

documentation dns dynamique

```
apt install bind9 bind9utils bind9-doc ssh -y
```

```
apt install isc-dhcp-server ssh -y
```

```
apt update && apt upgrade -y
```

partie dns :

```
GNU nano 7.2 /etc/hosts
127.0.0.1    dns.mondomaine.local  dns    localhost
127.0.1.1    dns
```

/etc/default/named

```
GNU nano 7.2 /etc/default/named
#
# run resolvconf?
RESOLVCONF=no

# startup options for the server
OPTIONS="-u bind -4"
```

pour le ddns on utilise la cle de bases de bind "rndc.key"

```
root@dns:/etc/bind# ls
```

```
bind.keys  db.127  db.empty  named.conf          named.conf.local  rndc.key
db.0       db.255  db.local  named.conf.default-zones  named.conf.options  zones.rfc1918
```

`rndc.key`

exemple du fichier:

```
root@dns:/etc/bind# cat rndc.key
```

```
key "rndc-key" {
    algorithm hmac-sha256;
    secret "wRz1h4HekMmsrZNDsRSjL48R4lYU9dMCviMEigc8B8M=";
};
```

dans named.conf.local(pas grand choses a par si besoin)

```
GNU nano 7.2                                named.conf.options
options {
    directory "/var/cache/bind";

    // If there is a firewall between you and nameservers you want
    // to talk to, you may need to fix the firewall to allow multiple
    // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

    // If your ISP provided one or more IP addresses for stable
    // nameservers, you probably want to use them as forwarders.
    // Uncomment the following block, and insert the addresses replacing
    // the all-0's placeholder.

    // forwarders {
    //     0.0.0.0;
    // };

    //=====
    // If BIND logs error messages about the root key being expired,
    // you will need to update your keys.  See https://www.isc.org/bind-keys
    //=====
    dnssec-validation no;

    // listen-on-v6 { any; };
};
```

dans named.conf.local

```
GNU nano 7.2                                named.conf.local
//
// Do any local configuration here
//

// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";
include "/etc/bind/rndc.key";

zone "mondomaine.local" {
    type master;
    file "/var/lib/bind/zones/db.mondomaine.local";
    update-policy {
        grant rndc-key zonesub A TXT DHCID;
    };
};

zone "0.16.172.in-addr.arpa" {
    type master;
    file "/var/lib/bind/zones/db.172.16.0";
    update-policy {
        grant rndc-key zonesub PTR TXT DHCID;
    };
};
```

les droit sur le fichier zones à créer

```
root@dns:/etc/bind# cd /var/lib/bind/  
root@dns:/var/lib/bind# ls -l  
total 4  
drwxrwxr-x 2 root bind 4096 26 déc. 14:51 zones  
root@dns:/var/lib/bind#
```

puis créer

```
db.mondomaine.local db.172.16.0
```

exemple de db.mondomaine.local

```
GNU nano 7.2 db.mondomaine.local  
; BIND reverse data file for empty rfc1918 zone  
;  
; DO NOT EDIT THIS FILE - it is used for multiple zones.  
; Instead, copy it, edit named.conf, and use that copy.  
;  
$TTL      86400  
@         IN      SOA      dns.mondomaine.local. root.mondomaine.local. (  
                                1          ; Serial  
                                604800     ; Refresh  
                                86400      ; Retry  
                                2419200    ; Expire  
                                86400 )    ; Negative Cache TTL  
;  
@         IN      NS       dns.mondomaine.local.  
dns       IN      A        172.16.0.1  
dhcp      IN      A        172.16.0.2
```

exemple de db.172.16.0

```
GNU nano 7.2 db.172.16.0
; BIND reverse data file for empty rfc1918 zone
;
; DO NOT EDIT THIS FILE - it is used for multiple zones.
; Instead, copy it, edit named.conf, and use that copy.
;
$TTL      86400
@         IN      SOA      dns.mondomaine.local. root.mondomaine.local. (
                                1          ; Serial
                                604800     ; Refresh
                                86400      ; Retry
                                2419200    ; Expire
                                86400 )   ; Negative Cache TTL
;
@         IN      NS       dns.mondomaine.local.
1         IN      PTR      dns.mondomaine.local.
2         IN      PTR      dhcp.mondomaine.local.
```

dans resolv.conf

```
GNU nano 7.2 /etc/resolv.conf
# Generated by NetworkManager
nameserver 127.0.0.1
search mondomaine.local
```

et scp -r rndc.key root@adresse_dhcp:/etc/dhcp

partie dhcp:

```
GNU nano 7.2 /etc/hosts
127.0.0.1    dhcp.mondomaine.local  dhcp    localhost
127.0.1.1    dhcp
```

dans /etc/default/isc-dhcp-server

```
GNU nano 7.2 /etc/default/isc-dhcp-server
# Defaults for isc-dhcp-server (sourced by /etc/init.d/isc-dhcp-server)

# Path to dhcpd's config file (default: /etc/dhcp/dhcpd.conf).
#DHCPDv4_CONF=/etc/dhcp/dhcpd.conf
#DHCPDv6_CONF=/etc/dhcp/dhcpd6.conf

# Path to dhcpd's PID file (default: /var/run/dhcpd.pid).
#DHCPDv4_PID=/var/run/dhcpd.pid
#DHCPDv6_PID=/var/run/dhcpd6.pid

# Additional options to start dhcpd with.
#       Don't use options -cf or -pf here; use DHCPD_CONF/ DHCPD_PID instead
#OPTIONS=""

# On what interfaces should the DHCP server (dhcpd) serve DHCP requests?
#       Separate multiple interfaces with spaces, e.g. "eth0 eth1".
INTERFACESv4="ens33"
INTERFACESv6=""
```

les droit des fichiers(normalement la cle va se retrouver dans le ddns-key a revoir)

```
root@dhcp:/etc/dhcp# ls -l
total 28
drwxr-x--- 2 root root 4096 26 déc. 13:34 ddns-keys
-rw-r--r-- 1 root root 1426 23 févr. 2022 debug
-rw-r--r-- 1 root root 1735 23 févr. 2022 dhclient.conf
drwxr-xr-x 2 root root 4096 3 déc. 18:23 dhclient-enter-hooks.d
drwxr-xr-x 2 root root 4096 3 déc. 18:31 dhclient-exit-hooks.d
-rw-r--r-- 1 root root 3331 17 avril 2023 dhcpd6.conf
-rw-r--r-- 1 root root 3824 26 déc. 13:57 dhcpd.conf
root@dhcp:/etc/dhcp# ls -l ddns-keys/
total 4
-rw----- 1 root root 100 26 déc. 12:27 rndc.key
root@dhcp:/etc/dhcp# █
```

dans dhcpd.conf

```
# option definitions common to all suppo:
option domain-name "mondomaine.local";
option domain-name-servers 172.16.0.1;

default-lease-time 600;
max-lease-time 7200;
```

```
ddns-update-style standard;

ddns-domainname "mondomaine.local.";

ddns-rev-domainname "in-addr.arpa.";

allow client-updates;

update-optization;

update-conflict-detection off;

include "/etc/dhcp/ddns-keys/rndc.key";

zone mondomaine.local. {
    primary 172.16.0.1;
    key rndc-key;
}

zone 0.16.172.in-addr.arpa. {
    primary 172.16.0.1;
    key rndc-key;
}
```



```
subnet 172.16.0.0 netmask 255.255.255.0 {  
    range 172.16.0.10 172.16.0.30;  
#   option domain-name-servers ns1.internal.;  
#   option domain-name "internal.example.org";  
#   option routers 10.5.5.1;  
#   option broadcast-address 10.5.5.31;  
#   default-lease-time 600;  
#   max-lease-time 7200;  
}
```

relancer les deux et vérifier les log