

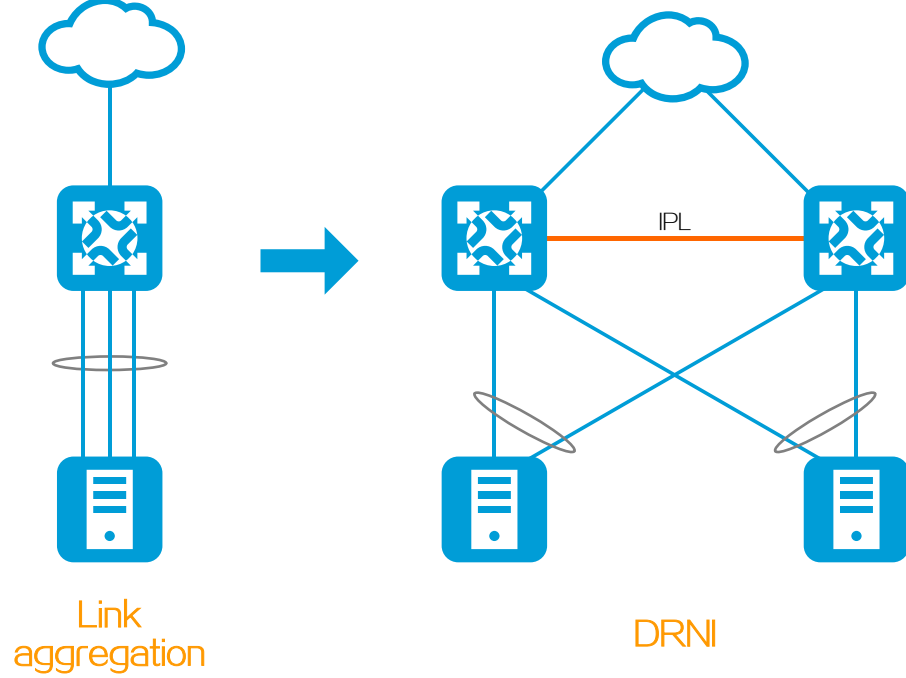
# Distributed Resilient Network Interconnect Technical Introduction

# DRNI

## About DRNI

Distributed Resilient Network Interconnect (DRNI) provides node protection and load balancing by virtualizing two physical devices into one system through multichassis link aggregation.

DRNI is applicable to servers dual-homed to a pair of access devices for node redundancy.



Link aggregation

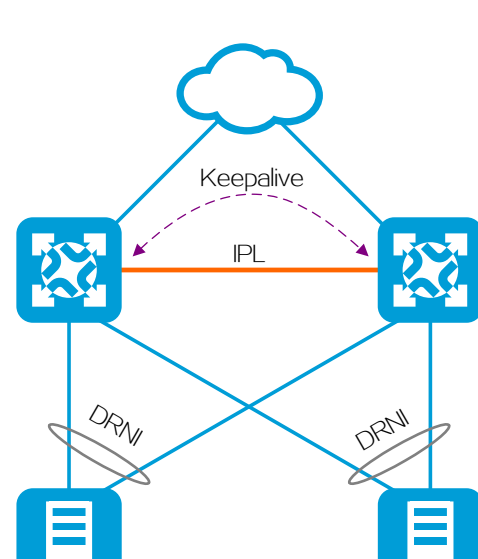
DRNI

Note: Intra-portal link (IPL) transmits DRNI protocol and data packets between member devices.

## Benefits

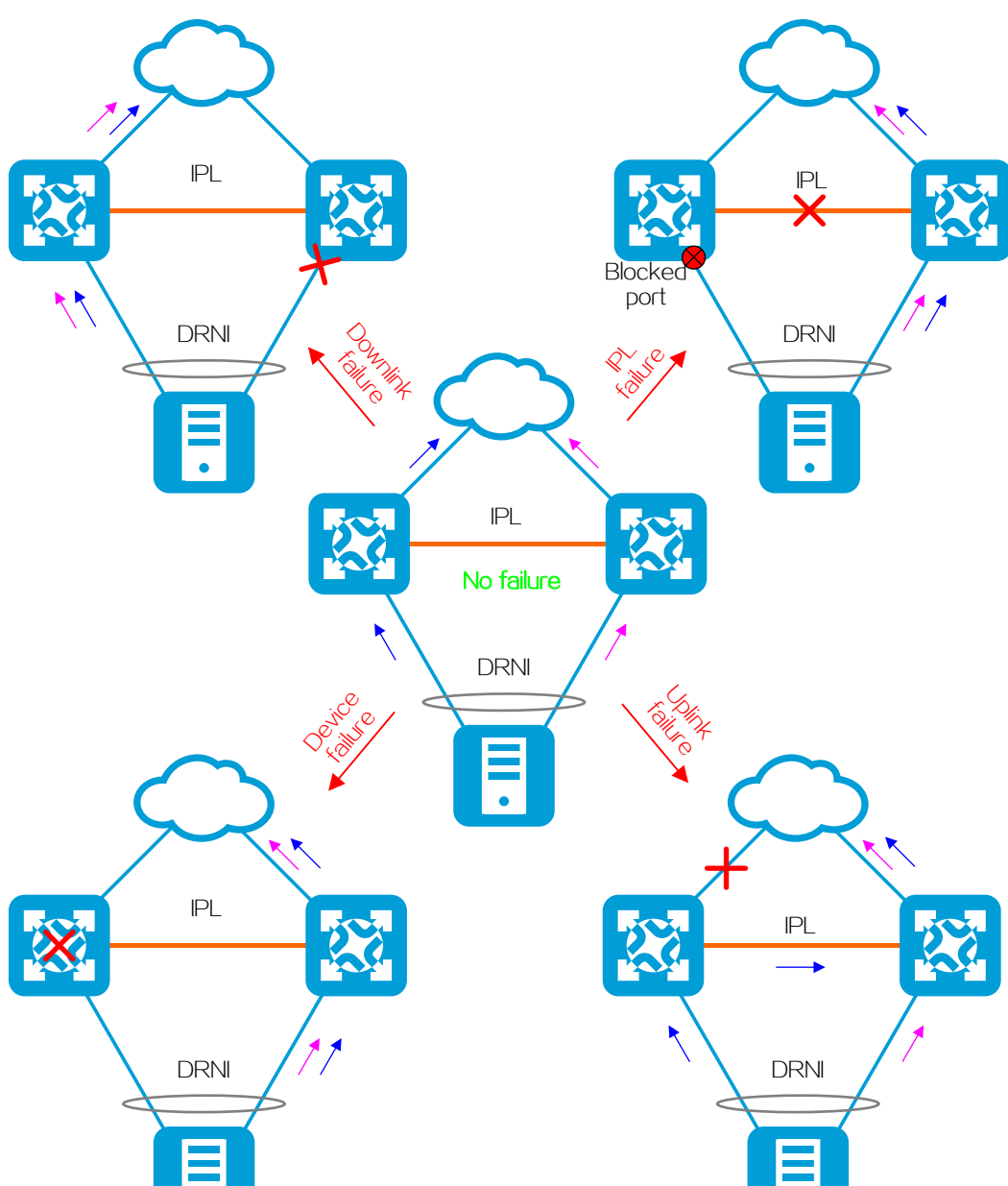
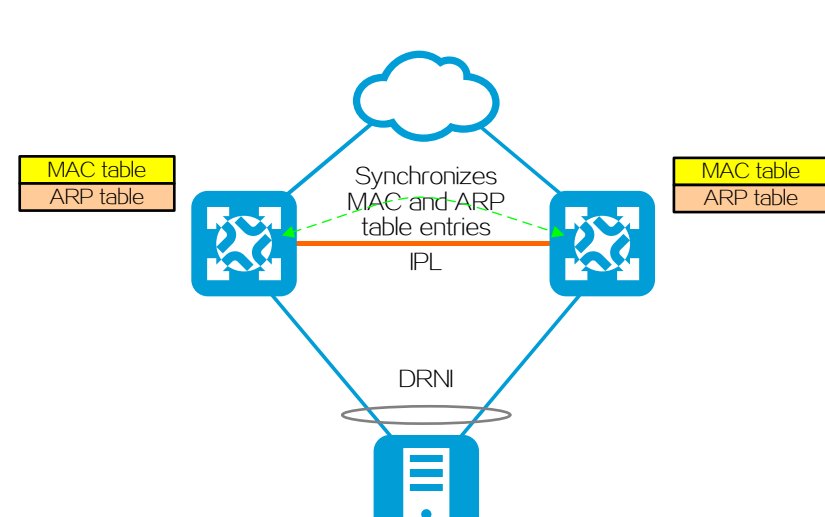
### High availability

The DR system uses a keepalive link to detect multi-active collision to ensure that only one member device forwards traffic after a DR system splits.



The server is dual-homed to the member devices in a DR system through link aggregation for node protection and load balancing.

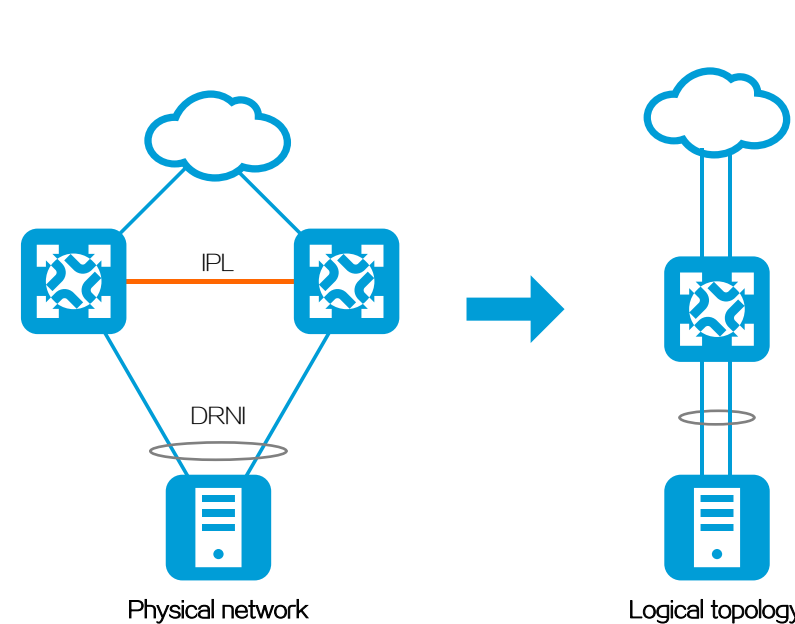
The DR member devices synchronize the MAC and ARP table entries over the IPL for backup.



One member device forwards all traffic to ensure service continuity when an interface, link, or device failure occurs.

### Streamlined topology

DRNI simplifies the network topology and spanning tree configuration by virtualizing two physical devices into one logical device.

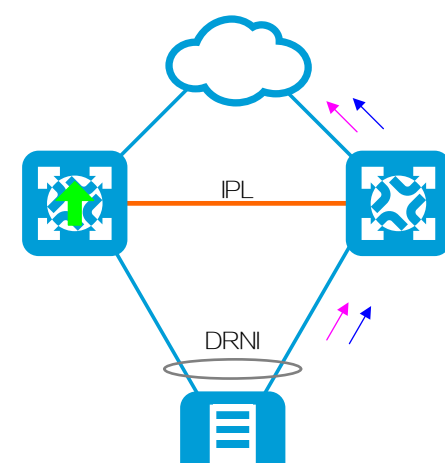


Physical network

Logical topology

### Independent upgrading

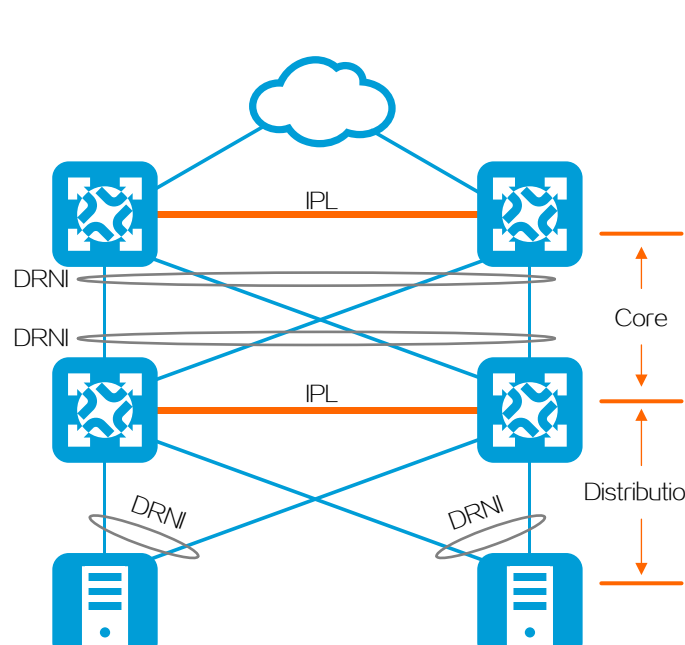
The DR member devices can be upgraded independently one by one to minimize the impact on traffic forwarding.



## Application scenarios

### Multitiers of DR systems

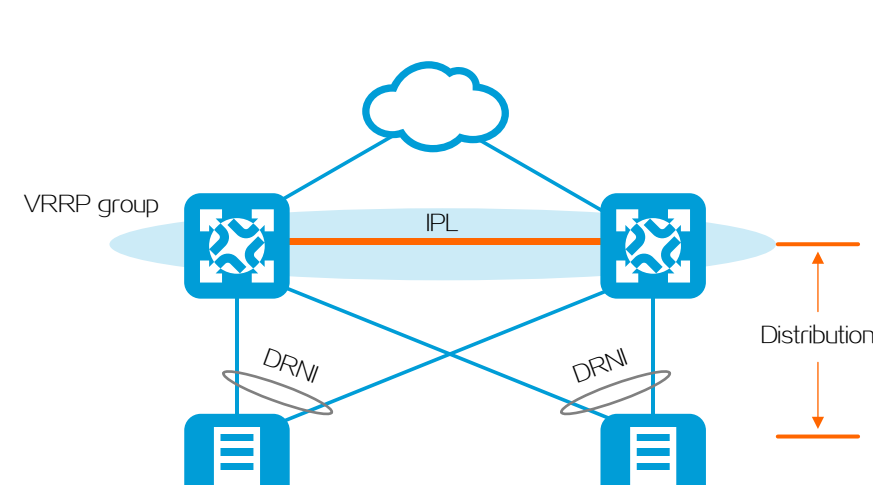
Deploy DR systems at the distribution and core layers of the network to increase network scale, reliability, and link use efficiency. This deployment solution applies to large-scale Layer 2 data centers that require a stable network environment.



### DRNI + VRRP

Deploy a DR system at the distribution layer for load sharing and high availability.

VRRP provides gateway redundancy on the DR system for service continuity.



### DRNI + EVPN

Deploy a DR system as a VTEP in an EVPN network to simplify configuration and management. Servers are dual-homed to the EVPN network through the DR system for load sharing and link redundancy.

