? Note that if "may-fail" is FALSE for ?
? ? ? ? the same address family, this property ?
? ? ? ? has no effect as NetworkManager needs ?
? ? ? ? to wait for the full DHCP timeout. ?
? ? ? ? ?
? ? ? ? A zero value means that no required ?
? ? ? ? timeout is present, -1 means the ?
? ? ? ? default value (either configuration ?
? ? ? ? ipvx.required-timeout override or ?
? ? ? ? zero). ?

??

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?route-data ? array of vardict ? ? Array of IPv4 routes. Each route ?
? ? ? ? dictionary contains at least 'dest' ?
? ? ? ? and 'prefix' entries, containing the ?
? ? ? ? destination IP address as a string, ?
? ? ? ? and the prefix length as a uint32. ?
? ? ? ? Most routes will also have a ?
? ? ? ? 'next-hop' entry, containing the next ?
? ? ? ? hop IP address as a string. If the ?
? ? ? ? route has a 'metric' entry (containing ?
? ? ? ? a uint32), that will be used as the ?
? ? ? ? metric for the route (otherwise NM ?

? ? ? ? will pick a default value appropriate ?

? ? ? ? to the device). Additional attributes ?

? ? ? ? may also exist on some routes. ?

??

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?route-metric ? int64 ? -1 ? The default metric for routes that ?

? ? ? ? don't explicitly specify a metric. The ?

? ? ? ? default value -1 means that the metric ?

? ? ? ? is chosen automatically based on the ?

? ? ? ? device type. The metric applies to ?

? ? ? ? dynamic routes, manual (static) routes ?

? ? ? ? that don't have an explicit metric ?

? ? ? ? setting, address prefix routes, and ?

? ? ? ? the default route. Note that for IPv6, ?

? ? ? ? the kernel accepts zero (0) but ?

? ? ? ? coerces it to 1024 (user default). ?

? ? ? ? Hence, setting this property to zero ?

? ? ? ? effectively mean setting it to 1024. ?

? ? ? ? For IPv4, zero is a regular value for ?

? ? ? ? the metric. ?

??

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?route-table ? uint32 ? 0 ? Enable policy routing (source routing) ?

? ? ? ? and set the routing table used when ?

? ? ? ? adding routes. ?

? ? ? ? ? ?

? ? ? ? This affects all routes, including ?

? ? ? ? device-routes, IPv4LL, DHCP, SLAAC, ?

? ? ? ? default-routes and static routes. But ?

? ? ? ? note that static routes can ?

? ? ? ? individually overwrite the setting by ?

? ? ? ? explicitly specifying a non-zero ?

? ? ? ? routing table. ?

? ? ? ? ?

? ? ? ? If the table setting is left at zero, ?

? ? ? ? it is eligible to be overwritten via ?

? ? ? ? global configuration. If the property ?

? ? ? ? is zero even after applying the global ?

? ? ? ? configuration value, policy routing is ?

? ? ? ? disabled for the address family of ?

? ? ? ? this connection. ?

? ? ? ? ?

? ? ? ? Policy routing disabled means that ?

? ? ? ? NetworkManager will add all routes to ?

? ? ? ? the main table (except static routes ?

? ? ? ? that explicitly configure a different ?

? ? ? ? table). Additionally, NetworkManager ?

? ? ? ? will not delete any extraneous routes ?

? ? ? ? from tables except the main table. ?

? ? ? ? This is to preserve backward ?

? ? ? ? compatibility for users who manage ?

? ? ? ? routing tables outside of ?

? ? ? ? NetworkManager. ?

??

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?routes ? array of array ? ? Deprecated in favor of the ?

? ? of uint32 ? ? 'route-data' property, but this can be ?

? ? ? ? used for backward-compatibility with ?

? ? ? ? older daemons. Note that if you send ?

? ? ? ? this property the daemon will ignore ?

? ? ? ? 'route-data'. Array of IPv4 route ?

? ? ? ? structures. Each IPv4 route structure ?

? ? ? ? is composed of 4 32-bit values; the ?

? ? ? ? first being the destination IPv4 ?

? ? ? ? network or address (network byte ?

? ? ? ? order), the second the destination ?

? ? ? ? network or address prefix (1 - 32), ?

? ? ? ? the third being the next-hop (network ?

? ? ? ? byte order) if any, and the fourth ?

? ? ? ? being the route metric. If the metric ?

? ? ? ? is 0, NM will choose an appropriate ?

? ? ? ? default metric for the device. (There ?

? ? ? ? is no way to explicitly specify an ?

? ? ? ? actual metric of 0 with this ?

? ? ? ? property.) ?

??

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?routing-rules ? array of 'a{sv}' ? ? Array of dictionaries for routing ?

? ? ? ? rules. Each routing rule supports the ?

? ? ? ? following options: action (y), ?

? ? ? ? dport-end (q), dport-start (q), family ?

? ? ? ? (i), from (s), from-len (y), fwmark ?

? ? ? ? (u), fwmask (u), iifname (s), invert ?

? ? ? ? (b), ipproto (s), oifname (s), ?

? ? ? ? priority (u), sport-end (q), ?

? ? ? ? sport-start (q), supress-prefixlength ?

? ? ? ? (i), table (u), to (s), tos (y), ?

? ? ? ? to-len (y), range-end (u), range-start ?

? ? ? ? (u). ?

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ipv6 setting

IPv6 Settings.

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?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

??????????????????????

?addr-gen-mode ? int32 ? 3 ? Configure method ?

? ? ? ? for creating the ?

? ? ? ? address for use ?

? ? ? ? with RFC4862 ?

? ? ? ? IPv6 Stateless ?

? ? ? ? Address ?

? ? ? ? Autoconfiguration. ?

? ? ? ? The permitted ?

? ? ? ? values are: ?

? ? ? ? NM_SETTING_IP6_CONFIG_ADDR_GEN_MODE_EUI64 ?

? ? ? ? (0), ?

? ? ? ? NM_SETTING_IP6_CONFIG_ADDR_GEN_MODE_STABLE_PRIVACY

?

? ? ? ? (1). ?

? ? ? ? NM_SETTING_IP6_CONFIG_ADDR_GEN_MODE_DEFAULT_OR_EUI64

?

? ? ? ? (2) or ?

? ? ? ? NM_SETTING_IP6_CONFIG_ADDR_GEN_MODE_DEFAULT ?

? ? ? ? (3). ?

? ? ? ? ?

? ? ? ? If the property ?

? ? ? ? is set to EUI64, ?

? ? ? ? the addresses ?

? ? ? ? will be ?

? ? ? ? generated using ?

? ? ? ? the interface ?

? ? ? ? tokens derived ?
? ? ? ? from hardware ?
? ? ? ? address. This ?
? ? ? ? makes the host ?
? ? ? ? part of the ?
? ? ? ? address to stay ?
? ? ? ? constant, making ?
? ? ? ? it possible to ?
? ? ? ? track host's ?
? ? ? ? presence when it ?
? ? ? ? changes ?
? ? ? ? networks. The ?
? ? ? ? address changes ?
? ? ? ? when the ?
? ? ? ? interface ?
? ? ? ? hardware is ?
? ? ? ? replaced. ?
? ? ? ? ?
? ? ? ? The value of ?
? ? ? ? stable-privacy ?
? ? ? ? enables use of ?
? ? ? ? cryptographically ?
? ? ? ? secure hash of a ?
? ? ? ? secret ?
? ? ? ? host-specific ?
? ? ? ? key along with ?
? ? ? ? the connection's ?
? ? ? ? stable-id and ?
? ? ? ? the network ?
? ? ? ? address as ?
? ? ? ? specified by ?
? ? ? ? RFC7217. This ?
? ? ? ? makes it ?

? ? ? ? impossible to ?

? ? ? ? use the address ?

? ? ? ? track host's ?

? ? ? ? presence, and ?

? ? ? ? makes the ?

? ? ? ? address stable ?

? ? ? ? when the network ?

? ? ? ? interface ?

? ? ? ? hardware is ?

? ? ? ? replaced. ?

? ? ? ? ?

? ? ? ? The special ?

? ? ? ? values "default" ?

? ? ? ? and ?

? ? ? ? "default-or-eui64" ?

? ? ? ? will fallback to ?

? ? ? ? the global ?

? ? ? ? connection ?

? ? ? ? default in as ?

? ? ? ? documented in ?

? ? ? ? NetworkManager.conf(5) ?

? ? ? ? manual. If the ?

? ? ? ? global default ?

? ? ? ? is not ?

? ? ? ? specified, the ?

? ? ? ? fallback value ?

? ? ? ? is ?

? ? ? ? "stable-privacy" ?

? ? ? ? or "eui64", ?

? ? ? ? respectively. ?

? ? ? ? ?

? ? ? ? For libnm, the ?

? ? ? ? property ?

? ? ? ? defaults to ?
? ? ? ? "default" since ?
? ? ? ? 1.40. Previously ?
? ? ? ? it defaulted to ?
? ? ? ? "stable-privacy". ?
? ? ? ? On D-Bus, the ?
? ? ? ? absence of an ?
? ? ? ? addr-gen-mode ?
? ? ? ? setting equals ?
? ? ? ? "default". For ?
? ? ? ? keyfile plugin, ?
? ? ? ? the absence of ?
? ? ? ? the setting on ?
? ? ? ? disk means ?
? ? ? ? "default-or-eui64" ?
? ? ? ? so that the ?
? ? ? ? property doesn't ?
? ? ? ? change on ?
? ? ? ? upgrade from ?
? ? ? ? older versions. ?
? ? ? ? ? ?
? ? ? ? Note that this ?
? ? ? ? setting is ?
? ? ? ? distinct from ?
? ? ? ? the Privacy ?
? ? ? ? Extensions as ?
? ? ? ? configured by ?
? ? ? ? "ip6-privacy" ?
? ? ? ? property and it ?
? ? ? ? does not affect ?
? ? ? ? the temporary ?
? ? ? ? addresses ?
? ? ? ? configured with ?

? ? ? ? this option. ?

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?address-data ? array of vardict ? ? Array of IPv6 addresses. Each address dictionary ?

? ? ? ? contains at least 'address' and 'prefix' entries, ?

? ? ? ? containing the IP address as a string, and the ?

? ? ? ? prefix length as a uint32. Additional attributes may ?

? ? ? ? also exist on some addresses. ?

??
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?addresses ? array of legacy ? ? Deprecated in favor of the 'address-data' and ?

? ? IPv6 address ? ? 'gateway' properties, but this can be used for ?

? ? struct ? ? backward-compatibility with older daemons. Note that ?

? ? (a(ayuay)) ? ? if you send this property the daemon will ignore ?

? ? ? ? 'address-data' and 'gateway'. Array of IPv6 address ?

? ? ? ? structures. Each IPv6 address structure is composed ?

? ? ? ? of an IPv6 address, a prefix length (0 - 128), and ?

? ? ? ? an IPv6 gateway address. The gateway may be zeroed ?

? ? ? ? out if no gateway exists for that subnet. ?

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?auto-route-ext-gw ? NMTernary ? ? VPN connections will default to add the route ?

? ? (int32) ? ? automatically unless this setting is set to FALSE. ?

? ? ? ? ?

? ? ? ? For other connection types, adding such an automatic ?

? ? ? ? route is currently not supported and setting this to ?

? ? ? ? TRUE has no effect. ?

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?dad-timeout ? int32 ? -1 ? Timeout in milliseconds used to check for the ?
? ? ? ? presence of duplicate IP addresses on the network. ?
? ? ? ? If an address conflict is detected, the activation ?
? ? ? ? will fail. A zero value means that no duplicate ?
? ? ? ? address detection is performed, -1 means the default ?
? ? ? ? value (either configuration ipvx.dad-timeout ?
? ? ? ? override or zero). A value greater than zero is a ?
? ? ? ? timeout in milliseconds. ?
? ? ? ? ?
? ? ? ? The property is currently implemented only for IPv4. ?

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?dhcp-duid ? string ? ? A string containing the DHCPv6 Unique Identifier ?
? ? ? ? (DUID) used by the dhcp client to identify itself to ?
? ? ? ? DHCPv6 servers (RFC 3315). The DUID is carried in ?
? ? ? ? the Client Identifier option. If the property is a ?
? ? ? ? hex string ('aa:bb:cc') it is interpreted as a ?
? ? ? ? binary DUID and filled as an opaque value in the ?
? ? ? ? Client Identifier option. ?
? ? ? ? ?
? ? ? ? The special value "lease" will retrieve the DUID ?
? ? ? ? previously used from the lease file belonging to the ?
? ? ? ? connection. If no DUID is found and "dhclient" is ?
? ? ? ? the configured dhcp client, the DUID is searched in ?
? ? ? ? the system-wide dhclient lease file. If still no ?
? ? ? ? DUID is found, or another dhcp client is used, a ?
? ? ? ? global and permanent DUID-UUID (RFC 6355) will be ?
? ? ? ? generated based on the machine-id. ?
? ? ? ? ?
? ? ? ? The special values "llt" and "ll" will generate a ?
? ? ? ? DUID of type LLT or LL (see RFC 3315) based on the ?
? ? ? ? current MAC address of the device. In order to try ?

? ? ? ? providing a stable DUID-LLT, the time field will ?
? ? ? ? contain a constant timestamp that is used globally ?
? ? ? ? (for all profiles) and persisted to disk. ?
? ? ? ? ?
? ? ? ? The special values "stable-llt", "stable-ll" and ?
? ? ? ? "stable-uuid" will generate a DUID of the ?
? ? ? ? corresponding type, derived from the connection's ?
? ? ? ? stable-id and a per-host unique key. You may want to ?
? ? ? ? include the "${DEVICE}" or "${MAC}" specifier in the ?
? ? ? ? stable-id, in case this profile gets activated on ?
? ? ? ? multiple devices. So, the link-layer address of ?
? ? ? ? "stable-ll" and "stable-llt" will be a generated ?
? ? ? ? address derived from the stable id. The DUID-LLT ?
? ? ? ? time value in the "stable-llt" option will be picked ?
? ? ? ? among a static timespan of three years (the upper ?
? ? ? ? bound of the interval is the same constant timestamp ?
? ? ? ? used in "llt"). ?
? ? ? ? ?
? ? ? ? When the property is unset, the global value ?
? ? ? ? provided for "ipv6.dhcp-duid" is used. If no global ?
? ? ? ? value is provided, the default "lease" value is ?
? ? ? ? assumed. ?

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?dhcp-hostname ? string ? ? If the "dhcp-send-hostname" property is TRUE, then ?
? ? ? ? the specified name will be sent to the DHCP server ?
? ? ? ? when acquiring a lease. This property and ?
? ? ? ? "dhcp-fqdn" are mutually exclusive and cannot be set ?
? ? ? ? at the same time. ?

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?dhcp-hostname-flags ? uint32 ? 0 ? Flags for the DHCP hostname and FQDN. ?
? ? ? ? ?
? ? ? ? Currently, this property only includes flags to ?
? ? ? ? control the FQDN flags set in the DHCP FQDN option. ?
? ? ? ? Supported FQDN flags are ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_SERV_UPDATE (0x1), ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_ENCODED (0x2) and ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_NO_UPDATE (0x4). When no ?
? ? ? ? FQDN flag is set and ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_CLEAR_FLAGS (0x8) is set, ?
? ? ? ? the DHCP FQDN option will contain no flag. ?
? ? ? ? Otherwise, if no FQDN flag is set and ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_CLEAR_FLAGS (0x8) is not ?
? ? ? ? set, the standard FQDN flags are set in the request: ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_SERV_UPDATE (0x1), ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_FQDN_ENCODED (0x2) for IPv4 ?
? ? ? ? and NM_DHCP_HOSTNAME_FLAG_FQDN_SERV_UPDATE (0x1) for ?
? ? ? ? IPv6. ?
? ? ? ? ?
? ? ? ? When this property is set to the default value ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_NONE (0x0), a global default ?
? ? ? ? is looked up in NetworkManager configuration. If ?
? ? ? ? that value is unset or also ?
? ? ? ? NM_DHCP_HOSTNAME_FLAG_NONE (0x0), then the standard ?
? ? ? ? FQDN flags described above are sent in the DHCP ?
? ? ? ? requests. ?

??

?dhcp-iaid ? string ? ? A string containing the "Identity Association ?
? ? ? ? Identifier" (IAID) used by the DHCP client. The ?
? ? ? ? string can be a 32-bit number (either decimal, ?
? ? ? ? hexadecimal or or as colon separated hexadecimal ?

? ? ? ? numbers). Alternatively it can be set to the special ?
? ? ? ? values "mac", "perm-mac", "ifname" or "stable". When ?
? ? ? ? set to "mac" (or "perm-mac"), the last 4 bytes of ?
? ? ? ? the current (or permanent) MAC address are used as ?
? ? ? ? IAID. When set to "ifname", the IAID is computed by ?
? ? ? ? hashing the interface name. The special value ?
? ? ? ? "stable" can be used to generate an IAID based on ?
? ? ? ? the stable-id (see connection.stable-id), a per-host ?
? ? ? ? key and the interface name. When the property is ?
? ? ? ? unset, the value from global configuration is used; ?
? ? ? ? if no global default is set then the IAID is assumed ?
? ? ? ? to be "ifname". ?
? ? ? ? ?
? ? ? ? For DHCPv4, the IAID is only used with ?
? ? ? ? "ipv4.dhcp-client-id" values "duid" and "ipv6-duid" ?
? ? ? ? to generate the client-id. ?
? ? ? ? ?
? ? ? ? For DHCPv6, note that at the moment this property is ?
? ? ? ? only supported by the "internal" DHCPv6 plugin. The ?
? ? ? ? "dhclient" DHCPv6 plugin always derives the IAID ?
? ? ? ? from the MAC address. ?
? ? ? ? ?
? ? ? ? The actually used DHCPv6 IAID for a currently ?
? ? ? ? activated interface is exposed in the lease ?
? ? ? ? information of the device. ?

???

?dhcp-reject-servers ? array of string ? ? Array of servers from which DHCP offers must be ?
? ? ? ? rejected. This property is useful to avoid getting a ?
? ? ? ? lease from misconfigured or rogue servers. ?
? ? ? ? ?
? ? ? ? For DHCPv4, each element must be an IPv4 address, ?

? ? ? ? optionally followed by a slash and a prefix length ?

? ? ? ? (e.g. "192.168.122.0/24"). ?

? ? ? ? ?

? ? ? ? This property is currently not implemented for ?

? ? ? ? DHCPv6. ?

??

?????????????????????

?dhcp-send-hostname ? boolean ? TRUE ? If TRUE, a hostname is sent to the DHCP server when ?

? ? ? ? acquiring a lease. Some DHCP servers use this ?

? ? ? ? hostname to update DNS databases, essentially ?

? ? ? ? providing a static hostname for the computer. If ?

? ? ? ? the "dhcp-hostname" property is NULL and this ?

? ? ? ? property is TRUE, the current persistent hostname of ?

? ? ? ? the computer is sent. ?

??

?????????????????????

?dhcp-timeout ? int32 ? 0 ? A timeout for a DHCP transaction in seconds. If zero ?

? ? ? ? (the default), a globally configured default is ?

? ? ? ? used. If still unspecified, a device specific ?

? ? ? ? timeout is used (usually 45 seconds). ?

? ? ? ? ?

? ? ? ? Set to 2147483647 (MAXINT32) for infinity. ?

??

?????????????????????

?dns ? array of byte ? ? Array of IP addresses of DNS servers (in network ?

? ? array ? ? byte order) ?

??

?????????????????????

?dns-data ? array of strings ? ? Array of DNS name servers. This replaces the ?

? ? ? ? deprecated "dns" property. Each name server can also ?
? ? ? ? contain a DoT server name. ?

??
??????????????????????

?dns-options ? array of string ? ? Array of DNS options as described in man 5 ?
? ? ? ? resolv.conf. ?
? ? ? ? ?
? ? ? ? NULL means that the options are unset and left at ?
? ? ? ? the default. In this case NetworkManager will use ?
? ? ? ? default options. This is distinct from an empty list ?
? ? ? ? of properties. ?
? ? ? ? ?
? ? ? ? The currently supported options are "attempts", ?
? ? ? ? "debug", "edns0", "inet6", "ip6-bytestring", ?
? ? ? ? "ip6-dotint", "ndots", "no-check-names", ?
? ? ? ? "no-ip6-dotint", "no-reload", "no-tld-query", ?
? ? ? ? "rotate", "single-request", "single-request-reopen", ?
? ? ? ? "timeout", "trust-ad", "use-vc". ?
? ? ? ? ?
? ? ? ? The "trust-ad" setting is only honored if the ?
? ? ? ? profile contributes name servers to resolv.conf, and ?
? ? ? ? if all contributing profiles have "trust-ad" ?
? ? ? ? enabled. ?
? ? ? ? ?
? ? ? ? When using a caching DNS plugin (dnsmasq or ?
? ? ? ? systemd-resolved in NetworkManager.conf) then ?
? ? ? ? "edns0" and "trust-ad" are automatically added. ?

??
??????????????????????

?dns-priority ? int32 ? 0 ? DNS servers priority. ?
? ? ? ? ?

? ? ? ? The relative priority for DNS servers specified by ?
? ? ? ? this setting. A lower numerical value is better ?
? ? ? ? (higher priority). ?
? ? ? ? ?
? ? ? ? Negative values have the special effect of excluding ?
? ? ? ? other configurations with a greater numerical ?
? ? ? ? priority value; so in presence of at least one ?
? ? ? ? negative priority, only DNS servers from connections ?
? ? ? ? with the lowest priority value will be used. To ?
? ? ? ? avoid all DNS leaks, set the priority of the profile ?
? ? ? ? that should be used to the most negative value of ?
? ? ? ? all active connections profiles. ?
? ? ? ? ?
? ? ? ? Zero selects a globally configured default value. If ?
? ? ? ? the latter is missing or zero too, it defaults to 50 ?
? ? ? ? for VPNs (including WireGuard) and 100 for other ?
? ? ? ? connections. ?
? ? ? ? ?
? ? ? ? Note that the priority is to order DNS settings for ?
? ? ? ? multiple active connections. It does not ?
? ? ? ? disambiguate multiple DNS servers within the same ?
? ? ? ? connection profile. ?
? ? ? ? ?
? ? ? ? When multiple devices have configurations with the ?
? ? ? ? same priority, VPNs will be considered first, then ?
? ? ? ? devices with the best (lowest metric) default route ?
? ? ? ? and then all other devices. ?
? ? ? ? ?
? ? ? ? When using dns=default, servers with higher priority ?
? ? ? ? will be on top of resolv.conf. To prioritize a given ?
? ? ? ? server over another one within the same connection, ?
? ? ? ? just specify them in the desired order. Note that ?
? ? ? ? commonly the resolver tries name servers in ?

?	?	?	? /etc/resolv.conf in the order listed, proceeding ?
?	?	?	? with the next server in the list on failure. See for ?
?	?	?	? example the "rotate" option of the dns-options ?
?	?	?	? setting. If there are any negative DNS priorities, ?
?	?	?	? then only name servers from the devices with that ?
?	?	?	? lowest priority will be considered. ?
?	?	?	? ?
?	?	?	? When using a DNS resolver that supports Conditional ?
?	?	?	? Forwarding or Split DNS (with dns=dnsmasq or ?
?	?	?	? dns=systemd-resolved settings), each connection is ?
?	?	?	? used to query domains in its search list. The search ?
?	?	?	? domains determine which name servers to ask, and the ?
?	?	?	? DNS priority is used to prioritize name servers ?
?	?	?	? based on the domain. Queries for domains not ?
?	?	?	? present in any search list are routed through ?
?	?	?	? connections having the '~.' special wildcard domain, ?
?	?	?	? which is added automatically to connections with the ?
?	?	?	? default route (or can be added manually). When ?
?	?	?	? multiple connections specify the same domain, the ?
?	?	?	? one with the best priority (lowest numerical value) ?
?	?	?	? wins. If a sub domain is configured on another ?
?	?	?	? interface it will be accepted regardless the ?
?	?	?	? priority, unless parent domain on the other ?
?	?	?	? interface has a negative priority, which causes the ?
?	?	?	? sub domain to be shadowed. With Split DNS one can ?
?	?	?	? avoid undesired DNS leaks by properly configuring ?
?	?	?	? DNS priorities and the search domains, so that only ?
?	?	?	? name servers of the desired interface are ?
?	?	?	? configured. ?

??

?dns-search	? array of string	?	? List of DNS search domains. Domains starting with a ?

? ? ? ? tilde ('~') are considered 'routing' domains and are ?
? ? ? ? used only to decide the interface over which a query ?
? ? ? ? must be forwarded; they are not used to complete ?
? ? ? ? unqualified host names. ?
? ? ? ? ?
? ? ? ? When using a DNS plugin that supports Conditional ?
? ? ? ? Forwarding or Split DNS, then the search domains ?
? ? ? ? specify which name servers to query. This makes the ?
? ? ? ? behavior different from running with plain ?
? ? ? ? /etc/resolv.conf. For more information see also the ?
? ? ? ? dns-priority setting. ?
? ? ? ? ?
? ? ? ? When set on a profile that also enabled DHCP, the ?
? ? ? ? DNS search list received automatically (option 119 ?
? ? ? ? for DHCPv4 and option 24 for DHCPv6) gets merged ?
? ? ? ? with the manual list. This can be prevented by ?
? ? ? ? setting "ignore-auto-dns". Note that if no DNS ?
? ? ? ? searches are configured, the fallback will be ?
? ? ? ? derived from the domain from DHCP (option 15). ?

??
??????????????????????

?gateway ? string ? ? The gateway associated with this configuration. This ?
? ? ? ? is only meaningful if "addresses" is also set. ?
? ? ? ? ?
? ? ? ? Setting the gateway causes NetworkManager to ?
? ? ? ? configure a standard default route with the gateway ?
? ? ? ? as next hop. This is ignored if "never-default" is ?
? ? ? ? set. An alternative is to configure the default ?
? ? ? ? route explicitly with a manual route and /0 as ?
? ? ? ? prefix length. ?
? ? ? ? ?
? ? ? ? Note that the gateway usually conflicts with routing ?

? ? ? ? that NetworkManager configures for WireGuard ?
? ? ? ? interfaces, so usually it should not be set in that ?
? ? ? ? case. See "ip4-auto-default-route". ?

??
???????????????????????
?ignore-auto-dns ? boolean ? FALSE ? When "method" is set to "auto" and this property to ?
? ? ? ? TRUE, automatically configured name servers and ?
? ? ? ? search domains are ignored and only name servers and ?
? ? ? ? search domains specified in the "dns" and ?
? ? ? ? "dns-search" properties, if any, are used. ?

??
???????????????????????
?ignore-auto-routes ? boolean ? FALSE ? When "method" is set to "auto" and this property to ?
? ? ? ? TRUE, automatically configured routes are ignored ?
? ? ? ? and only routes specified in the "routes" property, ?
? ? ? ? if any, are used. ?

??
???????????????????????
?ip6-privacy ? NMSettingIP6ConfigPrivacy ? ? Configure IPv6 Privacy Extensions for SLAAC, ?
? ? (int32) ? ? described in RFC4941. If enabled, it makes the ?
? ? ? ? kernel generate a temporary IPv6 address in addition ?
? ? ? ? to the public one generated from MAC address via ?
? ? ? ? modified EUI-64. This enhances privacy, but could ?
? ? ? ? cause problems in some applications, on the other ?
? ? ? ? hand. The permitted values are: -1: unknown, 0: ?
? ? ? ? disabled, 1: enabled (prefer public address), 2: ?
? ? ? ? enabled (prefer temporary addresses). ?
? ? ? ? ?
? ? ? ? Having a per-connection setting set to "-1" ?
? ? ? ? (unknown) means fallback to global configuration ?

? ? ? ? "ipv6.ip6-privacy". ?
? ? ? ? ?
? ? ? ? If also global configuration is unspecified or set ?
? ? ? ? to "-1", fallback to read ?
? ? ? ? "/proc/sys/net/ipv6/conf/default/use_tempaddr". ?
? ? ? ? ?
? ? ? ? Note that this setting is distinct from the Stable ?
? ? ? ? Privacy addresses that can be enabled with the ?
? ? ? ? "addr-gen-mode" property's "stable-privacy" setting ?
? ? ? ? as another way of avoiding host tracking with IPv6 ?
? ? ? ? addresses. ?

??
???????????????????????

?may-fail ? boolean ? TRUE ? If TRUE, allow overall network configuration to ?
? ? ? ? proceed even if the configuration specified by this ?
? ? ? ? property times out. Note that at least one IP ?
? ? ? ? configuration must succeed or overall network ?
? ? ? ? configuration will still fail. For example, in ?
? ? ? ? IPv6-only networks, setting this property to TRUE on ?
? ? ? ? the NMSettingIP4Config allows the overall network ?
? ? ? ? configuration to succeed if IPv4 configuration fails ?
? ? ? ? but IPv6 configuration completes successfully. ?

??
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?method ? string ? ? IP configuration method. ?
? ? ? ? ?
? ? ? ? NMSettingIP4Config and NMSettingIP6Config both ?
? ? ? ? support "disabled", "auto", "manual", and ?
? ? ? ? "link-local". See the subclass-specific ?
? ? ? ? documentation for other values. ?
? ? ? ? ?

? ? ? ? In general, for the "auto" method, properties such ?
? ? ? ? as "dns" and "routes" specify information that is ?
? ? ? ? added on to the information returned from automatic ?
? ? ? ? configuration. The "ignore-auto-routes" and ?
? ? ? ? "ignore-auto-dns" properties modify this behavior. ?
? ? ? ? ?
? ? ? ? For methods that imply no upstream network, such as ?
? ? ? ? "shared" or "link-local", these properties must be ?
? ? ? ? empty. ?
? ? ? ? ?
? ? ? ? For IPv4 method "shared", the IP subnet can be ?
? ? ? ? configured by adding one manual IPv4 address or ?
? ? ? ? otherwise 10.42.x.0/24 is chosen. Note that the ?
? ? ? ? shared method must be configured on the interface ?
? ? ? ? which shares the internet to a subnet, not on the ?
? ? ? ? uplink which is shared. ?

???
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?mtu ? uint32 ? 0 ? Maximum transmission unit size, in bytes. If zero ?
? ? ? ? (the default), the MTU is set automatically from ?
? ? ? ? router advertisements or is left equal to the ?
? ? ? ? link-layer MTU. If greater than the link-layer MTU, ?
? ? ? ? or greater than zero but less than the minimum IPv6 ?
? ? ? ? MTU of 1280, this value has no effect. ?

???
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?never-default ? boolean ? FALSE ? If TRUE, this connection will never be the default ?
? ? ? ? connection for this IP type, meaning it will never ?
? ? ? ? be assigned the default route by NetworkManager. ?

???

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?ra-timeout ? int32 ? 0 ? A timeout for waiting Router Advertisements in ?

? ? ? ? seconds. If zero (the default), a globally ?

? ? ? ? configured default is used. If still unspecified, ?

? ? ? ? the timeout depends on the sysctl settings of the ?

? ? ? ? device. ?

? ? ? ? ?

? ? ? ? Set to 2147483647 (MAXINT32) for infinity. ?

??

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?replace-local-rule ? NMTernary (int32) ? ? Connections will default to keep the autogenerated ?

? ? ? ? priority 0 local rule unless this setting is set to ?

? ? ? ? TRUE. ?

??

??????????????????????

?required-timeout ? int32 ? -1 ? The minimum time interval in milliseconds for which ?

? ? ? ? dynamic IP configuration should be tried before the ?

? ? ? ? connection succeeds. ?

? ? ? ? ?

? ? ? ? This property is useful for example if both IPv4 and ?

? ? ? ? IPv6 are enabled and are allowed to fail. Normally ?

? ? ? ? the connection succeeds as soon as one of the two ?

? ? ? ? address families completes; by setting a required ?

? ? ? ? timeout for e.g. IPv4, one can ensure that even if ?

? ? ? ? IP6 succeeds earlier than IPv4, NetworkManager waits ?

? ? ? ? some time for IPv4 before the connection becomes ?

? ? ? ? active. ?

? ? ? ? ?

? ? ? ? Note that if "may-fail" is FALSE for the same ?

? ? ? ? address family, this property has no effect as ?

? ? ? ? NetworkManager needs to wait for the full DHCP ?

? ? ? ? timeout. ?
? ? ? ? ?
? ? ? ? A zero value means that no required timeout is ?
? ? ? ? present, -1 means the default value (either ?
? ? ? ? configuration ipvx.required-timeout override or ?
? ? ? ? zero). ?

??
??????????????????????
?route-data ? array of vardict ? ? Array of IPv6 routes. Each route dictionary contains ?
? ? ? ? at least 'dest' and 'prefix' entries, containing the ?
? ? ? ? destination IP address as a string, and the prefix ?
? ? ? ? length as a uint32. Most routes will also have a ?
? ? ? ? 'next-hop' entry, containing the next hop IP address ?
? ? ? ? as a string. If the route has a 'metric' entry ?
? ? ? ? (containing a uint32), that will be used as the ?
? ? ? ? metric for the route (otherwise NM will pick a ?
? ? ? ? default value appropriate to the device). Additional ?
? ? ? ? attributes may also exist on some routes. ?

??
??????????????????????
?route-metric ? int64 ? -1 ? The default metric for routes that don't explicitly ?
? ? ? ? specify a metric. The default value -1 means that ?
? ? ? ? the metric is chosen automatically based on the ?
? ? ? ? device type. The metric applies to dynamic routes, ?
? ? ? ? manual (static) routes that don't have an explicit ?
? ? ? ? metric setting, address prefix routes, and the ?
? ? ? ? default route. Note that for IPv6, the kernel ?
? ? ? ? accepts zero (0) but coerces it to 1024 (user ?
? ? ? ? default). Hence, setting this property to zero ?
? ? ? ? effectively mean setting it to 1024. For IPv4, zero ?
? ? ? ? is a regular value for the metric. ?

??
??????????????????????

?route-table ? uint32 ? 0 ? Enable policy routing (source routing) and set the ?
? ? ? ? routing table used when adding routes. ?
? ? ? ? ?
? ? ? ? This affects all routes, including device-routes, ?
? ? ? ? IPv4LL, DHCP, SLAAC, default-routes and static ?
? ? ? ? routes. But note that static routes can individually ?
? ? ? ? overwrite the setting by explicitly specifying a ?
? ? ? ? non-zero routing table. ?
? ? ? ? ?
? ? ? ? If the table setting is left at zero, it is eligible ?
? ? ? ? to be overwritten via global configuration. If the ?
? ? ? ? property is zero even after applying the global ?
? ? ? ? configuration value, policy routing is disabled for ?
? ? ? ? the address family of this connection. ?
? ? ? ? ?
? ? ? ? Policy routing disabled means that NetworkManager ?
? ? ? ? will add all routes to the main table (except static ?
? ? ? ? routes that explicitly configure a different table). ?
? ? ? ? Additionally, NetworkManager will not delete any ?
? ? ? ? extraneous routes from tables except the main table. ?
? ? ? ? This is to preserve backward compatibility for users ?
? ? ? ? who manage routing tables outside of NetworkManager. ?

??
??????????????????????

?routes ? array of legacy IPv6 ? ? Deprecated in favor of the 'route-data' property, ?
? ? route struct (a(ayuayu)) ? ? but this can be used for backward-compatibility with ?
? ? ? ? older daemons. Note that if you send this property ?
? ? ? ? the daemon will ignore 'route-data'. Array of IPv6 ?
? ? ? ? route structures. Each IPv6 route structure is ?

? ? ? ? composed of an IPv6 address, a prefix length (0 - ?
? ? ? ? 128), an IPv6 next hop address (which may be zeroed ?
? ? ? ? out if there is no next hop), and a metric. If the ?
? ? ? ? metric is 0, NM will choose an appropriate default ?
? ? ? ? metric for the device. ?

??
??????????????????????

?routing-rules ? array of 'a{sv}' ? ? Array of dictionaries for routing rules. Each ?
? ? ? ? routing rule supports the following options: action ?
? ? ? ? (y), dport-end (q), dport-start (q), family (i), ?
? ? ? ? from (s), from-len (y), fwmark (u), fwmask (u), ?
? ? ? ? iifname (s), invert (b), ipproto (s), oifname (s), ?
? ? ? ? priority (u), sport-end (q), sport-start (q), ?
? ? ? ? supress-prefixlength (i), table (u), to (s), tos ?
? ? ? ? (y), to-len (y), range-end (u), range-start (u). ?

??
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?token ? string ? ? Configure the token for ?
? ? ? ? draft-chown-6man-tokenised-ipv6-identifiers-02 IPv6 ?
? ? ? ? tokenized interface identifiers. Useful with eui64 ?
? ? ? ? addr-gen-mode. ?

??
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ip-tunnel setting

IP Tunneling Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?
? ? ? ? Description ?

??

?encapsulation-limit ? uint32 ? 0 ? How many ?

? ? ? ? additional ?

? ? ? ? levels of ?

? ? ? ? encapsulation ?

? ? ? ? are permitted to ?

? ? ? ? be prepended to ?

? ? ? ? packets. This ?

? ? ? ? property applies ?

? ? ? ? only to IPv6 ?

? ? ? ? tunnels. ?

??

?flags ? uint32 ? 0 ? Tunnel flags. ?

? ? ? ? Currently, the ?

? ? ? ? following values ?

? ? ? ? are supported: ?

? ? ? ? NM_IP_TUNNEL_FLAG_IP6_IGN_ENCAP_LIMIT ?

? ? ? ? (0x1), ?

? ? ? ? NM_IP_TUNNEL_FLAG_IP6_USE_ORIG_TCLASS ?

? ? ? ? (0x2), ?

? ? ? ? NM_IP_TUNNEL_FLAG_IP6_USE_ORIG_FLOWLABEL ?

? ? ? ? (0x4), ?

? ? ? ? NM_IP_TUNNEL_FLAG_IP6_MIP6_DEV ?

? ? ? ? (0x8), ?

? ? ? ? NM_IP_TUNNEL_FLAG_IP6_RCV_DSCP_COPY ?

? ? ? ? (0x10), ?

? ? ? ? NM_IP_TUNNEL_FLAG_IP6_USE_ORIG_FWMARK ?

? ? ? ? (0x20). They are ?

? ? ? ? valid only for ?

? ? ? ? IPv6 tunnels. ?

??

?flow-label ? uint32 ? 0 ? The flow label to assign to tunnel ?

? ? ? ? packets. This property applies only to ?

? ? ? ? IPv6 tunnels. ?

??

?fwmark ? uint32 ? 0 ? The fwmark value to assign to tunnel ?

? ? ? ? packets. This property can be set to a ?

? ? ? ? non zero value only on VTI and VTI6 ?

? ? ? ? tunnels. ?

??

?input-key ? string ? ? The key used for tunnel input packets; ?

? ? ? ? the property is valid only for certain ?

? ? ? ? tunnel modes (GRE, IP6GRE). If empty, no ?

? ? ? ? key is used. ?

??

?local ? string ? ? The local endpoint of the tunnel; the ?

? ? ? ? value can be empty, otherwise it must ?

? ? ? ? contain an IPv4 or IPv6 address. ?

??

?mode ? uint32 ? 0 ? The tunneling mode, for example ?

? ? ? ? NM_IP_TUNNEL_MODE_IPIP (1) or ?

? ? ? ? NM_IP_TUNNEL_MODE_GRE (2). ?

??

?mtu ? uint32 ? 0 ? If non-zero, only transmit packets of ?

? ? ? ? the specified size or smaller, breaking ?

? ? ? ? larger packets up into multiple ?

? ? ? ? fragments. ?

??

?output-key ? string ? ? The key used for tunnel output packets; ?

? ? ? ? the property is valid only for certain ?

? ? ? ? tunnel modes (GRE, IP6GRE). If empty, no ?

? ? ? ? key is used. ?

??

?parent ? string ? ? If given, specifies the parent interface ?

? ? ? ? name or parent connection UUID the new ?

? ? ? ? device will be bound to so that tunneled ?

? ? ? ? packets will only be routed via that ?

? ? ? ? interface. ?

??

?path-mtu-discovery ? boolean ? TRUE ? Whether to enable Path MTU Discovery on ?

? ? ? ? this tunnel. ?

??

?remote ? string ? ? The remote endpoint of the tunnel; the ?

? ? ? ? value must contain an IPv4 or IPv6 ?

? ? ? ? address. ?

??

?tos ? uint32 ? 0 ? The type of service (IPv4) or traffic ?

? ? ? ? class (IPv6) field to be set on tunneled ?

? ? ? ? packets. ?

??

?ttl ? uint32 ? 0 ? The TTL to assign to tunneled packets. 0 ?

? ? ? ? is a special value meaning that packets ?

? ? ? ? inherit the TTL value. ?

??

macsec setting

MACSec Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?encrypt ? boolean ? TRUE ? Whether the ?

? ? ? ? transmitted ?

? ? ? ? traffic must be ?

? ? ? ? encrypted. ?

??

?mka-cak ? string ? ? The pre-shared ?

? ? ? ? CAK ?

? ? ? ? (Connectivity ?

? ? ? ? Association Key) ?

? ? ? ? for MACsec Key ?

? ? ? ? Agreement. Must ?

? ? ? ? be a string of ?

? ? ? ? 32 hexadecimal ?

? ? ? ? characters. ?

??

?mka-cak-flags ? NMSettingSecretFlags ? ? Flags indicating ?

? ? (uint32) ? ? how to handle ?

? ? ? ? the "mka-cak" ?

? ? ? ? property. ?

??

?mka-ckn ? string ? ? The pre-shared ?

? ? ? ? CKN ?

? ? ? ? (Connectivity-association ?

? ? ? ? Key Name) for ?

? ? ? ? MACsec Key ?

? ? ? ? Agreement. Must ?

? ? ? ? be a string of ?

? ? ? ? hexadecimal ?

? ? ? ? characters with ?

? ? ? ? a even length ?

? ? ? ? between 2 and ?

? ? ? ? 64. ?

??

?mode ? int32 ? 0 ? Specifies how the CAK ?

? ? ? ? (Connectivity Association ?

? ? ? ? Key) for MKA (MACsec Key ?

? ? ? ? Agreement) is obtained. ?

??

?parent ? string ? ? If given, specifies the ?

? ? ? ? parent interface name or ?

? ? ? ? parent connection UUID ?

? ? ? ? from which this MACSEC ?

? ? ? ? interface should be ?

? ? ? ? created. If this ?

? ? ? ? property is not ?

? ? ? ? specified, the connection ?

? ? ? ? must contain an ?

? ? ? ? "802-3-ethernet" setting ?

? ? ? ? with a "mac-address" ?

? ? ? ? property. ?

??

?port ? int32 ? 1 ? The port component of the ?

? ? ? ? SCI (Secure Channel ?

? ? ? ? Identifier), between 1 ?

? ? ? ? and 65534. ?

??

?send-sci ? boolean ? TRUE ? Specifies whether the SCI ?

? ? ? ? (Secure Channel ?

? ? ? ? Identifier) is included ?

? ? ? ? in every packet. ?

??

?validation ? int32 ? 2 ? Specifies the validation ?

? ? ? ? mode for incoming frames. ?

??

macvlan setting

MAC VLAN Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?mode ? uint32 ? 0 ? The macvlan ?

? ? ? ? mode, which ?

? ? ? ? specifies the ?

? ? ? ? communication ?

? ? ? ? mechanism ?

? ? ? ? between multiple ?

? ? ? ? macvlans on the ?

? ? ? ? same lower ?

? ? ? ? device. ?

??

?parent ? string ? ? If given, ?

? ? ? ? specifies the ?

? ? ? ? parent interface ?

? ? ? ? name or parent ?

? ? ? ? connection UUID ?

? ? ? ? from which this ?

? ? ? ? MAC-VLAN ?

? ? ? ? interface should ?

? ? ? ? be created. If ?

? ? ? ? this property is ?

? ? ? ? not specified, ?

? ? ? ? the connection ?

? ? ? ? must contain an ?

? ? ? ? "802-3-ethernet" ?

? ? ? ? setting with a ?

? ? ? ? "mac-address" ?

? ? ? ? property. ?

??

?promiscuous ? boolean ? TRUE ? Whether the ?

? ? ? ? interface should ?

? ? ? ? be put in ?

? ? ? ? promiscuous ?

? ? ? ? mode. ?

??

?tap ? boolean ? FALSE ? Whether the ?

? ? ? ? interface should ?

? ? ? ? be a MACVTAP. ?

??

match setting

Match settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?driver ? array of string ? ? A list of driver ?

? ? ? ? names to match. ?

? ? ? ? Each element is ?

? ? ? ? a shell wildcard ?

? ? ? ? pattern. ?

? ? ? ? ?

? ? ? ? See ?

? ? ? ? NMSettingMatch:interface-name ?

? ? ? ? for how special ?

? ? ? ? characters '|', ?

? ? ? ? '&', '!' and ?

? ? ? ? '\\' are used ?

? ? ? ? for optional and ?

? ? ? ? mandatory ?

? ? ? ? matches and ?

? ? ? ? inverting the ?

? ? ? ? pattern. ?

??

?interface-name ? array of string ? ? A list of interface names to ?

? ? ? ? match. Each element is a ?

? ? ? ? shell wildcard pattern. ?

? ? ? ? ?

? ? ? ? An element can be prefixed ?

? ? ? ? with a pipe symbol (|) or an ?

? ? ? ? ampersand (&). The former ?

? ? ? ? means that the element is ?

? ? ? ? optional and the latter means ?

? ? ? ? that it is mandatory. If ?

? ? ? ? there are any optional ?

? ? ? ? elements, than the match ?

? ? ? ? evaluates to true if at least ?

? ? ? ? one of the optional element ?

? ? ? ? matches (logical OR). If ?

? ? ? ? there are any mandatory ?

? ? ? ? elements, then they all must ?

? ? ? ? match (logical AND). By ?

? ? ? ? default, an element is ?

? ? ? ? optional. This means that an ?

? ? ? ? element "foo" behaves the ?

? ? ? ? same as "|foo". An element ?

? ? ? ? can also be inverted with ?

? ? ? ? exclamation mark (!) between ?

? ? ? ? the pipe symbol (or the ?

? ? ? ? ampersand) and before the ?

? ? ? ? pattern. Note that "!foo" is ?

? ? ? ? a shortcut for the mandatory ?

? ? ? ? match "&!foo". Finally, a ?

? ? ? ? backslash can be used at the ?

? ? ? ? beginning of the element ?

? ? ? ? (after the optional special ?

? ? ? ? characters) to escape the ?

? ? ? ? start of the pattern. For ?

? ? ? ? example, "&\\!a" is an ?

? ? ? ? mandatory match for literally ?

? ? ? ? "!a". ?

??

?kernel-command-line ? array of string ? ? A list of kernel command line ?

? ? ? ? arguments to match. This may ?

? ? ? ? be used to check whether a ?

? ? ? ? specific kernel command line ?

? ? ? ? option is set (or unset, if ?

? ? ? ? prefixed with the exclamation ?

? ? ? ? mark). The argument must ?

? ? ? ? either be a single word, or ?

? ? ? ? an assignment (i.e. two ?

? ? ? ? words, joined by "="). In the ?

? ? ? ? former case the kernel ?

? ? ? ? command line is searched for ?

? ? ? ? the word appearing as is, or ?

? ? ? ? as left hand side of an ?

? ? ? ? assignment. In the latter ?

? ? ? ? case, the exact assignment is ?

? ? ? ? looked for with right and ?

? ? ? ? left hand side matching. ?

? ? ? ? Wildcard patterns are not ?

? ? ? ? supported. ?

? ? ? ? ? ?

? ? ? ? See ?

? ? ? ? NMSettingMatch:interface-name ?

? ? ? ? for how special characters ?

? ? ? ? '|', '&', '!' and '\\' are ?

? ? ? ? used for optional and ?

? ? ? ? mandatory matches and ?

? ? ? ? inverting the match. ?

??

?path ? array of string ? ? A list of paths to match ?

? ? ? ? against the ID_PATH udev ?

? ? ? ? property of devices. ID_PATH ?

? ? ? ? represents the topological ?

? ? ? ? persistent path of a device. ?

? ? ? ? It typically contains a ?
? ? ? ? subsystem string (pci, usb, ?
? ? ? ? platform, etc.) and a ?
? ? ? ? subsystem-specific ?
? ? ? ? identifier. ?
? ? ? ? ?
? ? ? ? For PCI devices the path has ?
? ? ? ? the form ?
? ? ? ? "pci-$domain:$bus:$device.$function", ?
? ? ? ? where each variable is an ?
? ? ? ? hexadecimal value; for ?
? ? ? ? example "pci-0000:0a:00.0". ?
? ? ? ? ?
? ? ? ? The path of a device can be ?
? ? ? ? obtained with "udevadm info ?
? ? ? ? /sys/class/net/$dev | grep ?
? ? ? ? ID_PATH=" or by looking at ?
? ? ? ? the "path" property exported ?
? ? ? ? by NetworkManager ("nmcli -f ?
? ? ? ? general.path device show ?
? ? ? ? $dev"). ?
? ? ? ? ?
? ? ? ? Each element of the list is a ?
? ? ? ? shell wildcard pattern. ?
? ? ? ? ?
? ? ? ? See ?
? ? ? ? NMSettingMatch:interface-name ?
? ? ? ? for how special characters ?
? ? ? ? '|', '&', '!' and '\\' are ?
? ? ? ? used for optional and ?
? ? ? ? mandatory matches and ?
? ? ? ? inverting the pattern. ?

??

802-11-olpc-mesh setting

OLPC Wireless Mesh Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?channel ? uint32 ? 0 ? Channel on which ?

? ? ? ? the mesh network ?

? ? ? ? to join is ?

? ? ? ? located. ?

??

?dhcp-anycast-address ? byte array ? ? Anycast DHCP MAC ?

? ? ? ? address used ?

? ? ? ? when requesting ?

? ? ? ? an IP address ?

? ? ? ? via DHCP. The ?

? ? ? ? specific anycast ?

? ? ? ? address used ?

? ? ? ? determines which ?

? ? ? ? DHCP server ?

? ? ? ? class answers ?

? ? ? ? the request. ?

? ? ? ? ? ?

? ? ? ? This is ?

? ? ? ? currently only ?

? ? ? ? implemented by ?

? ? ? ? dhclient DHCP ?

? ? ? ? plugin. ?

??

?ssid ? byte array ? ? SSID of the mesh ?

? ? ? ? network to join. ?

??

ovs-bridge setting

OvsBridge Link Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?datapath-type ? string ? ? The data path ?

? ? ? ? type. One of ?

? ? ? ? "system", ?

? ? ? ? "netdev" or ?

? ? ? ? empty. ?

??

?fail-mode ? string ? ? The bridge ?

? ? ? ? failure mode. ?

? ? ? ? One of "secure", ?

? ? ? ? "standalone" or ?

? ? ? ? empty. ?

??

?mcast-snooping-enable ? boolean ? FALSE ? Enable or ?

? ? ? ? disable ?

? ? ? ? multicast ?

? ? ? ? snooping. ?

??

?rstp-enable ? boolean ? FALSE ? Enable or ?

? ? ? ? disable RSTP. ?

??

?stp-enable ? boolean ? FALSE ? Enable or ?

? ? ? ? disable STP. ?

??

ovs-dpdk setting

OvsDpdk Link Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

```
?          ?          ?              ? Description      ?
????????????????????????????????????????????????????????????????????
?devargs    ? string     ?              ? Open vSwitch     ?
?          ?          ?              ? DPDK device      ?
?          ?          ?              ? arguments.       ?
????????????????????????????????????????????????????????????????????
?n-rxq      ? uint32     ? 0            ? Open vSwitch     ?
?          ?          ?              ? DPDK number of   ?
?          ?          ?              ? rx queues.       ?
?          ?          ?              ? Defaults to zero ?
?          ?          ?              ? which means to   ?
?          ?          ?              ? leave the        ?
?          ?          ?              ? parameter in OVS ?
?          ?          ?              ? unspecified and  ?
?          ?          ?              ? effectively      ?
?          ?          ?              ? configures one   ?
?          ?          ?              ? queue.           ?
????????????????????????????????????????????????????????????????????
?n-rxq-desc ? uint32     ? 0            ? The rx queue     ?
?          ?          ?              ? size (number of  ?
?          ?          ?              ? rx descriptors)  ?
?          ?          ?              ? for DPDK ports.  ?
?          ?          ?              ? Must be zero or  ?
?          ?          ?              ? a power of 2     ?
?          ?          ?              ? between 1 and    ?
?          ?          ?              ? 4096, and        ?
?          ?          ?              ? supported by the ?
?          ?          ?              ? hardware.        ?
?          ?          ?              ? Defaults to zero ?
?          ?          ?              ? which means to   ?
?          ?          ?              ? leave the        ?
?          ?          ?              ? parameter in OVS ?
?          ?          ?              ? unspecified and  ?
```

? ? ? ? effectively ?

? ? ? ? configures 2048 ?

? ? ? ? descriptors. ?

??

?n-txq-desc ? uint32 ? 0 ? The tx queue ?

? ? ? ? size (number of ?

? ? ? ? tx descriptors) ?

? ? ? ? for DPDK ports. ?

? ? ? ? Must be zero or ?

? ? ? ? a power of 2 ?

? ? ? ? between 1 and ?

? ? ? ? 4096, and ?

? ? ? ? supported by the ?

? ? ? ? hardware. ?

? ? ? ? Defaults to zero ?

? ? ? ? which means to ?

? ? ? ? leave the ?

? ? ? ? parameter in OVS ?

? ? ? ? unspecified and ?

? ? ? ? effectively ?

? ? ? ? configures 2048 ?

? ? ? ? descriptors. ?

??

ovs-interface setting

Open vSwitch Interface Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?ofport-request ? uint32 ? 0 ? Open vSwitch ?

? ? ? ? openflow port ?

? ? ? ? number. Defaults ?

? ? ? ? to zero which ?

? ? ? ? means that port ?

? ? ? ? number will not ?

? ? ? ? be specified and ?

? ? ? ? it will be ?

? ? ? ? chosen randomly ?

? ? ? ? by ovs. OpenFlow ?

? ? ? ? ports are the ?

? ? ? ? network ?

? ? ? ? interfaces for ?

? ? ? ? passing packets ?

? ? ? ? between OpenFlow ?

? ? ? ? processing and ?

? ? ? ? the rest of the ?

? ? ? ? network. ?

? ? ? ? OpenFlow ?

? ? ? ? switches connect ?

? ? ? ? logically to ?

? ? ? ? each other via ?

? ? ? ? their OpenFlow ?

? ? ? ? ports. ?

??

?type ? string ? ? The interface ?

? ? ? ? type. Either ?

? ? ? ? "internal", ?

? ? ? ? "system", ?

? ? ? ? "patch", "dpdk", ?

? ? ? ? or empty. ?

??

ovs-patch setting

OvsPatch Link Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?peer ? string ? ? Specifies the ?

? ? ? ? name of the ?

? ? ? ? interface for ?

? ? ? ? the other side ?

? ? ? ? of the patch. ?

? ? ? ? The patch on the ?

? ? ? ? other side must ?

? ? ? ? also set this ?

? ? ? ? interface as ?

? ? ? ? peer. ?

??

ovs-port setting

OvsPort Link Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?bond-downdelay ? uint32 ? 0 ? The time port ?

? ? ? ? must be inactive ?

? ? ? ? in order to be ?

? ? ? ? considered down. ?

??

?bond-mode ? string ? ? Bonding mode. ?

? ? ? ? One of ?

? ? ? ? "active-backup", ?

? ? ? ? "balance-slb", ?

? ? ? ? or ?

? ? ? ? "balance-tcp". ?

??

?bond-updelay ? uint32 ? 0 ? The time port ?

? ? ? ? must be active ?

? ? ? ? before it starts ?

? ? ? ? forwarding ?

? ? ? ? traffic. ?

??

?lacp ? string ? ? LACP mode. One ?

? ? ? ? of "active", ?

? ? ? ? "off", or ?

? ? ? ? "passive". ?

??

?tag ? uint32 ? 0 ? The VLAN tag in ?

? ? ? ? the range ?

? ? ? ? 0-4095. ?

??

?trunks ? array of vardict ? ? A list of VLAN ?

? ? ? ? ranges that this ?

? ? ? ? port trunks. ?

? ? ? ? ? ?

? ? ? ? The property is ?

? ? ? ? valid only for ?

? ? ? ? ports with mode ?

? ? ? ? "trunk", ?

? ? ? ? "native-tagged", ?

? ? ? ? or ?

? ? ? ? "native-untagged ?

? ? ? ? port". If it is ?

? ? ? ? empty, the port ?

? ? ? ? trunks all ?

? ? ? ? VLANs. ?

??

?vlan-mode ? string ? ? The VLAN mode. ?

? ? ? ? One of "access", ?

? ? ? ? "native-tagged", ?

? ? ? ? "native-untagged", ?

? ? ? ? "trunk", ?

? ? ? ? "dot1q-tunnel" ?

? ? ? ? or unset. ?

??

ppp setting

Point-to-Point Protocol Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?baud ? uint32 ? 0 ? If non-zero, ?

? ? ? ? instruct pppd to ?

? ? ? ? set the serial ?

? ? ? ? port to the ?

? ? ? ? specified ?

? ? ? ? baudrate. This ?

? ? ? ? value should ?

? ? ? ? normally be left ?

? ? ? ? as 0 to ?

? ? ? ? automatically ?

? ? ? ? choose the ?

? ? ? ? speed. ?

??

?crtscts ? boolean ? FALSE ? If TRUE, specify ?

? ? ? ? that pppd should ?

? ? ? ? set the serial ?

? ? ? ? port to use ?

? ? ? ? hardware flow ?

? ? ? ? control with RTS ?

? ? ? ? and CTS signals. ?

? ? ? ? This value ?

? ? ? ? should normally ?

? ? ? ? be set to FALSE. ?

??

?lcp-echo-failure ? uint32 ? 0 ? If non-zero, ?

? ? ? ? instruct pppd to ?

? ? ? ? presume the ?

? ? ? ? connection to ?

? ? ? ? the peer has ?

? ? ? ? failed if the ?

? ? ? ? specified number ?

? ? ? ? of LCP ?

? ? ? ? echo-requests go ?

? ? ? ? unanswered by ?

? ? ? ? the peer. The ?

? ? ? ? "lcp-echo-interval" ?

? ? ? ? property must ?

? ? ? ? also be set to a ?

? ? ? ? non-zero value ?

? ? ? ? if this property ?

? ? ? ? is used. ?

??

?lcp-echo-interval ? uint32 ? 0 ? If non-zero, ?

? ? ? ? instruct pppd to ?

? ? ? ? send an LCP ?

? ? ? ? echo-request frame ?

? ? ? ? to the peer every n ?

? ? ? ? seconds (where n is ?

? ? ? ? the specified ?

? ? ? ? value). Note that ?

? ? ? ? some PPP peers will ?

? ? ? ? respond to echo ?

? ? ? ? requests and some ?

? ? ? ? will not, and it is ?

? ? ? ? not possible to ?

? ? ? ? autodetect this. ?

??

?mppe-stateful ? boolean ? FALSE ? If TRUE, stateful ?

? ? ? ? MPPE is used. See ?

? ? ? ? pppd documentation ?

? ? ? ? for more ?

? ? ? ? information on ?

? ? ? ? stateful MPPE. ?

??

?mru ? uint32 ? 0 ? If non-zero, ?

? ? ? ? instruct pppd to ?

? ? ? ? request that the ?

? ? ? ? peer send packets ?

? ? ? ? no larger than the ?

? ? ? ? specified size. If ?

? ? ? ? non-zero, the MRU ?

? ? ? ? should be between ?

? ? ? ? 128 and 16384. ?

??

?mtu ? uint32 ? 0 ? If non-zero, ?

? ? ? ? instruct pppd to ?

? ? ? ? send packets no ?

? ? ? ? larger than the ?

? ? ? ? specified size. ?

??

?no-vj-comp ? boolean ? FALSE ? If TRUE, Van ?

? ? ? ? Jacobsen TCP header ?

? ? ? ? compression will ?

? ? ? ? not be requested. ?

??

?noauth ? boolean ? TRUE ? If TRUE, do not ?

? ? ? ? require the other ?

? ? ? ? side (usually the ?

? ? ? ? PPP server) to ?

? ? ? ? authenticate itself ?

? ? ? ? to the client. If ?

? ? ? ? FALSE, require ?

? ? ? ? authentication from ?

? ? ? ? the remote side. ?

? ? ? ? In almost all ?

? ? ? ? cases, this should ?

? ? ? ? be TRUE. ?

??

?nobsdcomp ? boolean ? FALSE ? If TRUE, BSD ?

? ? ? ? compression will ?

? ? ? ? not be requested. ?

??

?nodeflate ? boolean ? FALSE ? If TRUE, "deflate" ?

? ? ? ? compression will ?

? ? ? ? not be requested. ?

??

?refuse-chap ? boolean ? FALSE ? If TRUE, the CHAP ?

? ? ? ? authentication ?

? ? ? ? method will not be ?

? ? ? ? used. ?

??

?refuse-eap ? boolean ? FALSE ? If TRUE, the EAP ?

? ? ? ? authentication ?

? ? ? ? method will not be ?

? ? ? ? used. ?

??

?refuse-mschap ? boolean ? FALSE ? If TRUE, the MSCHAP ?

? ? ? ? authentication ?

? ? ? ? method will not be ?

? ? ? ? used. ?

??

?refuse-mschapv2 ? boolean ? FALSE ? If TRUE, the ?

? ? ? ? MSCHAPv2 ?

? ? ? ? authentication ?

? ? ? ? method will not be ?

? ? ? ? used. ?

??

?refuse-pap ? boolean ? FALSE ? If TRUE, the PAP ?

? ? ? ? authentication ?

? ? ? ? method will not be ?

? ? ? ? used. ?

??

?require-mppe ? boolean ? FALSE ? If TRUE, MPPE ?

? ? ? ? (Microsoft ?

? ? ? ? Point-to-Point ?

? ? ? ? Encryption) will be ?

? ? ? ? required for the ?

? ? ? ? PPP session. If ?

? ? ? ? either 64-bit or ?

? ? ? ? 128-bit MPPE is not ?

? ? ? ? available the ?

? ? ? ? session will fail. ?

? ? ? ? Note that MPPE is ?

? ? ? ? not used on mobile ?

? ? ? ? broadband ?

? ? ? ? connections. ?

??

?require-mppe-128 ? boolean ? FALSE ? If TRUE, 128-bit ?

? ? ? ? MPPE (Microsoft ?

? ? ? ? Point-to-Point ?

? ? ? ? Encryption) will be ?

? ? ? ? required for the ?

? ? ? ? PPP session, and ?

? ? ? ? the "require-mppe" ?

? ? ? ? property must also ?

? ? ? ? be set to TRUE. If ?

? ? ? ? 128-bit MPPE is not ?

? ? ? ? available the ?

? ? ? ? session will fail. ?

??

pppoe setting

PPP-over-Ethernet Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?parent ? string ? ? If given, ?

? ? ? ? specifies the ?

? ? ? ? parent interface ?

? ? ? ? name on which ?

? ? ? ? this PPPoE ?

? ? ? ? connection ?

? ? ? ? should be ?

? ? ? ? created. If ?

? ? ? ? this property is ?

? ? ? ? not specified, ?

? ? ? ? the connection ?

? ? ? ? is activated on ?

? ? ? ? the interface ?

? ? ? ? specified in ?

? ? ? ? "interface-name" ?

? ? ? ? of ?

? ? ? ? NMSettingConnection. ?

??

?password ? string ? ? Password used to ?

? ? ? ? authenticate with ?

? ? ? ? the PPPoE service. ?

??

?password-flags ? NMSettingSecretFlags ? ? Flags indicating how ?

? ? (uint32) ? ? to handle the ?

? ? ? ? "password" property. ?

??

?service ? string ? ? If specified, ?

? ? ? ? instruct PPPoE to ?

? ? ? ? only initiate ?

? ? ? ? sessions with access ?

? ? ? ? concentrators that ?

? ? ? ? provide the ?

? ? ? ? specified service. ?

? ? ? ? For most providers, ?

? ? ? ? this should be left ?

? ? ? ? blank. It is only ?

? ? ? ? required if there ?

? ? ? ? are multiple access ?

? ? ? ? concentrators or a ?

? ? ? ? specific service is ?

? ? ? ? known to be ?

? ? ? ? required. ?

??

?username ? string ? ? Username used to ?

? ? ? ? authenticate with ?

? ? ? ? the PPPoE service. ?

??

proxy setting

WWW Proxy Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?browser-only ? boolean ? FALSE ? Whether the ?

? ? ? ? proxy ?

? ? ? ? configuration is ?

? ? ? ? for browser ?

? ? ? ? only. ?

??

?method ? int32 ? 0 ? Method for proxy ?

? ? ? ? configuration, ?

? ? ? ? Default is ?

? ? ? ? NM_SETTING_PROXY_METHOD_NONE ?

? ? ? ? (0) ?

??

?pac-script ? string ? ? PAC script for the ?

? ? ? ? connection. This is an UTF-8 ?

? ? ? ? encoded javascript code that ?

? ? ? ? defines a FindProxyForURL() ?

? ? ? ? function. ?

??

?pac-url ? string ? ? PAC URL for obtaining PAC ?

? ? ? ? file. ?

??

serial setting

Serial Link Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?baud ? uint32 ? 57600 ? Speed to use for ?

? ? ? ? communication ?

? ? ? ? over the serial ?

? ? ? ? port. Note that ?

? ? ? ? this value ?

? ? ? ? usually has no ?

? ? ? ? effect for ?

? ? ? ? mobile broadband ?

? ? ? ? modems as they ?

? ? ? ? generally ignore ?

? ? ? ? speed settings ?

? ? ? ? and use the ?

? ? ? ? highest ?

? ? ? ? available speed. ?

??

?bits ? uint32 ? 8 ? Byte-width of ?

? ? ? ? the serial ?

? ? ? ? communication. ?

? ? ? ? The 8 in "8n1" ?

? ? ? ? for example. ?

??

?parity ? byte ? ? The connection ?

? ? ? ? parity: 69 ?

? ? ? ? (ASCII 'E') for ?

? ? ? ? even parity, 111 ?

? ? ? ? (ASCII 'o') for ?

? ? ? ? odd, 110 (ASCII ?

? ? ? ? 'n') for none. ?

??

?send-delay ? uint64 ? 0 ? Time to delay ?

? ? ? ? between each ?

? ? ? ? byte sent to the ?

? ? ? ? modem, in ?

? ? ? ? microseconds. ?

??

?stopbits ? uint32 ? 1 ? Number of stop ?

? ? ? ? bits for ?

? ? ? ? communication on ?

? ? ? ? the serial port. ?

? ? ? ? Either 1 or 2. ?

? ? ? ? The 1 in "8n1" ?

? ? ? ? for example. ?

??

sriov setting

SR-IOV settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?autoprobe-drivers ? NMTernary ? ? Whether to ?

? ? (int32) ? ? autoprobe ?

? ? ? ? virtual ?

? ? ? ? functions by a ?

? ? ? ? compatible ?

? ? ? ? driver. ?

? ? ? ? ?

? ? ? ? If set to ?

? ? ? ? NM_TERNARY_TRUE ?

? ? ? ? (1), the kernel ?

? ? ? ? will try to bind ?

? ? ? ? VFs to a ?

? ? ? ? compatible ?

? ? ? ? driver and if ?

? ? ? ? this succeeds a ?

? ? ? ? new network ?

? ? ? ? interface will ?

? ? ? ? be instantiated ?

? ? ? ? for each VF. ?

? ? ? ? ?

? ? ? ? If set to ?

? ? ? ? NM_TERNARY_FALSE ?

? ? ? ? (0), VFs will ?

? ? ? ? not be claimed ?

? ? ? ? and no network ?

? ? ? ? interfaces will ?

? ? ? ? be created for ?

? ? ? ? them. ?

? ? ? ? ?

? ? ? ? When set to ?

? ? ? ? NM_TERNARY_DEFAULT ?

? ? ? ? (-1), the global ?

? ? ? ? default is used; ?

? ? ? ? in case the ?

? ? ? ? global default ?

? ? ? ? is unspecified ?

? ? ? ? it is assumed to ?

? ? ? ? be ?

? ? ? ? NM_TERNARY_TRUE ?

? ? ? ? (1). ?

??

?total-vfs ? uint32 ? 0 ? The total number ?

? ? ? ? of virtual ?

? ? ? ? functions to ?

? ? ? ? create. ?

? ? ? ? ?

? ? ? ? Note that when the ?

? ? ? ? sriov setting is ?

? ? ? ? present ?

? ? ? ? NetworkManager ?

? ? ? ? enforces the ?

? ? ? ? number of virtual ?

? ? ? ? functions on the ?

? ? ? ? interface (also ?

? ? ? ? when it is zero) ?

? ? ? ? during activation ?

? ? ? ? and resets it upon ?

? ? ? ? deactivation. To ?

? ? ? ? prevent any ?

? ? ? ? changes to SR-IOV ?

? ? ? ? parameters don't ?

? ? ? ? add a sriov ?

? ? ? ? setting to the ?

? ? ? ? connection. ?

??

?vfs ? array of vardict ? ? Array of virtual ?

? ? ? ? function ?

? ? ? ? descriptors. ?

? ? ? ? ?

? ? ? ? Each VF descriptor ?

? ? ? ? is a dictionary ?

? ? ? ? mapping attribute ?

? ? ? ? names to GVariant ?

? ? ? ? values. The ?

? ? ? ? 'index' entry is ?

? ? ? ? mandatory for each ?

? ? ? ? VF. ?

? ? ? ? ?

? ? ? ? When represented ?

? ? ? ? as string a VF is ?

? ? ? ? in the form: ?

? ? ? ? ?

? ? ? ? "INDEX ?

? ? ? ? [ATTR=VALUE[?

? ? ? ? ATTR=VALUE]...]". ?

? ? ? ? ?

? ? ? ? for example: ?

? ? ? ? ?

? ? ? ? "2 ?

? ? ? ? mac=00:11:22:33:44:55 ?

? ? ? ? spoof-check=true". ?

? ? ? ? ?

? ? ? ? Multiple VFs can ?

? ? ? ? be specified using ?

? ? ? ? a comma as ?

? ? ? ? separator. ?

? ? ? ? Currently, the ?

? ? ? ? following ?

? ? ? ? attributes are ?

? ? ? ? supported: mac, ?

? ? ? ? spoof-check, ?

? ? ? ? trust, ?

? ? ? ? min-tx-rate, ?

? ? ? ? max-tx-rate, ?

? ? ? ? vlans. ?

? ? ? ? ? ?

? ? ? ? The "vlans" ?

? ? ? ? attribute is ?

? ? ? ? represented as a ?

? ? ? ? semicolon-separated ?

? ? ? ? list of VLAN ?

? ? ? ? descriptors, where ?

? ? ? ? each descriptor ?

? ? ? ? has the form ?

? ? ? ? ? ?

? ? ? ? "ID[.PRIORITY[.PROTO]]". ?

? ? ? ? ? ?

? ? ? ? PROTO can be ?

? ? ? ? either 'q' for ?

? ? ? ? 802.1Q (the ?

? ? ? ? default) or 'ad' ?

? ? ? ? for 802.1ad. ?

??

tc setting

Linux Traffic Control Settings.

```
????????????????????????????????????????????????????????????????????????????????
?Key Name ? Value Type      ? Default Value ? Value                 ?
?         ?                 ?               ? Description           ?
????????????????????????????????????????????????????????????????????????????????
?qdiscs   ? array of vardict ?               ? Array of TC           ?
?         ?                 ?               ? queueing              ?
?         ?                 ?               ? disciplines.          ?
?         ?                 ?               ?                       ?
?         ?                 ?               ? When the "tc"         ?
?         ?                 ?               ? setting is            ?
?         ?                 ?               ? present, qdiscs       ?
?         ?                 ?               ? from this             ?
?         ?                 ?               ? property are          ?
?         ?                 ?               ? applied upon          ?
?         ?                 ?               ? activation. If        ?
?         ?                 ?               ? the property is       ?
?         ?                 ?               ? empty, all            ?
?         ?                 ?               ? qdiscs are            ?
?         ?                 ?               ? removed and the       ?
?         ?                 ?               ? device will only      ?
?         ?                 ?               ? have the default      ?
?         ?                 ?               ? qdisc assigned        ?
?         ?                 ?               ? by kernel             ?
?         ?                 ?               ? according to the      ?
?         ?                 ?               ? "net.core.default_qdisc" ?
?         ?                 ?               ? sysctl.               ?
?         ?                 ?               ?                       ?
?         ?                 ?               ? If the "tc"           ?
?         ?                 ?               ? setting is not        ?
?         ?                 ?               ? present,              ?
?         ?                 ?               ? NetworkManager        ?
?         ?                 ?               ? doesn't touch         ?
?         ?                 ?               ? the qdiscs            ?
```

? ? ? ? present on the ?

? ? ? ? interface. ?

??

?tfilters ? array of vardict ? ? Array of TC traffic ?

? ? ? ? filters. ?

? ? ? ? ?

? ? ? ? When the "tc" setting is ?

? ? ? ? present, filters from ?

? ? ? ? this property are ?

? ? ? ? applied upon activation. ?

? ? ? ? If the property is ?

? ? ? ? empty, NetworkManager ?

? ? ? ? removes all the filters. ?

? ? ? ? ?

? ? ? ? If the "tc" setting is ?

? ? ? ? not present, ?

? ? ? ? NetworkManager doesn't ?

? ? ? ? touch the filters ?

? ? ? ? present on the ?

? ? ? ? interface. ?

??

team setting

Teaming Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?config ? string ? ? The JSON ?

? ? ? ? configuration ?

? ? ? ? for the team ?

? ? ? ? network ?

? ? ? ? interface. The ?

? ? ? ? property should ?

? ? ? ? contain raw JSON ?

? ? ? ? configuration ?

? ? ? ? data suitable ?

? ? ? ? for teamd, ?

? ? ? ? because the ?

? ? ? ? value is passed ?

? ? ? ? directly to ?

? ? ? ? teamd. If not ?

? ? ? ? specified, the ?

? ? ? ? default ?

? ? ? ? configuration is ?

? ? ? ? used. See man ?

? ? ? ? teamd.conf for ?

? ? ? ? the format ?

? ? ? ? details. ?

??

?interface-name ? string ? ? Deprecated in ?

? ? ? ? favor of ?

? ? ? ? connection.interface-name, ?

? ? ? ? but can be used ?

? ? ? ? for ?

? ? ? ? backward-compatibility ?

? ? ? ? with older ?

? ? ? ? daemons, to set ?

? ? ? ? the team's ?

? ? ? ? interface name. ?

??

?link-watchers ? array of vardict ? ? Link watchers ?

? ? ? ? configuration for the ?

? ? ? ? connection: each link ?

? ? ? ? watcher is defined by a ?

? ? ? ? dictionary, whose keys ?

? ? ? ? depend upon the selected ?

? ? ? ? link watcher. Available ?

? ? ? ? link watchers are ?

? ? ? ? 'ethtool', 'nsna_ping' and ?

? ? ? ? 'arp_ping' and it is ?

? ? ? ? specified in the ?

? ? ? ? dictionary with the key ?

? ? ? ? 'name'. Available keys ?

? ? ? ? are: ethtool: ?

? ? ? ? 'delay-up', 'delay-down', ?

? ? ? ? 'init-wait'; nsna_ping: ?

? ? ? ? 'init-wait', 'interval', ?

? ? ? ? 'missed-max', ?

? ? ? ? 'target-host'; arp_ping: ?

? ? ? ? all the ones in nsna_ping ?

? ? ? ? and 'source-host', ?

? ? ? ? 'validate-active', ?

? ? ? ? 'validate-inactive', ?

? ? ? ? 'send-always'. See ?

? ? ? ? teamd.conf man for more ?

? ? ? ? details. ?

??

?mcast-rejoin-count ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? mcast_rejoin.count. ?

??

?mcast-rejoin-interval ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? mcast_rejoin.interval. ?

??

?notify-peers-count ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? notify_peers.count. ?

??

?notify-peers-interval ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? notify_peers.interval. ?

??

?runner ? string ? ? Corresponds to the teamd ?

? ? ? ? runner.name. Permitted ?

? ? ? ? values are: "roundrobin", ?

? ? ? ? "broadcast", ?

? ? ? ? "activebackup", ?

? ? ? ? "loadbalance", "lacp", ?

? ? ? ? "random". ?

??

?runner-active ? boolean ? TRUE ? Corresponds to the teamd ?

? ? ? ? runner.active. ?

??

?runner-agg-select-policy ? string ? ? Corresponds to the teamd ?

? ? ? ? runner.agg_select_policy. ?

??

?runner-fast-rate ? boolean ? FALSE ? Corresponds to the teamd ?

? ? ? ? runner.fast_rate. ?

??

?runner-hwaddr-policy ? string ? ? Corresponds to the teamd ?

? ? ? ? runner.hwaddr_policy. ?

??

?runner-min-ports ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? runner.min_ports. ?

??

?runner-sys-prio ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? runner.sys_prio. ?

??

?runner-tx-balancer ? string ? ? Corresponds to the teamd ?

? ? ? ? runner.tx_balancer.name. ?

??

?runner-tx-balancer-interval ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? runner.tx_balancer.interval. ?

??

?runner-tx-hash ? array of string ? ? Corresponds to the teamd ?

? ? ? ? runner.tx_hash. ?

??

team-port setting

Team Port Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?config ? string ? ? The JSON ?

? ? ? ? configuration ?

? ? ? ? for the team ?

? ? ? ? port. The ?

? ? ? ? property should ?

? ? ? ? contain raw JSON ?

? ? ? ? configuration ?

? ? ? ? data suitable ?

? ? ? ? for teamd, ?

? ? ? ? because the ?

? ? ? ? value is passed ?

? ? ? ? directly to ?

? ? ? ? teamd. If not ?

? ? ? ? specified, the ?

? ? ? ? default ?

? ? ? ? configuration is ?

? ? ? ? used. See man ?

? ? ? ? teamd.conf for ?

? ? ? ? the format ?

? ? ? ? details. ?

??

?lacp-key ? int32 ? -1 ? Corresponds to ?

? ? ? ? the teamd ?

? ? ? ? ports.PORTIFNAME.lacp_key. ?

??

?lacp-prio ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? ports.PORTIFNAME.lacp_prio. ?

??

?link-watchers ? array of vardict ? ? Link watchers configuration ?

? ? ? ? for the connection: each ?

? ? ? ? link watcher is defined by ?

? ? ? ? a dictionary, whose keys ?

? ? ? ? depend upon the selected ?

? ? ? ? link watcher. Available ?

? ? ? ? link watchers are ?

? ? ? ? 'ethtool', 'nsna_ping' and ?

? ? ? ? 'arp_ping' and it is ?

? ? ? ? specified in the dictionary ?

? ? ? ? with the key 'name'. ?

? ? ? ? Available keys are: ?

? ? ? ? ethtool: 'delay-up', ?

? ? ? ? 'delay-down', 'init-wait'; ?

? ? ? ? nsna_ping: 'init-wait', ?

? ? ? ? 'interval', 'missed-max', ?

? ? ? ? 'target-host'; arp_ping: ?

? ? ? ? all the ones in nsna_ping ?

? ? ? ? and 'source-host', ?

? ? ? ? 'validate-active', ?

? ? ? ? 'validate-inactive', ?

? ? ? ? 'send-always'. See ?

? ? ? ? teamd.conf man for more ?

? ? ? ? details. ?

??

?prio ? int32 ? 0 ? Corresponds to the teamd ?

? ? ? ? ports.PORTIFNAME.prio. ?

??

?queue-id ? int32 ? -1 ? Corresponds to the teamd ?

? ? ? ? ports.PORTIFNAME.queue_id. ?

? ? ? ? When set to -1 means the ?

? ? ? ? parameter is skipped from ?

? ? ? ? the json config. ?

??

?sticky ? boolean ? FALSE ? Corresponds to the teamd ?

? ? ? ? ports.PORTIFNAME.sticky. ?

??

tun setting

Tunnel Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?group ? string ? ? The group ID ?

? ? ? ? which will own ?

? ? ? ? the device. If ?

? ? ? ? set to NULL ?

? ? ? ? everyone will be ?

? ? ? ? able to use the ?

? ? ? ? device. ?

??

?mode ? uint32 ? 1 ? The operating ?

? ? ? ? mode of the ?

? ? ? ? virtual device. ?

? ? ? ? Allowed values ?

? ? ? ? are ?

? ? ? ? NM_SETTING_TUN_MODE_TUN ?

? ? ? ? (1) to create a ?

? ? ? ? layer 3 device ?

? ? ? ? and ?

? ? ? ? NM_SETTING_TUN_MODE_TAP ?

? ? ? ? (2) to create an ?

? ? ? ? Ethernet-like ?

? ? ? ? layer 2 one. ?

??

?multi-queue ? boolean ? FALSE ? If the property is set ?

? ? ? ? to TRUE, the interface ?

? ? ? ? will support multiple ?

? ? ? ? file descriptors ?

? ? ? ? (queues) to parallelize ?

? ? ? ? packet sending or ?

? ? ? ? receiving. Otherwise, ?

? ? ? ? the interface will only ?

? ? ? ? support a single queue. ?

??

?owner ? string ? ? The user ID which will ?

? ? ? ? own the device. If set ?

? ? ? ? to NULL everyone will ?

? ? ? ? be able to use the ?

? ? ? ? device. ?

??

?pi ? boolean ? FALSE ? If TRUE the interface ?

? ? ? ? will prepend a 4 byte ?

? ? ? ? header describing the ?

? ? ? ? physical interface to ?

? ? ? ? the packets. ?

??

?vnet-hdr ? boolean ? FALSE ? If TRUE the ?

? ? ? ? IFF_VNET_HDR the tunnel ?

? ? ? ? packets will include a ?

? ? ? ? virtio network header. ?

??

user setting

General User Profile Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?data ? dict of string ? {} ? A dictionary of ?

? ? to string ? ? key/value pairs ?

? ? ? ? with user data. ?

? ? ? ? This data is ?

? ? ? ? ignored by ?

? ? ? ? NetworkManager ?

? ? ? ? and can be used ?

? ? ? ? at the users ?

? ? ? ? discretion. The ?

? ? ? ? keys only ?

? ? ? ? support a strict ?

? ? ? ? ascii format, ?

? ? ? ? but the values ?

? ? ? ? can be arbitrary ?

? ? ? ? UTF8 strings up ?

? ? ? ? to a certain ?

? ? ? ? length. ?

??

vlan setting

VLAN Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?egress-priority-map ? array of string ? ? For outgoing ?

? ? ? ? packets, a list ?

? ? ? ? of mappings from ?

? ? ? ? Linux SKB ?

? ? ? ? priorities to ?

? ? ? ? 802.1p ?

? ? ? ? priorities. The ?

? ? ? ? mapping is given ?

? ? ? ? in the format ?

? ? ? ? "from:to" where ?

? ? ? ? both "from" and ?

? ? ? ? "to" are ?

? ? ? ? unsigned ?

? ? ? ? integers, ie ?

? ? ? ? "7:3". ?

??

?flags ? NMVlanFlags ? ? One or more ?

? ? (uint32) ? ? flags which ?

? ? ? ? control the ?

? ? ? ? behavior and ?

? ? ? ? features of the ?

? ? ? ? VLAN interface. ?

? ? ? ? Flags include ?

? ? ? ? NM_VLAN_FLAG_REORDER_HEADERS ?

? ? ? ? (0x1) ?

? ? ? ? (reordering of ?

? ? ? ? output packet ?

? ? ? ? headers), ?

? ? ? ? NM_VLAN_FLAG_GVRP ?

? ? ? ? (0x2) (use of ?

? ? ? ? the GVRP ?

? ? ? ? protocol), and ?

? ? ? ? NM_VLAN_FLAG_LOOSE_BINDING ?

? ? ? ? (0x4) (loose ?

? ? ? ? binding of the ?

? ? ? ? interface to its ?

? ? ? ? master device's ?

? ? ? ? operating ?

? ? ? ? state). ?

? ? ? ? NM_VLAN_FLAG_MVRP ?

? ? ? ? (0x8) (use of ?

? ? ? ? the MVRP ?

? ? ? ? protocol). ?

? ? ? ? ?

? ? ? ? The default ?

? ? ? ? value of this ?

? ? ? ? property is ?

? ? ? ? NM_VLAN_FLAG_REORDER_HEADERS, ?

? ? ? ? but it used to ?

? ? ? ? be 0. To ?

? ? ? ? preserve ?

? ? ? ? backward ?

? ? ? ? compatibility, ?

? ? ? ? the ?

? ? ? ? default-value in ?

? ? ? ? the D-Bus API ?

? ? ? ? continues to be ?

? ? ? ? 0 and a missing ?

? ? ? ? property on ?

? ? ? ? D-Bus is still ?

? ? ? ? considered as 0. ?

??

?id ? uint32 ? 0 ? The VLAN identifier that the ?

? ? ? ? interface created by this ?

? ? ? ? connection should be ?

? ? ? ? assigned. The valid range is ?

? ? ? ? from 0 to 4094, without the ?

? ? ? ? reserved id 4095. ?

??

?ingress-priority-map ? array of string ? ? For incoming packets, a list ?

? ? ? ? of mappings from 802.1p ?

? ? ? ? priorities to Linux SKB ?

? ? ? ? priorities. The mapping is ?

? ? ? ? given in the format "from:to" ?

? ? ? ? where both "from" and "to" ?

? ? ? ? are unsigned integers, ie ?

? ? ? ? "7:3". ?

??

?interface-name ? string ? ? Deprecated in favor of ?

? ? ? ? connection.interface-name, ?

? ? ? ? but can be used for ?

? ? ? ? backward-compatibility with ?

? ? ? ? older daemons, to set the ?

? ? ? ? vlan's interface name. ?

??

?parent ? string ? ? If given, specifies the ?

? ? ? ? parent interface name or ?

? ? ? ? parent connection UUID from ?

? ? ? ? which this VLAN interface ?

? ? ? ? should be created. If this ?

? ? ? ? property is not specified, ?

? ? ? ? the connection must contain ?

? ? ? ? an "802-3-ethernet" setting ?

? ? ? ? with a "mac-address" ?

? ? ? ? property. ?

??

?protocol ? string ? ? Specifies the VLAN protocol ?

? ? ? ? to use for encapsulation. ?

? ? ? ? ?

? ? ? ? Supported values are: ?

? ? ? ? '802.1Q', '802.1ad'. If not ?

? ? ? ? specified the default value ?

? ? ? ? is '802.1Q'. ?

??

vpn setting

VPN Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?data ? dict of string ? {} ? Dictionary of ?

? ? to string ? ? key/value pairs ?

? ? ? ? of VPN plugin ?

? ? ? ? specific data. ?

? ? ? ? Both keys and ?

? ? ? ? values must be ?

? ? ? ? strings. ?

??

?persistent ? boolean ? FALSE ? If the VPN ?

? ? ? ? service supports ?

? ? ? ? persistence, and ?

? ? ? ? this property is ?

? ? ? ? TRUE, the VPN ?

? ? ? ? will attempt to ?

? ? ? ? stay connected ?

? ? ? ? across link ?

? ? ? ? changes and ?

? ? ? ? outages, until ?

? ? ? ? explicitly ?

? ? ? ? disconnected. ?

??

?secrets ? dict of string ? {} ? Dictionary of ?

? ? to string ? ? key/value pairs ?

? ? ? ? of VPN plugin ?

? ? ? ? specific secrets ?

? ? ? ? like passwords ?

? ? ? ? or private keys. ?

? ? ? ? Both keys and ?

? ? ? ? values must be ?

? ? ? ? strings. ?

??

?service-type ? string ? ? D-Bus service ?

? ? ? ? name of the VPN ?

? ? ? ? plugin that this ?

? ? ? ? setting uses to ?

? ? ? ? connect to its ?

? ? ? ? network. i.e. ?

? ? ? ? org.freedesktop.NetworkManager.vpnc ?

? ? ? ? for the vpnc ?

? ? ? ? plugin. ?

??

?timeout ? uint32 ? 0 ? Timeout for the VPN service to ?

? ? ? ? establish the connection. Some ?

? ? ? ? services may take quite a long time ?

? ? ? ? to connect. Value of 0 means a ?

? ? ? ? default timeout, which is 60 ?

? ? ? ? seconds (unless overridden by ?

? ? ? ? vpn.timeout in configuration file). ?

? ? ? ? Values greater than zero mean ?

? ? ? ? timeout in seconds. ?

??

?user-name ? string ? ? If the VPN connection requires a ?

? ? ? ? user name for authentication, that ?

? ? ? ? name should be provided here. If ?

? ? ? ? the connection is available to more ?

? ? ? ? than one user, and the VPN requires ?

? ? ? ? each user to supply a different ?

? ? ? ? name, then leave this property ?

? ? ? ? empty. If this property is empty, ?

? ? ? ? NetworkManager will automatically ?

? ? ? ? supply the username of the user ?

? ? ? ? which requested the VPN connection. ?

??

vrf setting

VRF settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?table ? uint32 ? 0 ? The routing ?

? ? ? ? table for this ?

? ? ? ? VRF. ?

??

vxlan setting

VXLAN Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?ageing ? uint32 ? 300 ? Specifies the ?

? ? ? ? lifetime in ?

? ? ? ? seconds of FDB ?

? ? ? ? entries learnt ?

? ? ? ? by the kernel. ?

??

?destination-port ? uint32 ? 8472 ? Specifies the ?

? ? ? ? UDP destination ?

? ? ? ? port to ?

? ? ? ? communicate to ?

? ? ? ? the remote VXLAN ?

? ? ? ? tunnel endpoint. ?

??

?id ? uint32 ? 0 ? Specifies the ?

? ? ? ? VXLAN Network ?

? ? ? ? Identifier (or ?

? ? ? ? VXLAN Segment ?

? ? ? ? Identifier) to ?

? ? ? ? use. ?

??

?l2-miss ? boolean ? FALSE ? Specifies ?

? ? ? ? whether netlink ?

? ? ? ? LL ADDR miss ?

? ? ? ? notifications ?

? ? ? ? are generated. ?

??

?l3-miss ? boolean ? FALSE ? Specifies ?

? ? ? ? whether netlink ?

? ? ? ? IP ADDR miss ?

? ? ? ? notifications ?

? ? ? ? are generated. ?

??

?learning ? boolean ? TRUE ? Specifies ?

? ? ? ? whether unknown ?

? ? ? ? source link ?

? ? ? ? layer addresses ?

? ? ? ? and IP addresses ?

? ? ? ? are entered into ?

? ? ? ? the VXLAN device ?

? ? ? ? forwarding ?

? ? ? ? database. ?

??

?limit ? uint32 ? 0 ? Specifies the ?

? ? ? ? maximum number ?

? ? ? ? of FDB entries. ?

? ? ? ? A value of zero ?

? ? ? ? means that the ?

? ? ? ? kernel will ?

? ? ? ? store unlimited ?

? ? ? ? entries. ?

??

?local ? string ? ? If given, ?

? ? ? ? specifies the ?

? ? ? ? source IP ?

? ? ? ? address to use ?

? ? ? ? in outgoing ?

? ? ? ? packets. ?

??

?parent ? string ? ? If given, ?

? ? ? ? specifies the ?

? ? ? ? parent interface ?

? ? ? ? name or parent ?

? ? ? ? connection UUID. ?

??

?proxy ? boolean ? FALSE ? Specifies ?

? ? ? ? whether ARP ?

? ? ? ? proxy is turned ?

? ? ? ? on. ?

??

?remote ? string ? ? Specifies the ?

? ? ? ? unicast ?

? ? ? ? destination IP ?

? ? ? ? address to use ?

? ? ? ? in outgoing ?

? ? ? ? packets when the ?

? ? ? ? destination link ?

? ? ? ? layer address is ?

? ? ? ? not known in the ?

? ? ? ? VXLAN device ?

? ? ? ? forwarding ?

? ? ? ? database, or the ?

? ? ? ? multicast IP ?

? ? ? ? address to join. ?

??

?rsc ? boolean ? FALSE ? Specifies ?

? ? ? ? whether route ?

? ? ? ? short circuit is ?

? ? ? ? turned on. ?

??

?source-port-max ? uint32 ? 0 ? Specifies the ?

? ? ? ? maximum UDP ?

? ? ? ? source port to ?

? ? ? ? communicate to ?

? ? ? ? the remote VXLAN ?

? ? ? ? tunnel endpoint. ?

??

?source-port-min ? uint32 ? 0 ? Specifies the ?

? ? ? ? minimum UDP ?

? ? ? ? source port to ?

? ? ? ? communicate to ?

? ? ? ? the remote VXLAN ?

? ? ? ? tunnel endpoint. ?

??

?tos ? uint32 ? 0 ? Specifies the ?

? ? ? ? TOS value to use ?

? ? ? ? in outgoing ?

? ? ? ? packets. ?

??

?ttl ? uint32 ? 0 ? Specifies the ?

? ? ? ? time-to-live ?

? ? ? ? value to use in ?

? ? ? ? outgoing ?

? ? ? ? packets. ?

??

wifi-p2p setting

Wi-Fi P2P Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?peer ? string ? ? The P2P device ?

? ? ? ? that should be ?

? ? ? ? connected to. ?

? ? ? ? Currently, this ?

? ? ? ? is the only way ?

? ? ? ? to create or ?

? ? ? ? join a group. ?

??

?wfd-ies ? byte array ? ? The Wi-Fi ?

? ? ? ? Display (WFD) ?

? ? ? ? Information ?

? ? ? ? Elements (IEs) ?

? ? ? ? to set. ?

? ? ? ? ?

? ? ? ? Wi-Fi Display ?

? ? ? ? requires a ?

? ? ? ? protocol ?

? ? ? ? specific ?

? ? ? ? information ?

? ? ? ? element to be ?

? ? ? ? set in certain ?

? ? ? ? Wi-Fi frames. ?

? ? ? ? These can be ?

? ? ? ? specified here ?

? ? ? ? for the purpose ?

? ? ? ? of establishing ?

? ? ? ? a connection. ?

? ? ? ? This setting is ?

? ? ? ? only useful when ?

? ? ? ? implementing a ?

? ? ? ? Wi-Fi Display ?

? ? ? ? client. ?

??

?wps-method ? uint32 ? 0 ? Flags indicating ?

? ? ? ? which mode of ?

? ? ? ? WPS is to be ?

? ? ? ? used. ?

? ? ? ? ?

? ? ? ? There's little ?

? ? ? ? point in ?

? ? ? ? changing the ?

? ? ? ? default setting ?

? ? ? ? as ?

? ? ? ? NetworkManager ?

? ? ? ? will ?

? ? ? ? automatically ?

? ? ? ? determine the ?

? ? ? ? best method to ?

? ? ? ? use. ?

??

wimax setting

WiMax Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?mac-address ? byte array ? ? If specified, ?

? ? ? ? this connection ?

? ? ? ? will only apply ?

? ? ? ? to the WiMAX ?

? ? ? ? device whose MAC ?

? ? ? ? address matches. ?

? ? ? ? This property ?

? ? ? ? does not change ?

? ? ? ? the MAC address ?

? ? ? ? of the device ?

? ? ? ? (known as MAC ?

? ? ? ? spoofing). ?

? ? ? ? ? ?

? ? ? ? This property is ?

? ? ? ? deprecated since ?

? ? ? ? version ?

? ? ? ? 1.2.WiMAX is no ?

? ? ? ? longer ?

? ? ? ? supported. ?

??

?network-name ? string ? ? Network Service ?

? ? ? ? Provider (NSP) ?

? ? ? ? name of the ?

? ? ? ? WiMAX network ?

? ? ? ? this connection ?

? ? ? ? should use. ?

? ? ? ? ?

? ? ? ? This property is ?

? ? ? ? deprecated since ?

? ? ? ? version ?

? ? ? ? 1.2.WiMAX is no ?

? ? ? ? longer ?

? ? ? ? supported. ?

??

802-3-ethernet setting

Wired Ethernet Settings.

??

?????

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?????

?accept-all-mac-addresses ? NMTernary ? ? When TRUE, setup ?

? ? (int32) ? ? the interface to ?

? ? ? ? accept packets ?

? ? ? ? for all MAC ?

? ? ? ? addresses. This ?

? ? ? ? is enabling the ?

? ? ? ? kernel interface ?

? ? ? ? flag ?

? ? ? ? IFF_PROMISC. ?
? ? ? ? When FALSE, the ?
? ? ? ? interface will ?
? ? ? ? only accept the ?
? ? ? ? packets with the ?
? ? ? ? interface ?
? ? ? ? destination mac ?
? ? ? ? address or ?
? ? ? ? broadcast. ?

???

?????

?assigned-mac-address ? string ? ? The new field ?
? ? ? ? for the cloned ?
? ? ? ? MAC address. It ?
? ? ? ? can be either a ?
? ? ? ? hardware address ?
? ? ? ? in ASCII ?
? ? ? ? representation, ?
? ? ? ? or one of the ?
? ? ? ? special values ?
? ? ? ? "preserve", ?
? ? ? ? "permanent", ?
? ? ? ? "random" or ?
? ? ? ? "stable". This ?
? ? ? ? field replaces ?
? ? ? ? the deprecated ?
? ? ? ? "cloned-mac-address" ?
? ? ? ? on D-Bus, which ?
? ? ? ? can only contain ?
? ? ? ? explicit ?
? ? ? ? hardware ?
? ? ? ? addresses. Note ?

? ? ? ? that this ?

? ? ? ? property only ?

? ? ? ? exists in D-Bus ?

? ? ? ? API. libnm and ?

? ? ? ? nmcli continue ?

? ? ? ? to call this ?

? ? ? ? property ?

? ? ? ? "cloned-mac-address". ?

??

?????

?auto-negotiate ? boolean ? FALSE ? When TRUE, enforce ?

? ? ? ? auto-negotiation of ?

? ? ? ? speed and duplex ?

? ? ? ? mode. If "speed" and ?

? ? ? ? "duplex" properties ?

? ? ? ? are both specified, ?

? ? ? ? only that single mode ?

? ? ? ? will be advertised ?

? ? ? ? and accepted during ?

? ? ? ? the link ?

? ? ? ? auto-negotiation ?

? ? ? ? process: this works ?

? ? ? ? only for BASE-T 802.3 ?

? ? ? ? specifications and is ?

? ? ? ? useful for enforcing ?

? ? ? ? gigabits modes, as in ?

? ? ? ? these cases link ?

? ? ? ? negotiation is ?

? ? ? ? mandatory. When ?

? ? ? ? FALSE, "speed" and ?

? ? ? ? "duplex" properties ?

? ? ? ? should be both set or ?

? ? ? ? link configuration ?

? ? ? ? will be skipped. ?

??

?????

?cloned-mac-address ? byte array ? ? This D-Bus field is ?

? ? ? ? deprecated in favor ?

? ? ? ? of ?

? ? ? ? "assigned-mac-address" ?

? ? ? ? which is more ?

? ? ? ? flexible and allows ?

? ? ? ? specifying special ?

? ? ? ? variants like ?

? ? ? ? "random". For libnm ?

? ? ? ? and nmcli, this field ?

? ? ? ? is called ?

? ? ? ? "cloned-mac-address". ?

??

?????

?duplex ? string ? ? When a value is set, ?

? ? ? ? either "half" or ?

? ? ? ? "full", configures the ?

? ? ? ? device to use the ?

? ? ? ? specified duplex mode. ?

? ? ? ? If "auto-negotiate" is ?

? ? ? ? "yes" the specified ?

? ? ? ? duplex mode will be ?

? ? ? ? the only one ?

? ? ? ? advertised during link ?

? ? ? ? negotiation: this ?

? ? ? ? works only for BASE-T ?

? ? ? ? 802.3 specifications ?

? ? ? ? and is useful for ?

? ? ? ? enforcing gigabits ?

? ? ? ? modes, as in these ?

? ? ? ? cases link negotiation ?

? ? ? ? is mandatory. If the ?

? ? ? ? value is unset (the ?

? ? ? ? default), the link ?

? ? ? ? configuration will be ?

? ? ? ? either skipped (if ?

? ? ? ? "auto-negotiate" is ?

? ? ? ? "no", the default) or ?

? ? ? ? will be ?

? ? ? ? auto-negotiated (if ?

? ? ? ? "auto-negotiate" is ?

? ? ? ? "yes") and the local ?

? ? ? ? device will advertise ?

? ? ? ? all the supported ?

? ? ? ? duplex modes. Must be ?

? ? ? ? set together with the ?

? ? ? ? "speed" property if ?

? ? ? ? specified. Before ?

? ? ? ? specifying a duplex ?

? ? ? ? mode be sure your ?

? ? ? ? device supports it. ?

??

?????

?generate-mac-address-mask ? string ? ? With ?

? ? ? ? "cloned-mac-address" ?

? ? ? ? setting "random" or ?

? ? ? ? "stable", by default ?

? ? ? ? all bits of the MAC ?

? ? ? ? address are scrambled ?

? ? ? ? and a ?
? ? ? ? locally-administered, ?
? ? ? ? unicast MAC address is ?
? ? ? ? created. This property ?
? ? ? ? allows to specify that ?
? ? ? ? certain bits are ?
? ? ? ? fixed. Note that the ?
? ? ? ? least significant bit ?
? ? ? ? of the first MAC ?
? ? ? ? address will always be ?
? ? ? ? unset to create a ?
? ? ? ? unicast MAC address. ?
? ? ? ? ?
? ? ? ? If the property is ?
? ? ? ? NULL, it is eligible ?
? ? ? ? to be overwritten by a ?
? ? ? ? default connection ?
? ? ? ? setting. If the value ?
? ? ? ? is still NULL or an ?
? ? ? ? empty string, the ?
? ? ? ? default is to create a ?
? ? ? ? locally-administered, ?
? ? ? ? unicast MAC address. ?
? ? ? ? ?
? ? ? ? If the value contains ?
? ? ? ? one MAC address, this ?
? ? ? ? address is used as ?
? ? ? ? mask. The set bits of ?
? ? ? ? the mask are to be ?
? ? ? ? filled with the ?
? ? ? ? current MAC address of ?
? ? ? ? the device, while the ?
? ? ? ? unset bits are subject ?

? ? ? ? to randomization. ?

? ? ? ? Setting ?

? ? ? ? "FE:FF:FF:00:00:00" ?

? ? ? ? means to preserve the ?

? ? ? ? OUI of the current MAC ?

? ? ? ? address and only ?

? ? ? ? randomize the lower 3 ?

? ? ? ? bytes using the ?

? ? ? ? "random" or "stable" ?

? ? ? ? algorithm. ?

? ? ? ? ?

? ? ? ? If the value contains ?

? ? ? ? one additional MAC ?

? ? ? ? address after the ?

? ? ? ? mask, this address is ?

? ? ? ? used instead of the ?

? ? ? ? current MAC address to ?

? ? ? ? fill the bits that ?

? ? ? ? shall not be ?

? ? ? ? randomized. For ?

? ? ? ? example, a value of ?

? ? ? ? "FE:FF:FF:00:00:00 ?

? ? ? ? 68:F7:28:00:00:00" ?

? ? ? ? will set the OUI of ?

? ? ? ? the MAC address to ?

? ? ? ? 68:F7:28, while the ?

? ? ? ? lower bits are ?

? ? ? ? randomized. A value of ?

? ? ? ? "02:00:00:00:00:00 ?

? ? ? ? 00:00:00:00:00:00" ?

? ? ? ? will create a fully ?

? ? ? ? scrambled ?

? ? ? ? globally-administered, ?

? ? ? ? burned-in MAC address. ?

? ? ? ? ?

? ? ? ? If the value contains ?

? ? ? ? more than one ?

? ? ? ? additional MAC ?

? ? ? ? addresses, one of them ?

? ? ? ? is chosen randomly. ?

? ? ? ? For example, ?

? ? ? ? "02:00:00:00:00:00 ?

? ? ? ? 00:00:00:00:00:00 ?

? ? ? ? 02:00:00:00:00:00" ?

? ? ? ? will create a fully ?

? ? ? ? scrambled MAC address, ?

? ? ? ? randomly locally or ?

? ? ? ? globally administered. ?

??

?????

?mac-address ? byte array ? ? If specified, this ?

? ? ? ? connection will only ?

? ? ? ? apply to the Ethernet ?

? ? ? ? device whose permanent ?

? ? ? ? MAC address matches. ?

? ? ? ? This property does not ?

? ? ? ? change the MAC address ?

? ? ? ? of the device (i.e. ?

? ? ? ? MAC spoofing). ?

??

?????

?mac-address-blacklist ? array of string ? ? If specified, this ?

? ? ? ? connection will never ?

? ? ? ? apply to the Ethernet ?

? ? ? ? device whose permanent ?
? ? ? ? MAC address matches an ?
? ? ? ? address in the list. ?
? ? ? ? Each MAC address is in ?
? ? ? ? the standard ?
? ? ? ? hex-digits-and-colons ?
? ? ? ? notation ?
? ? ? ? (00:11:22:33:44:55). ?

??
?????

?mtu ? uint32 ? 0 ? If non-zero, only ?
? ? ? ? transmit packets of ?
? ? ? ? the specified size or ?
? ? ? ? smaller, breaking ?
? ? ? ? larger packets up into ?
? ? ? ? multiple Ethernet ?
? ? ? ? frames. ?

??
?????

?port ? string ? ? Specific port type to ?
? ? ? ? use if the device ?
? ? ? ? supports multiple ?
? ? ? ? attachment methods. ?
? ? ? ? One of "tp" (Twisted ?
? ? ? ? Pair), "aui" ?
? ? ? ? (Attachment Unit ?
? ? ? ? Interface), "bnc" ?
? ? ? ? (Thin Ethernet) or ?
? ? ? ? "mii" (Media ?
? ? ? ? Independent ?
? ? ? ? Interface). If the ?

? ? ? ? device supports only ?
? ? ? ? one port type, this ?
? ? ? ? setting is ignored. ?

???
?????
?s390-nettype ? string ? ? s390 network device ?
? ? ? ? type; one of "qeth", ?
? ? ? ? "lcs", or "ctc", ?
? ? ? ? representing the ?
? ? ? ? different types of ?
? ? ? ? virtual network ?
? ? ? ? devices available on ?
? ? ? ? s390 systems. ?

???
?????
?s390-options ? dict of string ? {} ? Dictionary of ?
? ? to string ? ? key/value pairs of ?
? ? ? ? s390-specific device ?
? ? ? ? options. Both keys ?
? ? ? ? and values must be ?
? ? ? ? strings. Allowed keys ?
? ? ? ? include "portno", ?
? ? ? ? "layer2", "portname", ?
? ? ? ? "protocol", among ?
? ? ? ? others. Key names ?
? ? ? ? must contain only ?
? ? ? ? alphanumeric ?
? ? ? ? characters (ie, ?
? ? ? ? [a-zA-Z0-9]). ?
? ? ? ? ?
? ? ? ? Currently, ?

? ? ? ? NetworkManager itself ?
? ? ? ? does nothing with this ?
? ? ? ? information. However, ?
? ? ? ? s390utils ships a udev ?
? ? ? ? rule which parses this ?
? ? ? ? information and ?
? ? ? ? applies it to the ?
? ? ? ? interface. ?

??
?????

?s390-subchannels ? array of string ? ? Identifies specific ?
? ? ? ? subchannels that this ?
? ? ? ? network device uses ?
? ? ? ? for communication with ?
? ? ? ? z/VM or s390 host. ?
? ? ? ? Like the "mac-address" ?
? ? ? ? property for non-z/VM ?
? ? ? ? devices, this property ?
? ? ? ? can be used to ensure ?
? ? ? ? this connection only ?
? ? ? ? applies to the network ?
? ? ? ? device that uses these ?
? ? ? ? subchannels. The list ?
? ? ? ? should contain exactly ?
? ? ? ? 3 strings, and each ?
? ? ? ? string may only be ?
? ? ? ? composed of ?
? ? ? ? hexadecimal characters ?
? ? ? ? and the period (.) ?
? ? ? ? character. ?

??

?????

?speed	? uint32	? 0	? When a value greater ?
?	?	?	? than 0 is set, ?
?	?	?	? configures the device ?
?	?	?	? to use the specified ?
?	?	?	? speed. If ?
?	?	?	? "auto-negotiate" is ?
?	?	?	? "yes" the specified ?
?	?	?	? speed will be the only ?
?	?	?	? one advertised during ?
?	?	?	? link negotiation: this ?
?	?	?	? works only for BASE-T ?
?	?	?	? 802.3 specifications ?
?	?	?	? and is useful for ?
?	?	?	? enforcing gigabit ?
?	?	?	? speeds, as in this ?
?	?	?	? case link negotiation ?
?	?	?	? is mandatory. If the ?
?	?	?	? value is unset (0, the ?
?	?	?	? default), the link ?
?	?	?	? configuration will be ?
?	?	?	? either skipped (if ?
?	?	?	? "auto-negotiate" is ?
?	?	?	? "no", the default) or ?
?	?	?	? will be ?
?	?	?	? auto-negotiated (if ?
?	?	?	? "auto-negotiate" is ?
?	?	?	? "yes") and the local ?
?	?	?	? device will advertise ?
?	?	?	? all the supported ?
?	?	?	? speeds. In Mbit/s, ie ?
?	?	?	? 100 == 100Mbit/s. Must ?
?	?	?	? be set together with ?

? ? ? ? the "duplex" property ?

? ? ? ? when non-zero. Before ?

? ? ? ? specifying a speed ?

? ? ? ? value be sure your ?

? ? ? ? device supports it. ?

??

?????

?wake-on-lan ? uint32 ? 1 ? The ?

? ? ? ? NMSettingWiredWakeOnLan ?

? ? ? ? options to enable. Not ?

? ? ? ? all devices support ?

? ? ? ? all options. May be ?

? ? ? ? any combination of ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_PHY ?

? ? ? ? (0x2), ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_UNICAST ?

? ? ? ? (0x4), ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_MULTICAST ?

? ? ? ? (0x8), ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_BROADCAST ?

? ? ? ? (0x10), ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_ARP ?

? ? ? ? (0x20), ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_MAGIC ?

? ? ? ? (0x40) or the special ?

? ? ? ? values ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_DEFAULT ?

? ? ? ? (0x1) (to use global ?

? ? ? ? settings) and ?

? ? ? ? NM_SETTING_WIRED_WAKE_ON_LAN_IGNORE ?

? ? ? ? (0x8000) (to disable ?

? ? ? ? management of ?

? ? ? ? Wake-on-LAN in ?

? ? ? ? NetworkManager). ?

??

?????

?wake-on-lan-password ? string ? ? If specified, the password used with ?

? ? ? ? magic-packet-based Wake-on-LAN, ?

? ? ? ? represented as an Ethernet MAC ?

? ? ? ? address. If NULL, no password will be ?

? ? ? ? required. ?

??

?????

wireguard setting

WireGuard Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?fwmark ? uint32 ? 0 ? The use of ?

? ? ? ? fwmark is ?

? ? ? ? optional and is ?

? ? ? ? by default off. ?

? ? ? ? Setting it to 0 ?

? ? ? ? disables it. ?

? ? ? ? Otherwise, it is ?

? ? ? ? a 32-bit fwmark ?

? ? ? ? for outgoing ?

? ? ? ? packets. ?

? ? ? ? ?

? ? ? ? Note that ?

? ? ? ? "ip4-auto-default-route" ?

? ? ? ? or ?

? ? ? ? "ip6-auto-default-route" ?

? ? ? ? enabled, implies ?

? ? ? ? to automatically ?

? ? ? ? choose a fwmark. ?

??

?ip4-auto-default-route ? NMTernary ? ? Whether to enable ?

? ? (int32) ? ? special handling of the ?

? ? ? ? IPv4 default route. If ?

? ? ? ? enabled, the IPv4 ?

? ? ? ? default route from ?

? ? ? ? wireguard.peer-routes ?

? ? ? ? will be placed to a ?

? ? ? ? dedicated routing-table ?

? ? ? ? and two policy routing ?

? ? ? ? rules will be added. The ?

? ? ? ? fwmark number is also ?

? ? ? ? used as routing-table ?

? ? ? ? for the default-route, ?

? ? ? ? and if fwmark is zero, ?

? ? ? ? an unused fwmark/table ?

? ? ? ? is chosen automatically. ?

? ? ? ? This corresponds to what ?

? ? ? ? wg-quick does with ?

? ? ? ? Table=auto and what ?

? ? ? ? WireGuard calls ?

? ? ? ? "Improved Rule-based ?

? ? ? ? Routing". ?

? ? ? ? ?

? ? ? ? Note that for this ?

? ? ? ? automatism to work, you ?

? ? ? ? usually don't want to ?

? ? ? ? set ipv4.gateway, ?

? ? ? ? because that will result ?

? ? ? ? in a conflicting default ?

? ? ? ? route. ?

? ? ? ? ?

? ? ? ? Leaving this at the ?

? ? ? ? default will enable this ?

? ? ? ? option automatically if ?

? ? ? ? ipv4.never-default is ?

? ? ? ? not set and there are ?

? ? ? ? any peers that use a ?

? ? ? ? default-route as ?

? ? ? ? allowed-ips. Since this ?

? ? ? ? automatism only makes ?

? ? ? ? sense if you also have a ?

? ? ? ? peer with an /0 ?

? ? ? ? allowed-ips, it is ?

? ? ? ? usually not necessary to ?

? ? ? ? enable this explicitly. ?

? ? ? ? However, you can disable ?

? ? ? ? it if you want to ?

? ? ? ? configure your own ?

? ? ? ? routing and rules. ?

??

?ip6-auto-default-route ? NMTernary ? ? Like ?

? ? (int32) ? ? ip4-auto-default-route, ?

? ? ? ? but for the IPv6 default ?

? ? ? ? route. ?

??

?listen-port ? uint32 ? 0 ? The listen-port. If ?

? ? ? ? listen-port is not ?

? ? ? ? specified, the port will ?

? ? ? ? be chosen randomly when ?

? ? ? ? the interface comes up. ?

??

?mtu ? uint32 ? 0 ? If non-zero, only ?

? ? ? ? transmit packets of the ?

? ? ? ? specified size or ?

? ? ? ? smaller, breaking larger ?

? ? ? ? packets up into multiple ?

? ? ? ? fragments. ?

? ? ? ? ?

? ? ? ? If zero a default MTU is ?

? ? ? ? used. Note that contrary ?

? ? ? ? to wg-quick's MTU ?

? ? ? ? setting, this does not ?

? ? ? ? take into account the ?

? ? ? ? current routes at the ?

? ? ? ? time of activation. ?

??

?peer-routes ? boolean ? TRUE ? Whether to automatically ?

? ? ? ? add routes for the ?

? ? ? ? AllowedIPs ranges of the ?

? ? ? ? peers. If TRUE (the ?

? ? ? ? default), NetworkManager ?

? ? ? ? will automatically add ?

? ? ? ? routes in the routing ?

? ? ? ? tables according to ?

? ? ? ? ipv4.route-table and ?

? ? ? ? ipv6.route-table. ?

? ? ? ? Usually you want this ?

? ? ? ? automatism enabled. If ?

? ? ? ? FALSE, no such routes ?

? ? ? ? are added automatically. ?

? ? ? ? In this case, the user ?

? ? ? ? may want to configure ?

? ? ? ? static routes in ?

? ? ? ? ipv4.routes and ?

? ? ? ? ipv6.routes, ?

? ? ? ? respectively. ?

? ? ? ? ?

? ? ? ? Note that if the peer's ?

? ? ? ? AllowedIPs is ?

? ? ? ? "0.0.0.0/0" or "::/0" ?

? ? ? ? and the profile's ?

? ? ? ? ipv4.never-default or ?

? ? ? ? ipv6.never-default ?

? ? ? ? setting is enabled, the ?

? ? ? ? peer route for this peer ?

? ? ? ? won't be added ?

? ? ? ? automatically. ?

??

?peers ? array of 'a{sv}' ? ? Array of dictionaries ?

? ? ? ? for the WireGuard peers. ?

??

?private-key ? string ? ? The 256 bit private-key ?

? ? ? ? in base64 encoding. ?

??

?private-key-flags ? NMSettingSecretFlags ? ? Flags indicating how to ?

? ? (uint32) ? ? handle the "private-key" ?

? ? ? ? property. ?

??

802-11-wireless setting

Wi-Fi Settings.

??

????????????????????

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

??????????????????

?ap-isolation	? NMTernary	?	? Configures AP ?
?	? (int32)	?	? isolation, which ?
?	?	?	? prevents ?
?	?	?	? communication ?
?	?	?	? between wireless ?
?	?	?	? devices ?
?	?	?	? connected to ?
?	?	?	? this AP. This ?
?	?	?	? property can be ?
?	?	?	? set to a value ?
?	?	?	? different from ?
?	?	?	? NM_TERNARY_DEFAULT ?
?	?	?	? (-1) only when ?
?	?	?	? the interface is ?
?	?	?	? configured in AP ?
?	?	?	? mode. ?
?	?	?	? ?
?	?	?	? If set to ?
?	?	?	? NM_TERNARY_TRUE ?
?	?	?	? (1), devices are ?
?	?	?	? not able to ?
?	?	?	? communicate with ?
?	?	?	? each other. This ?
?	?	?	? increases ?
?	?	?	? security because ?
?	?	?	? it protects ?
?	?	?	? devices against ?
?	?	?	? attacks from ?
?	?	?	? other clients in ?
?	?	?	? the network. At ?
?	?	?	? the same time, ?
?	?	?	? it prevents ?

? ? ? ? devices to ?
? ? ? ? access resources ?
? ? ? ? on the same ?
? ? ? ? wireless ?
? ? ? ? networks as file ?
? ? ? ? shares, ?
? ? ? ? printers, etc. ?
? ? ? ? ?
? ? ? ? If set to ?
? ? ? ? NM_TERNARY_FALSE ?
? ? ? ? (0), devices can ?
? ? ? ? talk to each ?
? ? ? ? other. ?
? ? ? ? ?
? ? ? ? When set to ?
? ? ? ? NM_TERNARY_DEFAULT ?
? ? ? ? (-1), the global ?
? ? ? ? default is used; ?
? ? ? ? in case the ?
? ? ? ? global default ?
? ? ? ? is unspecified ?
? ? ? ? it is assumed to ?
? ? ? ? be ?
? ? ? ? NM_TERNARY_FALSE ?
? ? ? ? (0). ?

???
????????????????????

?assigned-mac-address ? string ? ? The new field for ?
? ? ? ? the cloned MAC ?
? ? ? ? address. It can be ?
? ? ? ? either a hardware ?
? ? ? ? address in ASCII ?

? ? ? ? representation, or ?

? ? ? ? one of the special ?

? ? ? ? values "preserve", ?

? ? ? ? "permanent", ?

? ? ? ? "random" or ?

? ? ? ? "stable". This ?

? ? ? ? field replaces the ?

? ? ? ? deprecated ?

? ? ? ? "cloned-mac-address" ?

? ? ? ? on D-Bus, which ?

? ? ? ? can only contain ?

? ? ? ? explicit hardware ?

? ? ? ? addresses. Note ?

? ? ? ? that this property ?

? ? ? ? only exists in ?

? ? ? ? D-Bus API. libnm ?

? ? ? ? and nmcli continue ?

? ? ? ? to call this ?

? ? ? ? property ?

? ? ? ? "cloned-mac-address". ?

??

?band ? string ? ? 802.11 frequency band ?

? ? ? ? of the network. One ?

? ? ? ? of "a" for 5GHz ?

? ? ? ? 802.11a or "bg" for ?

? ? ? ? 2.4GHz 802.11. This ?

? ? ? ? will lock ?

? ? ? ? associations to the ?

? ? ? ? Wi-Fi network to the ?

? ? ? ? specific band, i.e. ?

? ? ? ? if "a" is specified, ?

? ? ? ? the device will not ?
? ? ? ? associate with the ?
? ? ? ? same network in the ?
? ? ? ? 2.4GHz band even if ?
? ? ? ? the network's ?
? ? ? ? settings are ?
? ? ? ? compatible. This ?
? ? ? ? setting depends on ?
? ? ? ? specific driver ?
? ? ? ? capability and may ?
? ? ? ? not work with all ?
? ? ? ? drivers. ?

??
????????????????????

?bssid ? byte array ? ? If specified, directs ?
? ? ? ? the device to only ?
? ? ? ? associate with the ?
? ? ? ? given access point. ?
? ? ? ? This capability is ?
? ? ? ? highly driver ?
? ? ? ? dependent and not ?
? ? ? ? supported by all ?
? ? ? ? devices. Note: this ?
? ? ? ? property does not ?
? ? ? ? control the BSSID ?
? ? ? ? used when creating an ?
? ? ? ? Ad-Hoc network and is ?
? ? ? ? unlikely to in the ?
? ? ? ? future. ?
? ? ? ? ?
? ? ? ? Locking a client ?
? ? ? ? profile to a certain ?

? ? ? ? BSSID will prevent ?
? ? ? ? roaming and also ?
? ? ? ? disable background ?
? ? ? ? scanning. That can be ?
? ? ? ? useful, if there is ?
? ? ? ? only one access point ?
? ? ? ? for the SSID. ?

??
???????????????????

?channel ? uint32 ? 0 ? Wireless channel to ?
? ? ? ? use for the Wi-Fi ?
? ? ? ? connection. The ?
? ? ? ? device will only join ?
? ? ? ? (or create for Ad-Hoc ?
? ? ? ? networks) a Wi-Fi ?
? ? ? ? network on the ?
? ? ? ? specified channel. ?
? ? ? ? Because channel ?
? ? ? ? numbers overlap ?
? ? ? ? between bands, this ?
? ? ? ? property also ?
? ? ? ? requires the "band" ?
? ? ? ? property to be set. ?

??
???????????????????

?cloned-mac-address ? byte array ? ? This D-Bus field is ?
? ? ? ? deprecated in favor ?
? ? ? ? of ?
? ? ? ? "assigned-mac-address" ?
? ? ? ? which is more ?
? ? ? ? flexible and allows ?

? ? ? ? specifying special ?
? ? ? ? variants like ?
? ? ? ? "random". For libnm ?
? ? ? ? and nmcli, this field ?
? ? ? ? is called ?
? ? ? ? "cloned-mac-address". ?

??
????????????????????

?generate-mac-address-mask ? string ? ? With ?
? ? ? ? "cloned-mac-address" ?
? ? ? ? setting "random" or ?
? ? ? ? "stable", by default ?
? ? ? ? all bits of the MAC ?
? ? ? ? address are scrambled ?
? ? ? ? and a ?
? ? ? ? locally-administered, ?
? ? ? ? unicast MAC address is ?
? ? ? ? created. This property ?
? ? ? ? allows to specify that ?
? ? ? ? certain bits are ?
? ? ? ? fixed. Note that the ?
? ? ? ? least significant bit ?
? ? ? ? of the first MAC ?
? ? ? ? address will always be ?
? ? ? ? unset to create a ?
? ? ? ? unicast MAC address. ?
? ? ? ? ?
? ? ? ? If the property is ?
? ? ? ? NULL, it is eligible ?
? ? ? ? to be overwritten by a ?
? ? ? ? default connection ?
? ? ? ? setting. If the value ?

? ? ? ? is still NULL or an ?
? ? ? ? empty string, the ?
? ? ? ? default is to create a ?
? ? ? ? locally-administered, ?
? ? ? ? unicast MAC address. ?
? ? ? ? ?
? ? ? ? If the value contains ?
? ? ? ? one MAC address, this ?
? ? ? ? address is used as ?
? ? ? ? mask. The set bits of ?
? ? ? ? the mask are to be ?
? ? ? ? filled with the ?
? ? ? ? current MAC address of ?
? ? ? ? the device, while the ?
? ? ? ? unset bits are subject ?
? ? ? ? to randomization. ?
? ? ? ? Setting ?
? ? ? ? "FE:FF:FF:00:00:00" ?
? ? ? ? means to preserve the ?
? ? ? ? OUI of the current MAC ?
? ? ? ? address and only ?
? ? ? ? randomize the lower 3 ?
? ? ? ? bytes using the ?
? ? ? ? "random" or "stable" ?
? ? ? ? algorithm. ?
? ? ? ? ?
? ? ? ? If the value contains ?
? ? ? ? one additional MAC ?
? ? ? ? address after the ?
? ? ? ? mask, this address is ?
? ? ? ? used instead of the ?
? ? ? ? current MAC address to ?
? ? ? ? fill the bits that ?

?	?	?	? shall not be	?
?	?	?	? randomized. For	?
?	?	?	? example, a value of	?
?	?	?	? "FE:FF:FF:00:00:00	?
?	?	?	? 68:F7:28:00:00:00"	?
?	?	?	? will set the OUI of	?
?	?	?	? the MAC address to	?
?	?	?	? 68:F7:28, while the	?
?	?	?	? lower bits are	?
?	?	?	? randomized. A value of	?
?	?	?	? "02:00:00:00:00:00	?
?	?	?	? 00:00:00:00:00:00"	?
?	?	?	? will create a fully	?
?	?	?	? scrambled	?
?	?	?	? globally-administered,	?
?	?	?	? burned-in MAC address.	?
?	?	?	?	?
?	?	?	? If the value contains	?
?	?	?	? more than one	?
?	?	?	? additional MAC	?
?	?	?	? addresses, one of them	?
?	?	?	? is chosen randomly.	?
?	?	?	? For example,	?
?	?	?	? "02:00:00:00:00:00	?
?	?	?	? 00:00:00:00:00:00	?
?	?	?	? 02:00:00:00:00:00"	?
?	?	?	? will create a fully	?
?	?	?	? scrambled MAC address,	?
?	?	?	? randomly locally or	?
?	?	?	? globally administered.	?

?hidden ? boolean ? FALSE ? If TRUE, indicates ?
? ? ? ? that the network is a ?
? ? ? ? non-broadcasting ?
? ? ? ? network that hides its ?
? ? ? ? SSID. This works both ?
? ? ? ? in infrastructure and ?
? ? ? ? AP mode. ?
? ? ? ? ?
? ? ? ? In infrastructure ?
? ? ? ? mode, various ?
? ? ? ? workarounds are used ?
? ? ? ? for a more reliable ?
? ? ? ? discovery of hidden ?
? ? ? ? networks, such as ?
? ? ? ? probe-scanning the ?
? ? ? ? SSID. However, these ?
? ? ? ? workarounds expose ?
? ? ? ? inherent insecurities ?
? ? ? ? with hidden SSID ?
? ? ? ? networks, and thus ?
? ? ? ? hidden SSID networks ?
? ? ? ? should be used with ?
? ? ? ? caution. ?
? ? ? ? ?
? ? ? ? In AP mode, the ?
? ? ? ? created network does ?
? ? ? ? not broadcast its ?
? ? ? ? SSID. ?
? ? ? ? ?
? ? ? ? Note that marking the ?
? ? ? ? network as hidden may ?
? ? ? ? be a privacy issue for ?
? ? ? ? you (in infrastructure ?

? ? ? ? mode) or client ?
? ? ? ? stations (in AP mode), ?
? ? ? ? as the explicit ?
? ? ? ? probe-scans are ?
? ? ? ? distinctly ?
? ? ? ? recognizable on the ?
? ? ? ? air. ?

??
????????????????????

?mac-address ? byte array ? ? If specified, this ?
? ? ? ? connection will only ?
? ? ? ? apply to the Wi-Fi ?
? ? ? ? device whose permanent ?
? ? ? ? MAC address matches. ?
? ? ? ? This property does not ?
? ? ? ? change the MAC address ?
? ? ? ? of the device (i.e. ?
? ? ? ? MAC spoofing). ?

??
????????????????????

?mac-address-blacklist ? array of string ? ? A list of permanent ?
? ? ? ? MAC addresses of Wi-Fi ?
? ? ? ? devices to which this ?
? ? ? ? connection should ?
? ? ? ? never apply. Each MAC ?
? ? ? ? address should be ?
? ? ? ? given in the standard ?
? ? ? ? hex-digits-and-colons ?
? ? ? ? notation (eg ?
? ? ? ? "00:11:22:33:44:55"). ?

??
????????????????????

?mac-address-randomization ? uint32 ? 0 ? One of ?

? ? ? ? NM_SETTING_MAC_RANDOMIZATION_DEFAULT ?

? ? ? ? (0) (never randomize ?

? ? ? ? unless the user has ?

? ? ? ? set a global default ?

? ? ? ? to randomize and the ?

? ? ? ? supplicant supports ?

? ? ? ? randomization), ?

? ? ? ? NM_SETTING_MAC_RANDOMIZATION_NEVER ?

? ? ? ? (1) (never randomize ?

? ? ? ? the MAC address), or ?

? ? ? ? NM_SETTING_MAC_RANDOMIZATION_ALWAYS ?

? ? ? ? (2) (always randomize ?

? ? ? ? the MAC address). ?

? ? ? ? ?

? ? ? ? This property is ?

? ? ? ? deprecated since ?

? ? ? ? version 1.4.Use the ?

? ? ? ? "cloned-mac-address" ?

? ? ? ? property instead. ?

??
????????????????????

?mode ? string ? ? Wi-Fi network mode; one of ?

? ? ? ? "infrastructure", "mesh", "adhoc" or ?

? ? ? ? "ap". If blank, infrastructure is ?

? ? ? ? assumed. ?

??
????????????????????

?mtu ? uint32 ? 0 ? If non-zero, only transmit packets ?

? ? ? ? of the specified size or smaller, ?
? ? ? ? breaking larger packets up into ?
? ? ? ? multiple Ethernet frames. ?

??

?powersave ? uint32 ? 0 ? One of ?
? ? ? ? NM_SETTING_WIRELESS_POWERSAVE_DISABLE ?
? ? ? ? (2) (disable Wi-Fi power saving), ?
? ? ? ? NM_SETTING_WIRELESS_POWERSAVE_ENABLE ?
? ? ? ? (3) (enable Wi-Fi power saving), ?
? ? ? ? NM_SETTING_WIRELESS_POWERSAVE_IGNORE ?
? ? ? ? (1) (don't touch currently configure ?
? ? ? ? setting) or ?
? ? ? ? NM_SETTING_WIRELESS_POWERSAVE_DEFAULT ?
? ? ? ? (0) (use the globally configured ?
? ? ? ? value). All other values are ?
? ? ? ? reserved. ?

??

?rate ? uint32 ? 0 ? If non-zero, directs the device to ?
? ? ? ? only use the specified bitrate for ?
? ? ? ? communication with the access point. ?
? ? ? ? Units are in Kb/s, ie 5500 = 5.5 ?
? ? ? ? Mbit/s. This property is highly ?
? ? ? ? driver dependent and not all devices ?
? ? ? ? support setting a static bitrate. ?

??

?security ? ? ? This property is deprecated, but can ?
? ? ? ? be set to the value ?

? ? ? ? '802-11-wireless-security' when a ?

? ? ? ? wireless security setting is also ?

? ? ? ? present in the connection dictionary, ?

? ? ? ? for compatibility with very old ?

? ? ? ? NetworkManager daemons. ?

??

?????????????????????

?seen-bssids ? array of string ? ? A list of BSSIDs (each BSSID ?

? ? ? ? formatted as a MAC address like ?

? ? ? ? "00:11:22:33:44:55") that have been ?

? ? ? ? detected as part of the Wi-Fi ?

? ? ? ? network. NetworkManager internally ?

? ? ? ? tracks previously seen BSSIDs. The ?

? ? ? ? property is only meant for reading ?

? ? ? ? and reflects the BSSID list of ?

? ? ? ? NetworkManager. The changes you make ?

? ? ? ? to this property will not be ?

? ? ? ? preserved. ?

??

?????????????????????

?ssid ? byte array ? ? SSID of the Wi-Fi network. Must be ?

? ? ? ? specified. ?

??

?????????????????????

?tx-power ? uint32 ? 0 ? If non-zero, directs the device to ?

? ? ? ? use the specified transmit power. ?

? ? ? ? Units are dBm. This property is ?

? ? ? ? highly driver dependent and not all ?

? ? ? ? devices support setting a static ?

? ? ? ? transmit power. ?

??
????????????????????

?wake-on-wlan ? uint32 ? 1 ? The NMSettingWirelessWakeOnWLan ?
? ? ? ? options to enable. Not all devices ?
? ? ? ? support all options. May be any ?
? ? ? ? combination of ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_ANY ?
? ? ? ? (0x2), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_DISCONNECT ?
? ? ? ? (0x4), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_MAGIC ?
? ? ? ? (0x8), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_GTK_REKEY_FAILURE ?
? ? ? ? (0x10), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_EAP_IDENTITY_REQUEST
?
? ? ? ? (0x20), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_4WAY_HANDSHAKE ?
? ? ? ? (0x40), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_RFKILL_RELEASE ?
? ? ? ? (0x80), ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_TCP ?
? ? ? ? (0x100) or the special values ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_DEFAULT ?
? ? ? ? (0x1) (to use global settings) and ?
? ? ? ? NM_SETTING_WIRELESS_WAKE_ON_WLAN_IGNORE ?
? ? ? ? (0x8000) (to disable management of ?
? ? ? ? Wake-on-LAN in NetworkManager). ?

??
????????????????????

Wi-Fi Security Settings.

??

????????

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

????????

?auth-alg ? string ? ? When WEP is used ?

? ? ? ? (ie, key-mgmt = ?

? ? ? ? "none" or ?

? ? ? ? "ieee8021x") ?

? ? ? ? indicate the ?

? ? ? ? 802.11 ?

? ? ? ? authentication ?

? ? ? ? algorithm ?

? ? ? ? required by the ?

? ? ? ? AP here. One of ?

? ? ? ? "open" for Open ?

? ? ? ? System, "shared" ?

? ? ? ? for Shared Key, ?

? ? ? ? or "leap" for ?

? ? ? ? Cisco LEAP. ?

? ? ? ? When using Cisco ?

? ? ? ? LEAP (ie, ?

? ? ? ? key-mgmt = ?

? ? ? ? "ieee8021x" and ?

? ? ? ? auth-alg = ?

? ? ? ? "leap") the ?

? ? ? ? "leap-username" ?

? ? ? ? and ?

? ? ? ? "leap-password" ?

? ? ? ? properties must ?
? ? ? ? be specified. ?

??
????????

?fils ? int32 ? 0 ? Indicates ?
? ? ? ? whether Fast ?
? ? ? ? Initial Link ?
? ? ? ? Setup (802.11ai) ?
? ? ? ? must be enabled ?
? ? ? ? for the ?
? ? ? ? connection. One ?
? ? ? ? of ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_FILS_DEFAULT ?
? ? ? ? (0) (use global ?
? ? ? ? default value), ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_FILS_DISABLE ?
? ? ? ? (1) (disable ?
? ? ? ? FILS), ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_FILS_OPTIONAL ?
? ? ? ? (2) (enable FILS ?
? ? ? ? if the ?
? ? ? ? supplicant and ?
? ? ? ? the access point ?
? ? ? ? support it) or ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_FILS_REQUIRED ?
? ? ? ? (3) (enable FILS ?
? ? ? ? and fail if not ?
? ? ? ? supported). ?
? ? ? ? When set to ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_FILS_DEFAULT ?
? ? ? ? (0) and no ?
? ? ? ? global default ?

? ? ? ? is set, FILS ?
? ? ? ? will be ?
? ? ? ? optionally ?
? ? ? ? enabled. ?

??
????????

?group ? array of string ? ? A list of group/broadcast encryption ?
? ? ? ? algorithms which prevents connections to ?
? ? ? ? Wi-Fi networks that do not utilize one of ?
? ? ? ? the algorithms in the list. For maximum ?
? ? ? ? compatibility leave this property empty. ?
? ? ? ? Each list element may be one of "wep40", ?
? ? ? ? "wep104", "tkip", or "ccmp". ?

??
????????

?key-mgmt ? string ? ? Key management used for the connection. ?
? ? ? ? One of "none" (WEP or no password ?
? ? ? ? protection), "ieee8021x" (Dynamic WEP), ?
? ? ? ? "owe" (Opportunistic Wireless Encryption), ?
? ? ? ? "wpa-psk" (WPA2 + WPA3 personal), "sae" ?
? ? ? ? (WPA3 personal only), "wpa-eap" (WPA2 + ?
? ? ? ? WPA3 enterprise) or "wpa-eap-suite-b-192" ?
? ? ? ? (WPA3 enterprise only). ?
? ? ? ? ?
? ? ? ? This property must be set for any Wi-Fi ?
? ? ? ? connection that uses security. ?

??
????????

?leap-password ? string ? ? The login password for legacy LEAP ?
? ? ? ? connections (ie, key-mgmt = "ieee8021x" ?

? ? ? ? and auth-alg = "leap"). ?

??

?leap-password-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle the ?
? ? (uint32) ? ? "leap-password" property. ?

??

?leap-username ? string ? ? The login username for legacy LEAP ?
? ? ? ? connections (ie, key-mgmt = "ieee8021x" ?
? ? ? ? and auth-alg = "leap"). ?

??

?pairwise ? array of string ? ? A list of pairwise encryption algorithms ?
? ? ? ? which prevents connections to Wi-Fi ?
? ? ? ? networks that do not utilize one of the ?
? ? ? ? algorithms in the list. For maximum ?
? ? ? ? compatibility leave this property empty. ?
? ? ? ? Each list element may be one of "tkip" or ?
? ? ? ? "ccmp". ?

??

?pmf ? int32 ? 0 ? Indicates whether Protected Management ?
? ? ? ? Frames (802.11w) must be enabled for the ?
? ? ? ? connection. One of ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_PMF_DEFAULT ?
? ? ? ? (0) (use global default value), ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_PMF_DISABLE ?
? ? ? ? (1) (disable PMF), ?
? ? ? ? NM_SETTING_WIRELESS_SECURITY_PMF_OPTIONAL ?

? ? ? ? (2) (enable PMF if the supplicant and the ?

? ? ? ? access point support it) or ?

? ? ? ? NM_SETTING_WIRELESS_SECURITY_PMF_REQUIRED ?

? ? ? ? (3) (enable PMF and fail if not ?

? ? ? ? supported). When set to ?

? ? ? ? NM_SETTING_WIRELESS_SECURITY_PMF_DEFAULT ?

? ? ? ? (0) and no global default is set, PMF will ?

? ? ? ? be optionally enabled. ?

??

????????

?proto ? array of string ? ? List of strings specifying the allowed WPA ?

? ? ? ? protocol versions to use. Each element may ?

? ? ? ? be one "wpa" (allow WPA) or "rsn" (allow ?

? ? ? ? WPA2/RSN). If not specified, both WPA and ?

? ? ? ? RSN connections are allowed. ?

??

????????

?psk ? string ? ? Pre-Shared-Key for WPA networks. For ?

? ? ? ? WPA-PSK, it's either an ASCII passphrase ?

? ? ? ? of 8 to 63 characters that is (as ?

? ? ? ? specified in the 802.11i standard) hashed ?

? ? ? ? to derive the actual key, or the key in ?

? ? ? ? form of 64 hexadecimal character. The ?

? ? ? ? WPA3-Personal networks use a passphrase of ?

? ? ? ? any length for SAE authentication. ?

??

????????

?psk-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle the "psk" ?

? ? (uint32) ? ? property. ?

???
????????

?wep-key-flags ? NMSettingSecretFlags ? ? Flags indicating how to handle the ?

? ? (uint32) ? ? "wep-key0", "wep-key1", "wep-key2", and ?

? ? ? ? "wep-key3" properties. ?

???
????????

?wep-key-type ? NMWepKeyType ? ? Controls the interpretation of WEP keys. ?

? ? (uint32) ? ? Allowed values are NM_WEP_KEY_TYPE_KEY ?

? ? ? ? (1), in which case the key is either a 10- ?

? ? ? ? or 26-character hexadecimal string, or a ?

? ? ? ? 5- or 13-character ASCII password; or ?

? ? ? ? NM_WEP_KEY_TYPE_PASSPHRASE (2), in which ?

? ? ? ? case the passphrase is provided as a ?

? ? ? ? string and will be hashed using the ?

? ? ? ? de-facto MD5 method to derive the actual ?

? ? ? ? WEP key. ?

???
????????

?wep-key0 ? string ? ? Index 0 WEP key. This is the WEP key used ?

? ? ? ? in most networks. See the "wep-key-type" ?

? ? ? ? property for a description of how this key ?

? ? ? ? is interpreted. ?

???
????????

?wep-key1 ? string ? ? Index 1 WEP key. This WEP index is not ?

? ? ? ? used by most networks. See the ?

? ? ? ? "wep-key-type" property for a description ?

? ? ? ? of how this key is interpreted. ?

??
????????

```
?wep-key2      ? string      ?        ? Index 2 WEP key.  This WEP index is not   ?
?              ?             ?        ? used by most networks.  See the           ?
?              ?             ?        ? "wep-key-type" property for a description ?
?              ?             ?        ? of how this key is interpreted.           ?
```

??
????????

```
?wep-key3      ? string      ?        ? Index 3 WEP key.  This WEP index is not   ?
?              ?             ?        ? used by most networks.  See the           ?
?              ?             ?        ? "wep-key-type" property for a description ?
?              ?             ?        ? of how this key is interpreted.           ?
```

??
????????

```
?wep-tx-keyidx ? uint32      ? 0      ? When static WEP is used (ie, key-mgmt =   ?
?              ?             ?        ? "none") and a non-default WEP key index is ?
?              ?             ?        ? used by the AP, put that WEP key index    ?
?              ?             ?        ? here.  Valid values are 0 (default key)   ?
?              ?             ?        ? through 3.  Note that some consumer access ?
?              ?             ?        ? points (like the Linksys WRT54G) number   ?
?              ?             ?        ? the keys 1 - 4.                           ?
```

??
????????

```
?wps-method    ? uint32      ? 0      ? Flags indicating which mode of WPS is to  ?
?              ?             ?        ? be used if any.                           ?
?              ?             ?        ?                                           ?
?              ?             ?        ? There's little point in changing the      ?
?              ?             ?        ? default setting as NetworkManager will    ?
?              ?             ?        ? automatically determine whether it's      ?
?              ?             ?        ? feasible to start WPS enrollment from the ?
```

? ? ? ? Access Point capabilities. ?

? ? ? ? ?

? ? ? ? WPS can be disabled by setting this ?

? ? ? ? property to a value of 1. ?

??

????????

wpan setting

IEEE 802.15.4 (WPAN) MAC Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?channel ? int32 ? -1 ? IEEE 802.15.4 ?

? ? ? ? channel. A ?

? ? ? ? positive integer ?

? ? ? ? or -1, meaning ?

? ? ? ? "do not set, use ?

? ? ? ? whatever the ?

? ? ? ? device is ?

? ? ? ? already set to". ?

??

?mac-address ? string ? ? If specified, ?

? ? ? ? this connection ?

? ? ? ? will only apply ?

? ? ? ? to the IEEE ?

? ? ? ? 802.15.4 (WPAN) ?

? ? ? ? MAC layer device ?

? ? ? ? whose permanent ?

? ? ? ? MAC address ?

? ? ? ? matches. ?

??

?page ? int32 ? -1 ? IEEE 802.15.4 ?

? ? ? ? channel page. A ?

? ? ? ? positive integer ?

? ? ? ? or -1, meaning ?

? ? ? ? "do not set, use ?

? ? ? ? whatever the ?

? ? ? ? device is ?

? ? ? ? already set to". ?

??

?pan-id ? uint32 ? 65535 ? IEEE 802.15.4 ?

? ? ? ? Personal Area ?

? ? ? ? Network (PAN) ?

? ? ? ? identifier. ?

??

?short-address ? uint32 ? 65535 ? Short IEEE ?

? ? ? ? 802.15.4 address ?

? ? ? ? to be used ?

? ? ? ? within a ?

? ? ? ? restricted ?

? ? ? ? environment. ?

??

bond-port setting

Bond Port Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?queue-id ? uint32 ? 0 ? The queue ID of ?

? ? ? ? this bond port. ?

? ? ? ? The maximum ?

? ? ? ? value of queue ?

? ? ? ? ID is the number ?

? ? ? ? of TX queues ?

? ? ? ? currently active ?

? ? ? ? in device. ?

??

hostname setting

Hostname settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?from-dhcp ? NMTernary ? ? Whether the ?

? ? (int32) ? ? system hostname ?

? ? ? ? can be ?

? ? ? ? determined from ?

? ? ? ? DHCP on this ?

? ? ? ? connection. ?

? ? ? ? ? ?

? ? ? ? When set to ?

? ? ? ? NM_TERNARY_DEFAULT ?

? ? ? ? (-1), the value ?

? ? ? ? from global ?

? ? ? ? configuration is ?

? ? ? ? used. If the ?

? ? ? ? property doesn't ?

? ? ? ? have a value in ?

? ? ? ? the global ?

? ? ? ? configuration, ?

? ? ? ? NetworkManager ?

? ? ? ? assumes the ?

? ? ? ? value to be ?

? ? ? ? NM_TERNARY_TRUE ?

? ? ? ? (1). ?

??

?from-dns-lookup ? NMTernary ? ? Whether the system ?

? ? (int32) ? ? hostname can be ?

? ? ? ? determined from ?

? ? ? ? reverse DNS lookup ?

? ? ? ? of addresses on ?

? ? ? ? this device. ?

? ? ? ? ?

? ? ? ? When set to ?

? ? ? ? NM_TERNARY_DEFAULT ?

? ? ? ? (-1), the value ?

? ? ? ? from global ?

? ? ? ? configuration is ?

? ? ? ? used. If the ?

? ? ? ? property doesn't ?

? ? ? ? have a value in ?

? ? ? ? the global ?

? ? ? ? configuration, ?

? ? ? ? NetworkManager ?

? ? ? ? assumes the value ?

? ? ? ? to be ?

? ? ? ? NM_TERNARY_TRUE ?

? ? ? ? (1). ?

??

?only-from-default ? NMTernary ? ? If set to ?

? ? (int32) ? ? NM_TERNARY_TRUE ?

? ? ? ? (1), ?

? ? ? ? NetworkManager ?

? ? ? ? attempts to get ?

? ? ? ? the hostname via ?

? ? ? ? DHCPv4/DHCPv6 or ?

? ? ? ? reverse DNS lookup ?

? ? ? ? on this device ?

? ? ? ? only when the ?

? ? ? ? device has the ?

? ? ? ? default route for ?

? ? ? ? the given address ?

? ? ? ? family ?

? ? ? ? (IPv4/IPv6). ?

? ? ? ? ?

? ? ? ? If set to ?

? ? ? ? NM_TERNARY_FALSE ?

? ? ? ? (0), the hostname ?

? ? ? ? can be set from ?

? ? ? ? this device even ?

? ? ? ? if it doesn't have ?

? ? ? ? the default route. ?

? ? ? ? ?

? ? ? ? When set to ?

? ? ? ? NM_TERNARY_DEFAULT ?

? ? ? ? (-1), the value ?

? ? ? ? from global ?

? ? ? ? configuration is ?

? ? ? ? used. If the ?

? ? ? ? property doesn't ?

? ? ? ? have a value in ?

? ? ? ? the global ?

? ? ? ? configuration, ?

? ? ? ? NetworkManager ?

? ? ? ? assumes the value ?

? ? ? ? to be ?

? ? ? ? NM_TERNARY_FALSE ?

? ? ? ? (0). ?

??

?priority ? int32 ? 0 ? The relative ?

? ? ? ? priority of this ?

? ? ? ? connection to ?

? ? ? ? determine the ?

? ? ? ? system hostname. A ?

? ? ? ? lower numerical ?

? ? ? ? value is better ?

? ? ? ? (higher priority). ?

? ? ? ? A connection with ?

? ? ? ? higher priority is ?

? ? ? ? considered before ?

? ? ? ? connections with ?

? ? ? ? lower priority. ?

? ? ? ? ?

? ? ? ? If the value is ?

? ? ? ? zero, it can be ?

? ? ? ? overridden by a ?

? ? ? ? global value from ?

? ? ? ? NetworkManager ?

? ? ? ? configuration. If ?

? ? ? ? the property ?

? ? ? ? doesn't have a ?

? ? ? ? value in the ?

? ? ? ? global ?

? ? ? ? configuration, the ?

? ? ? ? value is assumed ?

? ? ? ? to be 100. ?

? ? ? ? ?

? ? ? ? Negative values ?

? ? ? ? have the special ?

? ? ? ? effect of ?

? ? ? ? excluding other ?

? ? ? ? connections with a ?

? ? ? ? greater numerical ?

? ? ? ? priority value; so ?

? ? ? ? in presence of at ?

? ? ? ? least one negative ?

? ? ? ? priority, only ?

? ? ? ? connections with ?

? ? ? ? the lowest ?

? ? ? ? priority value ?

? ? ? ? will be used to ?

? ? ? ? determine the ?

? ? ? ? hostname. ?

??

loopback setting

Loopback Link Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?mtu ? uint32 ? 0 ? If non-zero, ?

? ? ? ? only transmit ?

? ? ? ? packets of the ?

? ? ? ? specified size ?

? ? ? ? or smaller, ?

? ? ? ? breaking larger ?

? ? ? ? packets up into ?

? ? ? ? multiple ?

? ? ? ? Ethernet frames. ?

??

ovs-external-ids setting

OVS External IDs Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?data ? dict of string ? {} ? A dictionary of ?

? ? to string ? ? key/value pairs ?

? ? ? ? with ?

? ? ? ? external-ids for ?

? ? ? ? OVS. ?

??

ovs-other-config setting

OVS Other Config Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?data ? dict of string ? {} ? A dictionary of ?

? ? to string ? ? key/value pairs ?

? ? ? ? with ?

? ? ? ? other_config ?

? ? ? ? settings for ?

? ? ? ? OVS. See also ?

? ? ? ? "other_config" ?

? ? ? ? in the ?

? ? ? ? "ovs-vswitchd.conf.db" ?

? ? ? ? manual for the ?

? ? ? ? keys that OVS ?

? ? ? ? supports. ?

??

veth setting

Veth Settings.

??

?Key Name ? Value Type ? Default Value ? Value ?

? ? ? ? Description ?

??

?peer ? string ? ? This property ?

? ? ? ? specifies the ?

? ? ? ? peer interface ?

? ? ? ? name of the ?

? ? ? ? veth. This ?

? ? ? ? property is ?

? ? ? ? mandatory. ?

??

Secret flag types:

Each password or secret property in a setting has an associated flags property that describes how to handle that secret. The flags property is a bitfield that contains zero or more of the following values logically OR-ed together.

? 0x0 (none) - the system is responsible for providing and storing this secret. This may be required so that secrets are already available before the user logs in. It also commonly means that the secret will be stored in plain text on disk, accessible to root only. For example via the keyfile settings plugin as described in the "PLUGINS" section in NetworkManager.conf(5).

? 0x1 (agent-owned) - a user-session secret agent is responsible for providing and storing this secret; when it is required, agents will be asked to provide it.

? 0x2 (not-saved) - this secret should not be saved but should be requested from the user each time it is required. This flag should be used for One-Time-Pad secrets, PIN codes from hardware tokens, or if the user simply does not want to save the secret.

? 0x4 (not-required) - in some situations it cannot be automatically determined that a secret is required or not. This flag hints that the secret is not required and should not be requested from the user.

FILES

/etc/NetworkManager/system-connections or distro plugin-specific location

SEE ALSO

nm-settings-nmcli(5), nm-settings-keyfile(5), NetworkManager(8), nmcli(1), nmcli-examples(7), NetworkManager.conf(5)