



Telecommunication Solutions

# IPv6 Gateway

IPv4 to IPv6 solution for Service Providers



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## Why IPv6?

- Depletion of IPv4 addresses
- Larger network address space provides better reachability and mobility to end-users
- Simplified protocol enables efficient routing and processing
- Enable new services

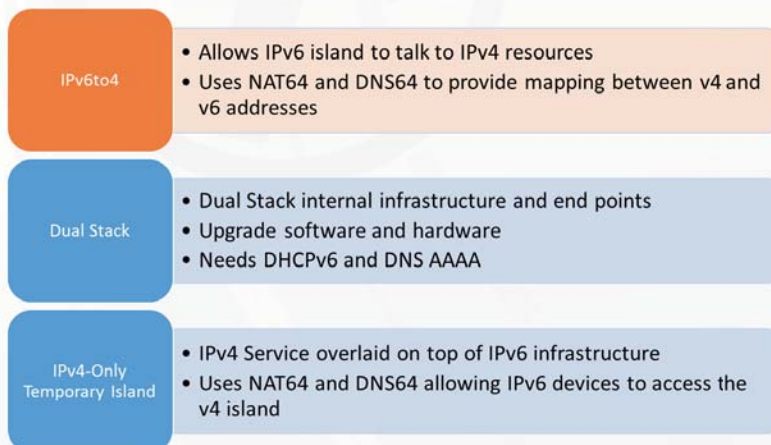


## IPv6 migration Challenges for SP

- IPv4 addresses pool exhaustion needs immediate and efficient plans
- Service interruption brought by infrastructure upgrade
- Creating tunnels for communications between IPv4 and IPv6 devices
- Network security

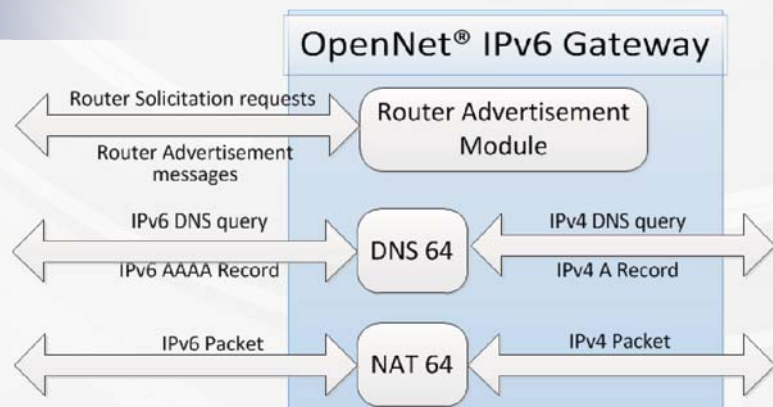
## IPv6 Migration Plans

- Various migration plans available for Service Providers

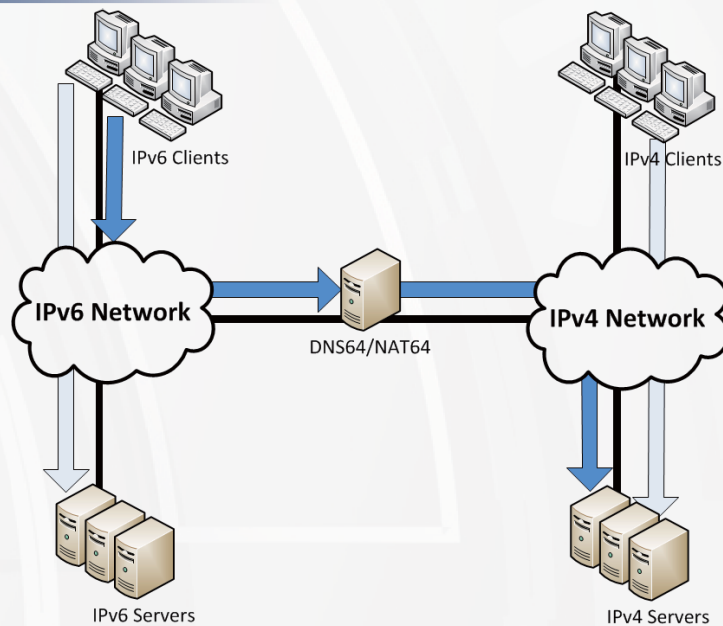


## OpenNetwork® IPv6 Gateway

- Support IPv6to4 migration plan
- X86 server based Layer 3 gateway
- NAT64 gateway module
- DNS64 service module
- Allow IPv6-only clients communicate with IPv4-only hosts



## Use Case



## NAT64: Reliable and effective solution based on IP/ICMP Translation Algorithm

- One IPv4 address is needed for each corresponding IPv6 address to provide the mapping
- The source and destination IPv6 addresses are transformed into the IPv4 addresses by removing the NAT64 prefix based on the mapping table stored locally
- Can be achieved dynamically by providing an IPv4 address from the dynamic address pool
- Persistent mapping can be established for certain hosts

## DNS64: A stateless DNS proxy

- Forwards requests from clients to Name Servers
- Translates DNS queries and responses
- Constructs IPv6 addresses based on a pre-configured IPv6 translator prefix
- Multiple name servers for redundancy purpose

## Solution Advantages

- All-in-one solution for DNS64 and NAT64
- Great expandability and compatibility based on modern server architecture
- Future-proof technology
- Comprehensive product support
- Great value for Service Provider in transition



## Open Network Telecommunication

- IPv6 Gateway
- Location Based Services
- SNMP Duplicator

## Data Center

- 42U Computer Cabinet
- Green Box

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