

AP-GTR2000

GPS based Embedded NTP Server

NTP Server Duplication



AddPac

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Product Overview

AP-GTR2000 GPS NTP Server

- Embedded NTP Server with GPS Time Receiver Module
- Linux Operating System
- High Performance GPS Time Receiver Terminal Solution
- IP based GPS Time Receiver (Location Free, etc)
- Dual RS232 Port for GPS Time Information Transmission
- Two(2) 10/100Mbps Fast Ethernet Interface
- LCD Display for GPS Time Information
- External Antenna Interface Support
- High Performance Antenna Support for GPS Signal
- Blue LAMP for Device Status
- Smart Web Manager for System Configuration & Management
- Window, Linux Simple Socket API Program Support
- Firmware Upgradeable Architecture

Hardware Specification

AP-GTR2000 GPS NTP Server

RISC
CPU

High-end
GPS

- RISC Microprocessor Computing Power
- High-end GPS Module Hardware Architecture
- One(1) Module Slot for GPS Module
- LCD Display at Front Side
- Blue LAMP
- Two(2) 10/100Mbps Fast Ethernet Interface
- Dual(2) DB-9 RS232C Interface
- Internal Power Supply
- Rack Mount Bracket (Option)
- GPS Antenna (Option)
- Option Module : AP-GPS-RS232
 - Two(2) DB-9 RS232C Interface Port
 - GPS Antenna Interface Port

Hardware Specification

AP-GTR2000 GPS NTP Server

RISC
CPU

High-end
GPS

Front Side



Two(2) 10/100Mbps
LAN Ports

RS232C Console

Status LCD

On-Air Blue LAMP
& Switch

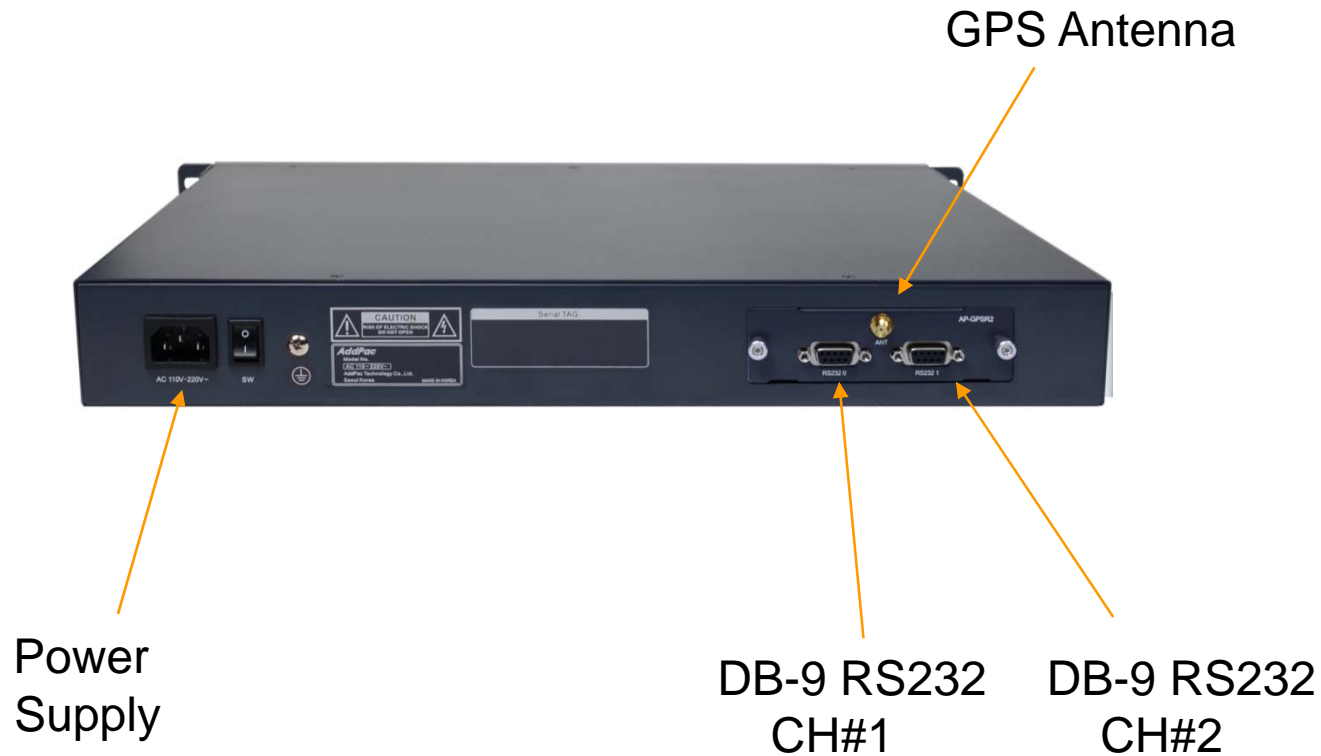
Hardware Specification

AP-GTR2000 GPS NTP Server

RISC
CPU

High-end
GPS

Back Side



Hardware Specification

AP-GTR2000 GPS NTP Server

RISC
CPU

High-end
GPS

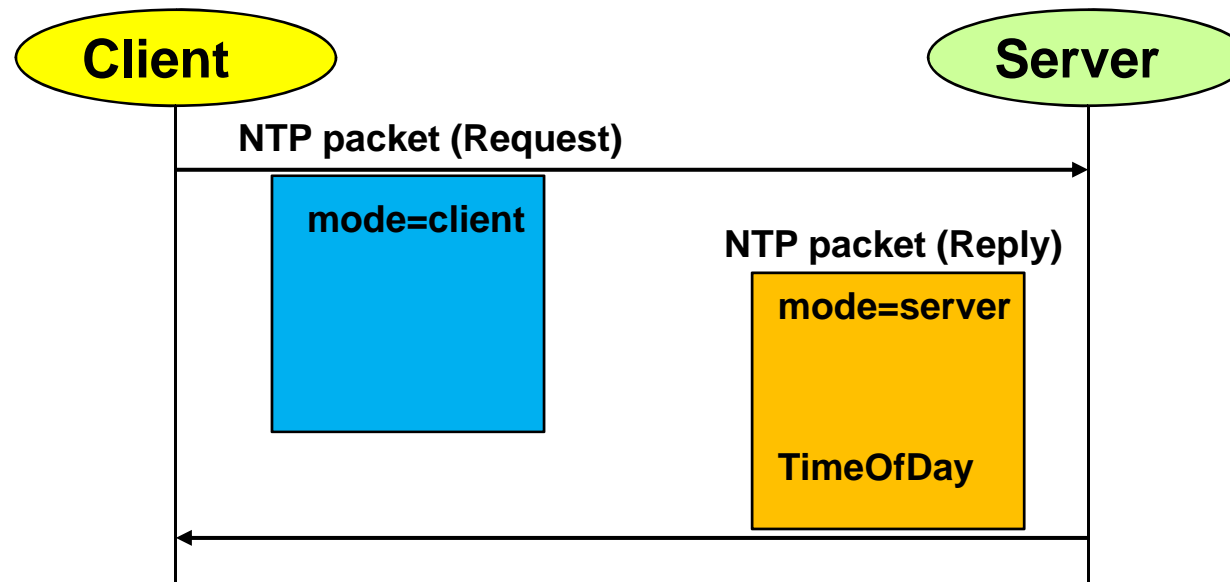
GPS Antenna



SNTP (Simple Network Time Protocol)

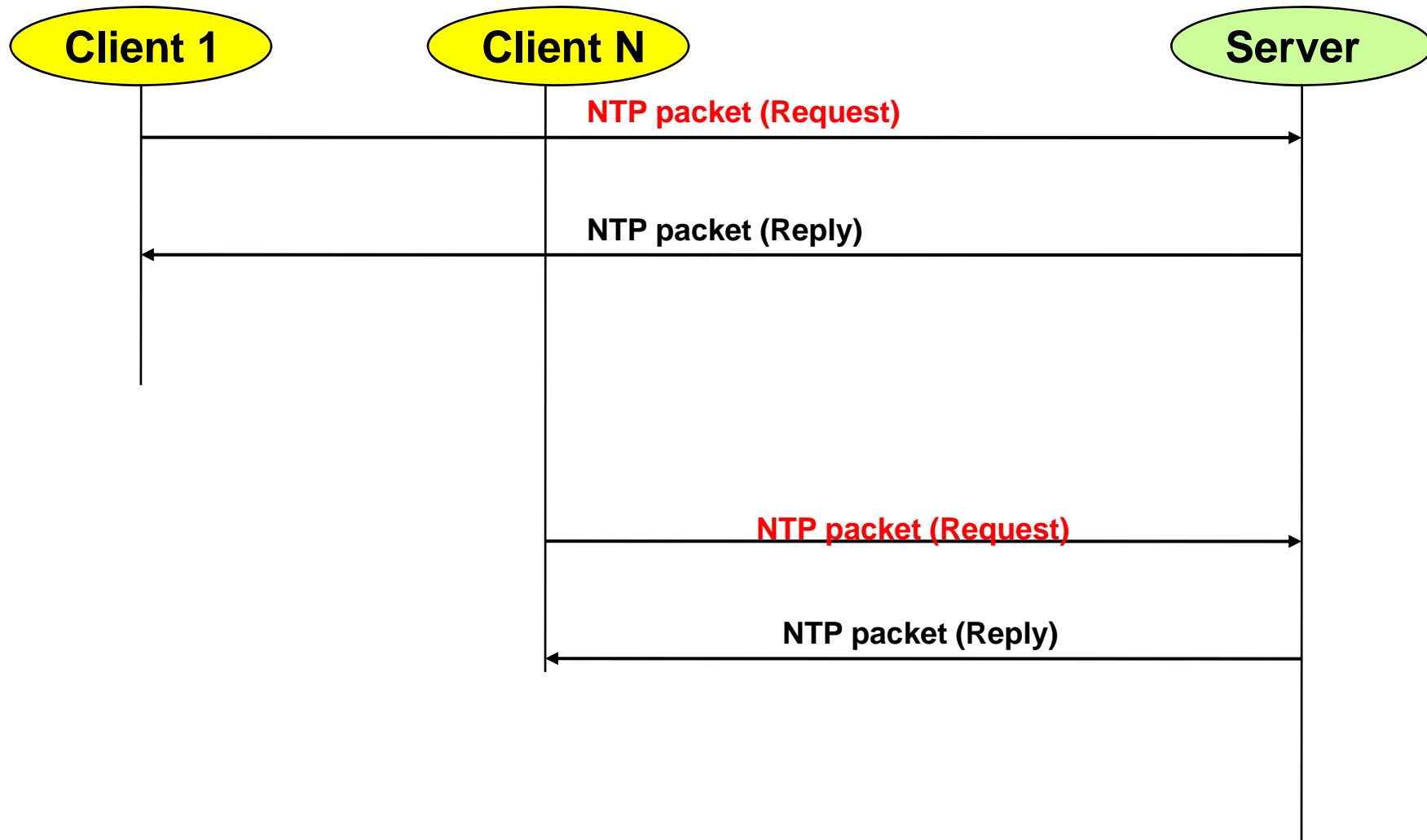
AP-GTR2000 GPS NTP Server

- Transport : UDP (port number 123)
- Protocol Version : 4
- Client/Server Mode



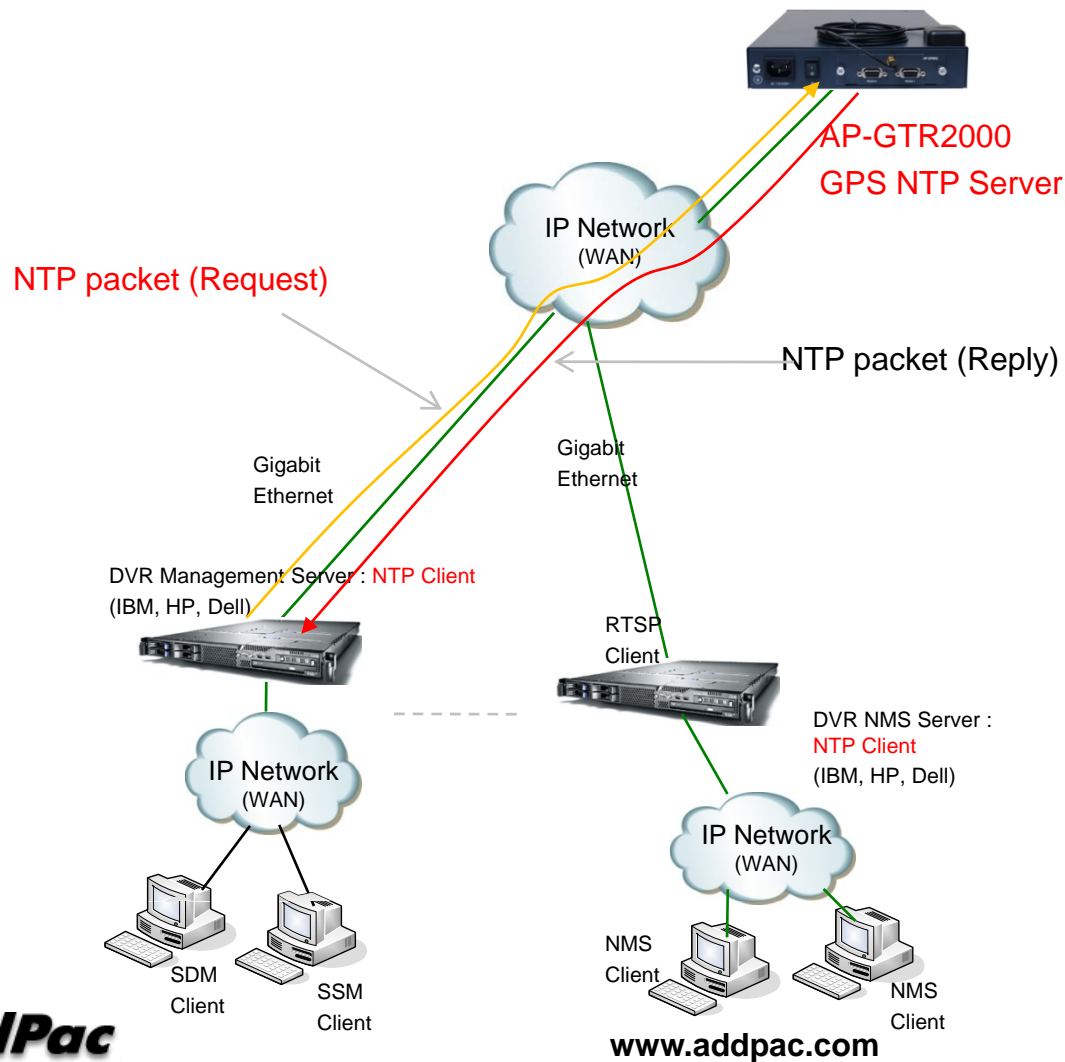
SNTP (Simple Network Time Protocol)

AP-GTR2000 GPS NTP Server



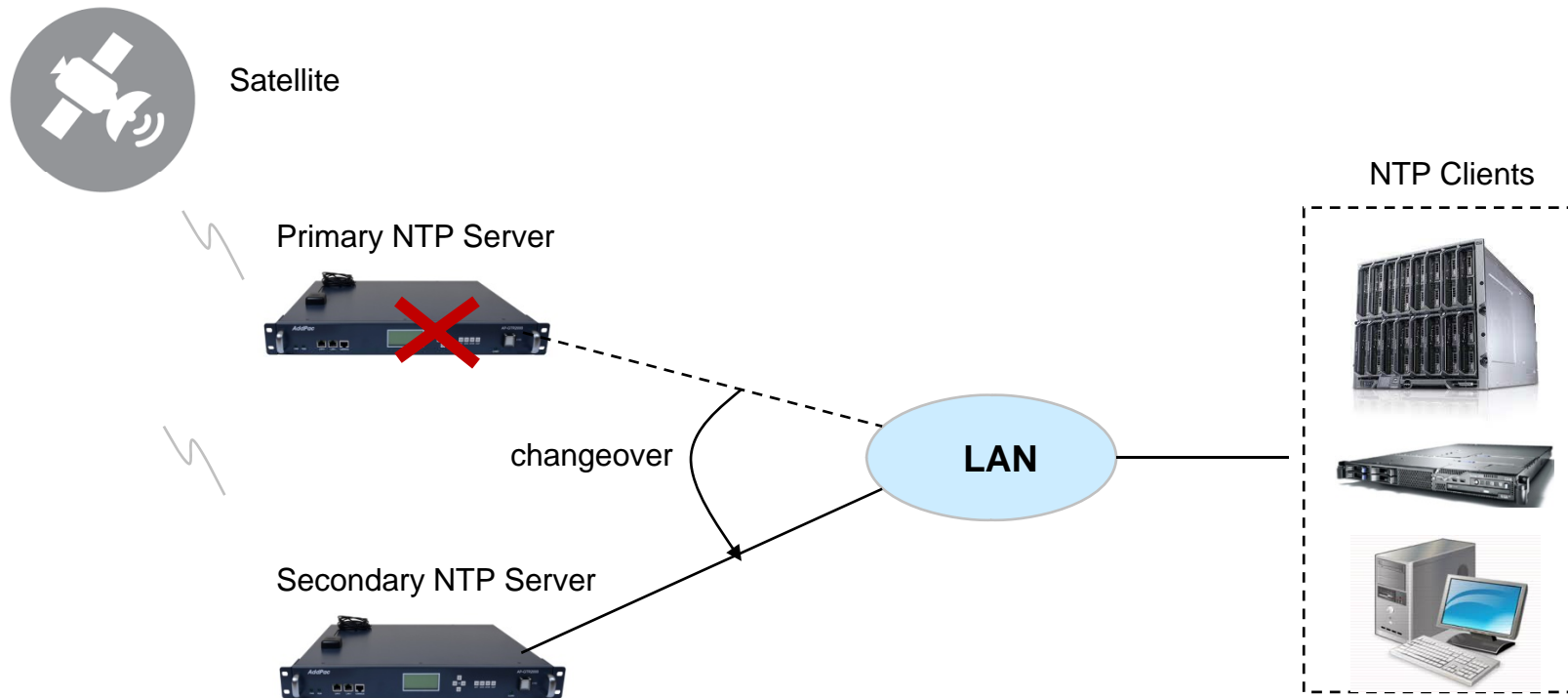
SNTP (Simple Network Time Protocol)

AP-GTR2000 GPS NTP Server



NTP Server Failure

AP-GTR2000 GPS NTP Server



NTP Client Configuration for Redundancy

AP-GTR2000 GPS NTP Server

- Linux Example

```
$ vi /etc/ntp.conf
```

```
server 172.16.1.100 ← Primary NTP Server
```

```
server 172.16.1.101 ← Secondary NTP Server
```

- Windows Example

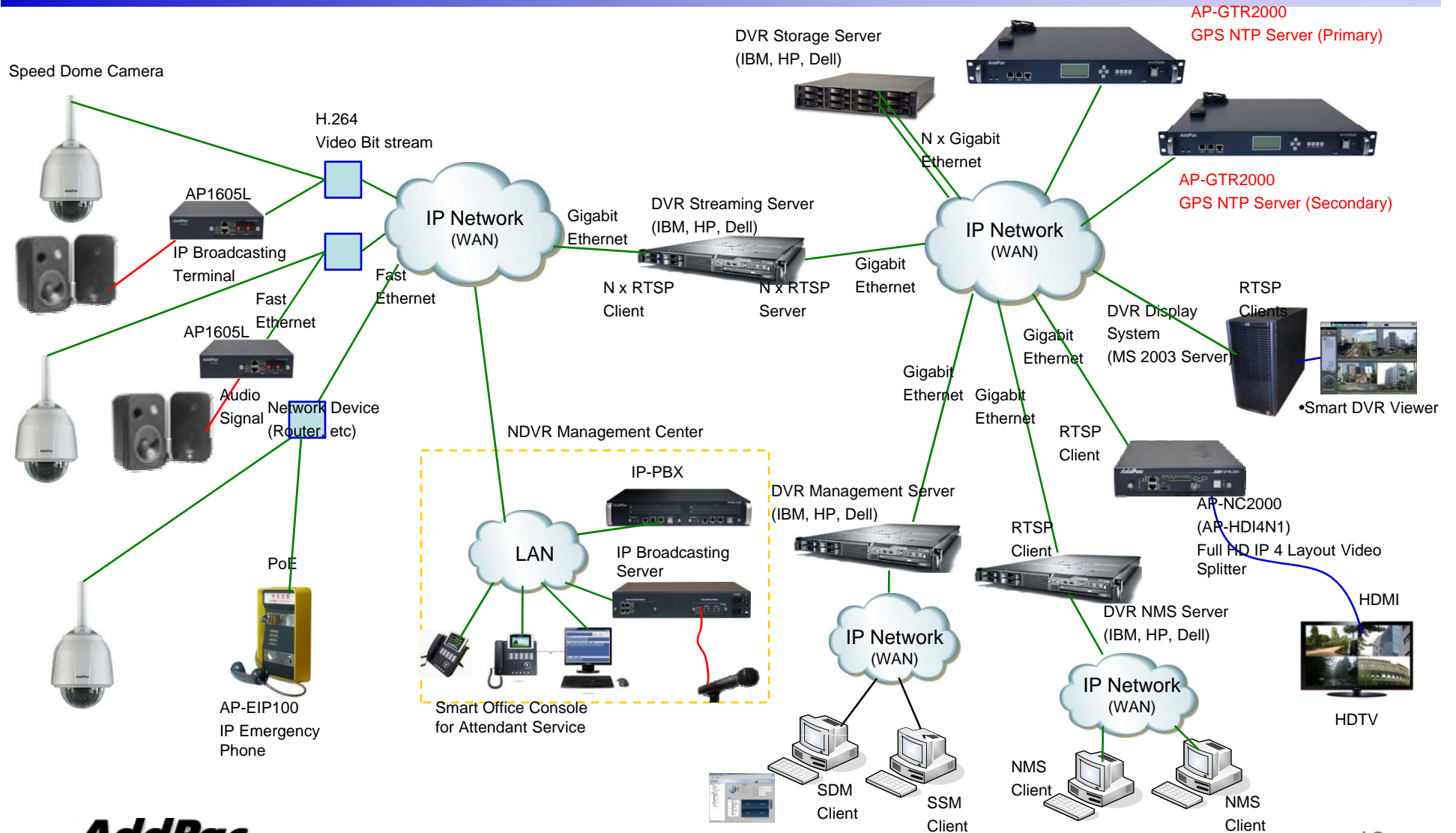
```
C:\>w32tm /config /syncfromflags:manual
```

```
/manualpeerlist:"172.16.1.100,0×1 172.16.1.101,0×1" /update
```

```
/reliable:yes
```

Network Diagram

AP-GTR2000 GPS NTP Server





Thank you!

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