



未來的CDN服務主流： 複合式CDN平台的管理與效用



果核數位
Digicentre

為何需要使用CDN?



1

萬一網站異常訪問量暴增或被DDoS攻擊，網站須能持續提供服務。



2

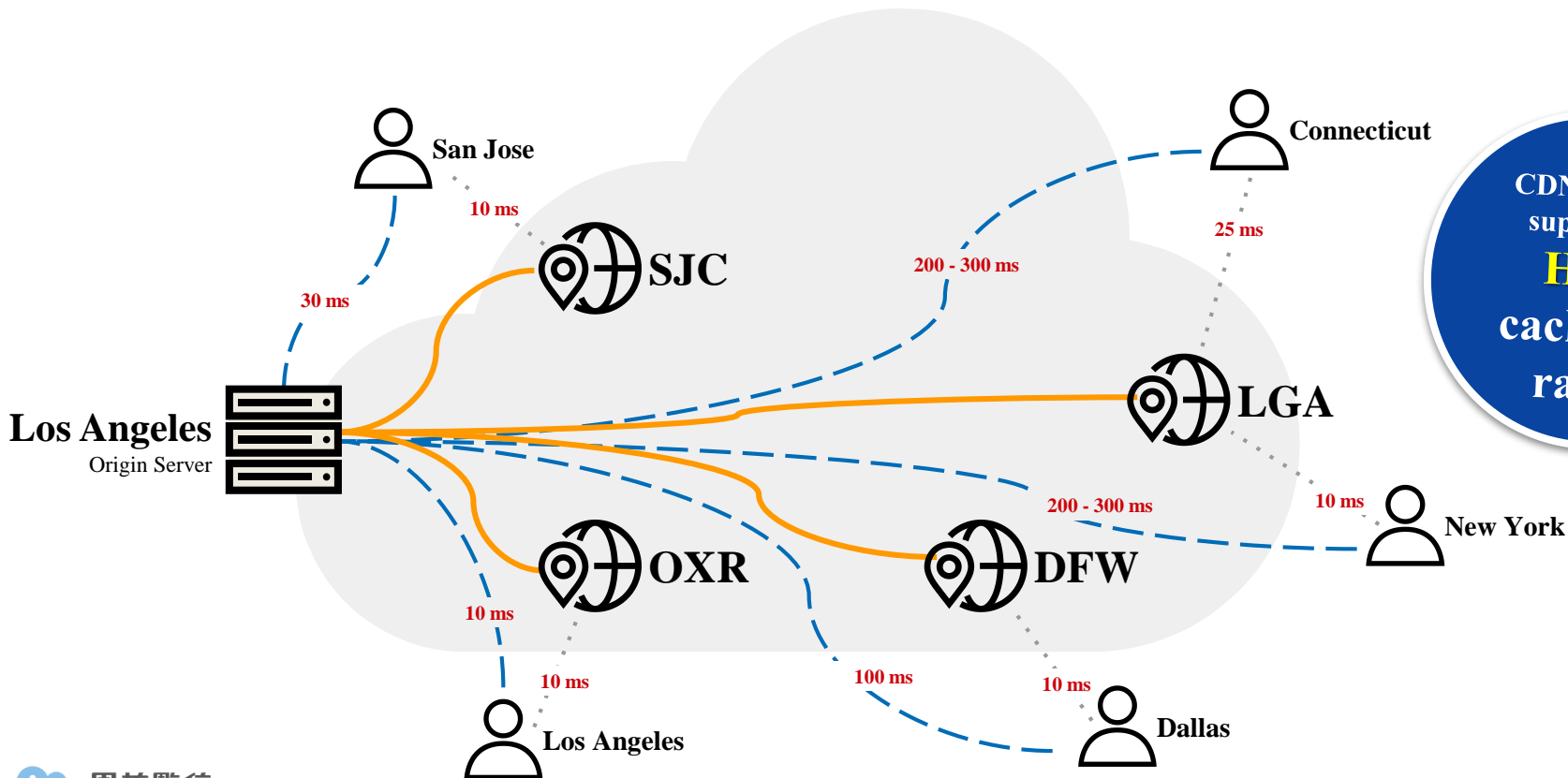
隨用戶增加使用量漸增，需有效控制主機建置、頻寬與維運成本。



3

網站有許多圖檔影片，為增加使用者體驗，網站瀏覽速度不能慢。

使用CDN提供更快速的服務



CDN need to supports a **High** cache-hit ratio!

為何需要Multi-CDN?

Reasons:

- ✓ 使用單一CDN，若該CDN服務異常，網站服務也受影響。
- ✓ 使用多個CDN，雖可加強備援效益，但也增添管理複雜度。
- ✓ 市場上眾多CDN要如何選擇搭配，既適合應用也符合商業效益。

管理多個CDN的困擾

- ✓ CDN知名品牌一堆如何選，不同平台操作管理複雜，一堆帳單付款雜亂。



沒有一個CDN是完美的



CDN type	Managed / Owned	Managed / Owned	Managed / Owned	Managed / Owned	Owned	Owned	Managed / Owned	Managed / Owned	Managed / Owned	Managed / Owned	Managed / Owned
Best region	NA, EU, SEA	NA, EU	Asia, CN	Asia, CN	NA, EU	NA, EU	CN, Asia	CN	CN, Asia	TW	VN
Global	✓	✓	✓	✓	✓	✓	×	×	×	×	×
China access	×	×	✓	✓	×	×	✓	✓	✓	×	×
China access w/o ICP	×	×	×	✓	×	×	✓	×	✓	✓	×
Websocket	✓	✓	×	×	×	✓	✓	✓	×	×	✓
Wildcard domain	×	✓	✓	✓	-	-	✓	×	✓	×	×

Multi CDN服務特色



單一平台
自主管理



服務彈性
管理便利



多種組合
高效運用



即時量測
智能調度



多層防護
使用安心



單一平台自主管理



✓ 單一平台自主管理，簡單步驟設定同步多個CDN，不需耗工費時摸索與管理個別CDN。

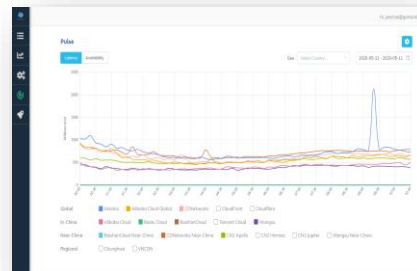
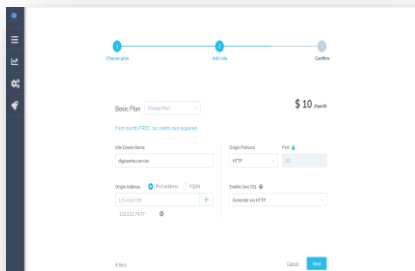
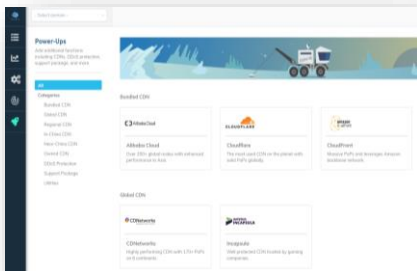


簡便開通設定流程

服務上線
自動監測

簡便操作設定

方案內容制定



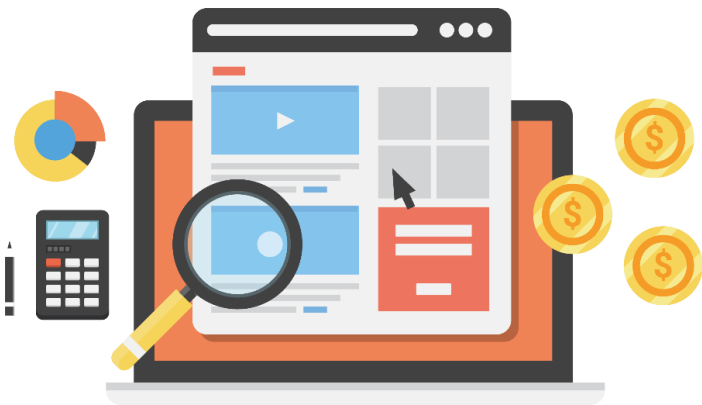
選擇使用CDN

域名原站配置

WAF防護配置



服務彈性管理便利




- ✓ 可隨時自行增添或調整各個CDN，有效控管成本，不受個別管理多個CDN服務約期等問題困擾


Global CDN			China CDN		
n-China CDN	Global CDN		China CDN		
 Alibaba Cloud 1,000+ China nodes and 200+ global nodes.	 Tencent Cloud 800+ China nodes and 100+ global nodes in 30+ regions.	 Wangsu 1,000+ China nodes with the best performance in the region.	 Alibaba Cloud Over 200+ global nodes with enhanced performance in Asia.	 Cloudflare The most used CDN on the planet with solid PoPs globally.	 CloudFront Massive PoPs and leverages Amazon backbone network.
Near-China CDN	Global CDN PLUS				
 CDNetworks Utilizes PoPs around China to provide speedy connection.	 CDNetworks Highly performing CDN with 170+ PoPs on 6 continents.	 Chungwa Taiwan CDN with geo-advantage for fast China connection.	 Wangsu Massive nodes near China for accelerated performance.	 Incapusa Well protected CDN trusted by gaming companies.	

CDN應用類型


Bundled CDN




Cloudflare
The most used CDN with solid PoPs globally.



Chunghwa
Taiwan CDN with fast China connection.




Verizon
Low latency, over interconnections.




CloudFront
Massive PoPs and leverages Amazon backbone network.

Region CDN




VNCN
Best CDN in Vietnam for fast China and SEA connection.




Chunghwa
Taiwan CDN with geo-advantage for fast China connection.


Global CDN




Akamai
The world's largest CDN which covers 30% of the web traffic.




Incapsula
Well protected CDN trusted by gaming companies.



Alibaba Cloud
Over 200+ global nodes with enhanced performance in Asia.



Alibaba Cloud DCDN
Accelerate content delivery for hybrid sites and dynamic sites.



CDNetworks
Highly performing CDN with 170+ PoPs on 6 continents.

CDN應用類型

China CDN



ChinaCache
Great China PoP coverage for fast in and near China performance.



Tencent Cloud
800+ China nodes and 100+ global nodes in 30+ regions.



Wangsu
1,000+ China nodes with the best performance in the region.



Alibaba Cloud
Over 200+ global nodes with enhanced performance in Asia.



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Accelerate content delivery for hybrid sites and dynamic sites.

Near-China CDN



CDNetworks
Utilizes PoPs around China to provide speedy connections.



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Great China PoP coverage for fast in and near China performance.



Tencent Cloud
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Wangsu
Massive nodes near China for accelerated performance.

CDN應用類型

Own CDN

✓ 平台可接入非平台使用之CDN同步調度。

 Akamai Connect your Akamai CDN to the platform.	 Alibaba Cloud DCDN Connect your Alibaba DCDN to the platform.	 Alibaba Cloud Connect your Alibaba Cloud CDN to the platform.	 Baidu Cloud Connect your Baidu Cloud CDN to the platform.	 BaishanCloud Connect your BaishanCloud CDN to the platform.
 CDNetworks Connect your CDNetworks CDN to the platform.	 ChinaCache Connect your ChinaCache CDN to the platform.	 Chungwa Connect your Chungwa Telecom CDN to the platform.	 Cloudflare Connect your Cloudflare CDN to the platform.	 CloudFront Connect your AWS CloudFront CDN to the platform.
 Incapsula Connect your Incapsula CDN to the platform.	 Tencent Cloud Connect your TencentCloud CDN to the platform.	 Verizon Connect your Verizon CDN to the platform.	 VNCN Connect your VNCN CDN to the platform.	 Wangsu Connect your Wangsu CDN to the platform.

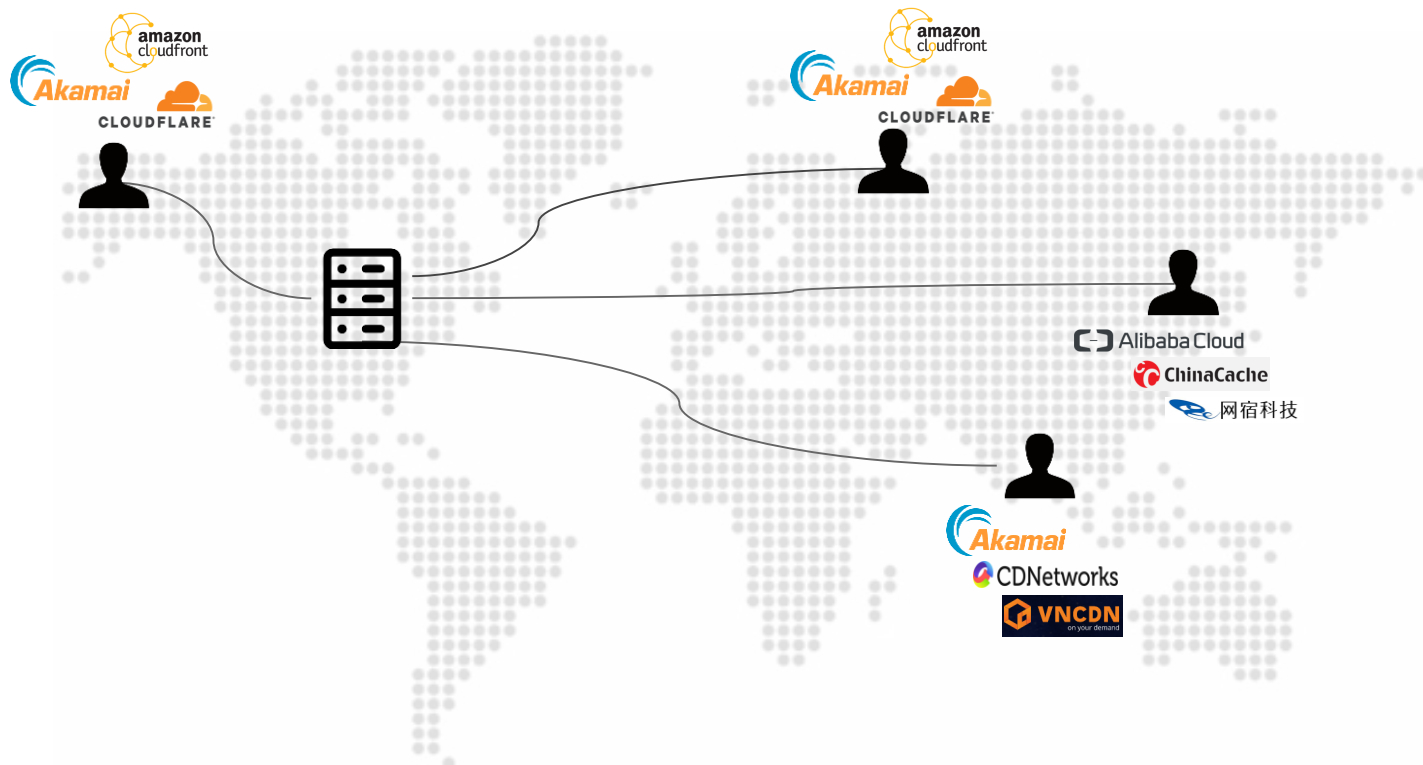
CDN組合與管理



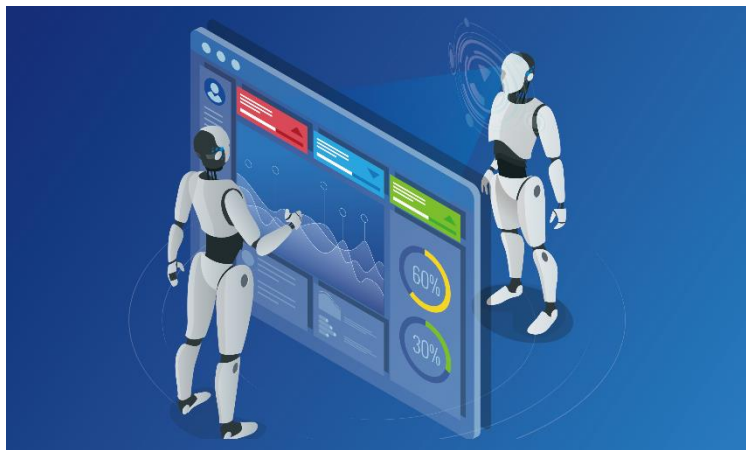
- ✓ 合作知名品牌，Akamai、Verizon、CloudFlare等，因應網站服務地區，搭配合適CDN，網站效能最佳化



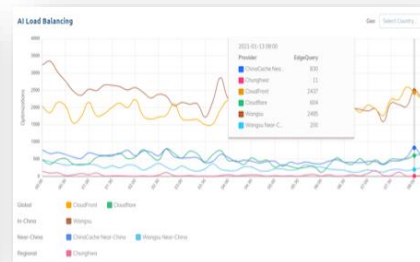
CDN組合與管理



AI 自動監測調度機制



- ✓ 多個CDN建立服務與備援機制，透過平台RUM (real user monitor) AI 智能監控與AI Load Balancing 自動調度機制，依省份或城市級別執行CDN自動調度。



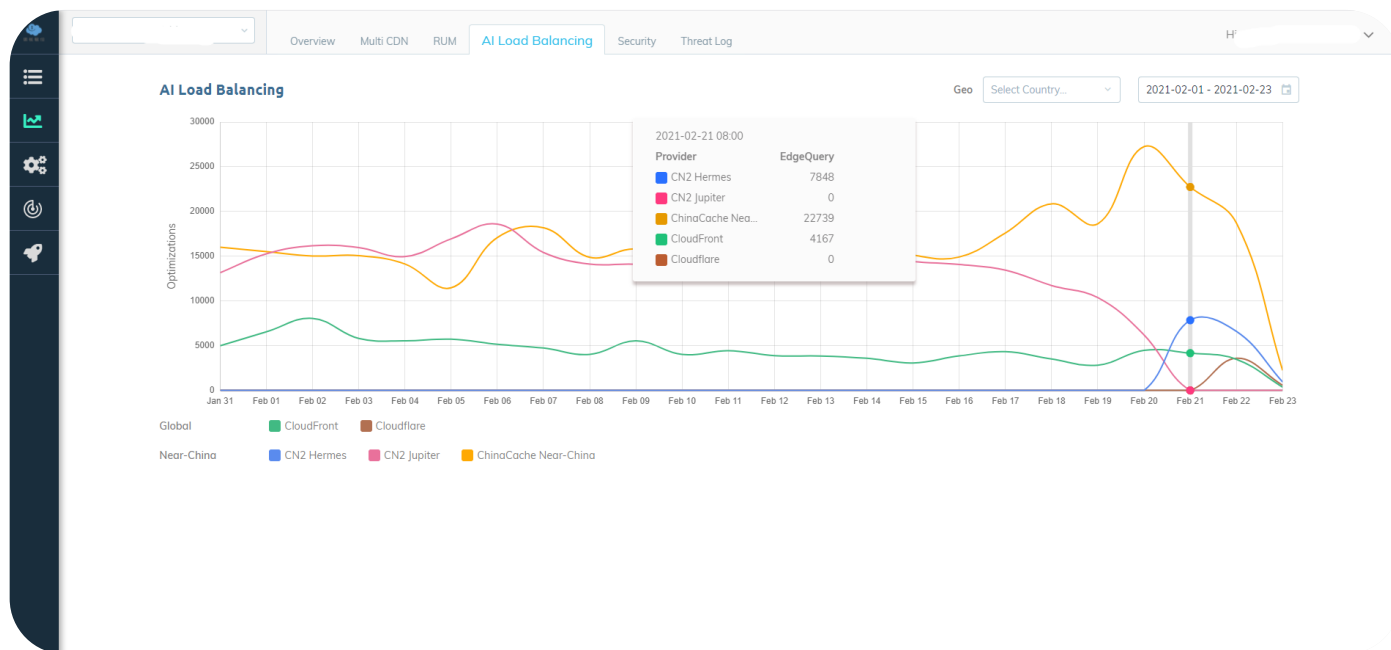
全球智能監測服務

- ✓ RUM (real user monitor) 全球監測服務：透過平台各地監測點量測CDN品質，依據量測結果調度目前狀態最佳的CDN服務。



自動化調度服務

- ✓ AI Load Balancing 自動化調度服務：依據平台RUM量測結果，由平台AI Load Balancing功能自動調度目前狀態最佳的CDN服務。



CDN防護與管理



- ✓ DDoS與WAF防護功能，搭配黑白名單/國家IP分類等管理、依據OWASP Top 10為基準提供防護，可依需求自行調整規則，確保服務不受攻擊影響營運。

Threat Statistics

XSS/SQL/Generic Injection Attack Protection
提供隱碼攻擊、跨站指令碼攻擊等泛類型攻擊行為防禦機制。

Access Control

提供黑白IP名單配置等控管機制。可透過Geo location配置限制訪問國家等功能。

Network Layer

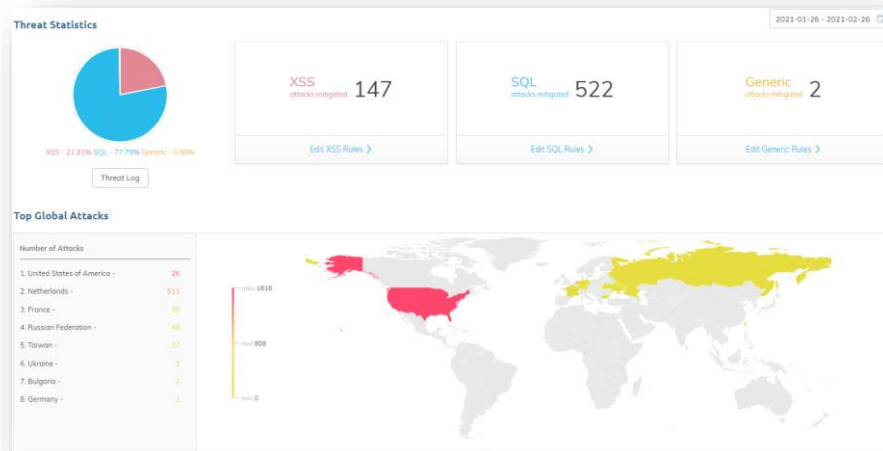
DDoS Protection
平台提供L3,4層DDoS防禦機制。

Application Layer

平台提供L7層特殊行為防禦機制。

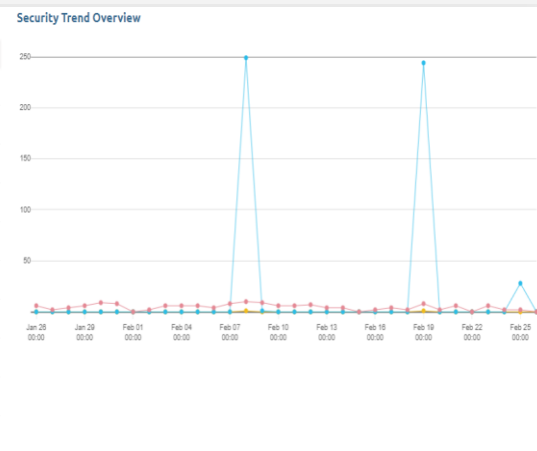
攻擊分析統計報表

- ✓ Threat statistics analysis ◦
- ✓ Top Global Attacks、Top IP Attacks、Security Trend Overview ◦



Top IP Attacks

Ranking	Country	IP Address	Attacks
1.	United States of America	216.244.66.249	2K
2.	Netherlands	141.98.80.58	256
3.	Netherlands	45.227.255.149	251
4.	France	54.36.148.181	55
5.	Taiwan	210.61.124.248	28
6.	United States of America	64.137.69.111	6
7.	United States of America	154.16.213.67	6
8.	United States of America	181.214.98.72	6
9.	Russian Federation	91.200.150.249	4
10.	Netherlands	193.42.108.196	4



攻擊分析統計報表

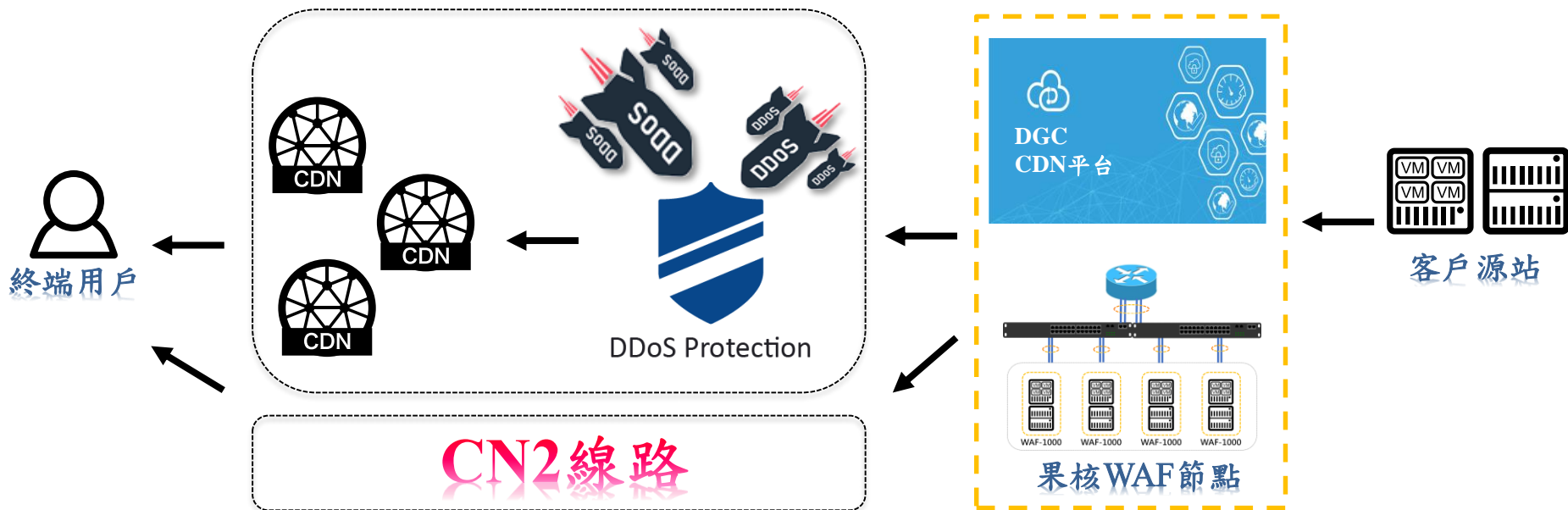
✓ 提供Attack log 分析紀錄，依據分析結果調整最佳防護條件。

The screenshot displays a web interface for analyzing attack logs. At the top, there is a search bar for 'Incident ID' and a date range filter set to '2021-02-01 - 2021-02-28'. Below the search bar are several filter checkboxes: XSS, SQL, Generic, Global Agents, and HTTP Protocol. The main content is a table with columns: Time, Incident ID, Domain, Category, Country, IP, and Action. The first row shows an incident on 2021/02/26 at 16:27:59 with ID 7692534f92937e774da7d98cb24e8370, categorized as 'Global Agents' from the 'United States of America' at IP 72.79.45.58, with the action 'Block'. A 'Details' link is provided for this entry. Below the table row, there are two expandable sections: 'Request Info' and 'Global Agents'. 'Request Info' lists: Http_user_agent: panscient.com, Scheme: https, Server_protocol: HTTP/1.1, Request_method: GET, Query_string:, and Uri: /. 'Global Agents' lists: Message: Rogue web site crawler and Match_val: panscient.com. The table continues with two more rows of incident data. At the bottom right, there is a pagination indicator '1 of 1' with navigation arrows.

Time	Incident ID	Domain	Category	Country	IP	Action
2021/02/26 16:27:59	7692534f92937e774da7d98cb24e8370	[REDACTED].s.com	Global Agents	United States of America	72.79.45.58	Block Details
Request Info		<ul style="list-style-type: none">• Http_user_agent: panscient.com• Scheme: https• Server_protocol: HTTP/1.1• Request_method: GET• Query_string:• Uri: /				
Global Agents		<ul style="list-style-type: none">• Message: Rogue web site crawler• Match_val: panscient.com				
2021/02/26 16:27:57	3897dcc3504288d4c76b690a5c86dd96	[REDACTED].s.com	Global Agents	United States of America	72.79.45.58	Block Details
2021/02/10 01:03:42	10d2dcc75d58fb87841ebd50c965507f	[REDACTED].s.com	Global Agents	Germany	134.96.235.27	Block Details

CDN平台架構

- ✓ CDN平台架構整合了CDN、DDoS與WAF等防護功能，另搭配海外DDoS清洗防護服務，確保服務不受攻擊影響營運。



高效益與高可靠性

Probes 探針	Over 200, collecting data of connection performance all over the world
Installation	Add a site within 5 minutes and installed 3 CDNs
Default cache static resources	Images, font, website format, document etc
Switching CDN level	Most could be switched by country-level , especially support state-level in US and city-level in China
AI CDN scheduling	Each 60 seconds *每60秒調度一次最佳CDN
Monitor	Real time monitor and support to schedule your owned CDN refer to private data of connection performance *RUM (探針量測+用戶量測) + Own CDN (外加線路可客製量測機制)

強化安全服務

DDoS protection	Unlimited traffic *無上限DDoS防護
Cleaning center	Cleaned in place near the origin area, remained the connection when attacked
WAF region	5. Included Hong Kong, Ireland, Singapore, Taiwan, US LA
WAF rule	According to OWASP top 10 and keep corresponding records
Whitelist & blacklist	Included / excluded IP & Geo IP location control
Defense malicious access	Optional avoid crawlers & scanners *防護爬蟲與機器人惡意程式
SSL application	Free, apply and extension automatically *SSL憑證自動更新

服務綜合效益



全球網絡最佳效能

安全即時內容傳遞，網絡遍佈全球，提高傳送效能，就近取得內容



全面網站防護

分散式架構減緩DDoS攻擊，並結合WAF防禦機制，網站防護最安心



一站式管理

結合多家國際CDN資源，管理便利，提供最佳化資料傳輸服務

服務綜合效益



支援多域名管理

提供自動化SSL憑證更新，多域名管理適用



快速資料傳輸

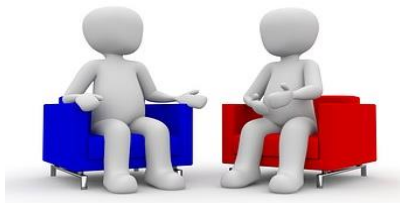
與台灣第一大電信業者合作，並提供多家國際知名業者即時內容傳遞服務



最適成本

平台SaaS服務機制彈性高，有效管理企業費用開支

服務流程



需求訪談:

- ✓ 與客戶訪談，協助了解需求。
- ✓ 對目前使用管理需求，找出最佳方案。



產品服務規劃:

- ✓ 規劃合適使用CDN。
- ✓ 確認規格。



服務測通與上線服務:

- ✓ 服務測通與調教。
- ✓ 24*7*365 SOC 協助上線與監控服務。

Your Best IT Partner



專屬企業的IT部門

提供設備、技術、人才與專業服務

THANK YOU

