



**VOTRE PARTENAIRE  
TECHNOLOGIQUE  
POUR DES INFRASTRUCTURES IT  
SÉCURISÉES ET PERFORMANTES**



**EXPERTISE**

Des solutions adaptées  
à chaque environnement



**CONFIANCE**

Un partenaire fiable  
à vos côtés



**PERFORMANCE**

Des infrastructures  
sécurisées et évolutives



**SUPPORT**

Un accompagnement  
technique de qualité

**HAFS**  
*Distributeur à valeur ajoutée*

Des solutions IT innovantes pour  
un monde connecté et sécurisé



**WIRELESS  
RADIO**

Connectivité sans fil  
haute performance



**RÉSEAUX &  
SÉCURITÉ IT**

Des réseaux fiables  
et sécurisés



**VIRTUALISATION  
CLOUD**

Des solutions Cloud  
flexibles et évolutives



**CYBERSECURITY**

Protéger vos données  
et vos systèmes



**VIDÉO  
PROTECTION**

Solutions de vidéosurveillance  
intelligentes



**HCI STOCKAGE  
SAUVEGARDE**

Stockage, sauvegarde  
et haute disponibilité

SOLUTIONS IT

CYBERSÉCURITÉ

CLOUD

INFRASTRUCTURE RÉSEAU

STOCKAGE

PROTECTION

# Hillstone Application Delivery Controller (ADC)



**Integrative Cybersecurity**  
Visionary. AI-powered. Accessible.

# Agenda

1

Challenges in Application Delivery

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2

Hillstone ADC Value Proposition

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3

Hillstone ADC Product Portfolio

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Deployment Scenarios & Winning Cases

# Challenges in Application Delivery

# The Challenges of Today's Application Delivery



## Poor User Access Experience

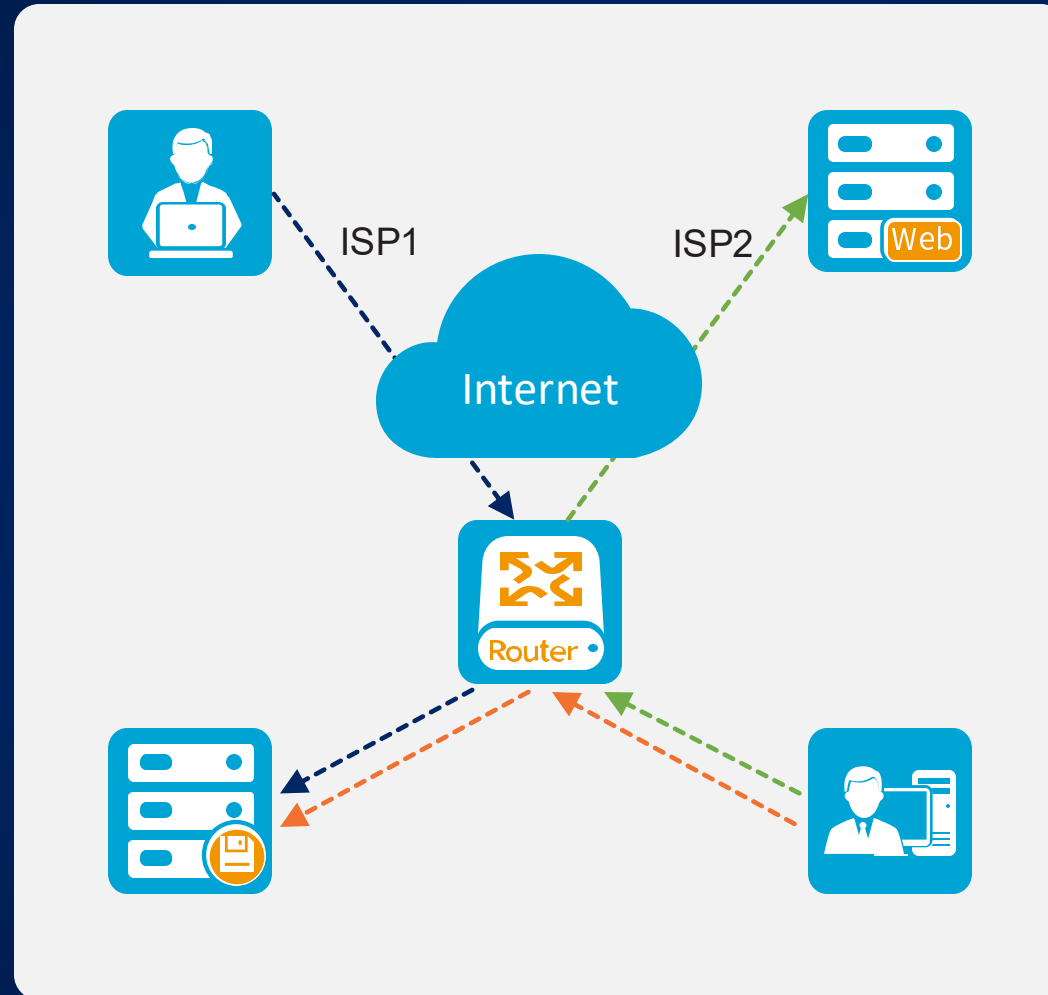
### Slow Access

- Slow page loading
- Slow business submission
- Slow data query

### Unstable Service

- Often inaccessible
- Sudden access interruption
- Accidental data loss

# The Causes of the Challenges



## Server side issues

Insufficient server performance

Slow fault detection via server

Bottleneck in database access performance

## External link issues

Slow cross-operator access

Poor link stability and reliability

Uneven traffic on multiple links

# What's the Solution?



## Load Balancing

- Server Load Balancing
- Link Load Balancing
- Global Server Load Balancing



## Access Acceleration

- Website Acceleration
- Application Acceleration

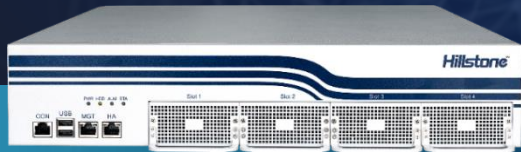


## Business Transformation

- IPv6 Migration
- HTTPS Transformation

# Hillstone ADC Value Proposition

# Hillstone Application Delivery Controller



## Hillstone ADC

the Advanced Application Delivery Service



### Load Balancing

Server Load Balancing

Link Load Balancing

Global Server Load Balancing

### Access Acceleration

Website Acceleration

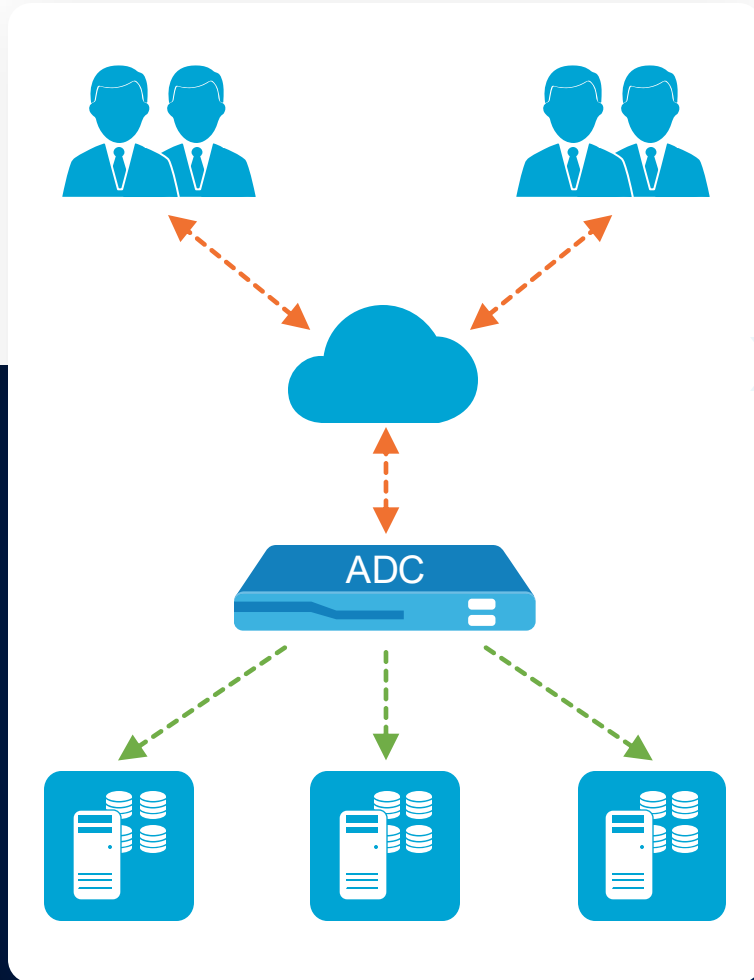
Application Acceleration

### Business Transformation

HTTPS Transformation

IPv6 Migration

# Server Load Balancing (SLB)



**Server Cluster Scenario**

## Load Balancing



- Supports SLB at both L4 and L7
- Supports SLB based on node(host)-level and member(service)-level
- Supports multiple protocols: SMTP, POP3, IMAP, HTTP, HTTPS, HTTP2, Websocket, MySQL, RADIUS
- Supports Kubernetes
- Supports IPv6
- Supports HTTP Strict-Transport-Security (HSTS)
- Supports application visualization
- Supports multiple certificates on a virtual server
- Layer-7 logging

## Session Persistence



- Flexible session persistence method
- Set-cookie encryption and decryption

## Health Checks



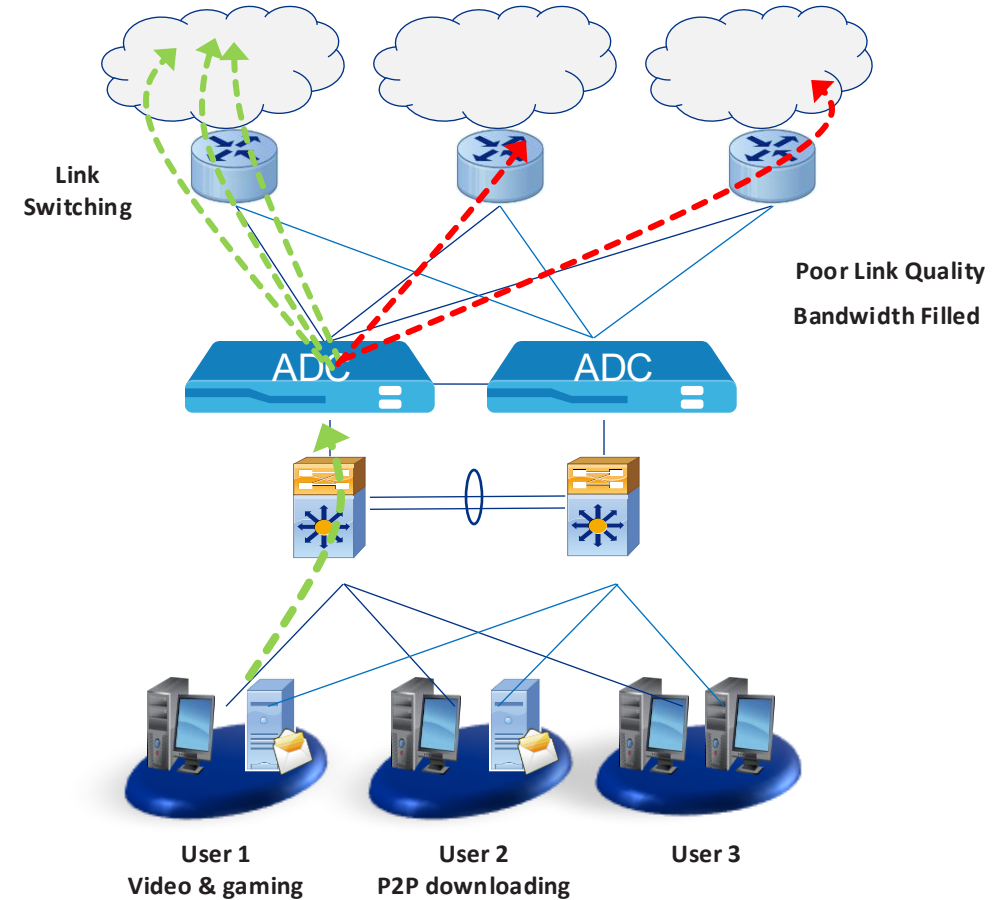
- Predefined and custom health checks for multiple protocols
- Supports passive health check
- Health check logs can be delivered through SMTP and SMS
- Supports specifying TLS version, cipher suite and mutual authentication

# Link Load Balancing (LLB)

## Dynamic Link Switching

Monitor link quality and adjust traffic (patented technology)

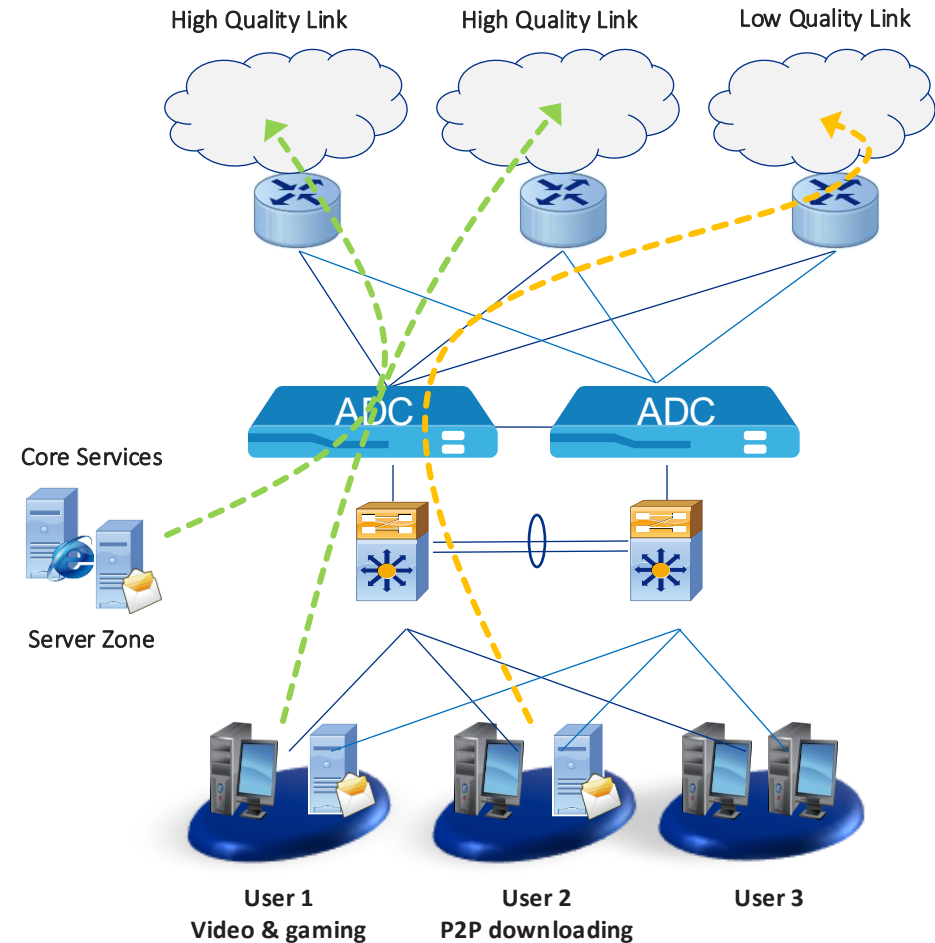
- Supports configure minimum active links
- Supports link priority configuration
- Supports multiple routing algorithms



# Application-based Link Load Balancing (LLB)

## Application-based Routing

Specify different applications (such as video streaming, P2P downloading) to use different links



# Global Server Load Balancing (GSLB)



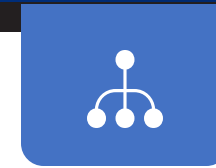
## Comprehensive DNS Service

- Supports A, AAAA, NS, CNAME, PTR, MX, TXT, SRV
  - DNS-over-HTTPS
- Supports DNSSEC



## Smart DNS

- Supports IP address library and ISP address library with automatic updates, and overloaded link detection



## Delegated DNS Server

- Works together with the original DNS server with delegated DNS zone to ADC
- Supports Transaction Signature (TSIG)



## Server Health Status Monitoring

GSLB conducts health monitoring via SLB

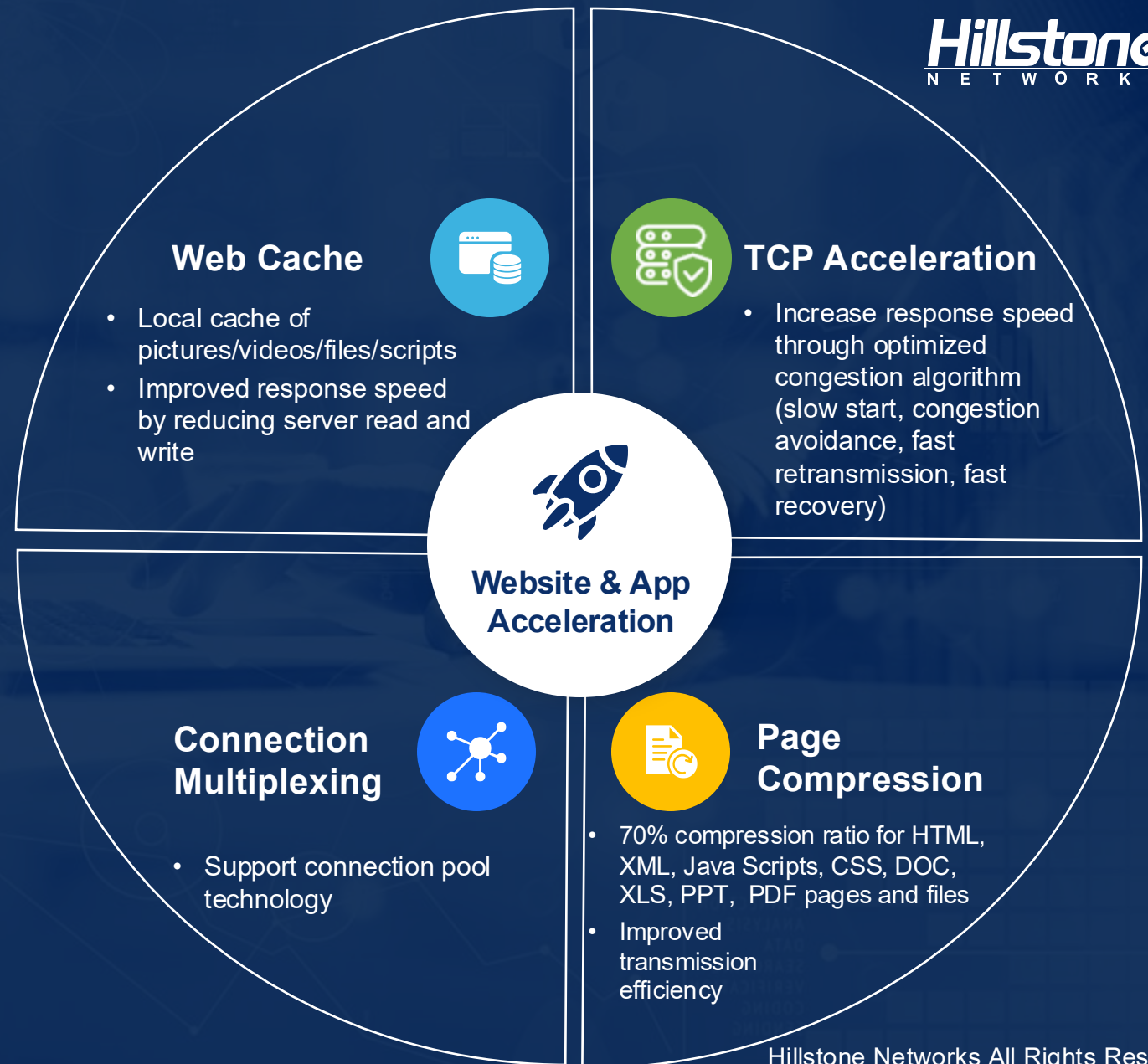
# Website & Application Acceleration

Large Memory

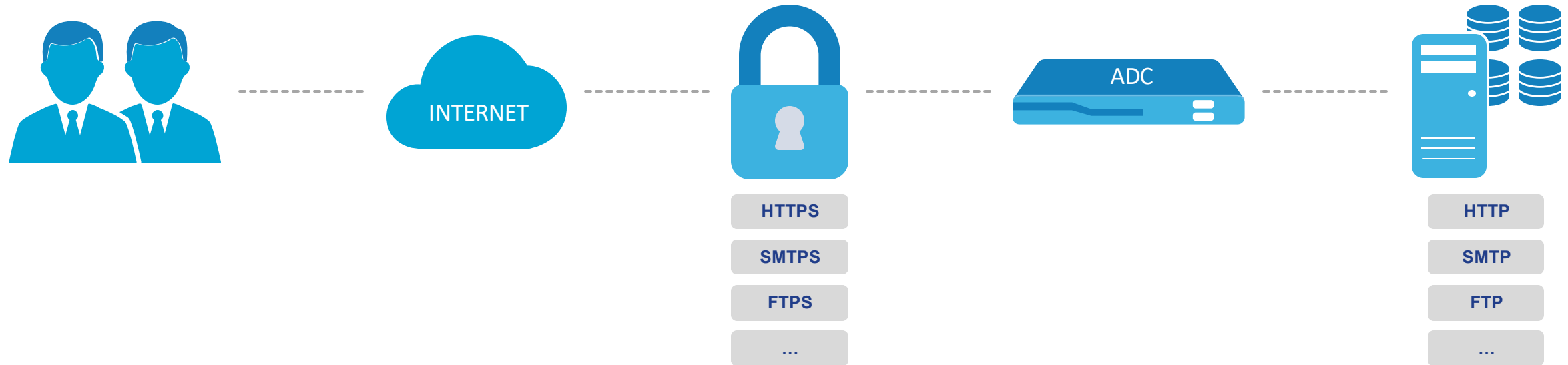
Powerful CPU

Massive Concurrency

High Speed



# HTTPS Transformation



## Hardware Encryption



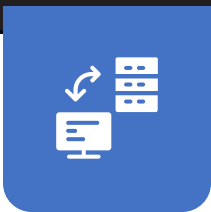
- Dedicated hardware SSL offload
- Industry-leading SSL processing performance

## Performance Saving



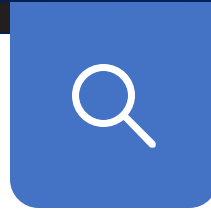
- IPS/WAF is deployed behind ADC and only need to process plain text traffic, no extra performance consumption

# More Hillstone ADC Feature Highlights



## Full-featured IPv6 Support

- External link self-discovery & rewriting technology
- IPv6 homepage notice
- IPv6 rewrite log



## SSL Inspection

- Visualization of public network encrypted traffic
- Mirror decrypted SSL traffic
- Analyze encrypted traffic through linkage with sBDS, NIPS, and WAF



## SSL Traffic Orchestration

- ADC provides SSL traffic orchestration function including SSL traffic visualization, service chaining, and security device pooling, avoiding redundant encryption/decryption to maximize security devices' performance



## End-to-end Secure Application Delivery

- Works together with Hillstone Networks' next-generation firewalls and other security products to provide end-to-end security protection capabilities from network access to data centers



## K8S Support

- ADC supports interactive deployment with K8S, provides proxy service for K8S to improve load balancing capability

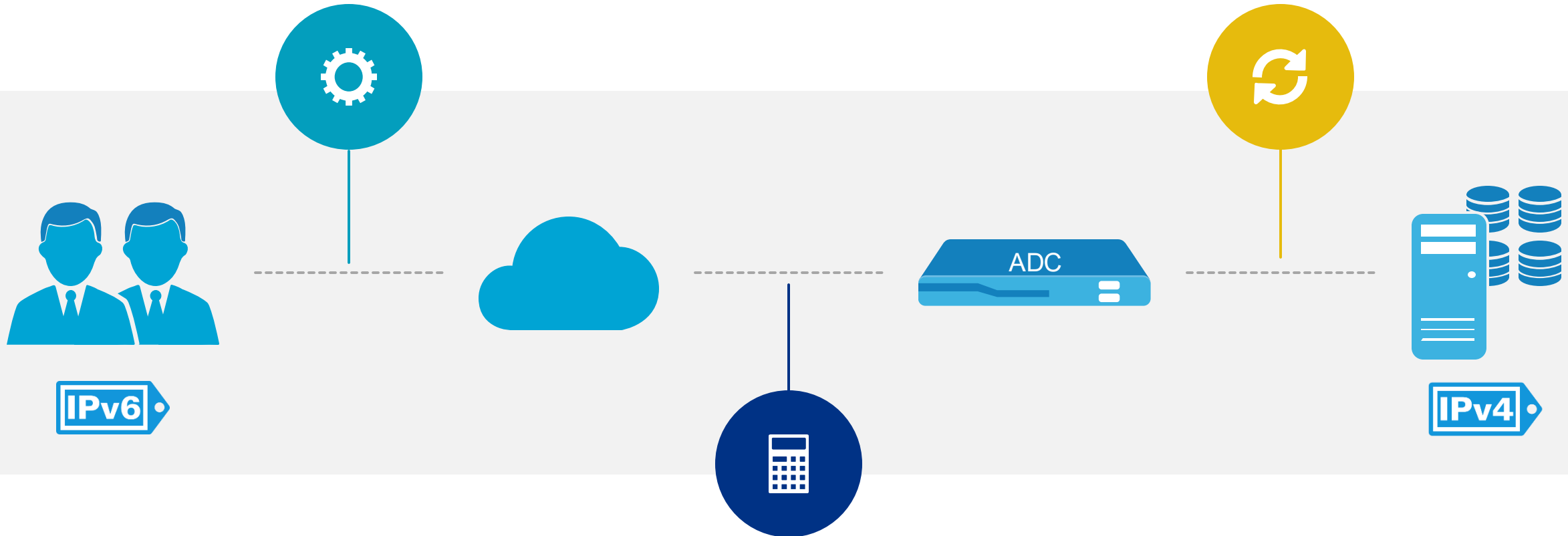
# Website IPv6 Migration

## Intelligent rewriting at the application layer

Automatically replacing external links and the link images

## IPv6 homepage notice

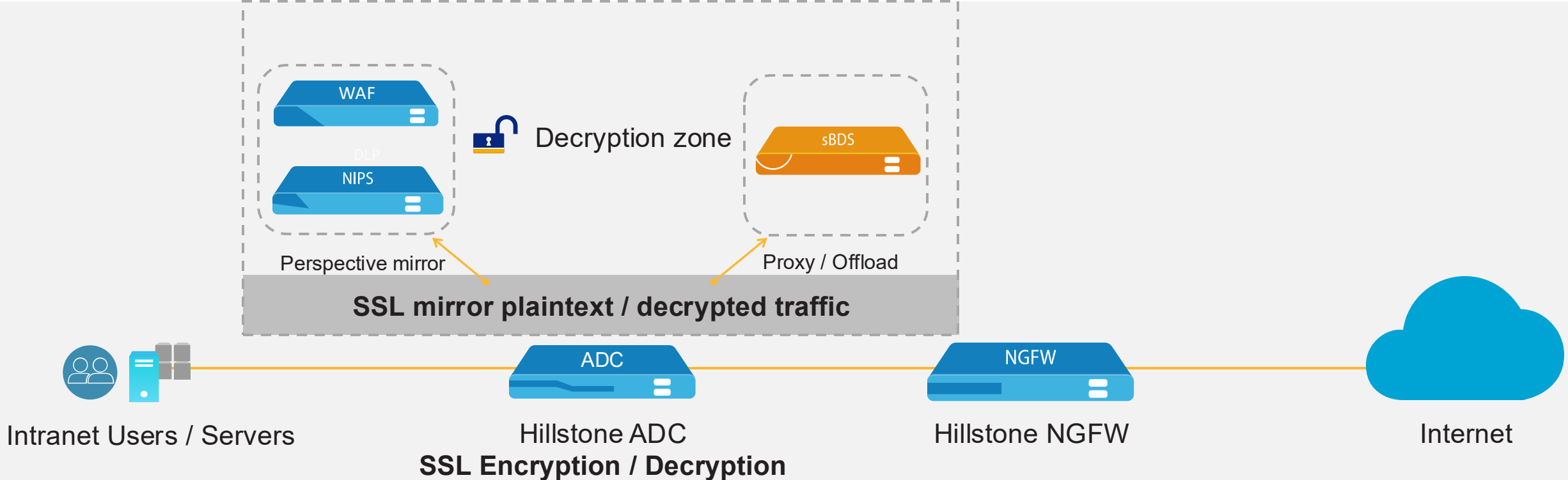
Perceived transformation effect



## IPv6 log tracing

Easy auditing of IPv6 rewrite

# SSL Inspection

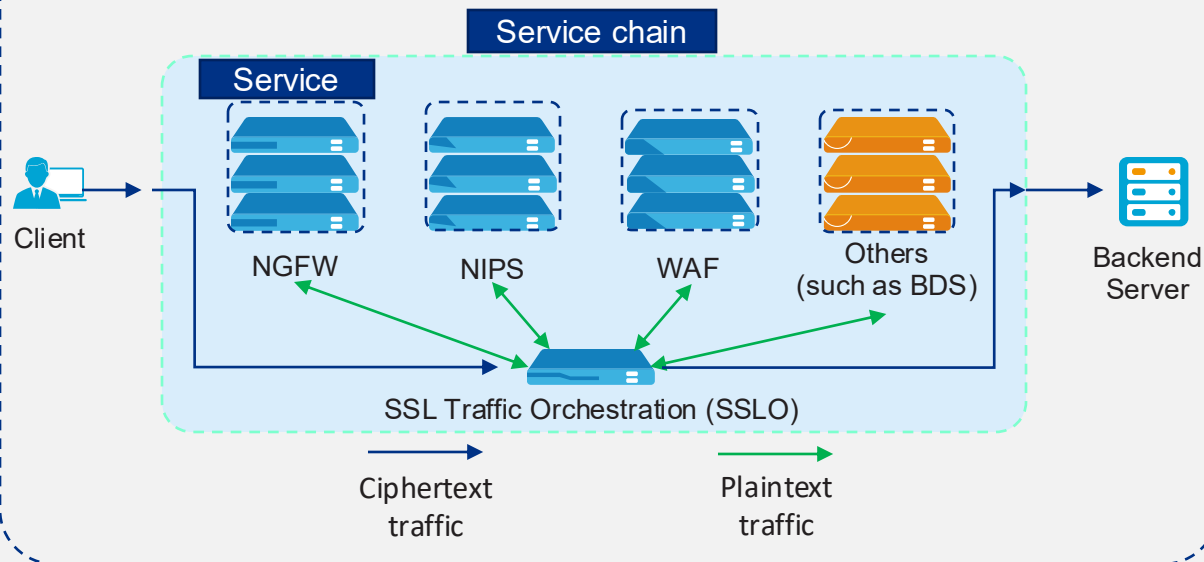


➤  **Data leakage**  ➤

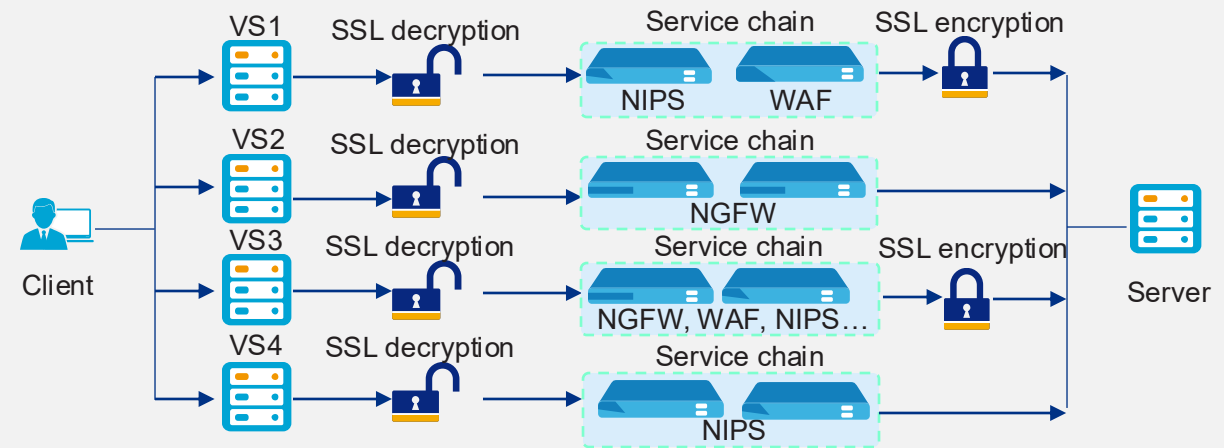
➤  **Unknown threat**  

# SSL Traffic Orchestration (SSLO)

## SSL Traffic Visualization and Security Device Pooling



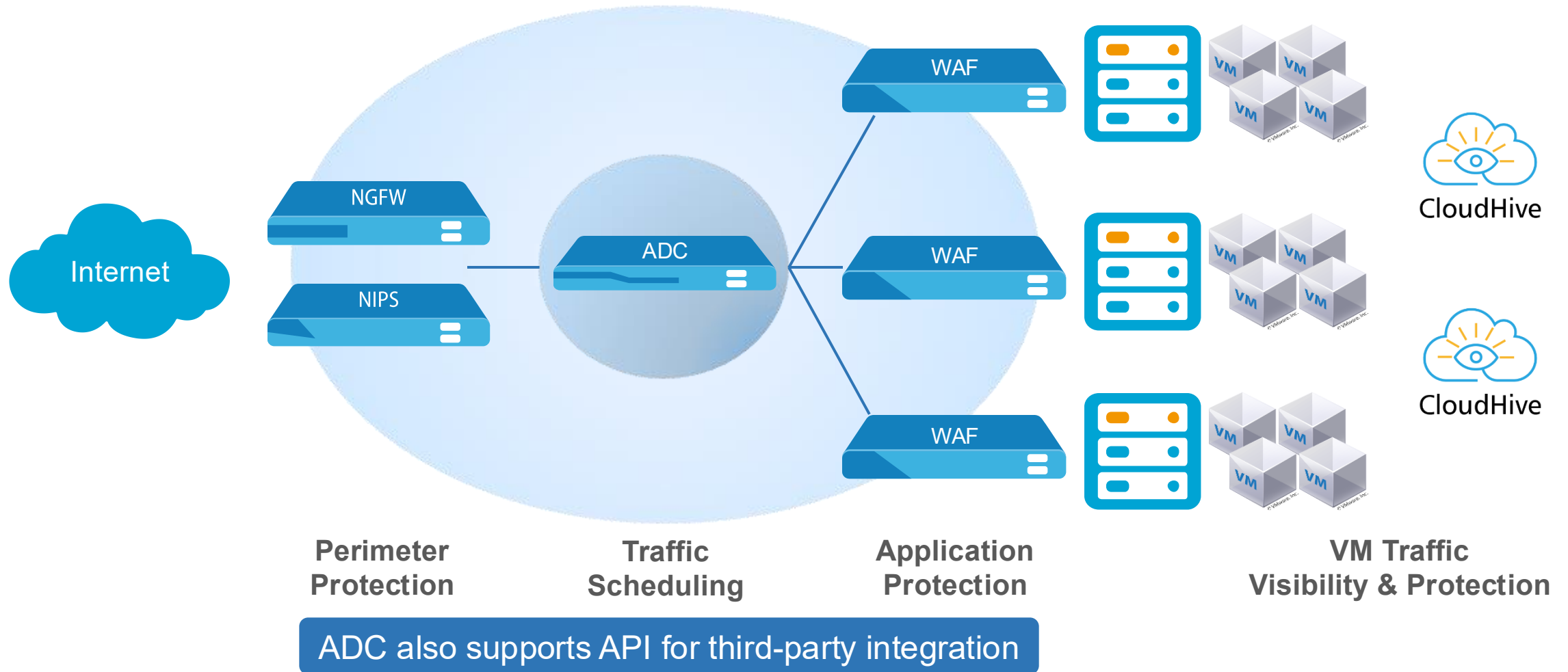
## SSL Traffic Orchestration



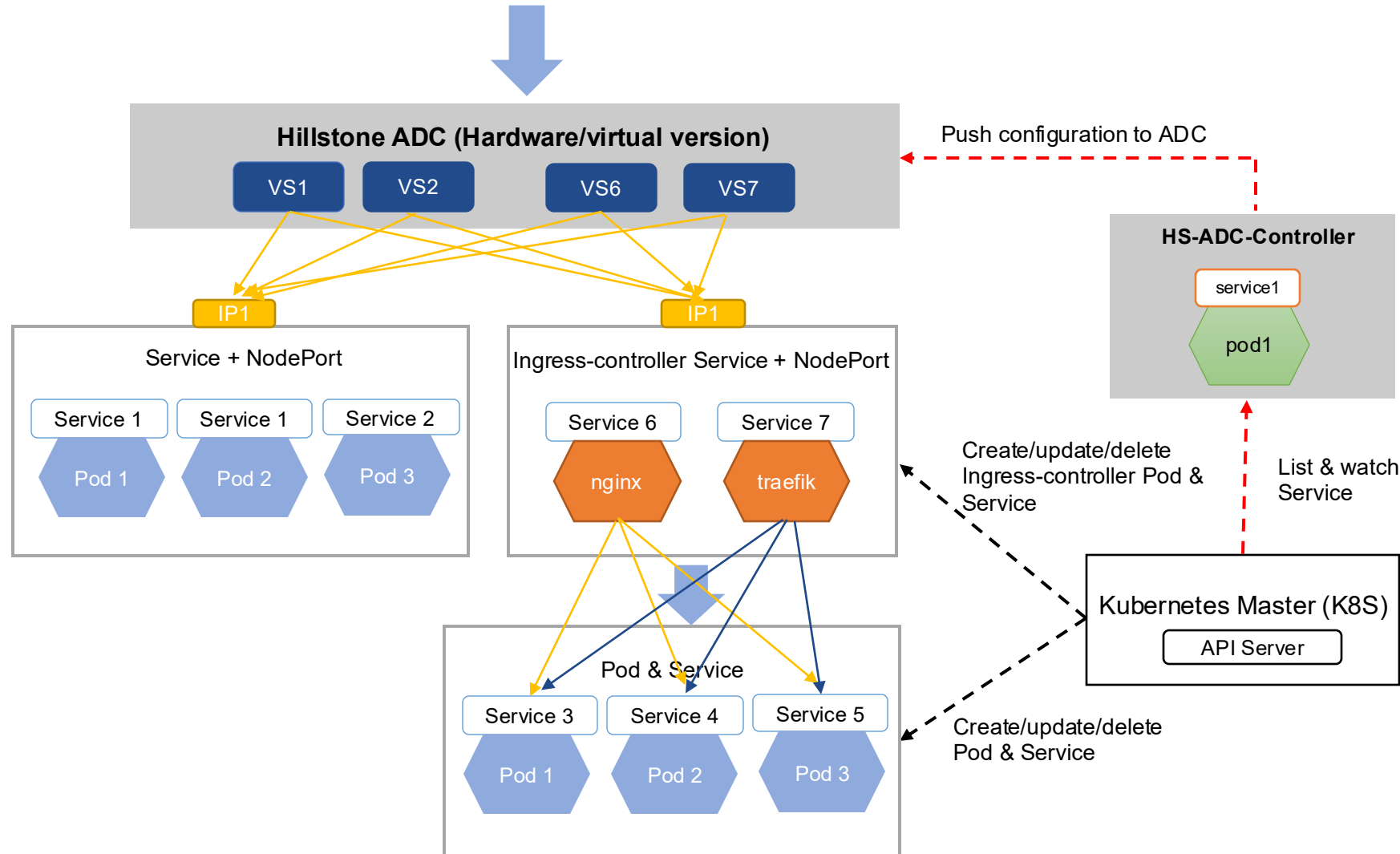
### ADC SSLO Benefits

- Avoid redundant encryption and decryption and maximize device performance.
- Deep visibility into SSL traffic for eliminating security blind points.
- Easily configure SSL traffic service chains tailored to the business and traffic requirements
- High scalability and easy O&M

# End-to-end Secure Application Delivery

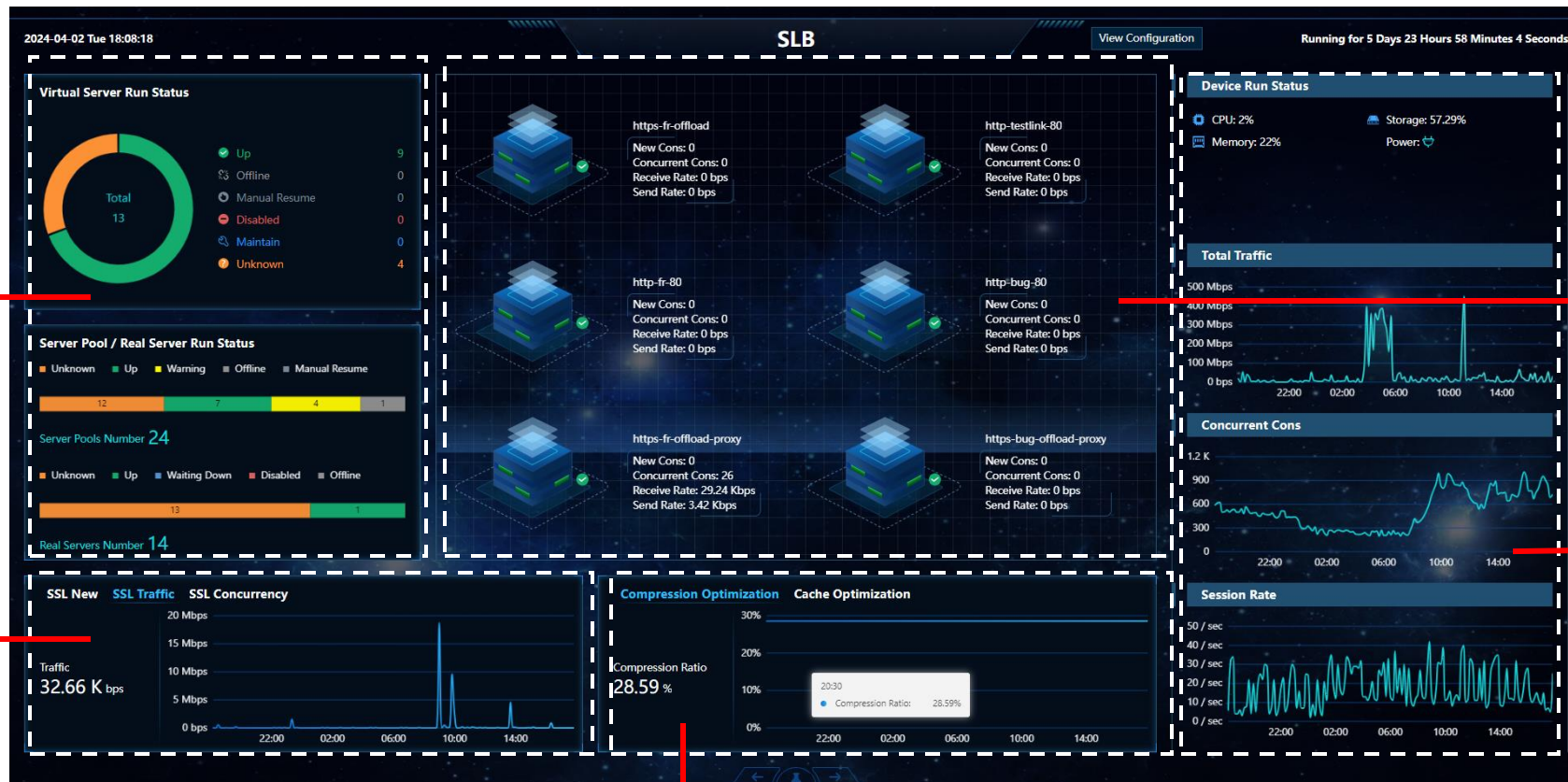


# K8S Support



- North-south traffic access can be achieved through:
  - Service + NodePort mode
  - Ingress + Ingress-controller + NodePort mode

# Full-Screen Dashboard for SLB



Server operation status

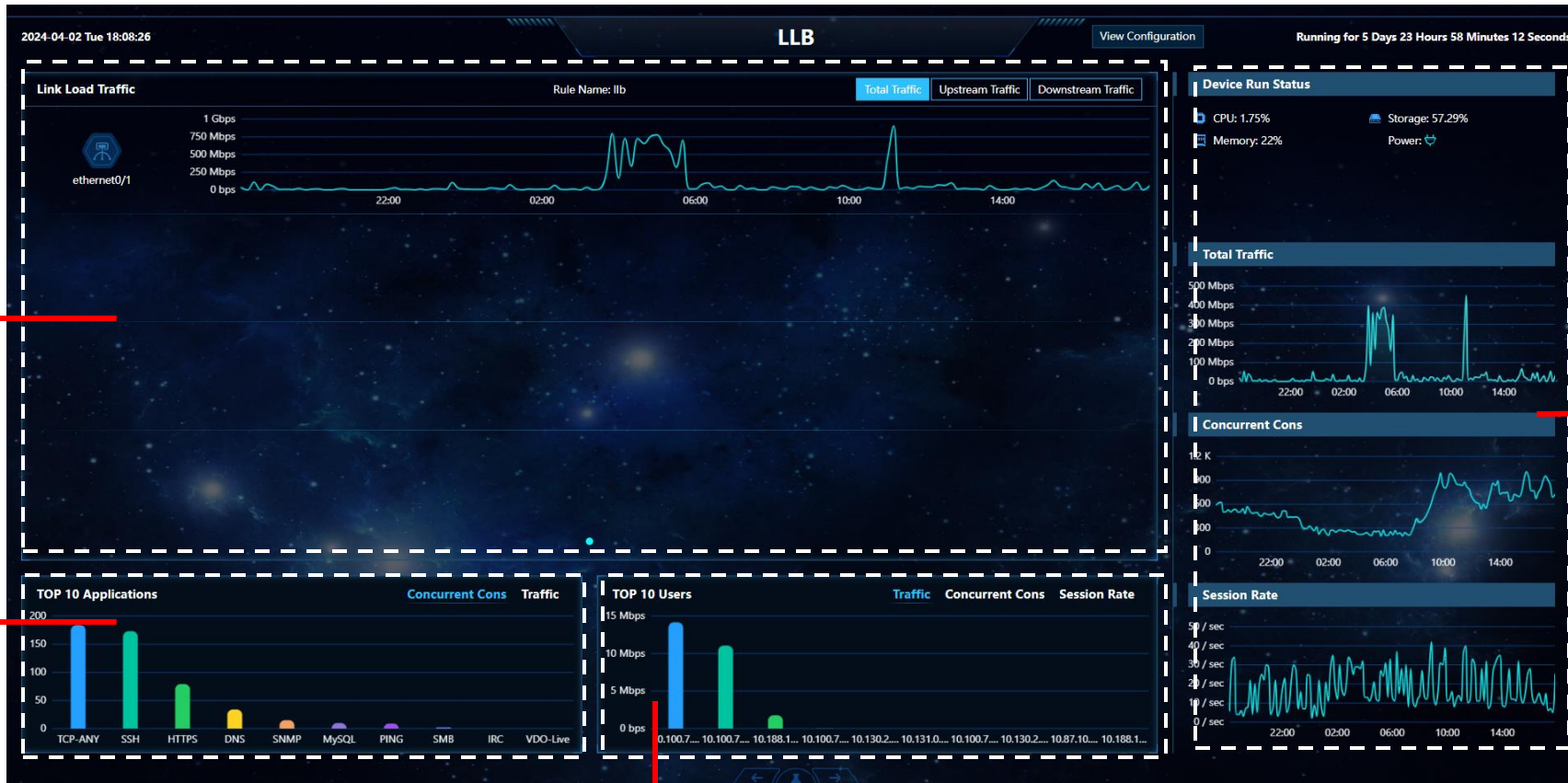
Web server status

SSL status

Basic information

Compression and cache

# Full-Screen Dashboard for LLB



Link load traffic

Basic information

Application status

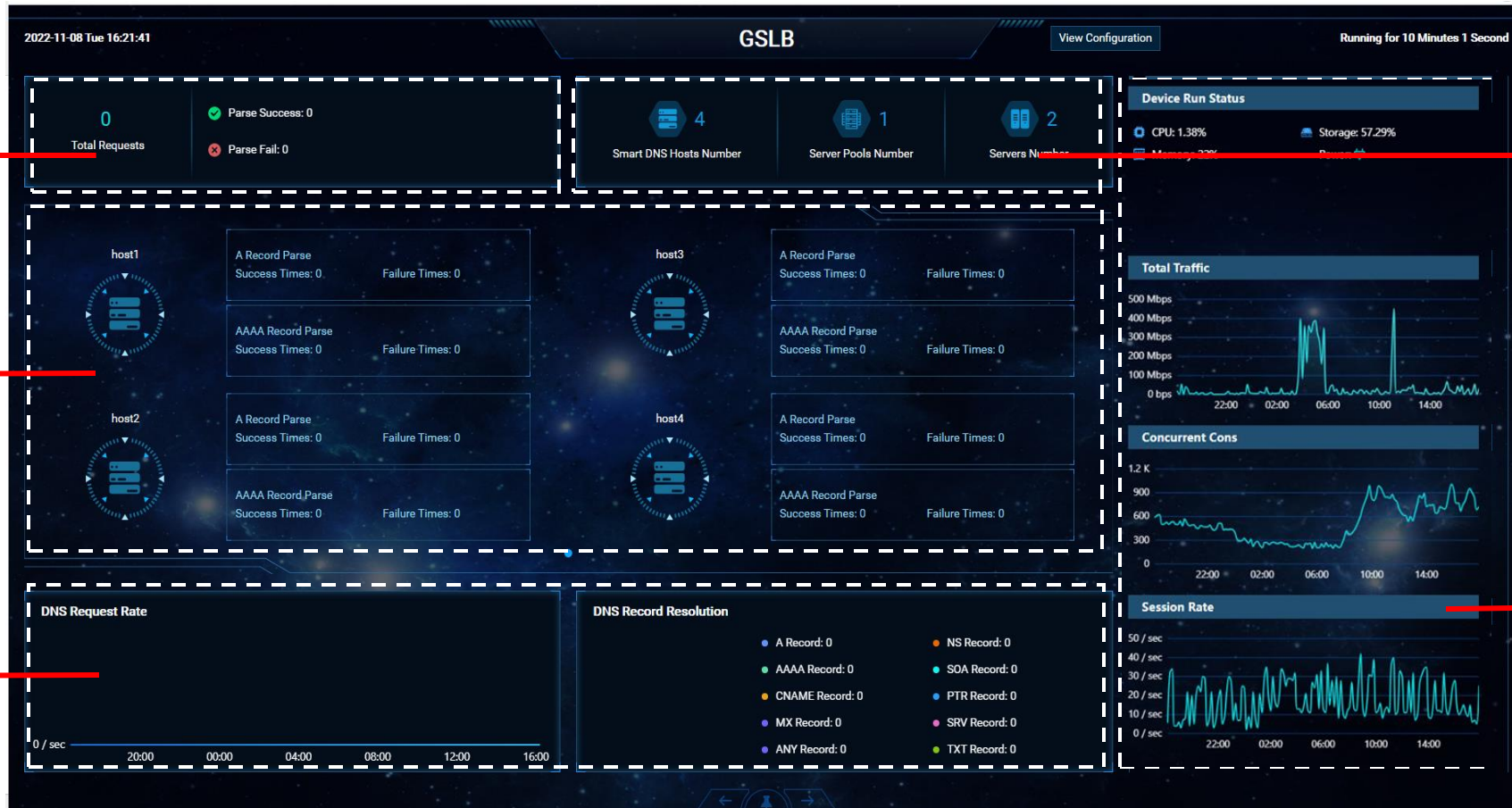
User status

# Full-Screen Dashboard for GSLB

Total requests

Host status

DNS status



Server status

Basic device information

# Hillstone ADC Customer Value



**Improved system availability through comprehensive load balancing and health check**



**Best user access experience based on improved server / bandwidth efficiency, and optimized application performance**



**Effortless IPv6 migration and SSL offloading performance guaranteed HTTPS upgrading**

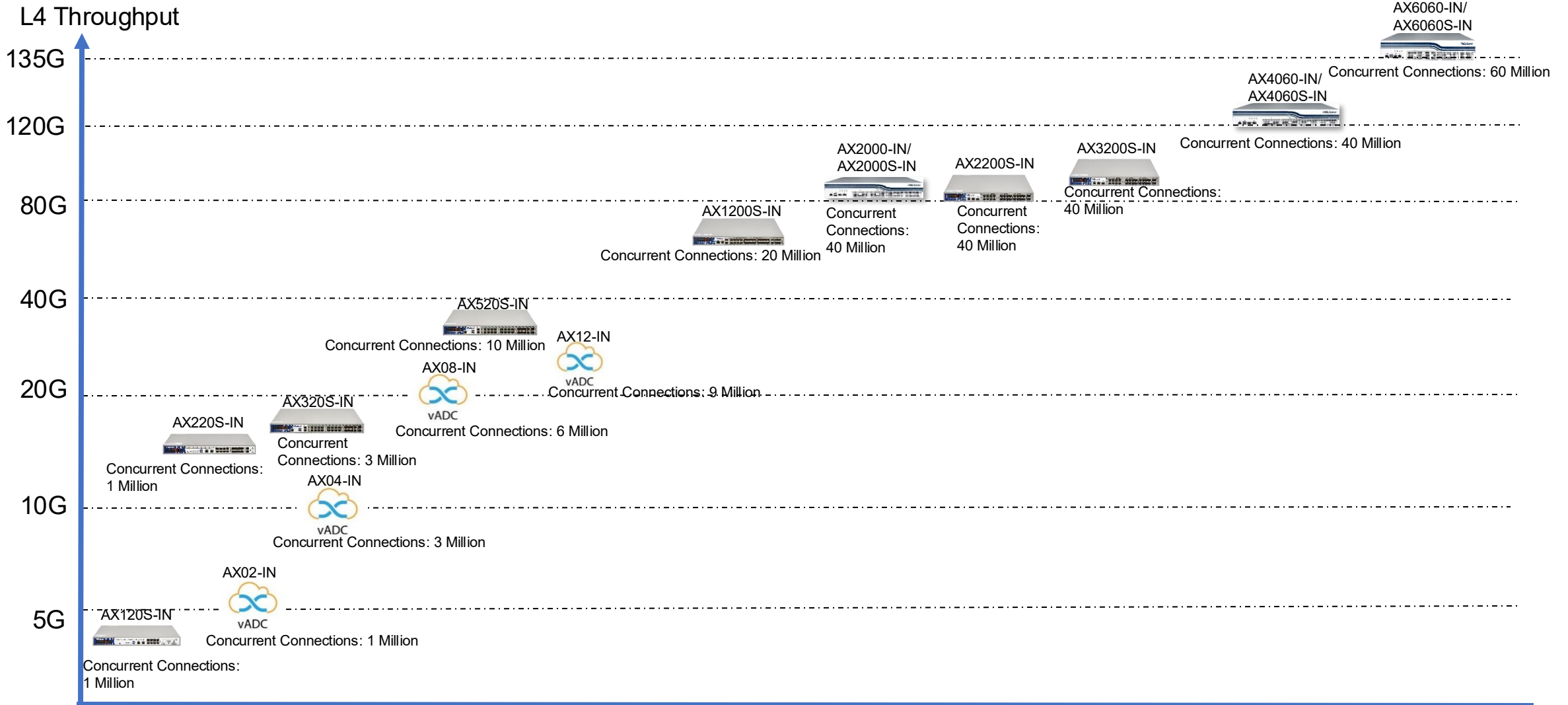


**End-to-end secure application delivery**



# Hillstone ADC Product Portfolio

# Hillstone AX-Series ADC Portfolio



# Hillstone AX-Series ADC Specifications

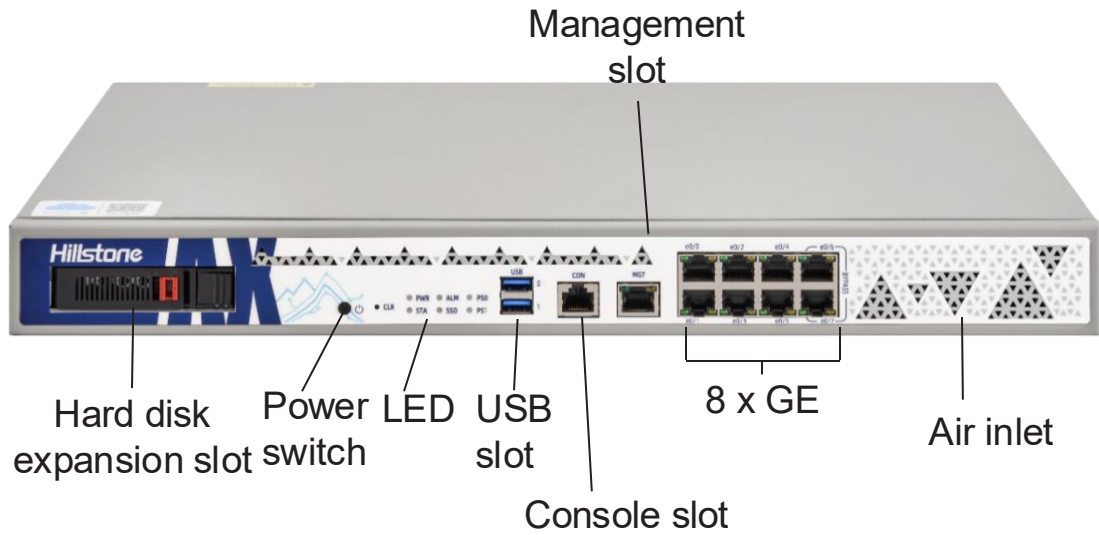


	SG-6000-AX120S-IN	SG-6000-AX220S-IN	SG-6000-AX320S-IN	SG-6000-AX520S-IN	SG-6000-AX1200S-IN	SG-6000-AX2000-IN	SG-6000-AX2000S-IN	SG-6000-AX2200S-IN	SG-6000-AX3200S-IN	SG-6000-AX4060-IN	SG-6000-AX4060S-IN	SG-6000-AX6060-IN	SG-6000-AX6060S-IN
L4 Throughput	3 Gbps	16 Gbps	18 Gbps	35 Gbps	70 Gbps	85 Gbps	85 Gbps	85 Gbps	95 Gbps	130 Gbps	130 Gbps	135 Gbps	135 Gbps
L4 Connections/s (CPS)	40,000	110,000	110,000	270,000	700,000	1 Million	1 Million	1 Million	1.2 Million	1.5 Million	1.5 Million	17.5 Million	17.5 Million
L7 HTTP Throughput	1.5 Gbps	5 Gbps	7 Gbps	10 Gbps	20 Gbps	40 Gbps	40 Gbps	40 Gbps	50 Gbps	60 Gbps	60 Gbps	70 Gbps	70 Gbps
L7 HTTP Requests/s (RPS)	80,000	200,000	200,000	540,000	1.4 Million	2 Million	2 Million	2 Million	2.4 Million	3 Million	3 Million	3.5 Million	3.5 Million
Concurrent Connections	1 Million	1 Million	3 Million	10 Million	20 Million	40 Million	40 Million	40 Million	40 Million	40 Million	40 Million	60 Million	60 Million
RSA 2K SSL (CPS) <sup>1</sup>	200/700	600/2,200	600/2,200	1,700/6,000	4,200/16,500	5,000	25,000	7,500/25,000	9,500/33,000	10,000	50,000	13,000	55,000
RSA 2K SSL (TPS) <sup>2</sup>	3,500	13,000	13,500	40,000	100,000	120,000	140,000	150,000	215,000	170,000	190,000	260,000	260,000
RSA 2K SSL Throughput <sup>3</sup>	0.4 Gbps	1.4 Gbps	1.5 Gbps	3.5 Gbps	7 Gbps	5.5 Gbps	6 Gbps	10 Gbps	12 Gbps	9.5 Gbps	12 Gbps	13 Gbps	15 Gbps
SSL Acceleration Technology	Hardware	Hardware	Hardware	Hardware	Hardware	Software	Hardware	Hardware	Hardware	Software	Hardware	Software	Hardware
DNS (QPS)	19,000	39,000	40,000	95,000	240,000	350,000	350,000	420,000	460,000	500,000	500,000	500,000	500,000
Storage	480 GB SSD	480 GB SSD	480 GB SSD	960 GB SSD	960 GB SSD	1 TB HDD	1 TB HDD	960 GB SSD	960 GB SSD	1 TB HDD	1 TB HDD	1 TB HDD	1 TB HDD
Memory	4 GB	4 GB	8 GB	16 GB	32 GB	64 GB	64 GB	64 GB	64 GB	64 GB	64 GB	64 GB	64 GB
Management Ports	2 × USB Ports, 1 × MGT Port, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 2 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port	2 × USB Ports, 1 × MGT Port, 1 × HA, 1 × Console Port
Available Slots for Expansion Modules	0	0	0	1	1	4	4	1	1	4	4	4	4
Expansion Module Option	N/A	N/A	N/A	IOC-A-4SFP+-IN IOC-A-2QSFP+-IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN	IOC-A-4SFP+-IN IOC-A-2QSFP+-IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN	IOC-AX-4GE-B-H-IN, IOC-AX-4SFP-H-IN, IOC-AX-8GE-B-H-IN, IOC-AX-8SFP-H-IN, IOC-AX-4GE4SFP-H-IN, IOC-AX-2SFP+H-IN, IOC-AX-4SFP+H-IN, IOC-AX-2QSFP+H-IN	IOC-AX-4GE-B-H-IN, IOC-AX-4SFP-H-IN, IOC-AX-8GE-B-H-IN, IOC-AX-8SFP-H-IN, IOC-AX-4GE4SFP-H-IN, IOC-AX-2SFP+H-IN, IOC-AX-4SFP+H-IN, IOC-AX-2QSFP+H-IN	IOC-A-4SFP+-IN IOC-A-2QSFP+IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN	IOC-A-4SFP+IN IOC-A-2QSFP+IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN	IOC-AX-4GE-B-H-IN, IOC-AX-4SFP-H-IN, IOC-AX-8GE-B-H-IN, IOC-AX-8SFP-H-IN, IOC-AX-4GE4SFP-H-IN, IOC-AX-2SFP+H-IN, IOC-AX-4SFP+H-IN, IOC-AX-2QSFP+H-IN	IOC-AX-4GE-B-H-IN, IOC-AX-4SFP-H-IN, IOC-AX-8GE-B-H-IN, IOC-AX-8SFP-H-IN, IOC-AX-4GE4SFP-H-IN, IOC-AX-2SFP+H-IN, IOC-AX-4SFP+H-IN, IOC-AX-2QSFP+H-IN	IOC-AX-4GE-B-H-IN, IOC-AX-4SFP-H-IN, IOC-AX-8GE-B-H-IN, IOC-AX-8SFP-H-IN, IOC-AX-4GE4SFP-H-IN, IOC-AX-2SFP+H-IN, IOC-AX-4SFP+H-IN, IOC-AX-2QSFP+H-IN	IOC-AX-4GE-B-H-IN, IOC-AX-4SFP-H-IN, IOC-AX-8GE-B-H-IN, IOC-AX-8SFP-H-IN, IOC-AX-4GE4SFP-H-IN, IOC-AX-2SFP+H-IN, IOC-AX-4SFP+H-IN, IOC-AX-2QSFP+H-IN

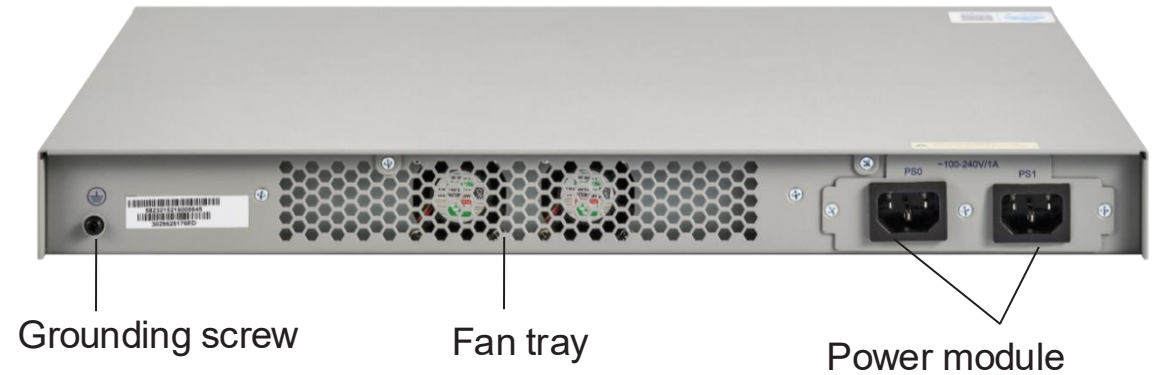
1. The data of AX120S-IN/AX220S-IN/AX320S-IN/AX520S-IN/AX1200S-IN/AX2200S-IN/AX3200S-IN can be increased to 700/2,200/2,200/6,000/16,500/25,000/33,000 with SSL license  
 2. Maximum possible test method for the test of transactions per second (TPS)  
 3. 2048 bits RSA key

# AX120S-IN

Front View

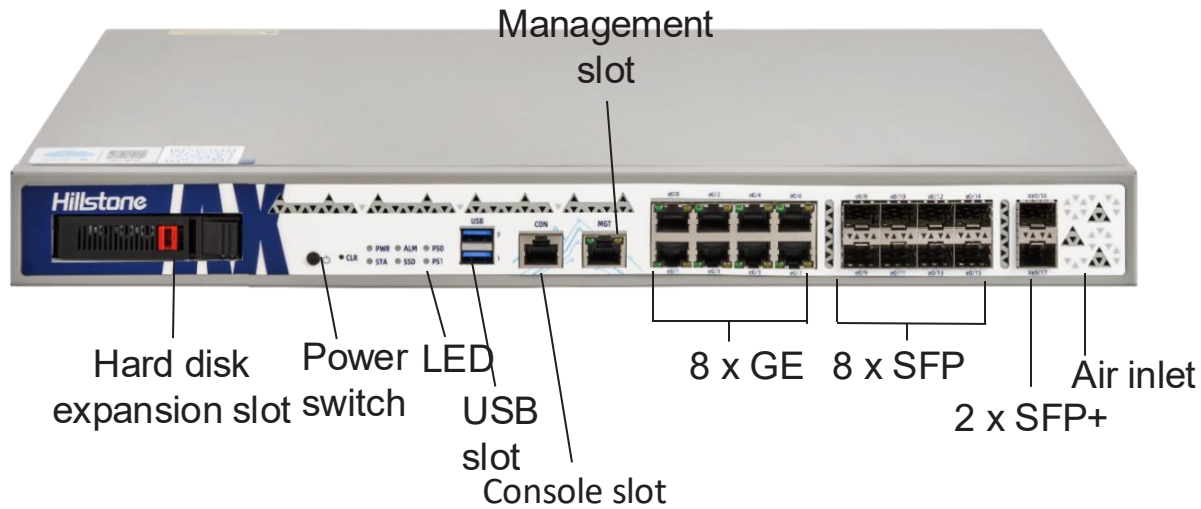


Back View

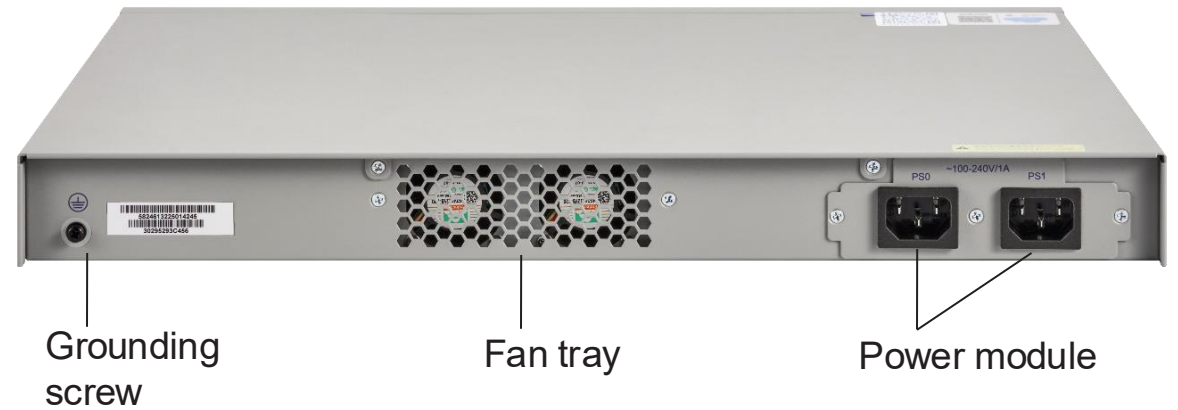


# AX220S-IN

Front View

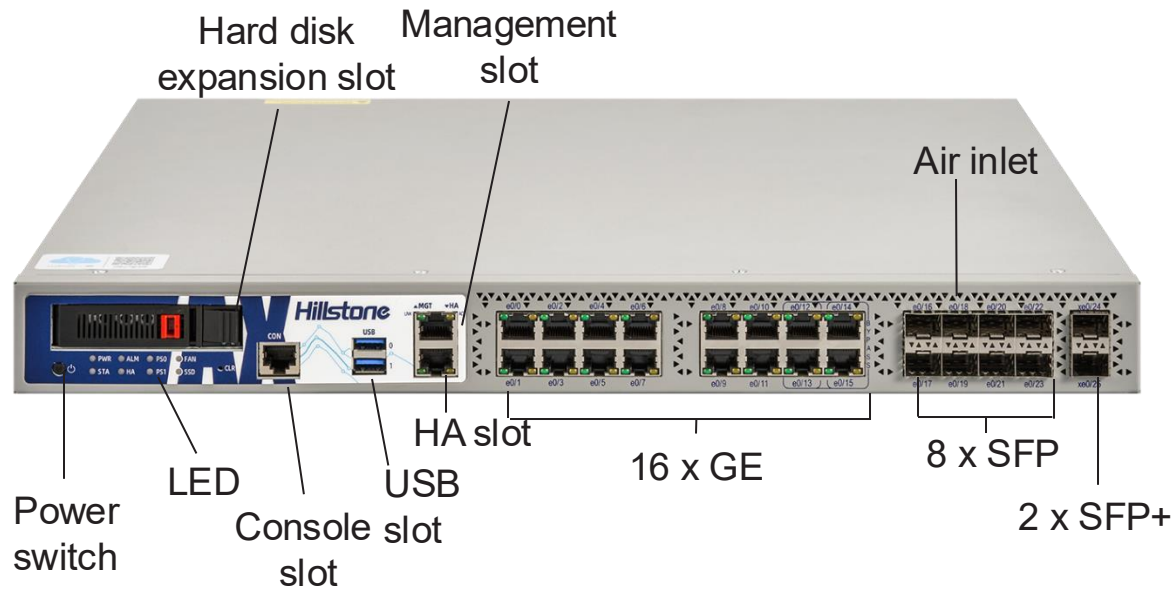


Back View

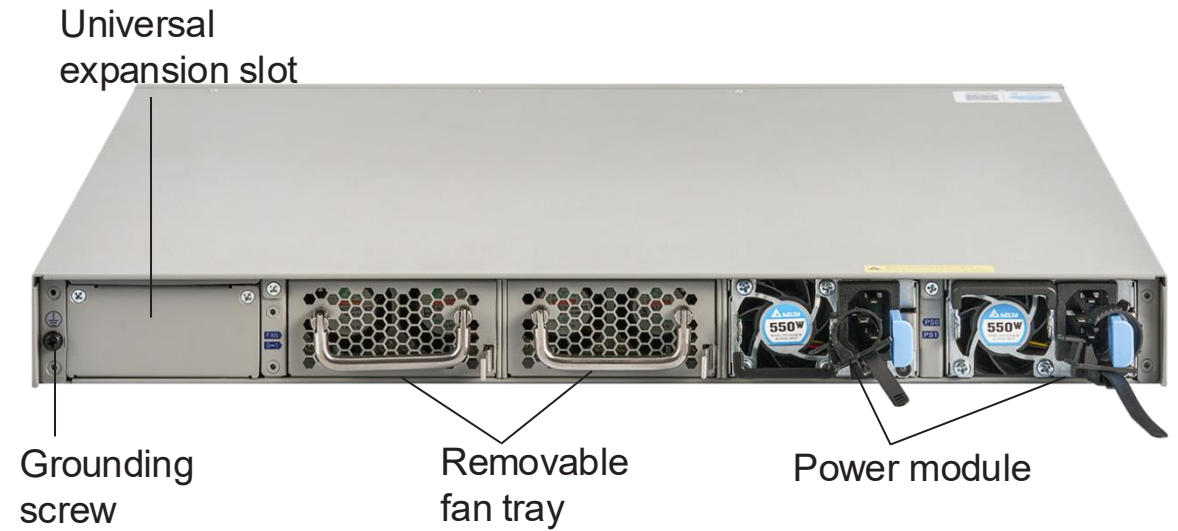


# AX320S-IN/ AX520S-IN

Front View

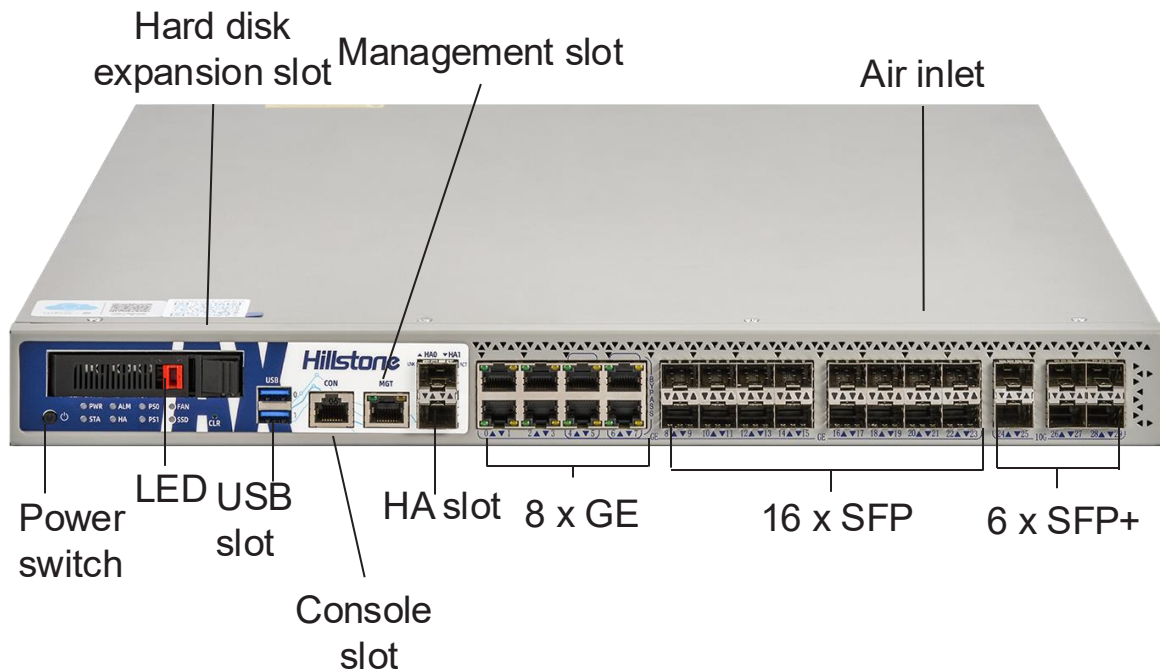


Back View

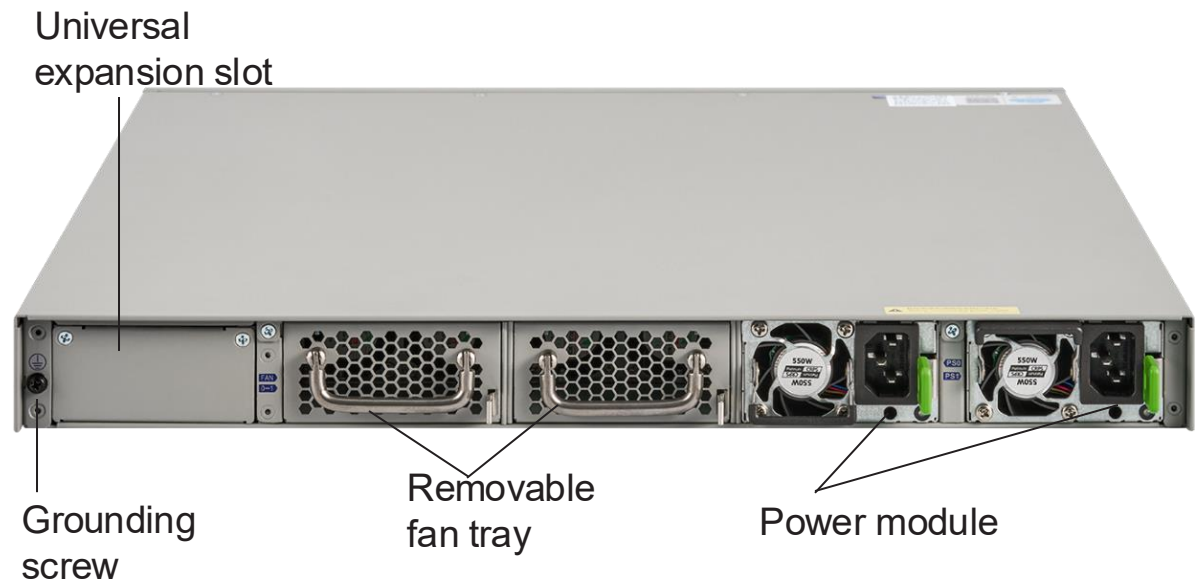


# AX1200S-IN

Front View

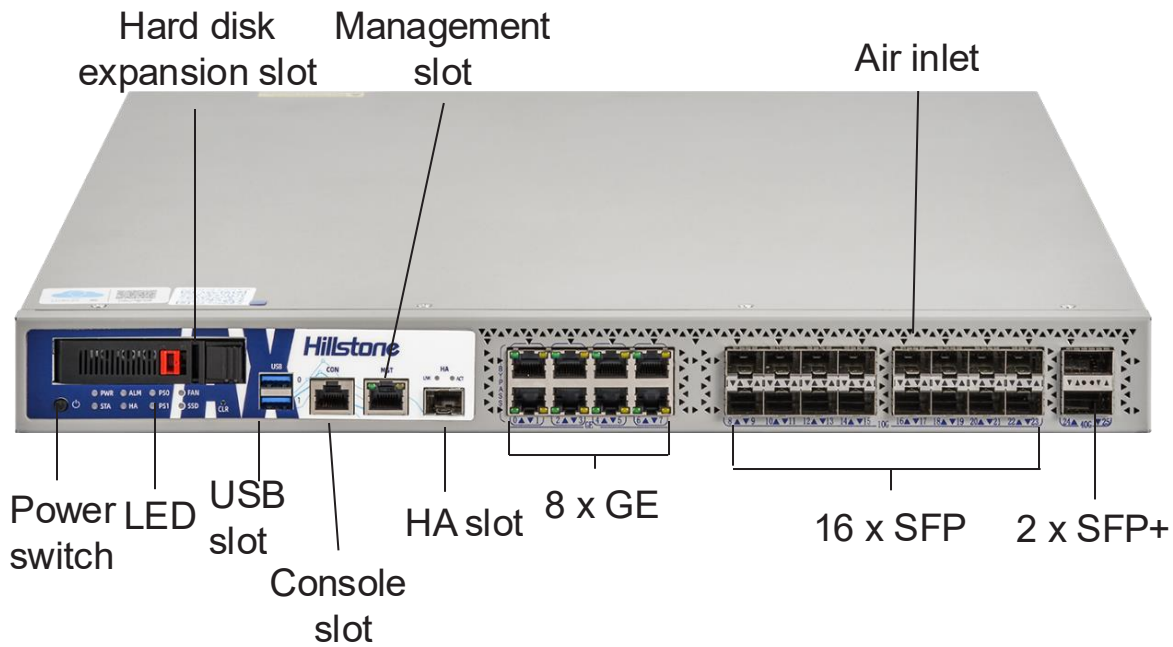


Back View

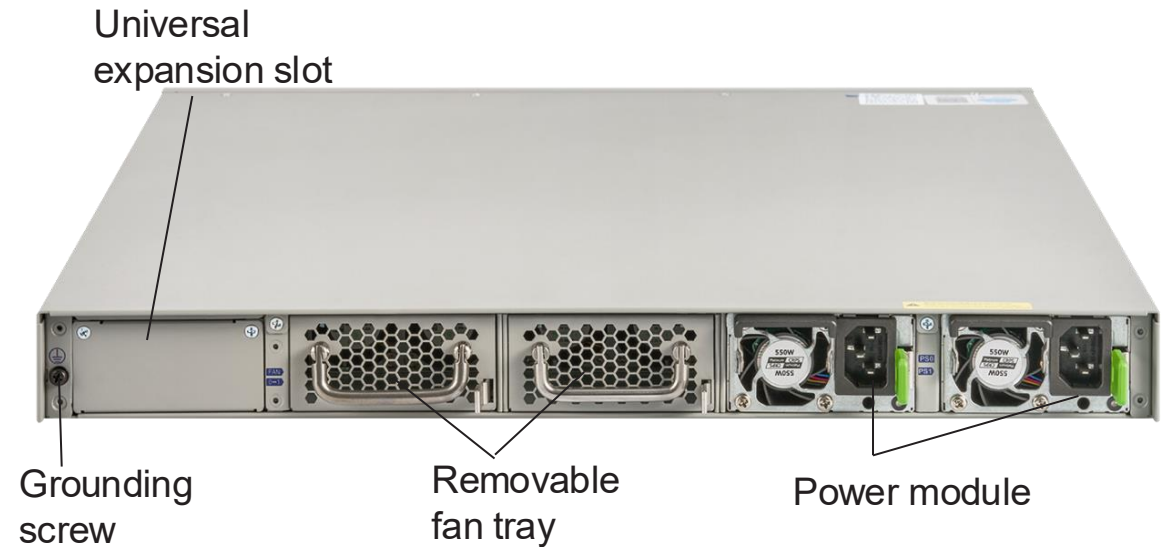


# AX2200S-IN/ AX3200S-IN

Front View



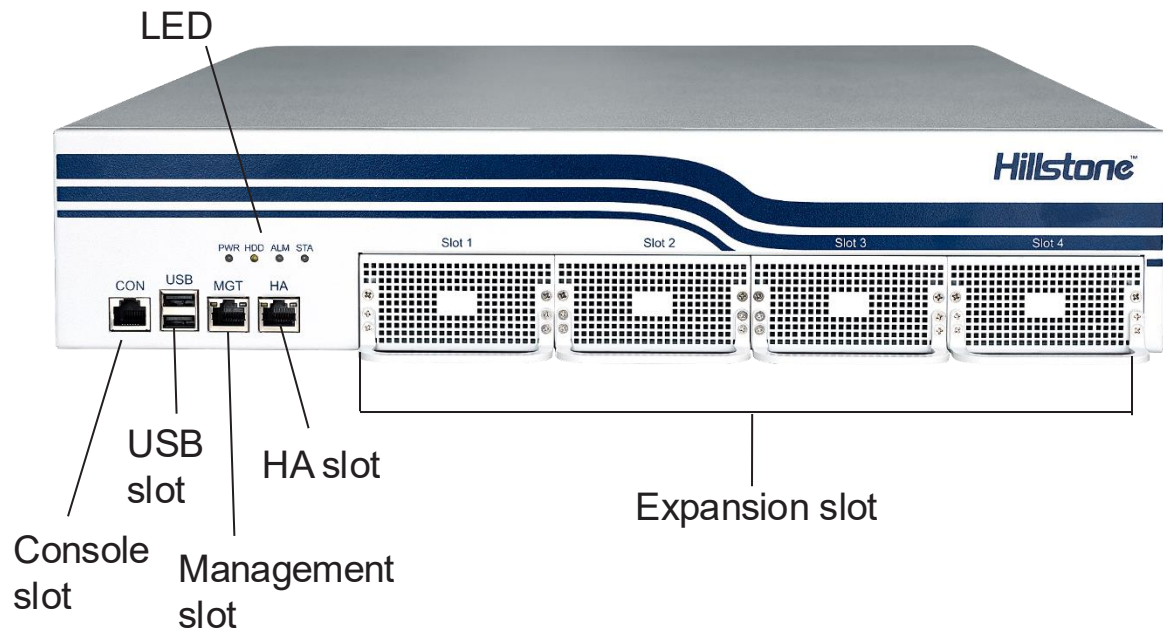
Back View



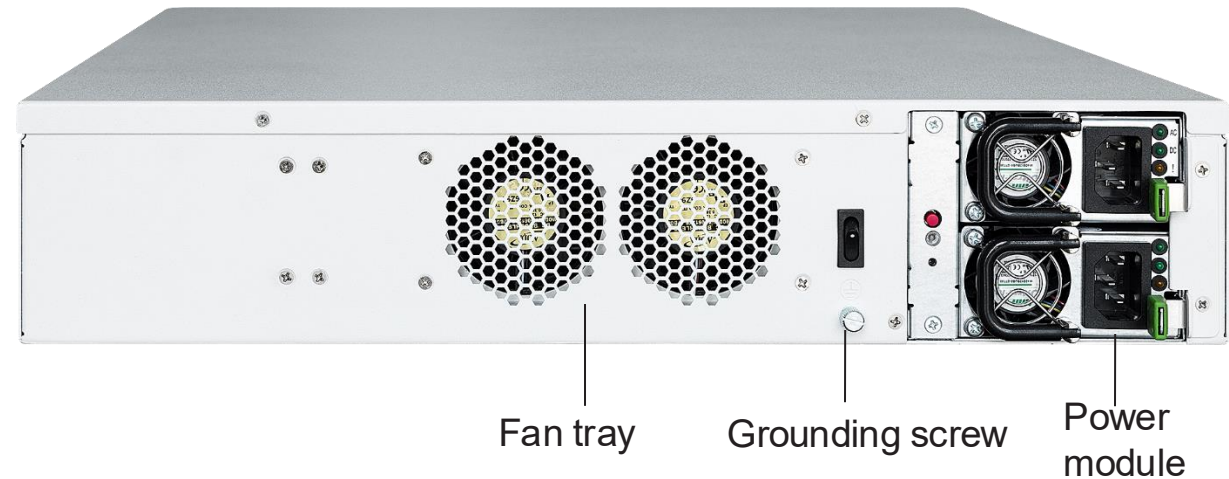
# AX2000-IN/ AX2000S-IN/ AX4060-IN/ AX4060S-IN/ AX6060-IN/ AX6060S-IN



Front View



Back View



# Hillstone Virtual ADC (vADC)



Product Models	SG-6000-AX02-IN	SG-6000-AX04-IN	SG-6000-AX08-IN	SG-6000-AX12-IN
Core (Min.)	2	4	8	12
Memory (Min.)	4G	8G	16G	24G
Disk (Min.)	20GB	20GB	20GB	20GB
Total No. of Interfaces	10	10	10	10

## Public Cloud



Note: The Hillstone vADC is already listed on Huawei Cloud.

## Hypervisor



# Hillstone AX-Series vADC Specifications

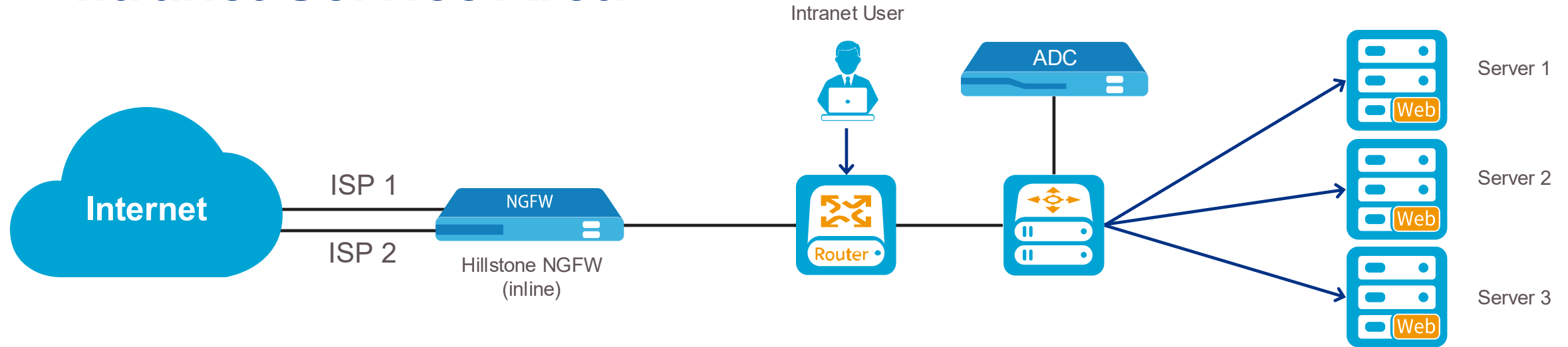


	SG-6000-AX02-IN	SG-6000-AX04-IN	SG-6000-AX08-IN	SG-6000-AX12-IN
L4 Throughput (KVM SRIOV)	5 Gbps	10 Gbps	20 Gbps	30 Gbps
L4 Throughput (Virtio)	2 Gbps	2 Gbps	2 Gbps	2 Gbps
L7 HTTP Throughput (KVM SRIOV)	4 Gbps	7.5 Gbps	15 Gbps	22 Gbps
L7 HTTP Throughput (Virtio)	2 Gbps	2 Gbps	2 Gbps	2 Gbps
L4 Connections/s	120,000	160,000	400,000	550,000
L7 HTTP Requests/s	60,000	150,000	300,000	450,000
Concurrent Connections	1 Million	3 Million	6 Million	9 Million
ECDHE RSA 2K SSL (CPS) (KVM SRIOV)	700	1,500	4,000	6,500
ECDHE RSA 2K SSL (CPS) (Virtio)	700	700	700	700
ECDHE RSA 2K SSL (TPS) (KVM SRIOV) <sup>1</sup>	10,000	20,000	55,000	85,000
ECDHE RSA 2K SSL (TPS) (Virtio)	9,500	9,500	9,500	9,500
ECDHE RSA 2K SSL Throughput (KVM SRIOV) <sup>2</sup>	900 Mbps	1.5 Gbps	4 Gbps	4.4 Gbps
ECDHE RSA 2K SSL Throughput (Virtio)	800 Mbps	800 Mbps	800 Mbps	800 Mbps

1. Maximum possible test method for the test of transactions per second (TPS)
2. 2048 bits RSA key

# Deployment Scenarios & Winning Cases

# Hillstone ADC Deployment Scenario 1 – Intranet Service Area



From Internet to Intranet: Domain-based server load balancing + HTTPS transformation + IPv6 transformation

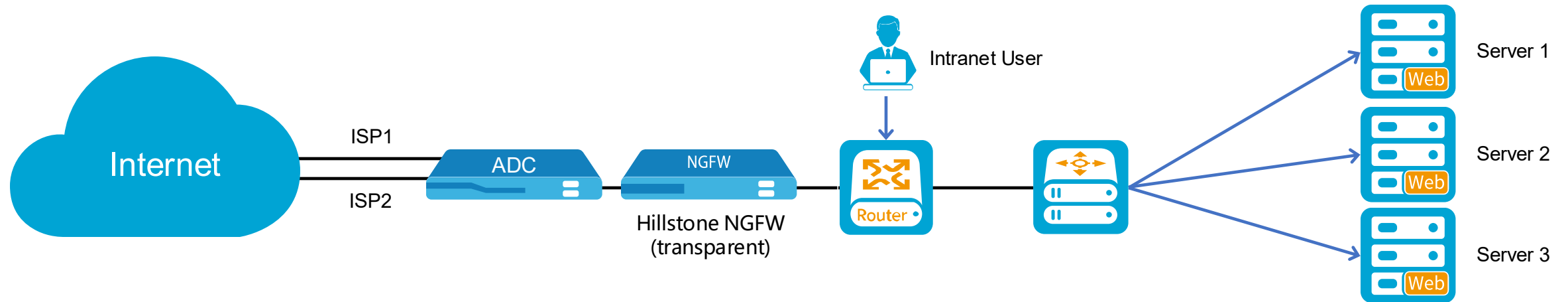
## Value of Hillstone ADC Solution



Deployed next to the switch in front of the servers, the ADC solution will neither change the original network structure, nor cause network interruption, nor affect existing services.

# Hillstone ADC Deployment Scenario 2 – Network Perimeter

From Intranet to Internet: link load balancing + NAT + routing + policy control



From Internet to Intranet: Smart DNS + domain-based server load balancing + HTTPS transformation + IPv6 transformation

## Value of Hillstone ADC Solution



Deployed at the network perimeter, only one ADC device is needed, which simultaneously performs link load balancing and intranet server load balancing, NAT and other functions.

# Hillstone ADC Winning Cases



PetroChina



SNPTC



中国电集团公司  
CHINA GUODIAN CORPORATION



中国移动通信  
CHINA MOBILE



众邦银行  
Z-BANK





Département Commercial

WCA

 **HAFS**  
Distributeur à valeur ajoutée **WCA**

***Vous accompagne***



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