

ADX3000 Application Delivery Platform



Overview

Bridging the gap between networks and applications, DPtech ADX addresses the increasing number of users and their growingly higher requirements for application. Users are provided with fast and safe access, and uninterrupted stability around the clock. In addition, it helps bring down operation costs while delivering high performance. As the industry's first 3.2T application delivery platform, ADX features strong processing abilities, comprehensive application delivery capabilities, and abundant interfaces, thus is applicable to data centers and network egress for various industries and operators. It also provides outstanding service values such as improving the reliability and responsiveness of services and contributing to flexible business expansion.

Product Features

- **carrier-grade High Reliability**

By applying technologies such as redundant design of key components, separation of data plane from the control plane, and N:M virtualization, it is effective in reducing single points of failure and ensuring 99.999% carrier-grade reliability.

- **The First 3.2T Application Delivery Platform**

Based on high-performance hardware architecture APP-X, the maximum performance of a single device can reach 3.2 Tbps, and performance aggregation and multiplication is available through N:M virtualization.

- **Personalized programming**

AD-Rules is apt at meeting personalized needs of users in scenarios of network egress, server, and data center. It is widely used in such industries as operator, power, and finance.

- **Versatile fusion**

Integrating links, servers and global load balancing, it is provided with SSL offload&acceleration, HTTP compression, HTTP compression, anti-DDoS and other application optimization and security protection functions to guarantee fast, safe and readily available applications.

- **Rich Network Features**

Compatible with IPv4/IPv6, OSPF, RIP, MPLS and other protocols, it is capable of catering to networking requirements of complex network environments.

- **Full Detection and Intelligent Scheduling**

More than 30 health-check algorithms, 20 plus scheduling algorithms and business-based customized models are available. Detection can be performed at the network layer and the application layer. Operation status of servers and links can be inspected. All these measures facilitates a quick selection of the most suitable server and outbound links and ensures highly efficient load sharing.

- **Flexible Deployment**

It can be deployed in serial/one by one, bypass and sandwich modes. With high-density Gigabit and 10-Gigabit interfaces, it can meet various needs of complex application environments.

Product Series



Function Descriptions

Product Functions	Function Descriptions
Comprehensive Functions	A fusion of link load balancing, server load balancing, global load balancing, SSL offload&acceleration, HTTP compression, Cache and other application delivery technologies.
Application Virtualization	The N:M virtualization technology can realize virtualization by integrating multiple devices into a resource pool, which is then divided into M logical devices as needed to achieve dynamic scheduling of resource pools in a cloud computing environment.

Outstanding Performance	Maximum performance of a single device can reach 400 G*, and performance aggregation and multiplication is available through N:M virtualization
Excellent Reliability	N:M virtualization, silent dual system, dual-system hot standby, VRRP multi-master and other modes are supported to meet reliability needs of various levels.
Personalized programming	AD-Rules is apt at meeting personalized needs of users.
Rich Network Features	It supports routing protocols such as IPv4/v6, NAT, MPLS, OSPF, RIP, and dynamic/static routing.
Considerate Design	Login and logout of the dynamically expandable server will have no impact on the existing network.
Floating Long Connection	Application services with a long connection time can be disconnected actively and reload a new connection according to the predetermined policies.

* These specifications apply only to DPtech products available on the international market.

Server Load Balancing and Optimization

Product Functions	Feature Description
Four Layers of Load Balancing	Rich 4-layer load balancing algorithms are provided, including polling, weighted polling, minimum connection, weighted minimum connection, source address hash, Source address hash, destination address hash, minimum expected delay, minimum queue, random, weighted random, and minimum server load.
Seven Layers of Load Balancing	Rich 7-layer load balancing algorithms are provided, including minimum server load, http header, http content, polling, weighted polling, minimum connection, weighted minimum connection, source address hash, Source address hash, destination address hash, minimum expected delay, minimum queue, random, and weighted random.
SSL offload&acceleration	Featuring SSL proxy, termination, and unload technologies, and supporting SSL hardware acceleration and session persistence, it greatly reduces pressure on servers and shortens user' s access time to resources.
Source Address Traceability	With x-forward-for, it can identify the HTTP request header field of the original IP address of the client connected to the Web server through HTTP proxy or load balancing, making access source traceable.

Connection Multiplexing	Multiple connections can be multiplexed into a single connection, and a connection can also be split into multiple connections.
HTTP Compression	HTTP cache and compression help significantly reduce server pressure, shorten time spent in downloading resources and improve efficiency.
session persistence	Provide a variety of session persistence policies, including source IP, http cookie (multiple cookie modes), http header, http content, SIP, SSL id, RTP/RTCP/RTSP, etc.
Health Detection Algorithm	ARP, ICMP, TCP, HTTP, DNS, service-based and content-based algorithms, as well as custom four-layer and seven-layer algorithms are supported.
Integration with Cloud Management Platform	Interface with mainstream cloud management platforms such as OpenStack to enable automatic translation and distribution of configurations.

Link Load Balancing

Product Functions	Feature Description
Two-way Load Balancing	Inbound and outbound link load balancing helps improve bandwidth utilization of multi-link resources.
DNS Transparent Proxy	Based on load balancing algorithm, it forwards DNS request on behalf of users to avoid DNS overload of a single operator and maintain a balance of bandwidth utilization among multiple operator lines.
Intelligent DNS	Intelligent selection of operator link egress based on traffic
Dynamic and Intelligent Adjustment	Dynamic and intelligent adjustment of link exits are allowed based on load, packet loss rate, delay, etc.
Link Health Check	Provide multiple health check algorithms, including ARP, ICMP, TCP, HTTP, DNS, service-based, content-based, custom four-layer to seven-layer, etc.
Link Scheduling Algorithms	Rich scheduling algorithms are provided, including polling, weighted polling, minimum connection, weighted minimum connection, source address hash, Source address hash, destination address hash, minimum expected delay, minimum queue, random, weighted random, type of data application, proximity, and bandwidth algorithm.

Link Backup	Several links can serve as backups for each other, enabling link backup.
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Global Load Balancing

Product Functions	Feature Description
DNS-based Global	Global DNS-based resolution and data synchronization between devices are enabled, thus switching user traffic to the best data center.
IPanycast-based Global	Compatible with RIP, OSPF and other routing protocols, it can publish IP address of virtual services through multiple dynamic routing protocols, make a difference in routing through changing the value of cost, and switch user traffic to the best data center.
Global Health Check	RTT dynamic monitoring, dynamic publishing of healthy routing, and detection of data center availability and accessibility are allowed.
Global Fault Alarm	By using email, SMS and SNMP Trap, administrators can select alarm trigger events and alarm methods based on the concerns of business security in the domain, such as server downtime, network attacks, link interruption, and other failures.

Security Protection and Others

Product Functions	Feature Description
DDoS	DoS and DDoS protections are provided to ensure normal operation of daily business.
Firewall	Support stateful firewall, packet filtering, etc.
NAT	Support source NAT, destination NAT, one-to-one NAT, NAT address pool and other NAT functions.
Basic Attack Protection	Support basic attack protection such as DoS/DDoS and SYN Flood attacks, HTTP Flood and intrusion prevention of large traffic

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