Fastly Products Archive

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Products

Products and services

These articles provide plain English descriptions and details about Fastly's products and features and their paths through Fastly's product lifecycle. They also describe service level agreements offered by Fastly that provide information to customers based on the nature of their agreement with Fastly and the Fastly products they have purchased.

https://docs.fastly.com/products/products-and-services



Assurance Services



https://docs.fastly.com/products/assurance-services

Subscribers who purchase Assurance Services will:

- have access to a library of third-party audit reports and certification attestations (most recent 12 months).
- have access to executive summary reports for penetration tests and network scans (most recent 12 months).
- have access to a library of security-related policies and procedures.
- have access to a library of executive summaries of annual risk assessments (most recent 12 months).
- have access to a library of historical Fastly Service Advisory (FSA) documents (most recent 12 months).
- be able to perform unlimited audits of Fastly's <u>security</u> and <u>technology compliance</u> programs, subject to Subscriber's purchase of <u>Professional Services</u>. Audits require advance notice of at least 10 business days and shall be performed by Subscriber (or a mutually acceptable third party) according to standard audit practices.
- have the ability to be added as an Additional Insured on Fastly's General Commercial Liability Insurance for an additional fee.

Subscribers who wish to purchase Assurance Services must also purchase Gold or Enterprise Support.



DDoS Protection and Mitigation Service and SLA



https://docs.fastly.com/products/ddos-protection-and-mitigation-service-and-sla

Fastly offers DDoS Protection and Mitigation Service to customers with a sustained DDoS threat risk or with short term and seasonal events to protect. While the DDoS Protection and Mitigation Service cannot prevent or eliminate attacks or guarantee the uptime of your origin servers, it offers the following resources to assist you with mitigating the service and financial impacts of DDoS and related attacks.

Fastly's DDoS Protection and Mitigation Service includes:

- Immediate onboarding We will work directly with you to immediately transition you to Fastly's CDN service if you're not already a customer.
- Emergency configuration and deployment support We will actively work with you to configure your service map and provide an initial filter policy to immediately block an attack.
- Ongoing attack mitigation support We will work directly with you to write custom VCL filters to deal with changing attacks or new attacks. We'll also isolate malicious traffic on your behalf.
- Incident response plan We will create a plan that identifies how communication and escalation will occur between you and
 your staff and Fastly if an attack occurs. The plan will also describe mitigation and defense details such as any DDoS filters
 that we can insert into VCL prior to or during an attack.

Using our knowledge of attacks against our network and our customers, we analyze all DDoS Attack vectors using VCL statements, network filters, bulk traffic filtering through regional sinks, or a combination of these techniques.

The following table summarizes what is provided under our DDoS Protection and Mitigation Service:

| Support offering | Details |
|--------------------------|-------------------|
| Online self-service help | Unlimited access. |

| Support offering | Details |
|------------------------------------|--|
| Availability for general inquiries | 24/7. |
| Availability for incident reports | 24/7. |
| Initial response times | Attack notification response within 15 minutes. Service onboarding beginning within 60 minutes of threat notification. |
| Overage Insurance | Included. |
| Access to Fastly IP Space | Included. |
| Email support | Available. |
| Phone and chat support | Toll-free telephone available 24/7/365. Dedicated chat channel available during Fastly Business Hours. |
| Emergency escalation | Available via email and phone support. |

Technical support

The following section applies to all Subscribers of the DDoS Protection and Mitigation Service.

Definitions

- "Business Hours" are 8AM-6PM during a Business Day in California, New York, London, or Tokyo.
- "Business Days" are Monday through Friday, excluding any day that is simultaneously a US, UK, and Japanese national or banking holiday.
- A "DDoS Attack" is a Denial of Service (DoS) event (including Distributed Denial of Service (DDoS) or Distributed Reflection
 Amplification Denial of Service (DRDoS) attacks) that includes both an increase of unwanted traffic beyond two (2) times the
 average traffic of any Fastly Service for the preceding two (2) month period and a simultaneous increase in error responses
 from origin sites configured for any Fastly service. Fastly captures and analyzes suspected or actual DDoS Attack traffic to
 improve and protect its services.
- A "Fastly IP Space" is a <u>published API endpoint</u> that allows Subscribers to download an updated list of all Fastly IPs globally
 and can be used to filter traffic and control communication between Fastly's caches and a Subscriber's origin. Fastly provides
 the Fastly IP Space to Subscribers in order to ensure known communication between the Fastly cache nodes and a
 Subscriber's origin datacenter.
- "Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) a Subscriber's hardware or software failures, (b) a Subscriber's or end user's connectivity issues, (c) Subscriber operator errors, (d) Subscriber traffic amounts that exceed a Subscriber's Permitted Utilization as defined in the Terms and Conditions, (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Subscriber responsibilities

As a Subscriber, you:

- must identify and maintain two points of contact to be used during an attack to communicate status, issues, and coordinate with Fastly to successfully protect services.
- must use common best practices for DDoS Attack defense including:
 - using updated white and black lists in the Fastly IP Space at the origin datacenter to protect against attack traffic bypassing Fastly's infrastructure.
 - limiting or eliminating your origin IP addresses from Domain Name System (DNS) records to avoid these addresses being used as attack targets.

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• are responsible for using and configuring services according to the documentation available at https://docs.fastly.com.

Support requests

Subscribers may make support requests by submitting a <u>support ticket</u> which will trigger a system-generated acknowledgement within minutes containing the ticket number and a direct link to the ticket.

DDoS Attack reports should include at least:

• a determination of the severity of the attack.

- the size of the attack threatened or previously observed.
- the type and vector of attack traffic seen or threatened.
- any duration of previous attacks and vector behavior including major source IP addresses.
- attack history for the last 24 months.
- threat specifics including all details of any attacks that the protected services or sites have experienced in the past.

Communications and channels of support Support tickets

Create support tickets by sending an email to support@fastly.com or calling our dedicated phone line. Filed tickets trigger Fastly's promised response time.

Tickets for communication between Fastly support engineers and a Subscriber's personnel are tracked using a ticketing application, which maintains a time-stamped transcript of communications, and sends emails to Subscriber and Fastly staff as tickets are updated.

Phone support

Subscribers to the DDoS Protection and Mitigation Service receive a dedicated phone number to contact Fastly support engineers. Fastly personnel can also establish audio and video conferencing (free app or browser plug-in required) for real-time voice and video communications.

Chat

To facilitate real-time communication, Subscribers to the DDoS Protection and Mitigation Service receive a dedicated chat channel for real-time communications during Business Hours or as needed by Fastly personnel. Though subject to change, Fastly's current chat provider is Slack (www.slack.com).

Attack traffic

Response time

Fastly commits to responding to DDoS Attack notifications from Subscribers within 15 minutes of notice and, as applicable, will begin on-boarding Subscribers to the DDoS Protection and Mitigation Service within 60 minutes of a DDoS Attack notification.

Related Invoice Credits

Fastly will waive all bandwidth and request charges associated with DDoS Attack traffic and will provide Invoice Credits or adjustments for the same.

Attack traffic credit terms

Subscribers must submit claims for waiver of DDoS Attack-related charges to billing@fastly.com within 30 days of the DDoS Attack.

DDoS Mitigation response SLA

If, during a DDoS Attack on a Subscriber with the DDoS Protection and Mitigation Service, there is a material delay in response time and the cause of the delay is within Fastly's control, a one-time credit of \$500 per incident will be credited to that Subscriber's account.

SLA credit terms

- Requests for Invoice Credits must be made within 30 days of the DDoS Attack that triggered the service credit.
- All requests for Invoice Credits must be made to billing@fastly.com.
- In no event shall Invoice Credits exceed the fee for the DDoS Protection and Mitigation Service payable by a Subscriber for the month in which the Invoice Credits accrued.
- A pending Invoice Credit does not release a Subscriber from the Subscriber's obligation to pay Fastly's submitted invoices in full when due.
- Invoice Credits will be applied to the invoice within the month the credits were incurred.

Termination for SLA

For a Subscriber of the DDoS Protection and Mitigation Service with a <u>Termed Contract</u>, if in any three-month period where three (3) or more support response time objectives are not met and the failure to meet the objectives materially adversely impacted the Subscriber, the Subscriber will have 30 days to terminate the DDoS Protection and Mitigation Service subscription following the third response failure. Subscribers must notify Fastly of their intention to terminate the DDoS Protection and Mitigation Service subscription within 30 days of the triggering event.



Fastly product lifecycle



https://docs.fastly.com/products/fastly-product-lifecycle

Fastly releases or retires its products and features as detailed below.

Product and feature releases

We release our products and features in the following stages.

Beta

Beta products are initial releases of potential future products or features. We provide customers who participate in our Beta program the opportunity to test, validate, and provide feedback on future functionality. Feedback gathered during this phase helps us to determine which features and functionality provide the most value to our customers and helps us focus our efforts accordingly.

These guidelines apply to Fastly's Beta program:

- Customers can choose or elect to participate in a Beta program.
- Fastly does not make any promises on the features, functionality, or performance of our Beta products.
- We reserve the right to change the scope of or discontinue a Beta product or feature at any point in time.
- We do not charge our subscribers for using our Beta products or features.
- Beta products or features are not included in any existing support contracts or obligations.
- Fastly does not provide Beta customers with discounts on future purchases of any products or services.
- Fastly strongly advises against using production traffic for Beta products due to their dynamic nature.

Beta services are covered by Section 6 of our <u>Terms of Service</u>.

Limited Availability

Limited Availability products are ready to be released to the world, pending some fine tuning. Limited Availability allows us to test out a product or service with a limited number of customers, so we can closely monitor it and make any necessary adjustments before rolling it out more broadly. Our goal is to make it easy for customers to set up our products with their services and take advantage of the features that come along with them.

These guidelines apply to Fastly's Limited Availability program:

- Fastly may charge its Limited Availability customers and pricing may vary depending on features.
- Fastly does not make any promises on the features, functionality, or performance of our Limited Availability products.
- Fastly does not provide its Limited Availability customers with discounts on future purchases of any products or services.
- Fastly does provide limited product and customer engineering support and documentation for Limited Availability products.

General Availability

General Availability products released by Fastly are available for everyone's use. Fastly manages these products in accordance with <u>Fastly's terms and conditions</u>.

Product or feature retirement

The decision to retire or deprecate Limited Availability or General Availability features always follows a rigorous process including understanding the demand, use, impact of feature retirement and, most importantly, customers' feedback. Our goal is to always invest resources in areas that will add the most value for customers. When low-value functionality or less successful features compete for resources or create confusion, we may decide that retirement or deprecation is the best solution. In the most difficult of scenarios, feature retirement may cause temporary challenges for some customers. Focusing on the highest priorities of the greatest number of customers, however, allows us to continue to deliver a superior solution with the most benefit.

Fastly is committed to transparency in everything we do, particularly when that activity has implications on the functionality of our features or platform. In the interest of building trust and clarifying change, we have established a number of guidelines around communication of feature retirement, end-of-life, and deprecation.

When a decision to retire a feature is reached Fastly will strive to provide:

- Advance notice: We will provide notification proportional to feature criticality. For minor changes with improved functionality we will notify customers no less than three (3) months prior to deprecation, and for major changes we will notify no less than six (6) months in advance.
- Alternative functionality: We will include guidance and direction on new features in our services which replace retired or deprecated functionality. New features and functionality will always be provided in advance to ensure customers have time to understand and transition to new functionality prior to the retirement of previous functionality. In some cases this may be with partners or other approved third-party services.

• Continuous support: Fastly commits to providing continuous support for all features until the retirement date.

• Considerate scheduling: When planning significant changes, including feature or product retirement, we will align retirement as close to major updates or releases as possible to limit the scope of impact on your services.

In some extreme cases Fastly may need to accelerate the retirement of functionality timeline:

- Essential changes that are necessary or appropriate to protect the integrity of our service may occasionally be required. In these cases, it is important that those changes occur as quickly as possible. We will communicate with customers transparently with as much advance notice as possible in these situations.
- <u>Integrated third-party software or services</u> may need to be retired due to the third-party decision to change or retire their solution. In these situations, the pace of the retirement will be out of our control, although we remain committed to transparency and will strive to provide as much notice as possible.

For more information, contact customer support or your account team.



Fastly's Full-Site Delivery



https://docs.fastly.com/products/fastlys-full-site-delivery

Fastly's Full-Site Delivery allows you to speed up websites and mobile applications by pushing content closer to users, providing improved and secure experiences across the world. Full-Site Delivery includes the following features.

Content serving, caching, and control

Full-Site Delivery uses Fastly's global <u>content delivery capabilities</u> to cache and accelerate the delivery of your <u>HTTP-based file</u> <u>content</u> such as video, images, CSS, Javascript files, as well as HTML and API responses. Specifically:

- HTTP header controls. Full-Site Delivery obeys standard HTTP caching headers and support forwarding, <u>adding, removing</u>, <u>and modifying the HTTP headers</u> we receive from your origin servers and send to end users, allowing you to send one set of instructions to your Fastly services and another set of instructions to downstream caches, proxies or browsers.
- **Time to Live controls.** Content expiration is controlled via Time to Live (TTL) <u>settings you configure</u> that work as timers on your cached content. You have the option of configuring a global default TTL to control cached content which, when set, will cache objects in a consistent manner even if you have multiple origins or server applications with inconsistent TTL settings.
- Request collapsing. When your content expires, the fetch and refresh process from your origin may take one second or
 more. During that time, your Full-Site Delivery may receive dozens or hundreds of end-user requests for that content. Fastly's
 request collapsing feature groups those requests and fulfills them together when it receives the refreshed content from your
 origin. Request collapsing decreases load on your origin servers by keeping your Fastly services from sending duplicate
 requests for the same expired content to them. Request collapsing is enabled by default.
- Grace mode (Serving stale content). If your origin servers become unavailable for any reason, grace mode can instruct your
 Fastly services to continue to serve stale or expired (but likely still valid) content to end users for a set amount of time. This
 allows you some extra time to return your unavailable servers to normal operations while still serving content instead of error
 messages to end users. Grace mode is not configured by default. To enable it, you must specifically configure your services to
 serve stale content.
- Purging. For dynamic or event-based content that doesn't lend itself to predetermined TTL-based content expiration, you can
 proactively remove or invalidate your content within milliseconds with Fastly's <u>purging features</u>. We limit purging to an average
 of 100K purges per hour per customer account, inclusive of all services within that account.

Edge logic and advanced content delivery control

Fastly's content delivery capabilities are based on a heavily extended version of the <u>Varnish</u> caching software. Varnish software gives you direct access to content delivery, control and edge logic capabilities, via the expressive HTTP inspection and modification scripting language, <u>Varnish Configuration Language</u> (VCL).

Streaming content delivery

Fastly's Streaming Delivery allows you to stream live and video-on-demand streaming content by leveraging Fastly's native support of common streaming formats. Fastly streaming format support includes HTTP Live Streaming (HLS), HTTP Dynamic Streaming (HDS), Dynamic Adaptive Streaming over HTTP (MPEG-DASH) and HTTP Smooth Streaming.

Origin shielding

You can designate a Fastly point of presence (POP) to <u>serve as a shield</u> for your origin servers, thus enabling increased cache hit rates for your Fastly services and potentially protecting your origin servers from unexpected spikes in requests for content. You can optimize this shielding geographically by configuring different shield POPs for different origin server locations. Origin shielding is not enabled by default. To use it, you must specifically <u>enable it</u>.

Load balancing

Services configured with multiple origin servers will automatically distribute requests to those servers evenly. You can modify this default load balancing behavior with a variety of conditions and load balancing rules.

Health checks

The health of your origin servers can be monitored with <u>configurable health checks</u> to help ensure only responsive origin servers are being sent requests.

Fastly web interface

All Fastly accounts have access to <u>Fastly's web interface</u>, allowing it to be <u>managed by multiple users</u> within your organization. You can control each user's role, as well as control the scope of their service access and their specific permission levels. Fastly services can be created, <u>monitored</u>, and managed through the Fastly Web Interface via any standard, modern web browser.

Application programming interface (API)

Fastly provides an <u>application programming interface</u> (API), accessible via HTTPS, through which Fastly services can be created and configured, and customers can access account information and analytics.

Real-time log streaming

To help you tune the performance of your Fastly services, we support <u>real-time log streaming</u> to a variety of locations, including third-party services, for storage and analysis. You can find our supported logging endpoints in our <u>list of streaming log guides</u>. We limit real-time log usage to a monthly average of one log statement per request, per service.

Transport Layer Security

Fastly supports a variety of <u>Transport Layer Security (TLS) services</u> that allow websites and applications to serve traffic over HTTP Secure (HTTPS), providing added privacy and data security for your services and end users. All Fastly services have access to our free shared domain option, plus a variety of additional paid TLS services to meet your TLS business and technical needs.

Always-on DDoS mitigation

Fastly's globally distributed network was built to absorb Distributed Denial of Service (DDoS) attacks. As part of Fastly's standard, Full Site Delivery, all customers receive access to a <u>combination of features</u> inherent in Fastly Edge Cloud network capabilities that help protect the availability of your content from DDoS threats.

Pricing and billing

Full-Site Delivery <u>prices</u> are based on the volume of content delivered to your end users and the location of the POPs from which that content was served. <u>Fastly billing</u> is done in arrears based on actual usage with month-to-date usage being available via both our web interface and APIs.

1 NOTE: Fastly maintains partnerships with Google and Microsoft that may provide discounts on outbound data transfer traffic to customers who qualify and configure their Fastly services correctly. See our <u>integrations guides</u> for additional details.



Fastly's Legacy Full-site Delivery services



https://docs.fastly.com/products/fastlys-legacy-full-site-delivery-services

IMPORTANT: These terms apply to Subscribers who purchased Full-site Delivery on or before October 8, 2018. For more information about our current <u>Full-Site Delivery</u>, contact <u>sales@fastly.com</u>.

Fastly offers full-site delivery that allows you to speed up websites and mobile apps by pushing content closer to users, providing improved and secure experiences across the world.

HTTP request fulfillment

The Fastly CDN Service responds to <u>HTTP GET requests</u> initiated from end users' using your website, or from a program making calls to an internet-hosted API.

Header support

Fastly's CDN Service supports forwarding <u>HTTP headers</u> to end users when they are received from your origin server. Alternatively, headers can be added, removed, or modified using our edge scripting language either before or after caching a response from the origin. This includes the Cache-Control and Expires headers as well as the Surrogate-Control header. HTTP header support allows

you to send one set of instructions to the Fastly cache servers and another set of instructions to downstream caches, such as proxies or browsers. In particular, the Surrogate-Control header allows you to specify how to forward and transform specific header types.

Time to Live support

Fastly has no set hard limit on how long objects will remain cached. Instead, Fastly supports the expiration of content via Time to Live (TTL) settings that you configure. TTL settings work as timers on your cached content. When content has resided in the cache for the entire TTL interval, that content is given the status of "expired." Before Fastly delivers requested content that is expired, the cache checks to see if the content is still valid by checking with your application server first.

If the application server says the content remains unchanged, the cache sets the content's status to "valid" and resets its TTL value. If the object has been changed, it is declared "invalid" because the content has expired. The application server delivers updated content. Fastly's CDN Service caches the updated content with the status of "valid," and its TTL timer begins to run.

The fetch and refresh process may take a second or more, and during that time, a Fastly cache may receive dozens or hundreds of end-user requests for that content. Fastly's <u>request collapsing feature</u> groups these requests and fulfills them at once when the application server response is received.

Fastly offers you the option of setting a global, default TTL for cached content control. When set, Fastly's CDN service caches objects in a consistent manner even when applications are inconsistent in doing so.

Origin shielding

When configuring Fastly's CDN Service during the <u>self-provisioning process</u>, you can designate a specific point of presence (POP) to serve as a shield for your origin servers. This server is referred to as a "shield" because it protects your application servers from continuous requests for content. By default, no origin shield is enabled for you. You must specifically <u>enable shielding</u> to use it.

If Fastly's caches do not have the content being requested, they fetch it from the shield server instead of your origin servers. Fastly caches fetch content from your origin server only when the shield server does not have the content being requested.

Load balancing

You can designate multiple servers as your origin servers. When two or more application servers are provisioned as origin servers, Fastly's CDN Service will distribute requests to fetch content across those application servers. This type of <u>load balancing</u> is enabled by default. You must explicitly disable it if you don't want to use it.

Request collapsing

Cached content sometimes must be refreshed when that content becomes "stale" or expires. When multiple end users request content that is in the process of being refreshed, request collapsing groups those requests to be satisfied together, as soon as the content is received. This accelerates content delivery by keeping Fastly's CDN Service from repeating duplicate requests to your origin server. Request collapsing is enabled by default.

Instant Purge support

Fastly supports an Instant Purge feature that allows you to <u>actively invalidate content</u>. Rather than requiring your network operations and application staff to guess how frequently each bit of content may change, Fastly allows you to generate an HTTP Purge method that is sent to the CDN Service whenever an application changes or deletes data in its database. The Fastly CDN Service invalidates the associated content throughout the service's cache network, causing a new version of that content to be retrieved from the application server the next time it is requested.

Fastly allows URL-based and key-based purging, as well as purging of all content at once via specific, <u>configurable purging</u> <u>commands</u>. Fastly currently supports <u>Ruby, Python, PHP, and Perl libraries</u> for instant purging.

When purging by URL or surrogate key, Fastly's CDN Service can process thousands of changes per second. The invalidation process takes less than 300 milliseconds, making it possible to deliver dynamic content that changes rapidly and unpredictably. Using Instant Purge, you can eliminate cache-to-origin HTTP traffic that all other CDN services generate to determine if expired objects are still valid.

Health checks

You have the option to configure Fastly's CDN Service to <u>perform health checks</u> on your application servers and measure their responsiveness. You can use health check responsiveness measurements to fine-tune the distribution of fetch requests. Health checks are not enabled by default. You must specifically enable them.

Grace mode support

When an application server becomes unavailable for any reason, end users will normally receive error messages indicating the content they've requested cannot be retrieved. When enabled, grace mode shields application servers by instructing Fastly's CDN Service to continue to serve stale or expired (but likely still valid) content to end users for a set amount of time. This allows you to

return otherwise unavailable application servers to normal operations and still serve content rather than error messages to end users. By default, grace mode is not configured. You must specifically <u>configure you service to serve stale content</u> to use grace mode.

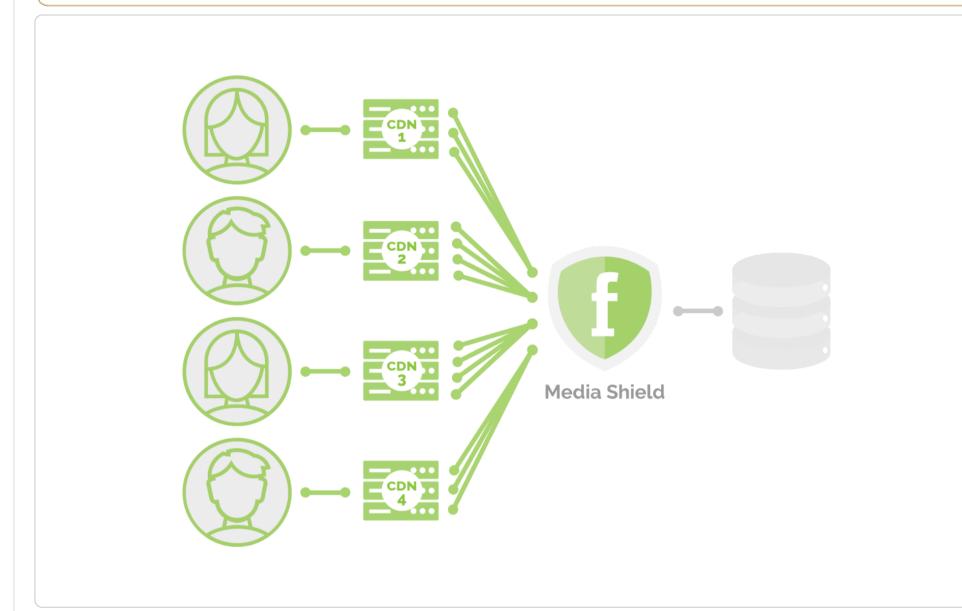


Fastly's Media Shield



https://docs.fastly.com/products/fastlys-media-shield

① IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.



Fastly Media Shield offers customers the ability to decrease origin traffic by <u>reducing multiple CDN requests</u> into a single request back to your origin. Media Shield works with your existing architecture by making Fastly the origin to all of your end-user-serving CDNs.

To learn more about Fastly's Media Shield, contact your account manager or email sales@fastly.com for more details.



Fastly's On-the-Fly Packaging service



https://docs.fastly.com/products/fastlys-onthefly-packaging-service

Fastly offers an "on-the-fly," dynamic, video-on-demand content packaging service. Rather than requiring you to pre-package all protocols of a viewer-requested video, Fastly allows you to dynamically package video content in different HTTP streaming formats in real time, using source files. That video content then becomes immediately available to viewers.

IMPORTANT: Fastly's On-the-Fly Packager (OTFP) for On Demand Streaming service is an add-on service. Our Professional Services team will assist with configuration and testing. To enable OTFP and begin this process, contact your account manager or email sales@fastly.com for more details.

Supported on-the-fly packaging features

Fastly's OTFP service supports the following specific features:

Supported HTTP streaming formats and codecs

HDS, HLS, and MPEG-DASH packaging. Fastly provides support for version 1 of the Adobe HTTP Dynamic Streaming (HDS) specification and support for the <u>ISO/IEC 23009-1:2014 specification</u> defining Dynamic Adaptive Streaming over HTTP (MPEG-DASH). We support all features included in up to version 3 (draft 6) of the HTTP Live Streaming (HLS) specification and

popular features from later versions such as subtitle, trick play and media segmentation in <u>fragmented MPEG-4 (fMP4) format</u> (per ISO/IEC 14996-12:2015 specification).

- Standard codecs. Fastly supports Advanced Video Coding (H.264/AVC/MPEG-4 Part 10) and High Efficiency Video Coding (H.265/HEVC) video codecs. Fastly also supports Advanced Audio Coding (AAC, AAC-LC, HE-AAC), Dolby Digital (AC-3) and MPEG-1 Audio Layer III (MP3) audio codecs.
- **Source video container format.** Fastly supports the Progressive MP4 specification (specifically the .mp4, unencrypted .mov, and audio-only .m4a extensions) as source container format for packaging into all supported HTTP streaming formats.

Accessibility and user experience

- **HLS multi-language subtitles and closed captions.** Fastly provides support for both in-band (<u>EIA-608</u> and <u>CEA-708</u>) and out-of-band (<u>Web Video Text Tracks or WebVTT</u>) subtitle and closed caption delivery.
- **HLS trick play.** Fastly supports trick play (also called trick mode), a feature that displays video scenes during fast-forwarding and rewinding. The <u>HLS Authoring Specification</u> requires this feature for distributing video on the Apple TV.

Content protection

- Media encryption. Fastly can encrypt videos packaged into HLS (supports both Envelope/AES-128 and <u>SAMPLE-AES</u> methods) and MPEG-DASH (ISO/IEC 23001-7, a common encryption in ISO base media file format file) streaming formats by generating a unique content encryption key for each video, enabling secure video delivery to viewers.
- Multi-DRM. Fastly can support multiple Digital Rights Management (DRM) technologies including <u>Apple FairPlay</u> for HLS and <u>Microsoft PlayReady</u>, <u>Google Widevine</u> and <u>Marlin DRM</u> for MPEG-DASH streaming formats. OTFP is integrated with Multi-DRM service providers that are responsible for content rights management and DRM license delivery.

Dynamic Ad Insertion (DAI) readiness

- **HLS timed metadata injection.** Fastly supports HLS <u>time-based metadata</u>, which allows you embed custom metadata or ad markers about a stream into video segments at specified time instances in ID3v2 format.
- Content preconditioning. Fastly can segment video at the intended break points, such as for ad markers via HLS and MPEG-DASH protocols. Fastly can also add any third-party service-specific cues or metadata into video manifests at those break points to implement server or client-side ad stitching.

Live-to-VOD transition

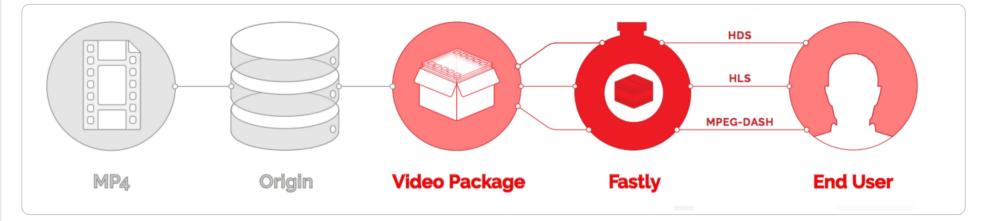
• Clip creation (also known as "timeline trimming"). Fastly supports clip creation features for all supported packaging formats, allowing you to deliver sections of video without segmenting a longer, archived video.

Fastly also provides the following features as part of standard content delivery network services:

- <u>Token-based validation</u> for decreasing response time by placing validation at the edge
- Geolocation and device detection for content targeting
- Edge dictionaries for real-time business rules and decision making at the edge
- Remote log streaming for data aggregation and viewer diagnostics
- Transport Layer Security (TLS) for secure communications delivery

How the on-the-fly packaging service works

Fastly's OTFP service gets configured between our caching network and your origin storage (e.g., Amazon S3, Google Cloud Storage, or Rackspace Cloud Files).



When users request manifests or video segments, those requests initially come to Fastly caches instead of going to your origin storage. Fastly's edge caches deliver those objects if they are available and valid. If the objects don't already exist in the edge caches, the requests will be passed on to a designated shield cache to be delivered instead as long as the objects are available and valid. If neither the edge caches nor the shield cache can deliver the objects, the requests for those objects will go directly to and be fulfilled by the OTFP service which acts as an origin for Fastly's cache nodes.

The OTFP service will make the necessary request to your origin storage to fulfill the original request from the user. The OTFP service also maintains a small, local, in-memory cache for video metadata indexes. These indexes are created using mp4 moov atom (or movie atom) that provide information about the video file such as its timescale, duration, audio and video codec information, and video resolution (among other characteristics).

For <u>adaptive bitrate playback</u>, the OTFP service will cache indexes of each quality level requested. If a user requests a manifest, OTFP will look for the corresponding indexes and, if it is available and valid, OTFP will generate the manifest and deliver it to the user. Otherwise, OTFP will fetch the moov atom from origin storage to generate the corresponding index. If a user requests video segments, OTFP will look for the corresponding audio and video sample entries in the cached index, download those samples from origin storage, and package them in the format requested.



Fastly's Streaming Delivery



https://docs.fastly.com/products/fastlys-streaming-delivery

Fastly's Streaming Delivery allows you to scale your streaming content delivery when you will not be using your Fastly services for any of the other HTTP content formats supported by <u>Fastly's Full Site Delivery</u>.

NOTE: Fastly's Streaming Delivery is a subset of Fastly's Full-Site Delivery and it must be configured in an account separate from other Fastly accounts to allow for separate billing and invoices.

If you have your own video packaging infrastructure, Fastly can act as a globally distributed HTTP streaming network to improve quality of service and increase viewer capacity for both your live and Video On Demand (VOD) content. When a manifest or video segment is requested by an end user's player, your Fastly Streaming Delivery will pull the requested content from your origin media servers and subsequent requests for that stream will be served from <u>Fastly's POPs</u> instead of your origin servers.

Fastly's Streaming Delivery supports the following HTTP-based media streaming protocols:

- HTTP Live Streaming (HLS)
- HTTP Dynamic Streaming (HDS)
- HTTP Smooth Streaming (HSS)
- Dynamic Adaptive Streaming over HTTP (MPEG-DASH)

You can also use Fastly's Full Site Delivery to configure and control live streaming and VOD caching.

NOTE: Fastly maintains partnerships with Google and Microsoft that may provide discounts on outbound data transfer traffic to customers who qualify and configure their Fastly services correctly. See our <u>integrations guides</u> for additional details.



HIPAA-Compliant Caching and Delivery



https://docs.fastly.com/products/hipaa-compliant-caching-and-delivery

You can configure the Fastly CDN service to cache and transmit protected health information (PHI) in keeping with Health Information Portability and Accountability Act (HIPAA) security requirements. Use the following features to ensure secure handling of cache data that contains PHI:

- Configure <u>frontend</u> and <u>backend</u> TLS to encrypt transmitted data from your origin to your end users.
- Add the beresp.hipaa variable to objects containing PHI to keep that data out of non-volatile disk storage at the edge.

Contact <u>sales@fastly.com</u> for more information on how to enable the <u>beresp.hipaa</u> feature for your account. For accounts that have this feature enabled, Fastly will enter into a HIPAA business associate agreement (BAA) as an addendum to our <u>terms of service</u>.

• IMPORTANT: If you have purchased Fastly's <u>PCI-compliant caching</u> or HIPAA-compliant caching products Fastly will enforce a minimum version of TLS 1.2 or higher for all connections to meet the compliance requirements mandated by the <u>PCI Security Standards Council</u>.

• NOTE: Fastly's security and technology compliance program includes safeguards for the entire Fastly CDN service, independent of using the beresp.hipaa variable. The Fastly security program and technology compliance guides provide more information about these safeguards.



Legacy Platinum Support and SLA



https://docs.fastly.com/products/legacy-platinum-support-and-sla

1 NOTE: Fastly maintains support for its original Platinum Support plan. For more information about our current <u>Gold and Enterprise Support plans</u> or for information about our <u>Professional Services packages</u>, contact <u>sales@fastly.com</u>.

Legacy Platinum Support description and SLA

Support availability and response times vary depending on the type of account you have and the level of support you have purchased. The following table summarizes those offerings:

| Support Offering | Platinum Support |
|---|--|
| Online Self-Service Help | Unlimited access. |
| Availability for General Inquiries | 24/7/365. |
| Availability for Incident Reports | 24/7/365. |
| Initial Response Times | Severity 1 Incidents within 15 minutes. Severity 2 Incidents within 2 hours. All other Incidents by the next business day. |
| Email support | Available, with priority over Standard and Gold Support. |
| Phone and chat support | Toll-free telephone available 24/7/365. Dedicated chat channel available during Fastly business hours. |
| Emergency Escalation | Available via email and phone. |
| Designated Customer Support Engineer | Available for large accounts on case-by-case basis. |
| Termination Option | Available with invoice credits. |

Technical support

The following section applies to all subscribers.

Definitions

- "Business Hours" are 8AM-6PM during a Business Day in California, New York, London, or Tokyo.
- "Business Days" are Monday through Friday, excluding any day that is simultaneously a US, UK, and Japanese national or banking holiday.
- An "Incident" is an occurrence during which end users' use of Subscriber's services is adversely impacted.
- A "Severity 1 Incident" is an incident resulting in a major service outage requiring Subscriber to redirect all traffic from Fastly to another CDN.
- A "Severity 2 Incident" is an incident resulting in minor or intermittent outage not requiring Subscriber to redirect traffic to another CDN.
- "Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) a Subscriber's hardware or software failures, (b) a Subscriber's or end user's connectivity issues, (c) Subscriber operator errors, (d) Subscriber traffic amounts that exceed a Subscriber's Permitted Utilization as defined in the Terms and Conditions, (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Subscriber responsibilities

Subscriber is responsible using and configuring services according to the Documentation available at https://docs.fastly.com.

Support requests

Subscribers submit support requests by sending email to support@fastly.com. Subscribers receive a system-generated response within minutes containing the ticket number and a direct link to the ticket.

Incident reports should include at the least the following:

- Services are not responding to end user requests.
- Services incorrectly send end users error condition messages.
- · Services send incorrect or partial content to end users.

Incident reports should include all relevant information such as:

- Subscriber's determination of the Severity Level of the incident,
- Subscriber hardware failures,
- · Subscriber operator errors,
- Services configuration errors made by Subscriber employees,
- A potential Utilization Spike (see the <u>Service Availability SLA</u>),
- Corrupted Subscriber content,
- · DDOS attacks, and
- Relevant force majeure acts such as extreme weather, earthquakes, strikes or terrorist actions.

Communications

Tickets

Communications between Fastly support engineers and Subscriber personnel are conducted using the ticketing application, which maintains a time-stamped transcript of communications, and sends emails to Subscriber and Fastly staff as tickets are updated.

Chat

Subscribers to Platinum Support receive a dedicated chat channel for real-time communications during Business Hours. Though subject to change, Fastly's current chat provider is Slack (www.slack.com).

Phone support

Subscribers to Platinum Support receive a dedicated phone number to contact Fastly support engineers. Fastly personnel can also establish audio and video conferencing (free app or browser plug-in required) for real-time voice and video communications.

Response time

Fastly shall use best efforts to respond in a timely fashion.

Termed contracts

The following applies to any subscriber that has a contract with a term and a minimum commitment.

Response times

Fastly commits to acknowledging receipt of a support ticket within the next Business Day following submission of a support request by a Subscriber with a Termed Contract.

Termination

In any three-month period where three (3) or more support Response Time objectives are not met and the failure to meet the objectives materially adversely impacted Subscriber, Subscribers with a Termed Contract, Platinum Support shall have thirty (30) days to terminate their subscription agreement following the third failure.

Incident response times

Incident reporting

Severity 1 Incidents: Fastly will provide Subscriber an Incident Support Email address for Subscriber to report Incidents. Subscriber should report Incidents promptly using the Incident Support email.

Severity 2 Incidents: Subscriber should report Severity 2 Incidents by submitting a Support Request.

Platinum Support

Fastly will respond to the report of an Incident by troubleshooting the cause(s) of the Incident and resolve them if caused by factors within Fastly's control, or provide information to those who can resolve the factors if the factors are within others' control, as follows:

For a Severity 1 Incident:

- Fastly support staff will acknowledge receipt of the email within 15 minutes.
- Fastly will start actively troubleshooting within 30 minutes of receipt of the email.
- Fastly will perform its tasks on a 24/7 basis.
- Fastly and Subscriber will immediately communicate upon learning new information that may be useful in troubleshooting the
 incident, and status updates between Fastly and Subscriber staff will take place no less frequently than every 30 minutes for
 the first two hours, and no less frequently than every hour thereafter.
- Fastly staff will work until (a) the incident is resolved or (b) the incident is believed to be outside of Fastly's control.

For a Severity 2 Incident:

- Fastly support staff will acknowledge receipt of the email within two hours.
- Fastly engineers will begin actively troubleshooting within the same day, will work on the Incident during the same day, and will provide status updates to Subscriber daily on each subsequent day.

Support invoice credits

In the event a Severity 1 Incident occurs, Subscriber has purchased Platinum Support, the cause of the Incident is within Fastly's control, and any of the communication or response timeframes are materially not met, a one-time credit of \$500 per incident will be credited to Subscriber's account.

Credit Terms:

- Requests for Invoice Credits must be made within 30 days of the incident which triggered the service credit.
- In no event shall Invoice Credits exceed the invoice value of the month in which they are accrued.
- A pending credit does not release Subscriber from its obligation to pay Fastly's submitted invoices in full when due.
- Credits will be applied to the invoice two months following the month an invoice credit was incurred.

Legacy Service availability SLA

Support availability and response times vary depending on the <u>type of account</u> you have and the <u>level of support</u> you have purchased.

| Agreement Type | Unpaid Account | Month-to-Month Account | Termed Contract | Platinum Support |
|----------------------------|-------------------|------------------------|-----------------------|--------------------------------------|
| Service Level Agreement | None | None | Termination Option | Invoice Credits + Termination Option |

Definitions

"Degraded Performance" means the Services are experiencing Error Conditions that are (1) caused by issues under Fastly Control, (2) observable or reproducible by Subscriber or Fastly, (3) requiring Subscriber to redirect traffic off the Services. Degraded Performance does not include any reduction on availability of the Application User Interface or API due to maintenance.

"Error Condition" means the Services are (1) not responding to end user requests, (2) incorrectly sending end users error condition messages or (3) sending incorrect partial content to end users and these conditions are observable or reproducible by Subscriber or Fastly.

"Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) Subscriber hardware or software failures, (b) Subscriber or end user connectivity issues, (c) Subscriber operator errors, (d) a Utilization spike (see below), (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Termination

Any Subscriber that has a contract with a term and a minimum commitment shall have thirty (30) days to terminate their subscription agreement following (1) a period of Degraded Performance longer than 7.2 hours in any one month, or (b) three contiguous months that have periods of Degraded performance longer than 43.8 minutes each.

Availability invoice credits

Subscribers who purchase Platinum Support shall be entitled to Invoice Credits according to the following table.

| Availability Percent | Period of Degraded Performance | Monthly Credit Percent |
|----------------------|--------------------------------|-------------------------------|
| Below 100% - 99.99% | Up to 4.32 minutes | 1% |
| 99.99% – 99.9% | Up to 43.8 minutes | 5% |
| 99.89% – 99.0% | Up to 7.2 hours | 10% |
| 98.99% - 98.0% | Up to 14.4 hours | 25% |
| Below 97.99% | Greater than 864 minutes | 50% |

Invoice Credits for unavailability will accrue on a monthly basis. The Credit Amount for a month is equal to the monthly usage charge multiplied by Monthly Credit Percent.

Credit terms

• Requests for Invoice Credits for Degraded Performance must be made within 30 days of the period of Degraded Performance.

- The maximum amount of any credit is the Invoice Amount for the month the Degraded Performance occurred.
- A pending credit does not release Subscriber from its obligation to pay Fastly's submitted invoices in full when due.
- · Credits will be applied to the Invoice two months following the month an invoice credit was incurred.

Utilization Spikes

Subscriber's bandwidth utilization, measured in megabits per second, will be sampled every five (5) minutes on a region-by-region basis each month (the "Samples"). Subscriber's "Average Utilization" for a region in a month will be the average of the Samples. Subscriber's "Peak Utilization" for a region in a month will be calculated by the 95th percentile method, according to which the Samples will then be ordered from highest to lowest, and the highest five percent (5%) of Samples will be discarded and the remaining highest Sample will be Subscriber's Peak Utilization for the region in that month. Subscriber's "Permitted Utilization" in a month for a region will be five (5) times Subscriber's Average Utilization in that month for that region. A "Utilization Spike" will occur if Subscriber's Peak Utilization exceeds its Permitted Utilization in a region. Utilization Spikes may interfere with or disrupt the integrity or performance of the Services. Subscribers should contact Support in advance of any planned utilization spike and respond immediately to any communications from Fastly regarding an actual or suspected Utilization Spike.



Legacy Premium Support and SLA



https://docs.fastly.com/products/legacy-premium-support-and-sla

3 NOTE: Fastly maintains support for its original Premium Support plan. For more information about our current <u>Gold and Enterprise support plans</u> or for information about our <u>Professional Services packages</u>, contact <u>sales@fastly.com</u>.

Legacy Premium Support description and SLA

Support availability and response times vary depending on the type of account you have and the level of support you have purchased. The following table summarizes those offerings:

| Offering | Unpaid Account | Month-to- Month Account | Termed Contact | Premium Support |
|---|-------------------|----------------------------|-------------------------|--|
| Online Forums | Yes | Yes | Yes | Yes |
| Email Support Response Time Commitment | Best Effort | Best Effort | Next Business Day | Severity 1 Incidents: 15 minutes*. All Others: Next Business Day |
| Severe Incident Response Email Address | No | No | No | Yes |
| Support SLA | None | None | Termination Option | Invoice Credits + Termination Option |

Technical support

The following section applies to all Subscribers.

Definitions

- "Business Hours" are 8AM-6PM Monday through Friday, Pacific Time.
- "Business Days" are Monday through Friday excluding US and UK national and banking holidays.
- An "Incident" is an occurrence during which an end user's use of Subscriber's services is adversely impacted.
- A "Severity 1 Incident" is an Incident resulting in a major service outage requiring Subscriber to redirect all traffic from Fastly to another CDN.
- A "Severity 2 Incident" is an Incident resulting in minor or intermittent outage not requiring Subscriber to redirect traffic to another CDN.
- "Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) Subscriber hardware or software failures, (b) Subscriber or end user connectivity issues, (c) Subscriber operator errors, (d) Subscriber traffic amounts that exceed Subscriber's Permitted Utilization as defined in the Terms and Conditions, (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Subscriber responsibilities

Subscriber is responsible for using and configuring services according to the Documentation available at https://docs.fastly.com.

Support requests

Subscribers submit support requests by sending email to support@fastly.com. Subscribers receive a system-generated response within minutes containing the ticket number and a direct link to the ticket.

Incident reports should include at the least the following:

- Services not responding to end user requests.
- Services incorrectly sending end users error condition messages.
- Services sending incorrect or partial content to end-users.

Incident reports should include all relevant information, such as:

- Subscriber's determination of the Severity Level of the Incident,
- Subscriber hardware failures,
- Subscriber operator errors,
- Services configuration errors made by Subscriber employees,
- Potential Excess Utilization (as defined in the Terms of Use or master services agreement),
- · Corrupted Subscriber content,
- · DDOS attacks, and
- Relevant force majeure acts such as extreme weather, earthquakes, strikes or terrorist actions.

Communications

Communications between Fastly support engineers and Subscriber staff are conducted using the ticketing application, which maintains a time-stamped transcript of all communications, and sends emails to Subscriber and Fastly staff as tickets are updated.

Response time

Fastly shall use best efforts to respond in a timely fashion.

Termed contracts

The following applies to any Subscriber that has a contract with a term and a minimum commitment.

Response times

Fastly commits to acknowledging receipt of a support ticket within the next business day following submission of a support request.

Termination

In any three-month period where three (3) or more support Response Time objectives are not met and the failure to meet the objectives materially adversely impacted Subscriber, Subscriber shall have thirty (30) days to terminate their subscription agreement following the third failure.

Premium Support

The following applies to Subscribers who have purchased Premium Support.

Incident reporting

Severity 1 Incidents: Fastly will provide Subscriber an Incident Support Email address for Subscriber to report Incidents. Subscriber should report Incidents promptly using the Incident Support email.

Severity 2 Incidents: Subscriber should report Severity 2 Incidents by submitting a Support Request.

Response times

Fastly will respond to the report of an Incident by troubleshooting the cause(s) of the Incident and resolve them if caused by factors within Fastly's control, or provide information to those who can resolve the factors if the factors are within others' control, as follows:

For a Severity 1 Incident:

- Fastly support staff will acknowledge receipt of the email within 15 minutes.
- Fastly will start actively troubleshooting within 30 minutes of receipt of the email.
- Fastly will perform its tasks on a 24/7 basis.
- Fastly and Subscriber will immediately communicate upon learning new information that may be useful in troubleshooting the Incident, and status updates between Fastly and Subscriber staff will take place no less frequently than every 30 minutes for the first two hours, and no less frequently than every hour thereafter.
- Fastly staff will work until (a) the Incident is resolved or (b) the Incident is believed to be outside of Fastly's control.

For a Severity 2 Incident:

• During Business Hours, Fastly support staff will acknowledge receipt of the email within two hours or within two hours of the start of the next business day if the Incident does not come in during a Business Day.

• Fastly engineers will begin actively troubleshooting within one business day, will work on the Incident during Business Hours, and will provide status updates to Subscriber daily on each subsequent Business Day.

Charges for Incident Response

For Severity 1 Incidents caused by factors within Subscriber's control, a flat fee of \$1500 will be assessed, and any time spent beyond three hours will be invoiced at Subscriber's undiscounted Professional Services rates.

For Severity 2 Incidents caused by factors within Subscriber's control, Subscriber will be invoiced at Subscriber's undiscounted Professional Services Rates.

For all Incidents:

- If the Incident-causing factors are within Fastly's control, there will be no hourly charges for Fastly engineering staff time.
- If the factors are within Subscriber's control, Subscriber agrees to pay Fastly its hourly charges for Fastly engineering staff
 time. If it appears likely the factors are within Subscriber's, Subscriber may tell Fastly staff to stop working on troubleshooting
 the Incident (thereby stopping the hourly charges from being incurred). Subscriber agrees to tell Fastly to stop working on an
 Incident via an email sent to Fastly's Incident Support email address. The timestamp on the email will be the time charges
 cease to be incurred.

Support Invoice Credits

In the event a Severity 1 Incident occurs, Subscriber has purchased Premium Support, the cause of the Incident is within Fastly's control, and any of the communication or response timeframes are materially not met, a one-time credit of \$500 per Incident will be credited to Subscriber's account.

Credit Terms:

- Requests for Invoice Credits must be made within 30 days of the Incident which triggered the service credit.
- In no event shall Invoice Credits exceed the invoice value of the month in which they are accrued.
- A pending credit does not release Subscriber from its obligation to pay Fastly's submitted invoices in full when due.
- · Credits will be applied to the invoice two months following the month an invoice credit was incurred.

Legacy Service availability SLA

Support availability and response times vary depending on the <u>type of account</u> you have and the <u>level of support</u> you have purchased.

| Agreement Type | Unpaid Account | Month-to-Month Account | Termed Contract | Premium Support |
|----------------------------|-------------------|------------------------|-----------------------|---|
| Service Level Agreement | None | None | Termination Option | Invoice Credits + Termination Option |

Definitions

"Degraded Performance" for the Services means the Services are experiencing Error Conditions that are (1) caused by issues under Fastly Control, (2) observable or reproducible by Subscriber or Fastly, (3) requiring Subscriber to redirect traffic off the Services. Degraded Performance does not include any reduction on availability of the Application User Interface or API due to planned maintenance.

"Error Condition" means the Services are (1) not responding to end user requests, (2) incorrectly sending end users error condition messages or (3) sending incorrect partial content to end users and these conditions are observable or reproducible by Subscriber or Fastly.

"Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) Subscriber hardware or software failures, (b) Subscriber or end user connectivity issues, (c) Subscriber operator errors, (d) Subscriber traffic amounts that exceed Subscriber's Permitted Utilization, (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Termination

Any Subscriber that has a contract with a term and a minimum commitment shall have thirty (30) days to terminate their subscription agreement if the Services experience Degraded Performance (a) for longer than 7.2 hours in any one month, or (b) for longer than 43.8 minutes each month in any three contiguous months. Subscriber shall have thirty (30) days to terminate their contract following the third failure.

Availability of invoice credits

Subscribers who purchase Premium Support shall be entitled to Invoice Credits according to the following table.

| Availability Percent | Period of Degraded Performance | Monthly Credit Percent |
|----------------------|--------------------------------|------------------------|
| Below 100% - 99.99% | Up to 4.32 minutes | 1% |
| 99.99% – 99.9% | Up to 43.8 minutes | 5% |
| 99.89% – 99.0% | Up to 7.2 hours | 10% |
| 98.99% - 98.0% | Up to 14.4 hours | 25% |
| Below 97.99% | Greater than 864 minutes | 50% |

Invoice Credits for unavailability will accrue on a monthly basis. The Credit Amount for a month is equal to the monthly usage charge multiplied by Monthly Credit Percent.

Credit terms

- Requests for Invoice Credits for Degraded Performance must be made within 30 days of the period of Degraded Performance.
- The maximum amount of any credit is the Invoice Amount for the month the Degraded Performance occurred.
- A pending credit does not release Subscriber from its obligation to pay Fastly's submitted invoices in full when due.
- Credits will be applied to the Invoice two months following the month an invoice credit was incurred.



Live Event Monitoring Service



https://docs.fastly.com/products/live-event-monitoring-service

With Fastly's Live Event Monitoring Service, our Customer Support engineers will monitor your scheduled event's performance and help troubleshoot issues with your Fastly service. We will also alert you as we detect issues with Internet congestion and with upstream or downstream providers. We do this in real time throughout your event using a dedicated chat channel. This allows you to receive alerts and notifications as well as ask questions without losing time spent contacting support and recounting what the issue is. Fastly's Live Event Monitoring Service is performed from Fastly's offices and does not include support on-site at your facilities.

For additional information about this service, contact sales@fastly.com.

1 IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

Prerequisites

To use the Live Event Monitoring Service, you must purchase a paid account with a contract for Fastly's services.

You must schedule the start and end times of your event. These times will appear on your service order.

Event Monitoring service features

For the duration of your scheduled event, the Live Event Monitoring service reserves Fastly support staff who will perform the following:

Monitoring:

- Drops or spikes in bandwidth and request levels
- 5xx and 4xx errors
- · Cache hit ratio
- Origin latency
- Upstream issues with origin
- Internet congestion events

Alerting and real-time communication:

- Kick-off call to define alerting thresholds
- Real-time notifications via instant messaging

Troubleshooting:

• Rapid response from personnel who know your configuration and have been monitoring the scheduled event

Accelerated escalation to senior support teams



Logging Insights Package



https://docs.fastly.com/products/logging-insights-package

Fastly's Logging Insights Package provides you with guidance and customization of dashboard graphs in your third-party logging endpoint. After we've interviewed you to identify your specific business needs, we'll write advanced queries and create customized dashboards for the logs stored in your logging endpoint. You can then analyze and correlate any aspect of HTTP and HTTPS requests and responses to gain visibility into your service, allowing you to make decisions and changes. We'll then answer your questions and incorporate feedback to further customize the dashboards.

Prerequisites

To use the Logging Insights Package, you need to:

- purchase a paid account with a contract for Fastly's services
- have logging enabled for at least one supported <u>logging endpoint</u>
- be interviewed by Fastly so we can identify your customer-specific business needs
- grant Fastly temporary access to your third-party logging endpoint so we can configure your account on your behalf

1 NOTE: It's your responsibility to grant and revoke Fastly's access to your third-party logging endpoint.

Logging Insights Package features

The Logging Insights Package for Sumo Logic provides you with customization of the following Sumo Logic dashboards:

- The **Overview dashboard** provides you with a high-level overview of your Fastly services, allowing you to identify potential problems within them.
- The **Origin Performance dashboard** allows you to focus on your origin performance to check for latencies, slow URLs, and error-causing URLs.
- The **Quality of Service dashboard** allows you to see where your Fastly service's download times, cache performance, and performance by geographic location are below minimum thresholds.
- The Visitors dashboard allows you to see where your traffic is coming from.

The Logging Insights Package supports the <u>Sumo Logic App for Fastly</u>. You'll need a Sumo Logic account with the appropriate license, and you'll need to enable the <u>Sumo Logic logging endpoint</u>. For additional information, contact <u>sales@fastly.com</u>.



PCI-Compliant Caching and Delivery



https://docs.fastly.com/products/pci-compliant-caching-and-delivery

We have designed Fastly's core CDN service with Payment Card Industry Data Security Standard (PCI DSS) compliance in mind. With proper authorization on your account, you can use Fastly's beresp.pci VCL variable to automatically cache content in a manner that satisfies PCI DSS requirements.

Adding the beresp.pci variable to an object prevents writing of that object to non-volatile disk storage on the edge. Combined with <u>frontend</u> and <u>backend TLS</u>, this feature allows you to cache and transmit flagged content through the Fastly network in compliance with our PCI certification.

Contact <u>sales-ecommerce@fastly.com</u> for more information on how to enable this product for your account.

• IMPORTANT: If you have purchased Fastly's PCI-compliant caching or HIPAA-compliant caching products Fastly will enforce a minimum version of TLS 1.2 or higher for all connections to meet the compliance requirements mandated by the PCI Security Standards Council.

NOTE: Fastly's security and technology compliance program includes safeguards for the entire Fastly CDN Service, independent of using the beresp.pci variable. The Fastly security program and technology compliance guides provide more information about these safeguards.



Performance Optimization Package



https://docs.fastly.com/products/performance-optimization-package

Fastly's Performance Optimization Package allows you to take advantage of configuration expertise to analyze and tune the performance of your Fastly services. Fastly's Professional Services team can help you use real-time analytics to identify potential improvements for your site's performance.

Prerequisites

To use the Performance Optimization Package, you need to:

- purchase a <u>paid account with a contract</u> for Fastly's services
- provide Fastly with a batch of representative site URLs with which we can test any configuration changes we make on your behalf

Performance Optimization Package features

The Fastly Performance Optimization Package specifically includes the following analyses and implementations by Fastly Professional Services staff:

- Cache Hit Ratio, Shielding, and Clustering. We'll review your existing configuration and service settings and recommend incremental performance improvements you can make to ensure you're taking advantage of Fastly's network architecture.
- **Gzip and Brotli (origin based) compression.** We'll implement the configuration changes needed to ensure requested objects have the proper compression for each content type.
- HTTP/2 readiness. We'll assess your site, make network protocol changes to support HTTP/2, and provide recommendations on how to optimize for it.
- TCP/IP protocols. We'll analyze how your Fastly services send data via TCP/IP to end users and implement the configuration changes needed to maximize request throughput while reducing last mile latency.

As part of this package, we'll provide you with a written assessment of our recommendations. Implementation of those recommendations by Fastly's <u>Professional Services team</u> can be purchased at an additional cost. For more information, contact <u>sales@fastly.com</u>.



Platform TLS Certificate Management Product



https://docs.fastly.com/products/platform-tls-certificate-management-product

Fastly's Platform TLS Certificate Management Product allows you to programmatically manage certificates and keys for Transport Layer Security (TLS) using a web API.

Consider this product if:

- you need to support thousands of individual X.509 certificates and their associated private keys.
- you own and generate your own certificates and private keys (typically obtained from a third-party certification authority such as Let's Encrypt).

For more information about this product, contact sales@fastly.com.

1 IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

How the Platform TLS Certificate Management Product works

Platform TLS allows you to programmatically manage certificates and private keys on a special Fastly service provisioned for use with the <u>Platform TLS API</u>. Using the API, you can:

- deploy new X.509 certificates
- retrieve information about deployed certificates
- · update and delete existing certificates
- deploy new private keys
- · retrieve information about private keys
- delete private keys

You can support your entire certificate lifecycle by replacing expiring certificates with newly generated ones at any time and using the API to rotate your private keys to manage your key management requirements.

Initial setup and configuration

The Platform TLS product will be provisioned by Fastly staff on a dedicated IP address pool (which you purchase separately) in Fastly's infrastructure. We configure your service to skip domain lookups and instead route client requests directly to your service based on the destination IP address that a client is connecting to. Because multiple certificates are served off the same IP address pool, Server Name Indication (SNI) is required for this product to work properly. We then provide you with a custom DNS map to use in your CNAME records and the corresponding Anycast IP addresses (for use with any apex domains you serve through Fastly).

Once setup is complete, certificates you upload using the API will automatically be made available to your dedicated IP address pool. Browser clients initiating a TLS handshake will automatically receive the proper certificate based on the domain indicated in the TLS handshake.

Certificate and key uploads and renewals

Once setup and configuration are complete, you can upload TLS private keys and matching TLS certificates using the <u>Platform TLS</u> <u>API</u>. The Platform TLS product automatically matches certificates to previously uploaded keys. TLS certificates may be procured from the Certificate Authority (CA) of your choice.

When renewing and replacing certificates nearing expiration, you must procure new ones from your CA and then use the <u>Platform TLS API</u> to upload their replacements. You may also rotate your private keys. Any time you decide to swap out your key with a new one, that new key would need to be uploaded first, and then all the certificates associated with the old key would need to be regenerated and uploaded.

Domain configuration

To begin serving traffic through Fastly with the Platform TLS product, you or your customers must modify DNS records for any web properties to point traffic to the IP address pool assigned for your service. Fastly will assign a DNS name for use with your DNS records that can support a CNAME record and the Anycast IPs that can be used with apex domains.

- Using a CNAME record. With this option, a <u>CNAME record</u> gets created with a DNS provider and points to a custom DNS map Fastly provides. This option should be used for subdomains or wildcard domains (e.g., <u>www.example.com</u> or <u>*.example.com</u>).
- **Using an A record.** With this option, an A record gets created with a DNS provider and points to an <u>Anycast address</u> that Fastly provides. This option should be used for apex domains (e.g., <code>example.com</code>). Map names and Anycast addresses will be provided during initial setup and configuration. To obtain this information again, contact support@fastly.com.

1 IMPORTANT: For each of your domains, a CNAME or an A record must have been created with a DNS provider *and* you must have <u>activated a Fastly service</u> for traffic to be properly directed through it.

How TLS is enforced when you have multiple certificates

Fastly will automatically choose the certificate to be delivered for a given request based on the host requested. The certificate with the most specific matching hostname will be preferred over certificates with less specific hostnames. Fastly's TLS server will always prefer an exact match SAN entry to a wildcard match. For example, on a request for <code>api.example.com</code>, Fastly will serve a certificate with a SAN entry for <code>api.example.com</code> over a different certificate with a SAN entry for <code>*.example.com</code>.

Conditions and limitations

When using Fastly's Platform TLS Certificate Management Product, you agree to the following conditions:

- You are responsible for procuring your own certificates from the CA of your choice. Fastly will not procure certificates on your behalf
- You are responsible for updating certificates prior to expiration. Expired certificates will cause TLS handshake failures that most browsers will display as site errors.

When using Fastly's Platform TLS Certificate Management Product, you agree to the following limitations:

- This product requires Server-Name Indication (SNI). Browsers that do not support SNI will not receive the correct certificate for the domain requested.
- This product requires a dedicated IP address pool on Fastly's infrastructure. If you've previously purchased a dedicated IP address pool from Fastly, Platform TLS may be enabled on it.
- The certificate deployment process is not instantaneous. It takes approximately 20 minutes on average to complete once a certificate is submitted, though the deployment may take as long as one hour.
- If two certificates are uploaded with identical hostnames, the most recently uploaded certificate will be chosen.

As with all API-based activities, standard API rate limits apply.



Professional Services



https://docs.fastly.com/products/professional-services

Fastly offers a range of Professional Services to help you begin using Fastly services. Choose between <u>Service Implementation</u>, <u>Service Management</u>, or <u>Consulting Engagement Services</u>, depending on your needs. For more information about any of our Professional Services packages, contact <u>sales@fastly.com</u>.

Service Implementation

How it works

Fastly Professional Services staff will personally guide you through the following stages:

- **Planning:** Professional Services staff help you with requirements gathering, solution design, documentation and resource allocation.
- **Implementation:** Professional Services staff help you with configuration of Fastly services and custom VCL development. They provide best-practice consulting for configuration of your origins.
- Testing: Professional Services staff help you validate configurations and set up testing.
- Go-Live: Professional Services staff monitor and address issues during final production testing and deployment.

Implementation, Testing, and Go-Live may involve some iterative cycles depending on the complexity of your configuration.

Implementation options

Some common implementation options we offer include:

- · Initial setup and configuration
- · End-to-end encryption setup
- · Fine-tuning cache times
- Custom header logic
- Dynamic content delivery optimization
- Multi-tiered caching setup
- Lightweight web page hosting
- Custom <u>purging</u> and event-driven content management
- Geographic or localization <u>detection</u>
- Edge logic and <u>device detection</u>
- <u>Stale content</u> configuration and origin outage handling
- Edge authentication and authorization
- ESI (edge side includes)
- Streaming and video packaging
- Site performance analysis
- Managed vendor migration

Fastly offers two Service Implementation packages:

- Standard: Basic implementation for Fastly customers with simple content configurations.
- Enterprise: Advanced implementation for Fastly customers with complex, custom configurations.

Service Management

For customers who require ongoing configuration and technical assistance, Fastly offers Service Management that provide professional services to you and your staff on an as-needed basis. These hours may be used to supplement your existing Support Plan or Service Implementation.

Some common activities you may need assistance with:

- Site performance analysis
- Varnish and VCL training
- Service configuration
- End-to-end encryption setup
- · Cache time fine-tuning
- Custom header logic creation

- Dynamic content delivery optimization
- Multi-tiered caching setup
- Lightweight web page hosting
- · Custom purging and event-driven content management
- Geographic or localization detection
- · Edge logic and device detection
- Stale content configuration and origin outage handling
- Edge authentication
- ESI (edge side includes) configuration
- · Streaming and video packaging

Consulting Engagement Services

For customers who require in-house expertise or dedicated resources, Fastly's Support Engineers are available to provide a range of more technical professional services, including:

- Technical advisory services
- Translating configurations to VCL
- · Optimization of website performance
- · On-site Varnish and VCL training
- Non-Fastly related performance tuning
- · Adapting Fastly features to a particular customer use case



Related offerings



https://docs.fastly.com/products/related-offerings

Fastly offers service level agreements to customers based on the nature of their agreement with Fastly and the Fastly products they have purchased. These service level agreements offered by Fastly provide information to customers based on the nature of their agreement with Fastly and the Fastly products they have purchased.

- Service availability SLA
- Support description and SLA

We understand that some customers may require more support from Fastly to meet their additional security and compliance needs. Customers with these needs may subscribe to packages that include our <u>Assurance Services</u> offering.



Service availability SLA



https://docs.fastly.com/products/service-availability-sla

Support availability and response times vary depending on the <u>type of account</u> you have and the <u>level of support</u> you have purchased.

| Agreement Type | Unpaid Account | Month-to-Month Account | Termed Contract | Gold & Enterprise Support |
|----------------------------|-------------------|------------------------|-----------------------|---|
| Service Level Agreement | None | None | Termination Option | Invoice Credits + Termination Option |

Definitions

"Degraded Performance" means the Services are experiencing Error Conditions that are (1) caused by issues under Fastly Control, (2) observable or reproducible by Subscriber or Fastly, (3) requiring Subscriber to redirect traffic off the Services. Degraded Performance does not include any reduction on availability of the Application User Interface or API due to maintenance.

"Error Condition" means the Services are (1) not responding to end user requests, (2) incorrectly sending end users error condition messages or (3) sending incorrect partial content to end users and these conditions are observable or reproducible by Subscriber or Fastly.

"Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) Subscriber hardware or software failures, (b) Subscriber or end user connectivity issues, (c) Subscriber operator errors, (d) a Utilization spike (see below), (e) corrupted Subscriber content, or (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Termination

Any Subscriber that has a contract with a term and a minimum commitment shall have thirty (30) days to terminate their subscription agreement following (1) a period of Degraded Performance longer than 7.2 hours in any one month, or (2) three contiguous months that have periods of Degraded performance longer than 43.8 minutes each.

Availability invoice credits

Subscribers who purchase Gold or Enterprise Support shall be entitled to Invoice Credits according to the following table.

| Availability Percent | Period of Degraded Performance | Monthly Credit Percent |
|----------------------|--------------------------------|------------------------|
| Below 100% - 99.99% | Up to 4.32 minutes | 1% |
| Below 99.99% – 99.9% | Up to 43.8 minutes | 5% |
| Below 99.9% – 99.0% | Up to 7.2 hours | 10% |
| Below 99.0% - 98.0% | Up to 14.4 hours | 25% |
| Below 98.0% | Greater than 864 minutes | 50% |

Invoice Credits for unavailability will accrue on a monthly basis. The Credit Amount for a month is equal to the monthly usage charge multiplied by Monthly Credit Percent.

Credit terms

- Requests for Invoice Credits for Degraded Performance must be made within 30 days of the period of Degraded Performance.
- The maximum amount of any credit is the Invoice Amount for the month the Degraded Performance occurred.
- A pending credit does not release Subscriber from its obligation to pay Fastly's submitted invoices in full when due.
- Credits will be applied to the Invoice two months following the month an invoice credit was incurred.

Utilization Spikes

Subscriber's bandwidth utilization, measured in megabits per second, will be sampled every five (5) minutes on a region-by-region basis each month (the "Samples"). Subscriber's "Average Utilization" for a region in a month will be the average of the Samples. Subscriber's "Peak Utilization" for a region in a month will be calculated by the 95th percentile method, according to which the Samples will then be ordered from highest to lowest, and the highest five percent (5%) of Samples will be discarded and the remaining highest Sample will be Subscriber's Peak Utilization for the region in that month. Subscriber's "Permitted Utilization" in a month for a region will be five (5) times Subscriber's Average Utilization in that month for that region. A "Utilization Spike" will occur if Subscriber's Peak Utilization exceeds its Permitted Utilization in a region. Utilization Spikes may interfere with or disrupt the integrity or performance of the Services. Subscribers should contact Support in advance of any planned utilization spike and respond immediately to any communications from Fastly regarding an actual or suspected Utilization Spike.



Subscriber Provided Prefix



https://docs.fastly.com/products/subscriber-provided-prefix

Fastly's Subscriber Provided Prefix product allows you to have your IP spaces announced, routed, and served by Fastly infrastructure for use with production services. When you purchase this product, you provide your own IP address space to Fastly rather than use Fastly IP addresses. You can then direct traffic to your own IP addresses, which are reachable via HTTP Anycast on Fastly's infrastructure.

We recommend this service for customers who want to control their address space by separating their network layer concerns from their content delivery concerns. By combining Fastly's Subscriber Provided Prefix service with <u>origin peering</u> and our <u>DDoS</u>

<u>Protection and Mitigation service</u>, you can protect your origin servers by directing traffic through Fastly's global network.

For more information about this product, contact sales@fastly.com.

! IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

Prerequisites

To purchase Fastly's Subscriber Provided Prefix service you must also purchase Fastly's <u>Enterprise Support</u> package and our IP-to-Service Pinning Setup service.

When you sign up for this product, you'll need to provide Fastly with an executed Letter of Authorization (LOA), on a form we provide, that grants us permission to announce your prefixes. The LOA includes, at a minimum, the IP blocks to announce, the registry and object identifier, as well as the administrative, technical, and abuse contacts for those prefixes.

Using the Subscriber Provided Prefix product requires at least one /24 IPv4 or /48 IPv6 prefix for announcement purposes. Additional prefixes and larger prefixes may also be supported. These prefixes must not be originated from any autonomous system number (ASN) at the time Fastly announces them. They should also be dormant for a period of approximately three months prior to use by Fastly.

How the Subscriber Provided Prefix product works

Fastly will announce the designated prefixes identified in your LOA. Your prefixes will be announced along with existing Fastly prefixes and will be originated from the Fastly Autonomous System (AS) Number AS54113. The Subscriber Provided Prefix product supports HTTP and HTTPS traffic only and your prefixes will be terminated at Fastly for these two protocols. We make routing announcements on a global basis unless you request they be constrained to our defined North America and Europe region.

To enable specific IP addresses within your announced prefix, Fastly combines this Subscriber Provided Prefix product with our IP-to-Service Pinning feature, which must be purchased separately. IP addresses that are not service pinned will not serve your traffic.

After completing all the necessary routing announcements and setup within your CDN services, Fastly needs additional time to complete the setup. In general, you should allow for at least one month's lead time for us to set up routing announcements and CDN service. Your service order identifies the specific lead time Fastly needs for full operability.

You may provide Fastly notice at any time to withdraw your prefix announcement by opening a ticket at support@fastly.com. We need at least one month's notice to permanently remove routing announcements and CDN service for your designated prefixes. When we receive notice of your request for prefix withdrawal, we will provide you with a withdrawal process timeline. This process starts with us reconfiguring your service within the Fastly network. When that reconfiguration work completes, you must then point your DNS records at Fastly to move your traffic Fastly to ensure uninterrupted service. Once your traffic is moved from your prefix to a Fastly prefix, we will withdraw the announcement.

Conditions and limitations

When using Fastly's Subscriber Provided Prefix product you agree to the following limitations:

- Your purchase of the Subscriber Provided Prefix product entitles you to the announcement of the specified IP prefixes identified in your LOA. Any additional prefixes beyond your initial order will require an additional purchase of this product.
- Fastly does not does not provide termination or proxy services for non-HTTP and non-HTTPS protocols with this product.
- Fastly does not provide general network transit or peering services as part of this product.

When using Fastly's Subscriber Provided Prefix product you agree to the following conditions:

- Your IP addresses are your assets. They belong to you and are not a Fastly service. Fastly has no liability for your assets.
- You will pay additional fees if you withdraw your prefixes for the purpose of replacing or updating them.
- Your provided prefixes will not have any negative IP reputation associated with them as determined by us. Fastly will scan your prefixes against common IP reputation databases prior to announcement to ensure your IP reputation remains neutral or positive.
- You must maintain transit connectivity to Fastly for origin traffic. Prefixes provided to Fastly for this service must not overlap with IP addressing used by your origin servers.
- Fastly retains exclusive announcement rights for your prefixes. Conflicting announcements will disrupt or prevent traffic delivery.

To specifically mitigate DDoS attacks, you agree that:

- Prefix announcements Fastly makes for you may include regional capacity announcements.
- Fastly may prepend, remove, or blackhole routing announcements in the event of a DDoS attack.
- Fastly may de-aggregate your prefixes at our discretion to improve network reliability.
- Fastly may perform these actions even if you have not purchased the <u>Fastly DDoS protection and mitigation service</u>.

1 NOTE: For any IP addresses not pinned to a service but contained within your Subscriber Provided Prefix product, Fastly's Varnish servers will return a TCP reset or an HTTP 500 error response code.



Summary product definitions



https://docs.fastly.com/products/summary-product-definitions

Fastly defines each of its products as follows. For more information about any of our products, contact sales@fastly.com.

Application Programming Interface

Fastly provides an <u>application programming interface (API)</u> that can be accessed via a number of popular <u>interactive clients</u> and allows you to manage Fastly services via remote procedure calls. These services include features such as <u>authentication</u>, <u>configuration</u>, <u>historical stats</u>, <u>purging</u>, and <u>remote logging</u>. In addition to being accessible via Fastly's API, Fastly services can also be accessed via a web interface for users with the appropriate <u>access permissions</u>; however, API features do not include customer account setup, which can only occur through the <u>web interface controls</u>.

Assurance Services

<u>Assurance Services</u> offers access to third-party audit reports, certification attestations, and unlimited audits of Fastly's security and technology compliance programs. In addition, it provides access to libraries with summary reports of penetration tests, risk assessments, and security policies, as well as an historical archive of security advisories.

Certificate Procurement, Management, and Hosting

Fastly's <u>Certificate Procurement, Management, and Hosting</u> service obtains dedicated Transport Layer Security (TLS) certificates for you. These certificates are serviced using Server Name Indication (SNI) technology, which allows multiple secure websites to be served off the same IP address without requiring those sites to use the same certificate.

Consulting Engagement Services

Fastly <u>Consulting Engagement Services</u> provide high levels of expert support and implementation assistance for customers who require in-house expertise or dedicated resources from our Professional Services and Senior Engineering teams.

Customer Support Services

Fastly Customer Support Services provide answers to questions about features of Fastly products and services. Each member of the Fastly support team provides technical support to resolve questions about account configuration, operation, and management. Support availability and response times vary depending on the level of support you have purchased.

Customer-Provided TLS Certificate Hosting

Fastly's <u>Customer-Provided TLS Certificate Hosting Service</u> allows customers to serve their own TLS certificates. This option supports Server Name Indication (SNI) by default.

DDoS Protection and Mitigation Service

Fastly's <u>DDoS Protection and Mitigation Service</u> helps protect against volumetric and targeted distributed denial of service attacks against origin servers. It provides overage insurance for unplanned or unexpected traffic patterns, immediate onboarding assistance, emergency configuration and deployment support, ongoing attack mitigation support, and an incident response plan.

Full-Site Delivery

Fastly's Full-Site Delivery uses Fastly's global content delivery capabilities to cache and accelerate the delivery of static, dynamic, and streaming HTTP-based file content. Full-Site Delivery allows you to tailor delivery of content using features like HTTP header manipulation, time-to-live (TTL) settings, purging, origin shielding, and the advanced edge logic capabilities provided via scripting with the Varnish Configuration Language (VCL). Transport Layer Security (TLS) and Always-on DDoS mitigation provide security for Fastly services, with real-time monitoring via the Fastly web interface. Log streaming to a variety of third-party endpoints provides observability. Comprehensive APIs power Fastly's web interface and provide programmatic access to Fastly's Full-Site Delivery features.

HIPAA-Compliant Caching and Delivery

Fastly offers a <u>HIPAA-Compliant</u>Caching and Delivery product that allows you to transmit protected information like protected health information through Fastly's network.

Image Optimizer

Fastly's <u>Image Optimizer</u> product provides real-time image transformation that caches optimized images requested from your origin server. This product may use third-party cloud infrastructure to process or store content or requests for content.

Live Event Monitoring Limited Availability

Fastly's <u>Live Event Monitoring service</u> offers customers the ability to reserve Fastly customer support resources during their scheduled event's specified hours to proactively monitor key availability and performance metrics. It also offers a dedicated chat channel to communicate with Fastly customer support engineers in real-time.

Logging Insights Package

Fastly's <u>Logging Insights Package</u> helps you analyze and interpret your streaming log data. This professional services offering includes a guided customization of preconfigured third-party logging endpoint dashboards tailored to your specific business needs. Fastly assists with advanced queries, customizations, and best practices.

Media Shield Limited Availability

Fastly's Media Shield product offers the ability to decrease origin traffic of live video events or live linear channels by reducing multiple CDN requests into a single request per shield point of presence (POP) back to your origin. Media Shield works with your existing architecture by making Fastly the origin to all of your end-user-serving CDNs.

PCI-Compliant Caching and Delivery

Fastly offers a <u>PCI-Compliant Caching and Delivery</u> product that allows you to transmit protected information like cardholder data through Fastly's network.

Performance Optimization Package

Fastly's <u>Performance Optimization Package</u> provides configuration expertise for analysis and tuning of Fastly services using real-time analytics to identify potential improvements for site performance. This professional services offering includes an assessment, followed by specific recommendations and implementation work.

Platform TLS Certificate Management Limited Availability

Fastly's <u>Platform TLS Certificate Management</u> product allows you to programmatically manage certificates and keys for Transport Layer Security (TLS) using a web API. Use this service if you need to upload thousands or hundreds of thousands of individual X.509 certificates and their associated private keys to Fastly.

Service Implementation

Fastly <u>Service Implementation</u> offers remote planning, customized configurations, testing, and go-live assistance from our Professional Services team for your initial Fastly service implementation and implementation of new Fastly products and services.

Service Management

Fastly <u>Service Management</u> offers ongoing configuration and advanced technical assistance from our Professional Services team on an as-needed basis.

Shared TLS Certificate

Fastly's <u>Shared TLS Certificate service</u> offers customers the option to use their own domains on a shared TLS certificate managed by Fastly. Customers provide one or more hostnames and Fastly administers them using the certificate's Subject Alternative Name (SAN) field.

Shared TLS Wildcard Certificate

Fastly's <u>Shared TLS Wildcard Certificate</u> service offers customers the option to use their own domains on a shared certificate. Customers provide Fastly with one or more wildcard domain entries and Fastly adds them to the certificate SAN field.

Streaming Delivery

Fastly's <u>Streaming Delivery</u> allows you to use Fastly as a globally distributed HTTP streaming network to improve quality of service and increase viewer capacity for both live and Video On Demand (VOD) content. Streaming Delivery provides all the capabilities of Fastly's <u>Full-Site Delivery</u>, but only for HTTP-based media streaming protocols including HTTP Live Streaming (HLS), HTTP Dynamic Streaming (HDS), HTTP Smooth Streaming (HSS), and Dynamic Adaptive Streaming over HTTP (MPEG-DASH). Fastly's Streaming Delivery must be configured in an account separate from other Fastly accounts.

Subscriber Provided Prefix Limited Availability

Fastly's <u>Subscriber Provided Prefix</u> product allows you to have your IP spaces announced, routed, and served by Fastly infrastructure for use with production services. When you purchase this product, you provide your own IP address space to Fastly rather than use Fastly IP addresses. You can then direct traffic to your own IP addresses, which are reachable via HTTP Anycast on Fastly's infrastructure.

Web Application Firewall (WAF) Limited Availability

Fastly's <u>Web Application Firewall (WAF)</u> product offers the ability to detect and block malicious traffic to your origin servers using predetermined rules.

Web Application Firewall (WAF) Quick Start Package Limited Availability

Fastly's <u>WAF Quick Start Package</u> provides you with assistance configuring the initial setup of the Fastly WAF. This professional services offering helps you set up a default policy and configure your WAF in logging mode.

Web Application Firewall (WAF) Tuning Plus Package Limited Availability

Fastly's <u>WAF Tuning Plus Package</u> provides ongoing enhanced professional maintenance of your WAF by Fastly. For each service running WAF, the WAF Tuning Plus Package includes ongoing tuning and configuration services as well as authenticated TLS to origin to help protect you against critical security threats. To purchase the WAF Tuning Plus Package, you must have already purchased and provisioned our WAF service. Once purchased, these professional services continue for the term of your WAF contract.

Web Application Firewall (WAF) Tuning Package Limited Availability

Fastly's <u>WAF Tuning Package</u> provide tuning assistance with the configuration of the Fastly WAF. This professional services offering helps you plan your WAF policies and the configuration of the WAF VCL for your Fastly service.



Support description and SLA



https://docs.fastly.com/products/support-description-and-sla

Support availability and response times vary depending on the type of account you have and the level of support you have purchased. The following table summarizes those offerings:

| Support Offering | Standard Support | Gold Support | Enterprise Support |
|---|--|---|--|
| Online Self- Service Help | Unlimited access. | Unlimited access. | Unlimited access. |
| Availability for General Inquiries | Business hours. | Business hours. | 24/7/365. |
| Availability for Incident Reports | Business hours, including weekends & holidays. | 24/7/365. | 24/7/365. |
| Initial Response Times | By the next business day. | Severity 1 Incidents within 2 hours. Severity 2 Incidents within same day. All other Incidents by the next business day. | Severity 1 Incidents within 15 minutes. Severity 2 Incidents within 2 hours. All other Incidents by the next business day. |
| Email support | Available. | Available, with priority over Standard Support. | Available, with priority over Standa and Gold Support. |
| Phone and chat support | Not available. | Not available. | Toll-free telephone available 24/7/365. Dedicated chat channel available during Fastly business hours. |
| Emergency Escalation | Not available. | Not available. | Available via email and phone. |
| Designated Customer Support Engineer | Not available. | Not available. | Available with <u>Technical Account</u> <u>Management</u> package. |
| Discounted Professional Services | Not available. | Not available. | 30% discount on Service Management packages. |
| PCI and HIPAA configuration services | Not available. | Not available. | Available via email, phone, and cha support. |

| Support Offering | Standard Support | Gold Support | Enterprise Support |
|--|--|---------------------------------|---|
| Enhanced compliance support (including GDPR) | Not available. | Not available. | Available via email, phone, and chat support. |
| Termination Option | Not available for unpaid and month-to-month customers. Only included for termed contracts. | Available with invoice credits. | Available with invoice credits. |

Technical support

The following section applies to all subscribers.

Definitions

- "Business Hours" are 8AM-6PM during a Business Day in California, New York, London, or Tokyo.
- "Business Days" are Monday through Friday, excluding any day that is simultaneously a US, UK, and Japanese national or banking holiday.
- An "Incident" is an occurrence during which end users' use of Subscriber's services is adversely impacted.
- A "Severity 1 Incident" is an incident resulting in a major service outage requiring Subscriber to redirect all traffic from Fastly to another CDN.
- A "Severity 2 Incident" is an incident resulting in minor or intermittent outage not requiring Subscriber to redirect traffic to another CDN.
- "Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) a Subscriber's hardware or software failures, (b) a Subscriber's or end user's connectivity issues, (c) Subscriber operator errors, (d) Subscriber traffic amounts that exceed a Subscriber's Permitted Utilization as defined in the Terms and Conditions, (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Subscriber responsibilities

Subscriber is responsible for using and configuring services according to the Documentation available at https://docs.fastly.com.

Support requests

Subscribers submit support requests by sending email to support@fastly.com. Subscribers receive a system-generated response within minutes containing the ticket number and a direct link to the ticket.

Reasons to contact us for incidents include:

- Services are not responding to end user requests.
- · Services incorrectly send end users error condition messages.
- Services send incorrect or partial content to end users.

Incident reports should include all relevant information such as:

- Subscriber's determination of the Severity Level of the incident,
- Subscriber hardware failures,
- Subscriber operator errors,
- Services configuration errors made by Subscriber employees,
- A potential Utilization Spike (see the <u>Service Availability SLA</u>),
- Corrupted Subscriber content,
- DDOS attacks, and
- Relevant force majeure acts such as extreme weather, earthquakes, strikes or terrorist actions.

Communications

Tickets

Communications between Fastly support engineers and Subscriber personnel are conducted using a ticketing application that maintains a time-stamped transcript of communications and sends emails to Subscriber and Fastly staff as tickets are updated.

Chat

Subscribers to Enterprise Support receive a dedicated chat channel for real-time communications during Business Hours. Though subject to change, Fastly's current chat provider is Slack (www.slack.com).

Phone support

Subscribers to Enterprise Support receive a dedicated, toll-free phone number to contact Fastly support engineers. Fastly personnel can also establish audio and video conferencing (free app or browser plug-in required) for real-time voice and video communications.

Response time

Fastly shall use best efforts to respond in a timely fashion.

Termed contracts

The following applies to any subscriber that has a contract with a term and a minimum commitment.

Response times

Fastly commits to acknowledging receipt of a support ticket within the next Business Day following submission of a support request by a Subscriber with a Termed Contract.

Termination

In any three-month period where three (3) or more support Response Time objectives are not met and the failure to meet the objectives materially adversely impacted Subscriber, Subscribers with a Termed Contract, Gold Support, or Enterprise Support shall have thirty (30) days to terminate their subscription agreement following the third failure.

Incident response times Incident reporting

Severity 1 Incidents: Fastly will provide Subscriber an Incident Support Email address for Subscriber to report Incidents. Subscriber should report Incidents promptly using the Incident Support email.

Severity 2 Incidents: Subscriber should report Severity 2 Incidents by submitting a Support Request.

Incident reporting and additional fees

For Severity 1 Incidents caused by factors within Subscriber's control, a flat fee of \$1500 will be assessed, and any time spent beyond three (3) hours will be invoiced at Subscriber's undiscounted Professional Services rates. For Severity 2 Incidents caused by factors within Subscriber's control, Subscriber will be invoiced at Subscriber's undiscounted Professional Services Rates.

For all incidents:

- If the Incident-causing factors are within Fastly's control, there will be no hourly charges for Fastly engineering staff time.
- If the factors are within Subscriber's control, Subscriber agrees to pay Fastly its hourly charges for Fastly engineering staff time. If it appears likely the factors are within Subscriber's control, Subscriber may tell Fastly staff to stop working on troubleshooting the Incident (thereby stopping the hourly charges from being incurred). Subscriber agrees to tell Fastly to stop working on an Incident via an email sent to Fastly's Incident Support email address. The timestamp on the email will be the time charges cease to be incurred.

Gold Support

Fastly will respond to the report of an Incident by troubleshooting the causes of the Incident and resolve them if caused by factors within Fastly's control, or provide information to those who can resolve the factors if the factors are within others' control, as follows:

For a Severity 1 Incident:

- Fastly support staff will acknowledge receipt of the email within two hours.
- Fastly engineers will begin actively troubleshooting within the same day, will work on the Incident during the same day, and will provide status updates to Subscriber daily on each subsequent day.
- Fastly staff will work until (a) the incident is resolved or (b) the incident is believed to be outside of Fastly's control.

For a Severity 2 Incident:

• Fastly support staff will acknowledge receipt of the email within the same day.

 Fastly engineers will begin actively troubleshooting within the same day, will work on the Incident during the same day or next day, and will provide status updates to Subscriber daily on each subsequent day.

Enterprise Support

Fastly will respond to the report of an Incident by troubleshooting the cause(s) of the Incident and resolve them if caused by factors within Fastly's control, or provide information to those who can resolve the factors if the factors are within others' control, as follows.

For a Severity 1 Incident:

- Fastly support staff will acknowledge receipt of the email within 15 minutes.
- Fastly will start actively troubleshooting within 30 minutes of receipt of the email.
- Fastly will perform its tasks on a 24/7 basis.
- Fastly and Subscriber will immediately communicate upon learning new information that may be useful in troubleshooting the
 incident, and status updates between Fastly and Subscriber staff will take place no less frequently than every 30 minutes for
 the first two hours, and no less frequently than every hour thereafter.
- Fastly staff will work until (a) the incident is resolved or (b) the incident is believed to be outside of Fastly's control.

For a Severity 2 Incident:

- Fastly support staff will acknowledge receipt of the email within two hours.
- Fastly engineers will begin actively troubleshooting within the same day, will work on the Incident during the same day, and will provide status updates to Subscriber daily on each subsequent day.

Support invoice credits

In the event a Severity 1 Incident occurs, Subscriber has purchased Gold or Enterprise Support, the cause of the Incident is within Fastly's control, and any of the communication or response timeframes are materially not met, a one-time credit of \$500 per incident will be credited to Subscriber's account.

Credit Terms:

- Requests for Invoice Credits must be made within 30 days of the incident which triggered the service credit.
- In no event shall Invoice Credits exceed the invoice value of the month in which they are accrued.
- A pending credit does not release Subscriber from its obligation to pay Fastly's submitted invoices in full when due.
- Credits will be applied to the invoice two months following the month an invoice credit was incurred.

NOTE: Fastly maintains support for its original <u>Premium Support</u> and <u>Platinum Support</u> plans. To convert your account to the current Gold and Enterprise Support plans, contact <u>sales@fastly.com</u>. If you have an agreement that requires the purchase of Platinum support, converting to Enterprise support satisfies that requirement.



Technical Account Management



https://docs.fastly.com/products/technical-account-management

Fastly offers the ability to purchase the support of a Customer Support engineer to serve as a Technical Account Manager (TAM) for your organization. TAMs help you optimize your use of Fastly's products and features by providing proactive check-ins and regular reviews to help you analyze your account's service configurations and their performance. TAMs also provide enhanced troubleshooting coordination with Fastly's support and professional services organizations.

The following table summarizes what is provided with our Technical Account Management service:

| Support Offering | TAM Essentials | TAM Premier | TAM Enterprise |
|------------------------------------|----------------------|----------------------|-----------------------|
| Dedicated point of contact | Up to 15 hours/month | Up to 80 hours/month | Up to 160 hours/month |
| Email support | Available | Available | Available |
| Private chat support | Available | Available | Available |
| Phone support | Not available | Available | Available |
| Availability for general inquiries | Business hours | Business hours | Business hours |
| Initial response time | Next business day | Next business day | Next business day |

| Support Offering | TAM Essentials | TAM Premier | TAM Enterprise |
|-------------------------------------|----------------|----------------------------------|--------------------------|
| Proactive account management | Included | Included | Included |
| Support coordination | Included | Included | Included |
| Scheduled check-ins | Reactive | Monthly | Weekly (as requested) |
| Account reporting | Monthly | Weekly | Weekly |
| Business reviews | Annually | Quarterly | Monthly |
| On-site travel for business reviews | Not included | Up to 2x annually (as requested) | Quarterly (as requested) |
| Custom reporting | Not included | Not included | By request |

Definitions

- "Business Hours" are 8AM-6PM during a Business Day in California, New York, London, or Tokyo.
- "Business Days" are Monday through Friday, excluding any day that is simultaneously a US, UK, and Japanese national or banking holiday.

① IMPORTANT: Technical Account Managers provide support during Fastly business hours to facilitate *non-urgent* discussions. They are not a 24x7 resource. Always rely on <u>normal support communications channels</u> for urgent issues and escalations.

Technical Account Management packages

Fastly offers three TAM packages: Essentials, Premier, and Enterprise. A TAM's available hours of service each month to your organization depend on the package you purchase. <u>Enterprise Support</u> is included with the purchase of a TAM package.

Additionally, each TAM package includes the following core features:

- Email and private chat channel support during business hours between Subscriber and Fastly to facilitate quick questions and answers for general inquiries and communication.
- Regular, proactive account management focusing on topics like configuration analysis, account performance, infrastructure and company plans, and roadmap requests.
- Advice on best practices for implementing and using Fastly with Subscriber's infrastructure.
- Engagement and coordination with appropriate support resources as necessary during normal Fastly business hours.
- Comprehensive documentation of Subscriber's implementation of Fastly's services and requirements to enable better Support
 of the Subscriber by Fastly teams.
- Basic reports on utilization and performance of Fastly services.

For all TAM packages, keep in mind that other than regularly scheduled business reviews on site (as applicable for your TAM package) additional reviews or on site travel must be agreed upon in advance via a statement of work. Also, any unused hours or other scheduled availability does not carry forward to future months. You won't be entitled to any refunds or credits for unused hours or other scheduled availability for any one month.

1 NOTE: English is the primary language used by TAMs.

Essentials Technical Account Management

In addition to the core features noted above, the Essentials package includes:

- Up to 15 hours per month of dedicated TAM resources.
- Monthly account reports with an overview of services, traffic, and tickets.
- An annual business review.

Premier Technical Account Management

In addition to the core features noted above, the Premier package includes:

- Up to 80 hours per month of dedicated TAM resources.
- Weekly account reports with an overview of services, traffic, and tickets.
- Monthly scheduled check-ins via phone.

A quarterly business review (QBR), with onsite option, twice annually.

Enterprise Technical Account Management

In addition to the core features noted above, the Enterprise package includes:

- Up to 160 hours per month of dedicated TAM resources.
- Weekly account reports with an overview of services, traffic, and tickets.
- Weekly scheduled check-ins via phone (as requested).
- A monthly business review (QBR), with onsite option, quarterly as requested.
- Custom reporting upon reasonable request.

TLS オプション

https://docs.fastly.com/products/tls-service-options-ja

Fastly Transport Layer Security (TLS) サービスは、Web サイトやアプリケーションのトラヒックを HTTPS で配信することを可能にし、サービスにプライバシーとデータセキュリティを提供します。無償の共有ドメインオプションに加えて、 いくつかの共有証明 書オプション および お客様証明書のホスティングサービス をお持ちの証明書に対して提供することができます。弊社がお客様に代わって証明書を調達し、管理を実施することもできます。

1 注意: PCI コンプライアンスキャッシュサービス または <u>HIPAA コンプライアンスキャッシュサービス</u>を購入いただいたお 客様に関しては、<u>PCI Security Standards Council</u>が必須としているコンプライアンス要件を満たすため、Fastly は、TLS 1.2 以上のみの対応となります。

有料 TLS 証明書の注文

まだ、TLS 証明書を持っていない場合には、共有証明書を Web コントロールパネルを使って購入することができます。その他の有料 TLS 証明書オプションを購入されたい場合には、営業チーム[japan@fastly.com]までご連絡ください。

★ ヒント: 有料 TLS サービスの料金の詳細については、<u>料金設定のページ</u>をご覧ください。多くのドメインを必要とする場合には営業チーム japan@fastly.com へご連絡ください。個別パッケージをご提案させていただく可能性があります。

有料 TLS 証明書の課金

共有証明書に1ドメイン(もしくはワイルドカード)を追加するごとに、注文内容に応じて請求金額が増加します。課金は1ヶ月全期間利用した場合に行われ、月の一部の期間の利用では課金されません。

例えば、1月の中旬にドメインの追加を行った場合、課金は2月分請求から実施されます(1月分請求では課金されません)。これは 2月が最初の全期間利用月であり、かつ<u>後請求</u>であるためです。

共有証明書

Fastly は以下の共有証明書を提供しています。

共有ドメイン

この無料オプションは example.global.ssl.fastly.net のようなドメインを用いて HTTPS による配信を可能にします。このサービスを利用するには、Fastly コントロールパネルにドメインを追加し、そのためのオリジンサーバーを設定します。この設定方法の詳細については、無料 TLS の設定をご覧ください。

① 重要: Fastly 共有ドメインを隠すために DNS にエイリアスレコードを設定すると(例: www.example.com を example.com.global.ssl.fastly.net にエイリアス)、TLS の名前不一致の警告がブラウザにて表示されます。この警告は、証明書に記載されているドメイン名とブラウザのアドレスバーに記載されているドメイン名が不一致のために表示されます。この不一致を解消するには、有料 TLS オプションのいずれかを購入いただくことが必要です。

共有 TLS 証明書サービス

弊社共有 TLS 証明書オプションでは、Fastly の SAN 証明書を使用します。具体的な制限は次のとおりです。

- お客様は自分のドメインを使用できるようになりますが、証明書の管理は Fastly が行います。
- お客様は Fastly にドメイン名のリストを提供し、そのドメイン名を当社が証明書の SAN フィールドに追加します。

弊社パートナー証明書認証局は、共有 (SAN) 証明書を、1 つの証明書に複数のホスト名またはドメインを入れることにより、IP アドレスを節約する方法と説明しています。セキュリティへの影響はありません。証明書にお客様の名前を追加する場合も、お客様による承認が必要となります。

共有 TLS ワイルドカード証明書サービス

弊社共有 TLS ワイルドカード証明書オプションでは、Fastly の SAN 証明書を使用します。具体的な制限は次のとおりです。

- お客様は自分のドメインを使用できるようになりますが、証明書の管理は Fastly が行います。
- お客様は Fastly にドメイン名のリストを提供し、そのドメイン名を当社が証明書の SAN フィールドに追加します。

ワイルドカードによってカバーされるドメイン名については証明書に追加する必要がなくなります。例えば、*.example.com をワイルドカード証明書として SAN フィールドに追加した場合には、Fastly に連絡することなく、 api.example.com や demo.example.com を利用することができます。 Apex ドメイン (この例では、example.com) は、個別の SAN エントリーとして追加されなければなりません(共有 TLS 証明書サービスをご覧ください)。

お客様 TLS 証明書のホスティングサービス

Fastly エッジネットワークから自身が所有する TLS 証明書を SNI (Server Name Indication) を使って配信したい場合には、お客様 TLS 証明書のホスティングサービスが利用できます。このサービスでは OV (Organization Validated) および EV (Extended Verification) の両方をサポートしています。

証明書は共有 IP アドレスにインストールされます。各証明書は TLS の SNI 拡張を使い、TLS ハンドシェイクにおいてクライアントが提示するホスト名によって選択されます。本オプションを購入することに興味があるお客様は、 japan@fastly.com へご連絡ください。

① 重要: 最近の全てのブラウザは SNI をサポートしています。SNI をサポートしていないクライアント(Windows XP や Android 2.x もしくはそれ以前のバージョン)では証明書エラーが表示されます。

専用 IP アドレスを利用する証明書のホスティング

① 重要: この機能は、限定提供版 (Limited Availability) としてリリースされています。詳細については、<u>製品と機能のライフサイクル</u>の説明をご覧ください。

Fastly では Limited Availability として、専用 IP アドレスにお客様 TLS 証明書をインストールすることが可能です。この場合、割り当てられた IP アドレスと証明書を関連付けるために、お客様用の DNS Global Domain マップをご提供します。本オプションの基準を満たすかを確認するために japan@fastly.com へご連絡ください。

● 重要: Fastly は最低でも 2048 ビットの RSA の鍵長を保有する認証局によって署名された SHA-256 証明書をサポートしています。大きな鍵長をアプリケーションで必要としないのであれば、パフォーマンスの理由から、RSA の 2048 ビットの鍵長を推奨しています。

証明書の購入、管理、ホスティングのサービス

Fastly は、御社に代わって証明書の購入、管理、ホスティングするサービスをご提案いたします。本サービスを購入されたい場合:

- 購入した各証明書は、2,500 バイト、最大 150 個の SAN エントリーをサポートいたします。
- 購入した証明書が上限に達した場合には、Fastly は追加で同じ制限の証明書をもう 1 個購入し、管理、ホスティングを行います。
- 全ての証明書は、SNIの技術を利用し提供いたします。
- 新しい SAN エントリー追加する場合は、お客様に当該ドメインの <u>ドメイン検証</u> を行って頂く必要がございます。
- お客様は、SAN エントリーの追加、削除を弊社 Web コントロールパネルを利用して管理していただけます。

本ホスティングオプションの購入することに興味があるお客様は japan@fastly.com にご連絡ください。

1 注意: GlobalSign が提供する証明書には、GlobalSign の利用約款に定める条件が適用されます。詳しくは https://jp.globalsign.com/repository/ をご覧ください。

TLS 1.3 と 0-RTT

● 重要: この機能は、限定提供版 (Limited Availability) としてリリースされています。詳細については、<u>製品と機能のライフサイクル</u>の説明をご覧ください。

TLS プロトコルの最新バージョンである TLS 1.3は、HTTPS での配信トラフィックのパフォーマンスとセキュリティを向上するために設計されてます。このバージョンは、Internet Engineering Task Force (IETF) で2018年に批准され、以前のバージョンに比べより強力な Cipher セットを用いたり、安全な接続を確立するためのラウンドトリップ回数の削減がされています。新規セッションではラウンドトリップ回数が1回少なくなります。0-RTT が有効化されている場合、再接続時の最初の ClientHello に暗号化されたアプリケーションリクエストを含めることで 0-TTL を実現し、接続の再開の待ち時間が短縮することが出来ます。

制限と主要な動作

この機能をご利用する前に、以下について理解してください。:

- TLS1.3は、既存の TLS サービスと<u>専用 IP サービス</u>をご利用のお客様のみ利用可能です。
- TLS 1.3 は このバージョンをサポートしているクライアントがリクエストをした場合にのみ接続に利用されます。
- もし古いバージョンのクライアントからリクエストが来た場合には、Fastly のでデフォルトの動作として TLS1.2 にダウングレードします。

TLS 1.3 と 0-RTT の有効化

TLS1.3を有効にしたい場合は、support@fastly.com にご連絡ください。専用 IP アドレスサービスをご利用のすべて、または一部のホストネームに対してオプションとして再接続に対する 0-RTT を有効化することが可能です。0-RTT のリクエストには、RFC 8470にある Early-Data:1 ヘッダーを含んでいます。このヘッダーは req.http.early-data を通じて VCL 内で取得したりログに含めることが可能です。



TLS service options



https://docs.fastly.com/products/tls-service-options

Fastly's various Transport Layer Security (TLS) services allow websites and applications to serve traffic over HTTPS, providing privacy and data security for your services. In addition to our <u>free shared domain option</u>, we offer several <u>shared certificate options</u> and <u>certificate hosting services</u> for pre-existing certificates. We can also <u>procure certificates for you</u>, which we then host and manage on your behalf.

NOTE: If you have purchased Fastly's <u>PCI-compliant caching</u> or <u>HIPAA-compliant caching</u> products Fastly will enforce a minimum version of TLS 1.2 or higher for all connections to meet the compliance requirements mandated by the <u>PCI Security</u> Standards Council.

Ordering a paid TLS option

If you have not already obtained a TLS certificate, you can purchase one of our shared certificate options <u>using our web interface</u>. To purchase any of our other paid TLS options, contact our sales team at <u>sales@fastly.com</u>.

★ TIP: Our <u>pricing page</u> details the current rates for paid TLS services. If you require TLS on a large number of domains, consider contacting our sales team at <u>sales@fastly.com</u>. They may be able to create a custom package for you.

How we bill for paid TLS options

Each time you add a domain (or wildcard) to a Shared TLS certificate, your bill will increase. We bill you for domain additions one month at a time for whole calendar months only. We don't charge you for any partial months of use.

For example, when you add a domain in the middle of January, it will appear on your February invoice (not your January invoice) because February is the first full calendar month and because <u>Fastly bills in arrears</u>, not in advance.

Shared certificate options

Fastly offers the following shared TLS certificate options.

Shared domain

This free option allows you to serve HTTPS traffic using an address like <code>example.global.ssl.fastly.net</code>. To use this option, add a new domain in the Fastly web interface and set up an origin server for that domain. You can learn more about how to do that in our guide on <code>setting up free TLS</code>. When using free TLS, all traffic is routed through Fastly's entire global network. If you need the ability to route traffic through specific POPs, order a <code>paid TLS option</code>.

• IMPORTANT: If you create an ALIAS record in your DNS in order to mask the Fastly shared domain (e.g. you alias www.example.com to example.com global.ssl.fastly.net) a TLS mismatch warning will appear in the browser. This is because the domain on the certificate does not match the domain in the address bar. The only way to fix the mismatch is by ordering one of the paid TLS options.

Shared TLS Certificate Service

Our Shared TLS Certificate option uses the Fastly Subject Alternative Name (SAN) certificate. Specifically:

- You get to use your domain, but Fastly does the certificate administration.
- You manage additions and removals of SAN entries using our web interface.

Our partner Certificate Authority explains the shared SAN certificate as "a way to conserve IP addresses by putting multiple hostnames or domains on one certificate. There are no security implications....Addition of your name to the certificate still needs to be authorized by you."

Shared TLS Wildcard Certificate Service

Our Shared TLS Wildcard Certificate option uses the Fastly SAN certificate. Specifically:

- You get to use your domain, but Fastly does the certificate administration.
- You manage additions and removals of SAN entries <u>using our web interface</u>.

Domain names that are within the scope of the wildcard domain name don't have to be added to the certificate. For example, if you provided Fastly with the *.example.com wildcard domain name and we added that to the certificate SAN field, you could use api.example.com and demo.example.com with this service without having to contact Fastly. The apex domain (example.com in this example) would need to be added as a separate SAN entry (see Shared TLS Certificate Services). While the wildcard domain remains active on the shared certificate, the manually added apex domain would be included at no extra charge (review our pricing page for the wildcard service cost).

Customer-Provided TLS Certificate Hosting Service

For customers who want to serve their own TLS certificates from Fastly's edge network using Server Name Indication (SNI), we offer a Customer-Provided TLS Certificate Hosting Service. This service supports Domain Validated (DV), Organization Validated (OV), and Extended Validation (EV) certificates.

We install certificates at a shared set of IP addresses. Each are selected using the SNI extension of TLS that allows clients to present a hostname in the TLS handshake request. Contact sales@fastly.com if you're interested in purchasing this hosting option.

1 IMPORTANT: All modern browsers support SNI. Clients that do not support SNI (such as those on Windows XP and Android 2.x or earlier) will see a certificate error.

Using a dedicated IP address with certificate hosting

1 IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

On a limited availability basis, Fastly will install customer-provided certificates at a dedicated IP address. With this add-on to our Customer-Provided TLS Certificate Hosting Service, Fastly offers a customer-specific DNS Global Domain Map that associates the certificate with the allocated IP addresses. To see if your company meets the qualification criteria for this option, contact sales@fastly.com.

① IMPORTANT: Fastly supports SHA-256 certificates signed by publicly trusted certificate authorities that have a minimum key size of 2048 bits for RSA. For performance reasons, we strongly recommend using a 2048-bit key size for RSA when larger key sizes are not required for your application.

Certificate Procurement, Management, and Hosting Service

Fastly offers a Certificate Procurement, Management, and Hosting Service where we purchase dedicated TLS certificates on your behalf, and then host them and manage them for you. When you purchase this service:

- Each certificate purchased will support 2,500 bytes of SAN entries up to a maximum of 150 SAN entries.
- When the limits on any purchased certificate are reached, Fastly will purchase an additional one for you with the same limits, managing and hosting it on your behalf.
- All certificates will be served using SNI technology.
- All new SAN entries require you to verify your control of the domains requested.
- You manage additions and removals of SAN entries <u>using our web interface</u>.

Contact sales@fastly.com if you are interested in purchasing this hosting option.

NOTE: Any certificates provided by GlobalSign are subject to the terms of GlobalSign's Subscriber Agreement, which can be found at https://www.globalsign.com/repository/.

TLS 1.3 and 0-RTT

• IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

TLS 1.3, the newest version of the TLS protocol, is designed to improve the performance and security of traffic served over HTTPS. This version, ratified by the Internet Engineering Task Force (IETF) in 2018, offers a stronger set of ciphers compared to former versions, plus a reduction in the number of round trips required to establish a secure connection. New sessions benefit from one less round trip and, with 0-RTT enabled, resumed connections gain a latency reduction by encrypting the application request in the initial ClientHello. This results in zero round trip time (0-RTT).

Limitations and key behaviors

Before requesting this functionality, understand that:

- TLS 1.3 is only available to customers with an existing TLS service and a <u>dedicated set of IP addresses</u>.
- The version of the protocol will only be negotiated if the requesting client also supports TLS 1.3.
- If a request comes from an older client, Fastly's default behavior is to downgrade to TLS 1.2.

Enabling TLS 1.3 and 0-RTT

To have TLS 1.3 turned on for your traffic, contact support@fastly.com. Optionally, you may also enable 0-RTT for session resumption for all or some of the hostnames that use a set of dedicated IPs. Requests issued with 0-RTT will include an Early-Data:1 header, as per RFC 8470. This attribute can be queried and logged via VCL, using req:http:early-data.



WAF Support and SLA



https://docs.fastly.com/products/waf-support-and-sla

• IMPORTANT: No security product, such as a WAF or DDoS mitigation product, including those security services offered by Fastly, will detect or prevent all possible attacks or threats. Subscribers should maintain appropriate security controls on all web applications and origins, and the use of Fastly's security products do not relieve subscribers of this obligation. Subscribers should test and validate the effectiveness of Fastly's security services to the extent possible prior to deploying these services in production, and continuously monitor their performance and adjust these services as appropriate to address changes in the Subscriber's web applications, origin services, and configurations of the other aspects of the Subscriber's Fastly services.

Fastly WAF Support

① IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

<u>Fastly WAF</u> Support offers the following resources to assist you with mitigating the service impacts of unwanted or malicious requests:

- Onboarding We will work with you to enable the initial setup and then do limited monitoring of the designated services for Fastly WAF.
- Initial configuration and deployment support We will actively work with you to select your rules to block Attacks.
- Ongoing Attack mitigation support We will work directly with you to configure and activate existing WAF rule filters to deal with changing Attacks or new Attacks.
- New standard rules We will assist you with the configuration of any new, standard rules introduced in the Fastly WAF.

Definitions

- "Business Hours" are 8AM-6PM during a Business Day in California, New York, and London.
- "Business Days" are Monday through Friday, excluding any day that is a US national or UK banking holiday.
- An "Attack" is a request or requests intended to cause unwanted or error responses from origin sites configured for any Fastly service. Fastly captures and analyzes suspected or actual Attack traffic to improve and protect its services.
- "Fastly Control" means elements entirely under Fastly's control and not a consequence of (a) a Subscriber's hardware or software failures, (b) a Subscriber's or end user's connectivity issues, (c) Subscriber operator errors, (d) Subscriber traffic amounts that exceed a Subscriber's Permitted Utilization as defined in the Terms and Conditions, (e) corrupted Subscriber content, (f) acts of god (any) or war, or earthquakes, or terrorist actions.

Support channels and availability

The following table summarizes support channels and availability for Fastly WAF Support as determined by the support package purchased by a Subscriber:

| Support offering | Gold Support | Enterprise Support |
|-------------------------------------|----------------------|---|
| Online self-service help | Unlimited access. | Unlimited access. |
| Availability for general inquiries | Business hours. | 24/7/365. |
| Severity 1 incident report response | 2 hours. | 15 minutes. |
| Dedicated chat channel | Not available. | Business hours. |
| Web and email support | Available. | Available. |
| Phone support | Not available. | Toll-free telephone available 24/7/365. |
| Emergency escalation | Available via email. | Available via email and phone support. |

Onboarding

As part of onboarding a subscriber service, Fastly support will:

- enable designated services for WAF functionality, providing access to our rule and filter libraries.
- work directly with you to determine the right set of rules and filters for your service.
- publish those rules or filters into your service in logging mode.
- monitor the behavior of those rules for a designated period starting when the rules are published to the service.

Note that false positive triage will resolve instances where legitimate requests have triggered a WAF rule or filter and either remove the rule from the policy or, where possible, modify the rule or policy to address the legitimate request properly.

Subscriber responsibilities

Subscribers must identify and maintain two points of contact to be used during an Attack to communicate status and issues and to coordinate with Fastly to successfully protect services. Subscribers are responsible for using and configuring CDN services according to the documentation available at https://docs.fastly.com.

Support requests

Subscribers may make support requests by submitting a <u>support ticket</u>, which will trigger a system-generated acknowledgement within minutes containing the ticket number and a direct link to the ticket.

In particular, when requesting support related to an Attack, Subscribers should include as much of the following information as available:

- a determination of the severity of the Attack.
- the size of the Attack threatened or previously observed.
- the type and vector of Attack traffic seen or threatened.
- any duration of previous Attacks and vector behavior including major source IP addresses.
- an Attack history for the last 24 months.
- threat specifics including all details of any Attacks that the protected services or sites have experienced in the past.

Communications and channels of support Support tickets

Create support tickets by sending an email to support@fastly.com. Tickets for communication between Fastly support engineers and a Subscriber's personnel are tracked using a ticketing application, which maintains a time-stamped transcript of communications, and sends emails to Subscriber and Fastly staff as tickets are updated.

Phone support

Subscribers who also purchase <u>Enterprise Support</u> receive a dedicated phone number to contact Fastly support engineers. Fastly personnel can also establish audio and video conferencing (free app or browser plug-in required) for real-time voice and video communications.

Chat

To facilitate real-time communication, Subscribers receive a dedicated chat channel during Onboarding and, for Subscribers that also purchase Enterprise Support, for an Attack for real-time communications about WAF issues during Business Hours or as needed by Fastly personnel. Though subject to change, Fastly's current chat provider is Slack (www.slack.com).

Observational logging

Fastly may from time to time, including as part of initial onboarding and during any period where Subscriber purchases additional Fastly WAF Tuning Package or Fastly WAF Tuning Plus Package, collect and store a copy of logging information from the Fastly WAF (which will include IP addresses) to monitor ruleset behavior, including false positives, by establishing a logging endpoint in your service configuration which will securely collect logging information in a third-party storage provider. Subscriber instructs Fastly to access and use the logs exclusively for providing WAF services, providing support and performance management to Subscriber, monitoring or maintaining Subscriber's Services and the Fastly WAF, threat detection and in accordance with the Documentation. Logged data will be deleted on a rolling basis and in any event retained no longer than thirty (30) days unless otherwise agreed by Subscriber.



WAF Tuning Package



https://docs.fastly.com/products/waf-tuning-package

Fastly's WAF Tuning Package provides your organization with tuning of your <u>WAF</u> by Fastly. For more information about this package, contact <u>support@fastly.com</u>.

1 IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

How it works

Fastly Professional Services staff will guide you through the following tuning stages:

- **Planning.** Professional Services staff help you gather protection requirements, define rules or filter policies, and develop policy structure.
- Deployment. Professional Services staff help you configure your Fastly WAF VCL and add it to your Fastly service. They
 provide best-practice consulting for configuration of your WAF functionality within the Fastly service and will publish the policy
 to your Fastly service.
- Testing. Professional Services staff help you validate that your WAF policy is active and set up testing for it.
- Go-Live. Professional Services staff monitor and address issues during final production testing and policy deployment.

Planning, deployment, testing, and go-live may involve some iterative cycles depending on the complexity of your policy.

Policy services

Some common tuning options we offer include:

- Initial setup and configuration
- · Validation of policy match to origin systems
- Policy updates and maintenance



WAF Tuning Plus Package



https://docs.fastly.com/products/waf-tuning-plus-package

Fastly's WAF Tuning Plus Package provides your organization with enhanced professional maintenance of your <u>WAF</u> by Fastly. The WAF Tuning Plus Package also improves visibility into application layer threats and strengthens your overall security posture. The WAF Tuning Plus Package includes ongoing tuning and configuration services designed to help protect you against critical threats. To protect against WAF bypass attacks, it also includes authenticated TLS to origin.

For more information about the WAF Tuning Plus Package, contact support@fastly.com.

① IMPORTANT: This feature is part of a limited availability release. For more information, see our <u>product and feature</u> <u>lifecycle</u> descriptions.

WAF Tuning Plus Package features

Fastly's WAF Tuning Plus Package is a service offering for the term of your contractual agreement. It includes the following features.

Ongoing tuning and configuration

At your request, Fastly will provide you with one report per service protected by the Fastly WAF. Fastly will schedule periodic calls with you to review the reports.

Up to once per quarter, at your request, Fastly will tune previously provisioned WAF services as follows:

- We'll update your original profile, created during your initial WAF tuning, to record any new changes to your application stack or new perceived security risks based on actual or attempted attacks.
- We'll update your WAF rule set to the latest available (if applicable).
- We'll enable, disable, or change new or existing WAF rules based on new traffic patterns or security risks not present in the initial tuning cycle.
- We'll make a set of final recommendations on OWASP thresholds and switch your WAF into blocking mode.

Up to three times per quarter, at your request, Fastly will provide on-demand rule enablement (if available) for critical vulnerabilities.

Proactive notifications

We may notify you of available Fastly rules to help address critical vulnerabilities that we identify.

Authenticated TLS to origin

To mitigate WAF bypass attacks, Fastly will configure client-authenticated connections to your origin server for each service running WAF. This is an additional layer of security on top of network-level ACLs. This service requires a customer-provided TLS certificate, matching private key, and CA certificate or certificate chain.

Fastly will update the certificate on your behalf prior to expiration. Here's how it works:

- Fastly must receive new certificates at least 15 business days prior to expiration.
- Fastly will update the private key on your behalf (with a 15 business day notice) should the key be revoked.
- If you don't have your own key and certificate, Fastly can help you generate the certificates and keys at an additional cost. For more information, contact sales@fastly.com.

Third-party information

These articles provide information about third-party technology and services incorporated into the Fastly CDN service.

https://docs.fastly.com/products/third-party-information



Cloud-hosted products



https://docs.fastly.com/products/cloud-hosted-products

The following Fastly products may use third-party cloud infrastructure to process or store content or requests for content according to our <u>cloud infrastructure security program</u>:

<u>Fastly Image Optimizer</u>



Sub-processors



https://docs.fastly.com/products/sub-processors

Fastly engages certain sub-processors in connection with the provision of the Fastly Services. A sub-processor is a Fastly affiliate engaged in the processing of personal data (each a "Fastly Affiliate") or a third-party service provider engaged by Fastly, Inc. or a Fastly Affiliate to process personal data on behalf of Fastly's Subscribers.

Fastly maintains a list of the names, entity type and locations of all sub-processors of personal data contained in Subscriber Data and caused to be submitted to Fastly via the Services according to Subscriber's configuration of the Services, which is set forth below. For more information on Fastly's data processing obligations, please see our <u>data processing terms</u>.

| Name of Sub-Processor | Entity Type | Entity Location |
|---|------------------|------------------------|
| Fastly Limited | Fastly Affiliate | United Kingdom |
| Fastly International (Holdings) Limited | Fastly Affiliate | United Kingdom |
| Fastly Kabushiki Kaisha | Fastly Affiliate | Japan |
| Fastly India Private Limited | Fastly Affiliate | India |

| Name of Sub-Processor | Entity Type | Entity Location | |
|-----------------------|---------------------------|------------------------|--|
| Google Inc. | Third-party sub-processor | United States | |

Subscribers may subscribe to receive email notifications of sub-processor changes at https://docs.fastly.com/changes. Notices of updates to this page will be posted on our changelog.



Third-party technology



https://docs.fastly.com/products/third-party-technology

These articles provide information about third-party technology and services incorporated into the Fastly CDN service:

- Geolocation VCL features
- TLS service options

In addition, these articles describe third-party services that interoperate with Fastly CDN services:

- Integrations with Non-Fastly Services
- Streaming logs



Need some help?

Support portal

File a ticket

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