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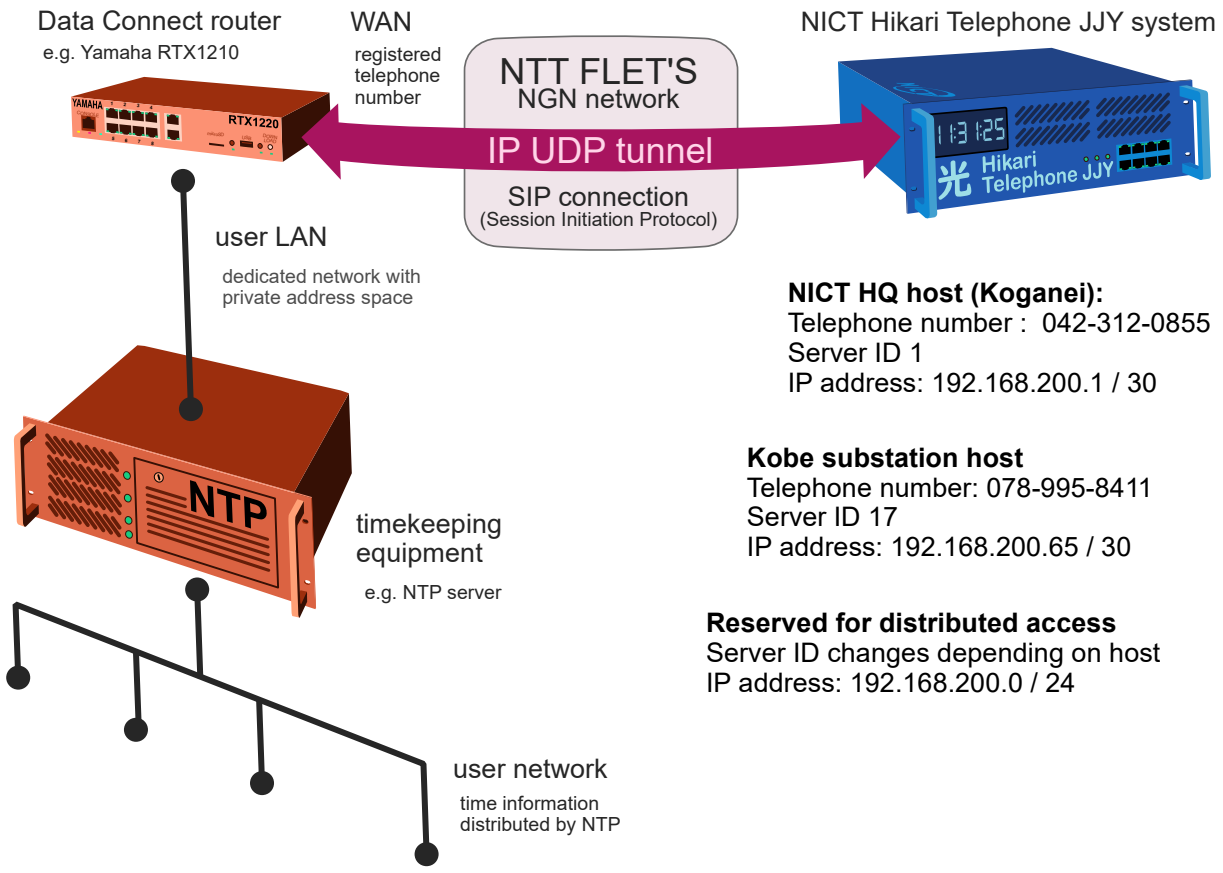
Hikari Telephone JJY configuration manual



Typical user network configuration with time information supplied by the Hikari Telephone JJY service.

Notes

Please specify the telephone number and the private address space in your application.

Please make sure that network traffic is filtered so that there is no unnecessary access to the Hikari Telephone JJY system. We strongly recommend separating the registered private address space from the main user network.

Please pay close attention to the rate at which requests are sent. High-speed access can quickly exceed the limited bandwidth (64 kbps). This results in an unpredictable increase in response time and causes time synchronization errors.

Access may not be possible at any given time due to line congestion or other reasons. Please configure your time synchronization equipment to retry only after a delay and consider switching the selected host. Please do not retransmit continuously.

Example user side configuration

The Hikari Telephone JJY host reference addresses are 192.168.200.1 (NICT HQ) and 192.168.200.65 (Kobe). We have reserved 192.168.200.0/24 for future subsystems. The user side private address space has to be within the range from 192.168.10.0 to 192.168.199.255 or from 172.16.0.0 to 72.31.255.255.

Below we include a minimal configuration example for a Yamaha RTX1210 router. The detailed settings will vary with router model, operating system version and network environment. Please make sure your security settings are correct. We cannot guarantee a successful connection even with these settings.

```
login password *
administrator password *
security class 1 on on off
ip route 192.168.200.0/30 gateway tunnel 1          Tunnel connection to NICT HQ host
ip route 192.168.200.64/30 gateway tunnel 2         Tunnel connection to Kobe substation host
ipv6 route default gateway dhcp lan2
ipv6 prefix 1 dhcp-prefix@lan2::/64
ip lan1 address 192.168.100.1/24                    Router address in user side private address space. The user's
                                                    time synchronization device connects to the LAN1 port.
ipv6 lan1 address dhcp-prefix@lan2::1/64
ipv6 lan1 rtadv send 1
queue lan2 type shaping                             LAN2 is the WAN interface.
queue lan2 class property 1 bandwidth=64k
ip lan2 address dhcp
ipv6 lan2 address dhcp
ipv6 lan2 dhcp service client
ngn type lan2 ntt                                   The NGN line connects to the LAN2 port.

tunnel select 1                                     Configure tunnel 1, the connection to the HQ host
tunnel encapsulation ipudp
tunnel endpoint name 0AB~J 0423120855 tel           0AB~J represents the user side originating phone numbers,
                                                    and 042-312-0855 is the number for the NICT HQ host.
tunnel ngn disconnect time 10                       Disconnect after 10 seconds of inactivity.
tunnel ngn bandwidth 64k                            Sets the bandwidth to the Data Connect bandwidth of 64kbps
tunnel ngn call permit on
tunnel ngn arrive permit on
tunnel ngn interface lan2
queue tunnel class filter list 1
tunnel enable 1

tunnel select 2                                     Configure tunnel 2, the connection to the Kobe substation host
tunnel encapsulation ipudp
tunnel endpoint name 0AB~J 0789958411 tel           0AB~J represents the user side originating phone numbers,
                                                    and 078-995-8411 is the number for the Kobe substation host.
tunnel ngn disconnect time 10                       Disconnect after 10 seconds of inactivity.
tunnel ngn bandwidth 64k                            Sets the bandwidth to the Data Connect bandwidth of 64kbps
tunnel ngn call permit on
tunnel ngn arrive permit on
tunnel ngn interface lan2
queue tunnel class filter list 1
tunnel enable 2

queue class filter 1 1 ip * * * * *
dhcp service server
dhcp server rfc2131 compliant except remain-silent
dhcp scope 1 192.168.100.2-192.168.100.191/24       Set to the range of the user side private address space
dhcp client release linkdown on
sip use on
```