



QuotaGuard Enterprise Static IP's

Azure Partner Playbook for QuotaGuard Shield and QuotaGuard Static

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Support : <https://support.quotaguard.com/support/home>

WHO WE ARE



Our mission is to allow any business in the world to use IP based authentication to protect sensitive resources using any protocol, any language, for any use case

QuotaGuard is the world's leading Static IP solution provider for distributed networks and cloud-based applications.

QuotaGuard has been a preferred solution provider since 2013 and has worked with over 5,000 global business customers, routing hundreds of millions of requests for security conscious companies all over the world.

QuotaGuard Static and Shield

We offer two products, depending on the use case and security requirements.

QuotaGuard Shield is a HIPAA/PCI compliant solution that routes HTTPS and Secure SOCKS traffic through a pair of load balanced static IP addresses, built to handle traffic that needs full end-to-end protection of Financial / Health / PII and other sensitive information.

QuotaGuard Shield is the only Static IP proxy service in the world that is truly end-to-end secure and compliant with the strictest data protection policies.

QuotaGuard Static is a multi-protocol Static IP solution for HTTP/HTTPS/TCP/SOCKS connections routed through a pair of load balanced static IP addresses, built to be flexible and handle the broadest range of use cases.

Typical QuotaGuard Customer



Corporations where data security and intrusion protection is paramount and requires IP-based authentication for access to restricted resources and assets

IP-based authentication is a fundamental aspect in every comprehensive corporate security framework.

IP-based authentication both assists in validating the authenticity of inbound and outbound traffic, as well as, keeps unwanted actors from accessing sensitive corporate assets.

Both [QuotaGuard Static](#) and [QuotaGuard Shield](#) provide this critical piece of secure corporate architecture.

Should We Use Shield or Static?

The answer comes down to the level of security you need for your network traffic.

Just using HTTPS or Secure SOCKS is not sufficient for end-to-end encryption via Static IP proxies

Only QuotaGuard Shield does not expose sensitive data or require sharing private certificates with third parties, like other Static IP proxies, when using HTTPS or Secure SOCKS.

Exposing sensitive data and sharing private security keys is not HIPAA / PCI compliant and introduces multiple security vulnerabilities - even if you aren't subject to any outside security requirements.

QuotaGuard Shield uses SSL Passthrough – instead of SSL Termination – to route all traffic securely.

QG Shield safeguards three pieces of sensitive information that other Static IP services leave vulnerable

- Private SSL Certs: You never have to share your private keys with a third party, like QuotaGuard. As of 2018, 56% of security incidents stem from 3rd party data compromises.¹
- Sensitive Infrastructure Metadata: You never expose your source/destination hostnames, open ports, and running/accessible services and applications to malicious actors allowing them to map out your corporate network.
- Static IP Proxy Credentials: You never route any IP Proxy credentials unencrypted for hackers to steal and impersonate your traffic through your trusted Static IP's.

¹ [The Cybersecurity Industry's Third Party Risk Management Problem is Rooted in Visibility](#)



Use Case Using QuotaGuard Static

Perform daily backups of data between networked assets and databases, both on premises and offsite

Available for Inbound or Outbound connections

QuotaGuard Static

- HTTP/HTTPS/SOCKS Connections
- Share Data Across Departments
- Simple Setup, a Few Lines of Code
- H/A, Load Balanced with Failover
- Global Availability in any Region

Budget

\$5 - \$1,499/mo

Cost determined by level of support, number of requests and bandwidth used per month.

Set up Timeline

5 minutes

Obligation

Cancel Anytime

Language/Protocol

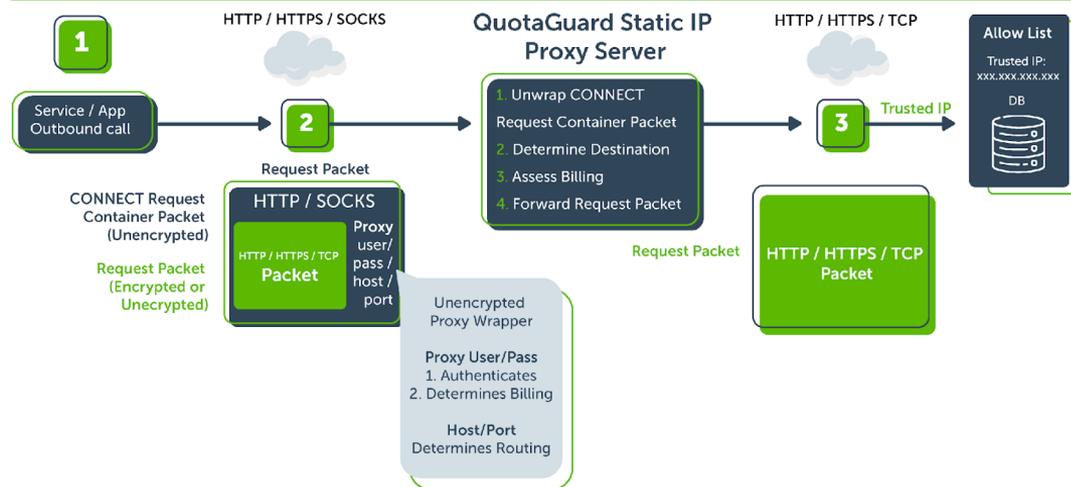
Any and All

QuotaGuard Static – Outbound Connections

All Protocols, All Languages, and Any Scenario

QuotaGuard Static Outbound Requests

HTTP / HTTPS / TCP



Outbound Proxy - QG Static vs. QG Shield

SECURITY RISKS OF HTTPS ON QG STATIC

(and all other Static IP services)

HTTPS outbound traffic is secure, however...
the "service to proxy" container CONNECT request is not secure.

TECHNICAL

Bad actors in possession of your Proxy Credentials can send traffic via your Static IP proxy that would appear to originate from your trusted IP address and allow attackers to spoof protected resources/firewalls into allowing in illegitimate traffic.

As such, this solution is not PCI/HIPAA compliant due to the clear text user/pass between the outbound service call and the Static IP proxy server.

MANAGERIAL

Unnecessary billing charges and costs.

1

Your Service / Application / Website initiates a HTTP/HTTPS/TCP request to a remote server.

That request is wrapped in a HTTP or SOCKS container packet for the CONNECT request to connect to our proxy.

The request packet is encrypted (if HTTPS or other encrypted protocols), but the container CONNECT packet is not encrypted.

2

The proxy removes the outside container from the CONNECT connection to read the username and the password for the proxy, as well as the final destination hostname and port.

We use the user/pass to verify the sender and for billing processing.

The inner packet (HTTP/HTTPS/TCP) is then forwarded on to the destination server.

3

The destination firewall or server allows the known IP source inbound, processes the request, and the reply would go back to the originating service back through the proxy.

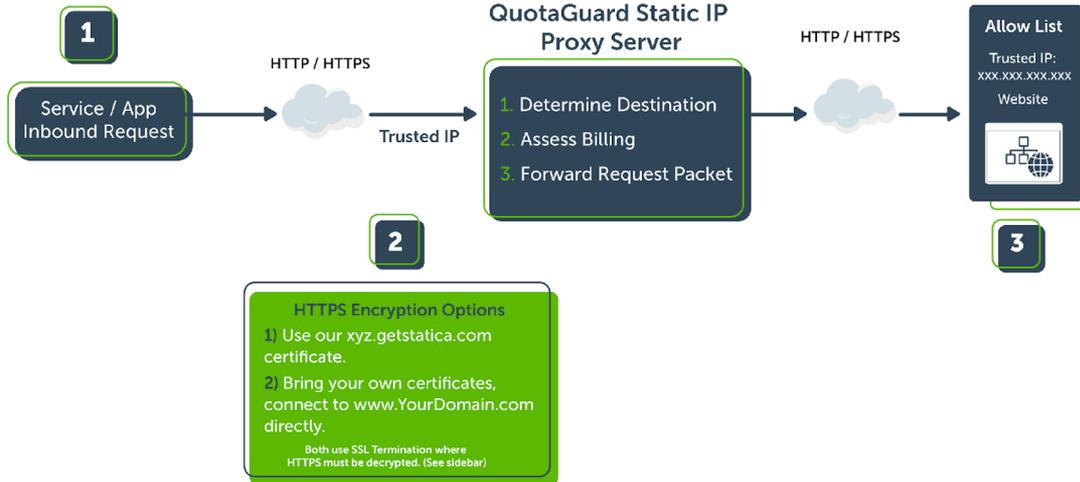
QuotaGuard Static – Inbound Connections

All Protocols, All Languages, and Any Scenario

QuotaGuard Static Inbound Requests

Inbound Proxy - QG Static vs. QG Shield

HTTP / HTTPS



WHAT IS SSL TERMINATION / SSL OFFLOADING?

SSL termination (a.k.a. SSL Offloading) decrypts all HTTPS traffic when it reaches the proxy server. At this point, routing is executed and the data proceeds to the destination server as plain HTTP traffic.

If your QuotaGuard implementation uses a HTTPS URL for the forwarding URL (as most customers do), then the data between QuotaGuard and the final destination is encrypted as well.

However, all Static IP proxies have to decrypt the data, using security keys, to determine the next hop and then re-encrypt the data before it is sent to the next point.

1

An outside Service / Application / Website sends a HTTP/HTTPS request to your internal protected resource via our Static IP proxy server.

2

HTTP requests are passed via the proxy server to the internal resources.

HTTPS requests are decrypted to determine internal routing, then re-encrypted and forwarded to the destination.

3

The destination firewall or server allows the known IP source inbound, processes the request, and the reply would go back to the originating service through the Static IP proxy.



Use Case 2

Using QuotaGuard Shield

Securely route sensitive data, like corporate information, healthcare files or financial data, between your company and various outside services.

Available for Inbound or Outbound connections

QuotaGuard Shield

- HTTPS/Secure SOCKS Connections
- End-to-End Encryption and Cert Security
- Securely Share Data Across Departments and with External Customers or Websites
- Simple Setup, a Few Lines of Code
- H/A, Load Balanced with Failover
- Global Availability and Private Spaces in any Region

Budget

\$9 - \$1,899/mo

Cost determined by level of support, number of requests and bandwidth used per month.

Obligation

Cancel Anytime

Set up Timeline

5 minutes

Protocol/Language

HTTPS/Secure SOCKS and any language

QuotaGuard Shield – Outbound Connections

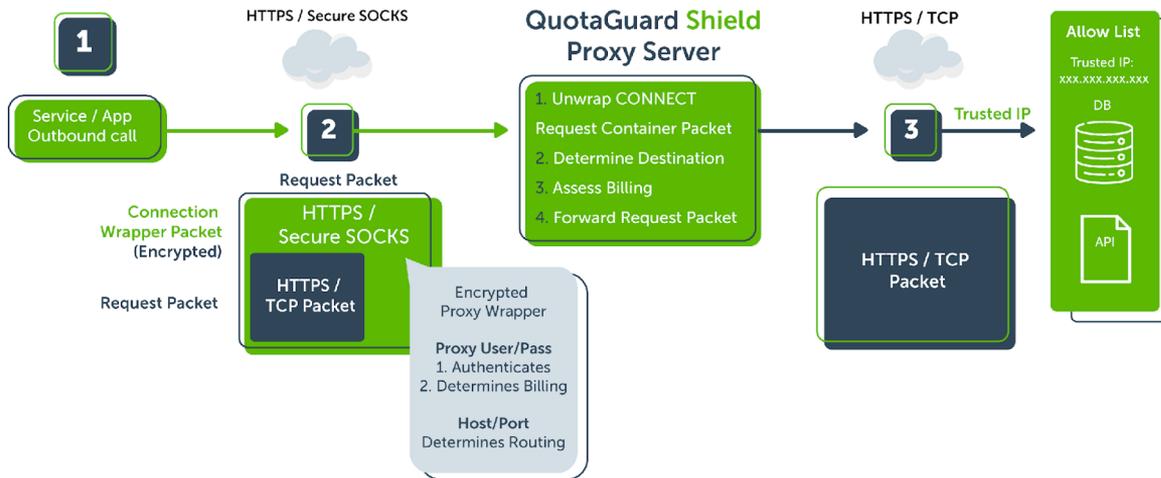
HTTPS/Secure SOCKS, All Languages, and Any Scenario



QuotaGuard Shield Outbound Requests

Outbound Proxy - QG Static vs. QG Shield

HTTPS / Secure SOCKS



WHY IS SHIELD MORE SECURE AND EASIER TO USE ?

- 1 Proxy Credentials are secure, preventing bad actors from impersonating your application.
- 2 Final destination hostname and port are secure, helping prevent bad actors from determining what services are open to the proxy's IPs.

1

Your Service / Application / Website initiates a HTTPS/TCP request to a remote server.

That request is wrapped in a HTTPS or Secure SOCKS container packet for the CONNECT request to connect to our proxy.

The request packet is encrypted and the container CONNECT packet is encrypted.

2

The proxy decrypts the outside container from the CONNECT connection to read the username and the password for the proxy.

We use the user/pass to verify the sender and for billing processing.

The inner packet is then forwarded on to the destination server.

3

The destination firewall or server allows the known IP source inbound, processes the request, and the reply would go back to the originating service back through the proxy.

QuotaGuard Shield – Inbound Connections

HTTPS/Secure SOCKS, All Languages, and Any Scenario



QuotaGuard Shield Inbound Requests

HTTPS Required



HTTPS Certificate Options
Without decrypting, we can determine forwarding and billing information and send the packet onward.
Shield uses SSL Passthrough where HTTPS requests do not need to be decrypted (see sidebar)

Inbound Proxy - QG Static vs. QG Shield

WHY IS SHIELD MORE SECURE AND EASIER TO USE?

- 1) HTTPS is never decrypted on the QG Shield Proxy server.
- 2) Final destination hostname and port are secure, helping prevent bad actors from determining what services are open to the proxy's IPs.
- 3) QuotaGuard never needs access to your security keys.
- 4) Significantly easier to set up since you control the security settings and requires no coordination with QG.

WHAT IS SSL PASSTHROUGH?

SSL passthrough passes encrypted HTTPS traffic all the way to the backend server without decrypting the traffic on the proxy.

QuotaGuard Shield uses SNI to determine billing and routing.

Therefore, traffic passes through the proxy encrypted and the destination server (web application server, database server, etc.) does the decryption process to read the data.

1

An outside Service / Application / Website sends a HTTPS request to your internal protected resource via our Static IP proxy server.

2

HTTPS requests are decrypted to determine internal routing, then re-encrypted and forwarded to the destination.

3

The destination firewall or server allows the known IP source inbound, processes the request, and the reply would go back to the originating service through the Shield Static IP proxy.

Features and Benefits



Static Inbound or Outbound IP Address

Securely route your inbound and outbound traffic through a load balanced pair of static IP addresses via our distributed proxies. QuotaGuard Shield allows you to integrate with third parties that require a known IP for whitelisting or to open your own firewall to allow secure traffic through. We support SSL and custom domains.

Inbound Proxy via SSL Passthrough

Inbound proxy uses SSL passthrough - not SSL termination at each end point - to provide end to end security for your application traffic.

Load Balanced Pair of Static IP's

We provide a load balanced pair of IP addresses, so if one IP fails, traffic will automatically route through your second IP complete with health checks and automated failover. We also offer dedicated IP addresses, if desired, as an option to provide more reliability and security.

Database Access via Any Protocol

We support all possible proxy protocols: HTTP, HTTPS via CONNECT and Secure SOCKS. Our Secure SOCKS proxy configuration is SOCKS5 over TLS to ensure privacy and security, perfect for routing your database traffic via a Static IP. Guaranteed to work with PostgreSQL, MySQL, MongoDB & Oracle, as well as many other databases and languages.

Hassle Free Certificate Management

Certificates can be managed at each end point, with your own certificates (for example, from LetsEncrypt) or using Heroku's ACM. You no longer have to configure your certificates on the QuotaGuard dashboard. Shield is fully configurable without having to get QuotaGuard Support involved, which allows you to set up your service securely and be running in minutes.

End to End Data Security

With the hassle free certificate management, your data is more secure because no outside parties - including QuotaGuard - need to decrypt or re-encrypt any data as it traverses your proxies.

HIPAA and PCI Compliant

QuotaGuard Shield simplifies the compliance requirements for applications operating in highly regulated industries. Use QuotaGuard Shield for PCI and HIPAA compliant apps in regulated industries, such as medical/healthcare, financial services, and life sciences.

Dedicated IP Address Proxies

Dedicated IP addresses, if desired, are available for Enterprise plans and above. Please contact our Support with your QuotaGuard Static username and requested region to get a dedicated IP address setup.

Low Latency Across 7 Regions

You will automatically be provisioned to the proxy in your app region for ultra low latency. Our proxies run in the US-East-1 (N. Virginia), US-West-1 (Oregon), EU-West-1 (Ireland), EU-Central-1 (Frankfurt), AP-Northeast-1 (Tokyo), AP-Southeast-1 (Sydney) and SA-East-1 (Sao Paulo) Amazon regions - so we can serve you best.

Professional and Responsive Support

We pick up the phone. We debug connectivity issues. We answer emails. We help create solutions to unique use cases. We do live online chat. We do one-on-one setup assistance. Don't believe the hype? Just send us an email and see for yourself.

Easy Setup for Any Language

Instant provisioning of our HTTPS proxies. Most languages require only a few lines of config code to start routing through your static IPs. Review our documentation to get up and running in minutes.

Easy to Upgrade, Change Plans, or Cancel

Need to upgrade or downgrade? Don't worry, your IP Addresses will never change when you change your usage plan. Hassle free cancellation, no long term commitments or annoying phone calls with sales reps to terminate your service.

Demonstrated Reliability and Scalability

The same team that has operated QuotaGuard and QuotaGuard Static since 2015 also designed and operates QuotaGuard Shield. We took the best practices of our other QuotaGuard products and applied it to our QuotaGuard Shield service so we can continue to deliver uptime of over 99.98%, just like we have since we started. We gracefully scale with your business needs and - with over 2,500 active customers - successfully route millions of requests per day on our platforms.

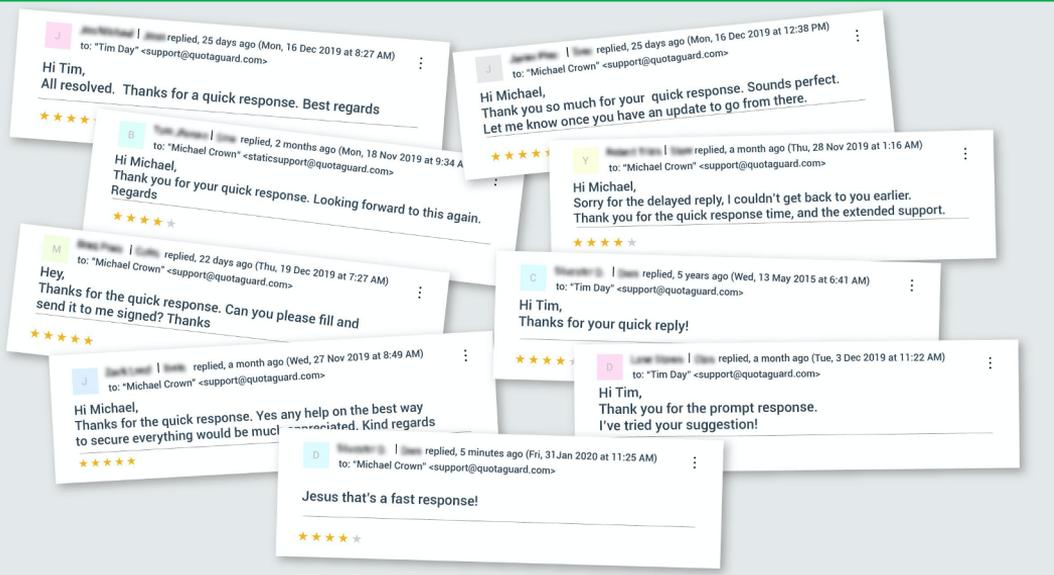
GDPR/CCPA Compliant

Want to know more about your Privacy rights, GDPR, CCPA, and what happens with your data on QuotaGuard? Then please review our Privacy Policy and GDPR FAQ's in the QuotaGuard Static Documentation section below to find out more, or simply contact us at Support for specific questions.

Detailed Analytics Dashboards

Track your requests and usage in real time via our dashboard. We retain 12 months of data so you can monitor trends in your usage and plan accordingly.

What Customers Say About Us



QuotaGuard Technical Support is amazing! They replied to me within minutes and solved my issues in no time. And even answered questions about my project Heroku integration. 5 stars.

● ● ●
Ahmad
CodyTek.com

We use QuotaGuard Static in some of our prototyping, sandbox, and testing applications we run on the Heroku Common Runtime where we need to maintain a static IP connection through our test environment firewall. QuotaGuard customer service is fantastic! We had a one-time issue and got an initial response within a few minutes. Determined the issue was on our end and gave us instructions on how to resolve it a few minutes after that and we immediately were back into testing.

● ● ●
Dave Whitmer
CTO, BorrowWorks Financial, Inc.

The customer service we received from your team was outstanding. Within 24 hours of signing up we received an email asking if we needed any help. We actually did end up needing help and Tim logged into our computer and even got on a phone call to help us find a single character that was wrong in our syntax. The application is working great now and I would recommend your services to anyone.

● ● ●
Jonathan Kruse
Global The Source

We had an issue integrating the service with our app and within 10 minutes the team from QuotaGuard was walking me through it in a chat room, including sending over working code samples for my app. Not often you get such hands on service!

● ● ●
Vivek Patel
qmul.ac.uk

Global Coverage



Load Balanced, Highly Available proxies deployed in every global region with one click setup.

Only a few lines of code to integrate your app anywhere in the world.

```
1  var request = require ('request') ;  
2  
3  var options = {  
4    proxy: process.env.QUOTAGUARDSTATIC_URL,  
5    url: 'http://ip.jsontest.com/' ,  
6    headers: {  
7      'User-Agent' : 'node.js'  
8    }  
9  };  
10  
11  function callback (error, response, body) {  
12    if (!error && response.statusCode == 200)  
13      console.log(body);  
14  }  
15  
16  request (options, callback);  
17
```



SAU PAULO TOKYO FRANKFURT AMSTERDAM CAPE TOWN
IRELAND N.VIRGINIA OREGON SYDNEY SINGAPORE CANADA



QuotaGuard Enterprise Static IP's

Questions? Want to talk a scenario through? Reach out to our Support team.

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Alpine Shark, LLC

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