

Citrix App Delivery and Security Service

A paradigm shift for IT modernization

Secure application delivery is at a crossroads, because of two accelerating trends --

Application experience is the new currency for business because it profoundly impacts employee experience, customer-perceived differentiation, and the ability to build intimacy and engagement.

Cloud and SaaS migration has become urgent for IT organizations to deliver elastic demand, global reach, and uniform access to highly distributed users.

These business pressures are creating three pressing challenges for IT organizations:

- IT is in perpetual catch-up mode with the business as complexity increases
- The internet state remains a blind spot impacting the app experience
- Application security is much more fragmented across the internet

Citrix App Delivery and Security Service is a paradigm shift in radically simple cloud-based application delivery and security. It uses an intent-based, self-healing, continuously optimizing and internet aware architecture, that is built on four human principles, “intent based,” “always learning,” “always adapting,” and “always protecting.”

Built on Human Principles



Intent based with unmatched automation

Humans turn their intent into actions. When a person intends to take a holiday, he completes many different actions to make it happen - book tickets, book hotels and more. Similarly, when the IT defines the intent or KPIs for application delivery, the service will automatically translate it into the appropriate policies and configuration to ensure it is met. However, its essential to learn and adapt automatically as conditions change, such as when an internet bottleneck or server degradation occurs.

Always learning

Just as humans are always learning about their environment and the changes that occur, Citrix App Delivery and Security Service is always learning about the application environment, the health of the servers, the state of the internet and new cyberthreats.

Always adapting

Humans use situational learning to continuously adapt, such as when a beginner golfer becomes a pro by repeatedly adjusting her technique as she learns from various situations. So too, the Citrix App Delivery and Security Service continuously optimizes and self-heals to improve user experience and automatically reconfigures when application conditions change or performance degrades.

Actionable Internet-State visibility, A revolution in the app experience

The state of the internet is a major blind spot for application delivery. And latency and throughput on the internet are highly variable as it finds alternate paths in individual networks. It is common for users to experience degradation in latency, availability, and throughput.

Citrix App Delivery and Security Service is the industry's first GSLB with actionable internet-state visibility. It has granular real-time visibility to internet conditions so that self-healing actions are correct and immediate. It can even anticipate trends to recommend broader actions proactively. To achieve this, the service incorporates Citrix ITM technology, which collates and analyzes up to 10 billion data points a day from 1 billion users across 50,000 networks throughout the world. The data is continuously crowd-sourced from nearly all edge networks, including third-party CDNs and PoPs. It creates a real-time, virtual-experience map of the internet.

Design, Deploy and Optimize Faster

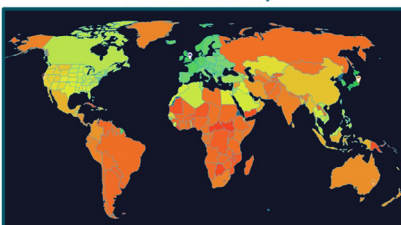
An organization rolling out global applications can use these human principles to dramatically accelerate design, deployment and optimization. It can correctly plan future hosting locations with full knowledge of optimal experience. Next, it can quickly deploy low latency applications simply by stating a latency intent, for example, 100 ms response time. During operations, the system will automatically enforce the intent by continually re-optimizing all parameters as they drift.

Planning future app hosting locations

A big question when planning an application deployment is where to host the application servers. Between US West, US East, London, Tokyo, and others, existing tools cannot predict the best application experience for a deployment that has not yet occurred. They cannot evaluate alternatives with different strengths in latency, availability, and throughput. Nor can they account for emerging trends due to changing conditions or a shifting user base. Citrix App Delivery and Security Service removes nearly these uncertainties. The service provides a latency heat map across the globe, which shows the relative experience of regions' users. Before deploying an application, you can plan out different scenarios such as:

Scenario 1: What if I open two AWS PoPs in London and Tokyo? What is the average latency for user across the globe or in specific countries?

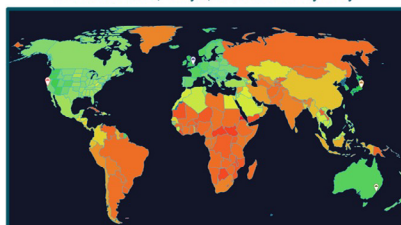
Servers in
AWS London & Tokyo



395ms Global Average Latency

Scenario 2: What happens if I add two more PoPs in US West and Sydney? How will it impact the overall app delivery in specific countries or globally?

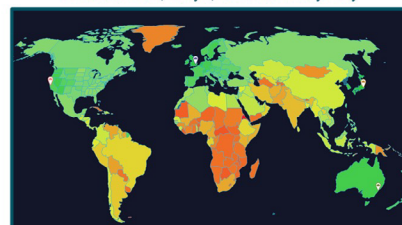
Servers in
AWS London, Tokyo, US West & Sydney



291ms Global Average Latency, 26% ↓

Scenario 3: What happens if I change the traffic redistribution mechanism? How does switching between round robin, proximity, and Citrix-optimized delivery change the user experience?

With Internet Aware GSLB and Servers in
AWS London, Tokyo, US West & Sydney



210ms Global Average Latency, 47% ↓

Making global applications adaptable to the changing Internet

In 2021, the lack of website responsiveness, availability and slow throughput is still affecting major on-line brands and their bottom lines. Similar issues affect enterprise applications that are accessed globally by employees and partners.

The internet is a big contributor. Network congestion is frequent and regional. Additionally, an outage in one region can create congestion in others.

Citrix App Delivery and Security Service optimizes user experience based on real-time internet conditions as well as emerging ones, as projected from historical trends. The service use intelligent traffic management (ITM) to:

- identify root causes of deteriorating user-experience, such as an ISP network failure or a cloud outage - and steer user requests to sites with the fastest overall response
- analyze latency and throughput trends that may impact future experience and recommends the best new regions for applications, CDNs and PoPs.
- Act on both real network state and server response data to improve current and future application experience.
- Recommend the fewest, most cost-efficient application sites.

The Citrix difference is the use of use real-time internet awareness and ITM steering to immediately and dramatically improve user-experience and to provide insights for future application planning.

Always protecting your applications

Just as humans protect the things that are valuable to them, so the Citrix App Delivery and Security Service protects the business's most valuable assets – the applications and APIs. Citrix App Delivery and Security Service is a layered security solution that comprises of a full-featured Web Application Firewall (WAF), Bot Management, and SSL termination to protect web applications. All security services can be easily consumed from the cloud and be invoked through a simple statement of intent. For example, an admin can ensure high level security for HTTPS apps by following SSL standards from Qualys lab. The admin can use a single check box, to create a default secure profile with A+, HTTP to HTTPS redirect and HTTPS Monitors enabled. Additionally, the service uses a single-pass architecture for improved security performance and application response. This was verified by recent independent testing by The Tolly Group.

Customer quote

“Citrix App Delivery and Security Service is going to be a game changer for SaaS and microservices. It has the perfect mix of customizability and built-in intelligence that will allow enterprises to deploy their revenue-generating apps quickly and securely without sacrificing the functionality that their customers depend on.”

-- Geoffrey Knaak, Technical Manager, Senior Systems Administrator, Aria Systems, Inc.

A choice of two offers

The service will provide a choice of two offers .

1. Citrix App Delivery and Security Service – Citrix Managed
2. Citrix App Delivery and Security Service – Self Managed

The Citrix Managed offer is a game-changer and most advanced because it is intent-based, self-healing and highly automated. It radically simplifies application delivery and security for applications hosted in public cloud. It is designed for organizations that want to focus on the business applications, not infrastructure.

The Self-Managed offer is the most simple and flexible deployment option to add ADC instances anywhere (on-premises and the public and private clouds). It is ideal for organizations who want to maintain control and management the ADC infrastructure, including provisioning, licensing, upgrading, monitoring, and troubleshooting. This offer does not have intent-based or self-optimizing capabilities.

Links for more information

[Request a Demo](#)

[ADC Datasheets](#)

[White paper and other assets](#)

[ADM datasheet](#)

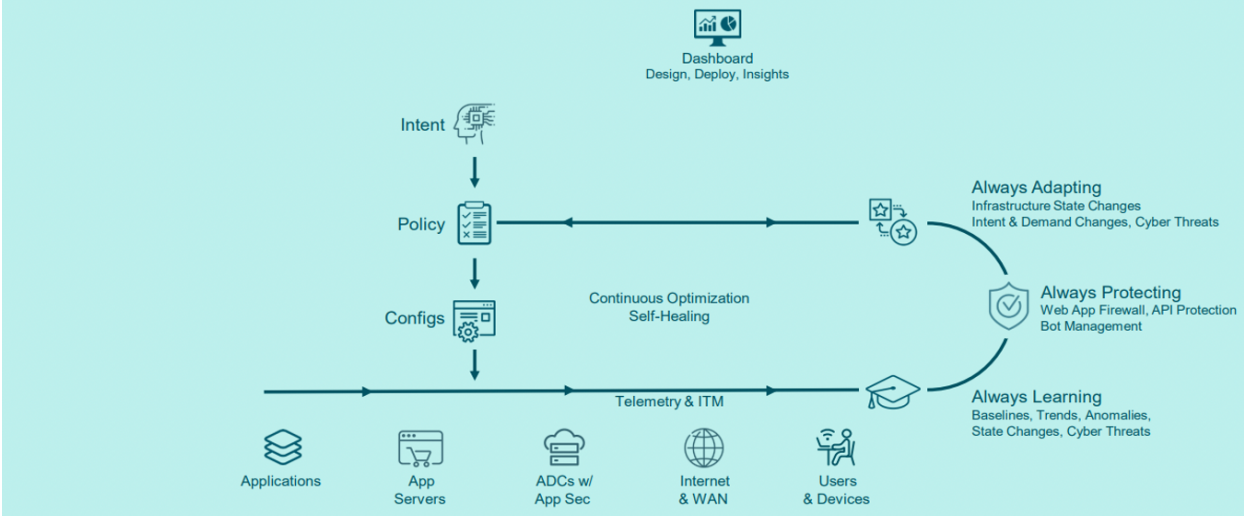
Consumption-based metering

Citrix App Delivery and Security Service uses consumption-based metering (Citrix Managed), where usage is tracked according to actual resources used. It is not necessary to allocate upfront capacity, nor lock usage to a particular instance. There is also no license limitation on peak performance or scale up. For the Citrix Managed offer consumption there are two meters, 1) Data volume and 2) DNS queries. Data volume refers to application traffic that is processed at layer 4 including both request and response bytes. DNS queries refer to the number of DNS queries made by the global applications that are deployed and delivered through the service. The Self Manage offer follows traditional license management but is delivered automatically to customer's Citrix cloud account.

Simple app migration from existing Citrix ADCs

Existing customers can easily migrate their Citrix ADC instances. The application Configuration Builder is used to create an application configuration from an existing Citrix ADC configuration. This feature also automates the application configuration migration from one Citrix ADC instance to another instance. It is possible to duplicate fully configured ADCs or use pre-defined CLI command sets for different configuration types.

Citrix App Delivery and Security Service Architecture



Specifications

Citrix App Delivery and Security Service

Feature	Self Managed	Citrix Managed
App Centric		
Web Apps (HTTP/HTTPS)	Yes (Stylebooks)	Yes
Load Balancing (LC,LRT,RR,Hash..)	Yes (Stylebooks)	Yes
Persistence	Yes (Stylebooks)	Yes
Monitors	Yes (Stylebooks)	Yes
SSL offload	Yes (Stylebooks)	Yes
SSL A+ profile and SSL tuneable params	Yes (Stylebooks)	Yes
HTTP to HTTPS redirect	Yes (Stylebooks)	Yes
Content Rules (Rewrite/Responder)	Yes (Stylebooks)	Yes
Insert, Delete, Replace header	Yes (Stylebooks)	Yes
Rate limiting	Yes (Stylebooks)	Yes
OWASP recommended headers	Yes (Stylebooks)	Yes
Content routes (Switching based on host, URL)	Yes (Stylebooks)	Yes
Authentication	Yes (Stylebooks)	Yes
ITM based GSLB	NA	Yes
Stylebooks	Yes	NA
App Security		
WAF, BOT management	Yes (Premium)	Yes (Premium)
Management and Monitoring		
Auto-scale	Yes	Default
License pool	Yes	NA
infrastructure analytics	Yes	NA
inventory management	Yes	NA
Event management & Syslog	Yes	NA
Configuration management	Yes	NA
Network reporting	Yes	NA
Network functions	Yes	NA
SSL certificate management	Yes	Yes
RBAC & External authentication	Yes	No

[Citrix ADC datasheets](#)

Feature	Self Managed	Citrix Managed
App Migration		
CS, LB, SSL, Rewrite, Responder, APPQoE, Rate limit, Compression, QUIC, WAF, BOT	via StyleBooks	Yes
Analytics		
App analytics	Yes	Yes
Web insights	Yes	Yes
Appsec analytics	Yes	Yes
ITM analytics	NA	Yes
Web transaction analytics	Yes	Yes
HDX insights	Yes	NA
Gateway insights	Yes	NA
TCP insights	Yes	NA
Video insights	Yes	NA
WAN insights	Yes	NA
Licensing		
Data processed	NA	Varies by SKU
DNS requests	NA	Varies by SKU
Storage consumed for analytics	Varies by SKU	NA
Subscription length	Single, Multi year	Annual
Consumption based metering	NA	Yes
Miscellaneous		
Auto-upgrade	Yes (ADM service)	Yes
Control plane SLA	99.90%	99.90%
Cloud Platforms - AWS	Yes	Yes
Cloud Platforms - Azure	Yes	No
Cloud Platforms - GCP	Yes	No
CI/CD and auto-upgrade	NA	Yes

Notes

1. Self Managed trial is by request
2. Citrix Managed trial at citrix.cloud.com



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