



Proxies Buying Guide for Enterprises

A handbook to help companies navigate through the main proxy types, what features to look for based on specific use cases, and how to choose IPs that suit your business needs and goals.

Large-scale public data collection requires reliable solutions

Big data has become one of the more valuable assets held by enterprises, and virtually every large organization. Gathering the infinite amount of public data from multiple sources and deriving the greatest value to ensure trusted business decisions hinge on a foolproof system for collecting public data on a large scale.

However, for businesses to utilize public data effectively, it first needs to be accessible - not blocked. Collecting traditional and alternative data from diverse sources requires professional knowledge and reliable solutions, such as proxy infrastructure or ready-to-use web scraping tools. It is crucial to fuel the business' data mechanism engines with the right resources.

Investing in any new technology is a bold move at any company and requires in-depth research of the market, evaluation of one's goals and desired results, as well as testing out trials and how they are compatible with the existing infrastructure. All this is crucial before making a decision and selecting the right solution that meets your needs and scale with you over time.



90%

of enterprise leaders understand the importance of real-time insights and 84% think that being able to execute real-time course corrections is vital.

Forrester

72%

of IT decision-makers are seeing a negative impact on customer engagement and satisfaction due to missing or incomplete data.

SnapLogic research report

Residential Proxies vs Datacenter Proxies: Main Differences and Use Cases

Basically, both residential and datacenter proxies serve a similar purpose: hide your real IP address when surfing online. This aids in avoiding IP bans and bypassing geo-restrictions. Thus, it's essential to take a look at the specifics of each proxy type before making a final decision on which one is a better fit for your business needs.



Residential Proxies



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To prove residential proxies are used in a legal way, expressed consent is a must. Proxy providers are thus responsible for assuring the pool of offered IP addresses consists only of voluntarily and readily picked associates.

Main use cases



Ad verification

Ad fraud, such as false impressions or click fraud, can cause damage to business marketing strategy, yet it's a hard-to-solve issue. For this reason, companies use ad verification to scan the internet and check if their advertisements do not appear on fraudulent websites and reach the correct audience. On top of that, businesses make sure their ads are shown in different locations.



Review monitoring

Online reviews play an essential role in turning browsing customers into buyers. Keeping track and responding to customer reviews boosts online reputation, improves ranking on search engines, and helps in marketing strategy creation.



Travel fare aggregation

Travel search aggregators collect deals from a number of websites, including travel agencies and flight companies, and publish them on their website. In this sense, proxies help to make sure the process is smooth and efficient when obtaining large amounts of data. What's more, hotel and flight prices might differ depending on a geo-location. Here residential proxies also play a role, helping to gather information from various countries.



Datacenter Proxies



Contrary to residential proxies, datacenter proxies are not associated with ISPs. Instead, they come from secondary corporations and are able to ensure private IP authentication and anonymity.

Datacenter proxies often derive from cloud servers and are used by multiple people at once. Not being listed as an ISP might be identified by some target websites as suspicious activity. Thus, to avoid IP blacklisting, it's crucial to choose a proxy provider offering private proxies with dedicated IP addresses.

Main use cases



Cybersecurity

Cybersecurity businesses serve their clients a significant purpose: online safety. For this, they use proxies, intermediaries between servers and malicious targets. It's crucial to employ only reliable proxies for cybersecurity companies to be able to identify these malicious sites and secure their clients round-the-clock.



Market research

Developing a right business plan is vital for businesses of all sizes to stay at a competitive edge. Companies providing market research services aid in enhancing margins and upholding current market trends. To acquire required data at scale without any blocks, companies use proxies.



Brand protection

Protection from counterfeiting and ensuring brand reputation might be tough yet extremely important for each company. Generally, companies trust security organizations with their brand protection. Organizations strive to automatically collect evidence of counterfeit product listings or intellectual property infringements, and this is where proxies step in.



Email protection

It's common nowadays for companies to receive a massive number of emails containing malicious URLs or attachments. With these emails opened, hackers can gain access to sensitive data and perform cyber attacks. Thus, one of the services cybersecurity companies offer is email protection, which comes hand-in-hand with proxy servers that help to verify malicious websites successfully.



Intellectual property protection

Stolen proprietary data can be resold, illegally replicated, or used for other copyright infringers' purposes. To avoid these risks, companies employ brand security organizations. These organizations use proxies in order to scan the web and locate any stolen intellectual property.



Residential Proxies vs Datacenter Proxies

What type of proxy you need to buy depends solely on what public web scraping project you will be doing. If you need a proxy for a web scraping project like market research – a datacenter proxy will be more than enough for you. They are fast, stable, and most of all – a more cost-effective choice.

However, if you want to scrape more challenging targets, for example, for sales intelligence – a residential proxy will be a better choice, as most websites are aware of such data gathering projects, and getting blocked on such websites is a lot easier. With residential proxies, however, it will be harder to get blocked due to their nature of looking like organic users with real IPs.

After checking various proxy providers, you will learn that some of them offer proxies powered by advanced technologies, like artificial intelligence and machine learning. Such proxies are specifically designed for the most demanding web targets and successfully deal with common web scraping challenges.

To make things a little clearer, here is a table of the above-mentioned use cases and the best proxy type for each of them.



Market Research

Key challenges:

Restricted geo-locations

High speed

Scalability



Solution:

Datacenter Proxies



Brand protection

Key challenges:

Property protection

Scalability

Geo-localized results



Solution:

Datacenter Proxies



Travel fare aggregation

Key challenges:

Complex websites

Outdated information

Restricted geo-locations



Solution:

Residential Proxies



Ad verification

Key challenges:

IP blocking

Restricted geo-locations

Ensuring anonymity



Solution:

Residential Proxies



Intellectual property protection

Key challenges:

Restricted geo-locations
Flawless operation
Scalability



Solution:
Datacenter Proxies



Review monitoring

Key challenges:

Global coverage
Real-time data
Large-scale information



Solution:
Residential Proxies



Cybersecurity

Key challenges:

High speed
Uptime
Ensuring anonymity



Solution:
Datacenter Proxies



Email protection

Key challenges:

Uptime
High speed
Ensuring anonymity



Solution:
Datacenter Proxies



Buying Residential Proxies

Now that we've uncovered which proxy types are suitable for certain purposes, you might already have an idea of which type is better for your business – residential or datacenter proxies. Yet, no less consideration is required when it comes to making a purchase. To make the buying process easier for you, we've prepared a checklist of the most important features to look for when choosing a proxy provider.

Checklist: Residential proxies

- ✓ Pool size
- ✓ Ethical sourcing
- ✓ Pool selection
- ✓ Session control
- ✓ Unlimited proxy rotation
- ✓ Public API
- ✓ Unlimited concurrent sessions
- ✓ Statistics dashboard

Pool size

A proxy pool is a managed set of a massive number of proxies, which are controlled by their quality. In other words, it's a proxy network belonging to a specific provider. Meanwhile, pool size indicates the number of proxy servers in the network, as mentioned above. It might show how many individual IPs are there per day, week, or month.

Why is pool size important? Basically, the bigger the pool is, the more proxy servers it holds. The more proxy servers there are, the higher the possibility they contain more unique IP addresses, especially when it comes to residential proxies, which carry real IPs attached to physical locations.

Ethical sourcing

The proxy market is known to be lacking clear standards in terms of residential proxies procurement. Thus, it's essential to choose a proxy provider that strongly supports ethical business practices and takes the responsibility of building a legitimate proxy pool.

On top of that, acquiring proxies carefully improves the overall quality of proxy services. The more qualified proxies are, the better performance they offer, making sure your web scraping activities are handled in the most cost-efficient way possible.

Pool selection

Pool selection describes how specific your choice of a proxy can be. Many providers announce having large proxy pools covering nearly all countries around the world. Yet, it does not necessarily mean you could select a particular city to get an IP from. For this reason, it's essential to evaluate whether the proxy provider can offer you targeting at a city, country, or state level.

Session control

Session control is more of a technical feature of a residential proxy. In simple words, this is the possibility to add a string that ensures your proxy won't change with the following requests. That is, the program would keep the same IP address attached to a particular session ID as long as some activities are happening. Only after the set time of inactivity, the IP address would change. In addition to that, standard session times differ, yet proxy providers might allow you to adjust them.

Unlimited proxy rotation

Proxy rotation is one of the key factors in achieving the highest success rates while web scraping. This is because rotating IP addresses have smaller chances of being identified and blocked by websites. What's more, rotating proxies allow you to handle multiple connections from a single device. All this combined, proxy rotation is a vital feature to make your scraping processes easier.

Public API

Public API serves a significant role in effective proxy management. It should be easy to integrate and aid in aspects such as user account management, traffic limit adjustment, and traffic usage statistics. Choosing a proxy provider that offers residential proxy API will help you save time and resources.

Unlimited concurrent sessions

The number of requests you can make at a single time highly impacts the performance and quality of your web scraping operations. Some proxy providers set specific limits of sessions users can initiate simultaneously; thus, when buying a residential proxy, it's important to make sure the provider is able to offer limitless concurrent sessions.

Statistics dashboard

Being able to track your proxy service usage in a precise and easy way is another crucial criterion worth taking into account. Reliable proxy providers give their users access to dashboards where hourly, daily, and monthly usage statistics are displayed. This way, you can trace how much traffic you need, how much is left and often even manage your subscriptions to get even more traffic if required.



Buying Datacenter Proxies

Datacenter proxies come with their own features and peculiarities. If you are to purchase this type of proxies, take a look at the checklist we've prepared to help you to decide on the right proxy provider.

Checklist: Datacenter proxies

- ✓ Proxy type
- ✓ IP refresh API
- ✓ IP status check API
- ✓ Location variety
- ✓ Proxy rotator
- ✓ Statistics dashboard

Proxy type

Exclusivity is a trait that describes the quality and, most often, the price of a proxy. There are three main types of datacenter proxies: dedicated (also called private), semi-dedicated, and shared. If your tasks are less demanding, shared proxies used by multiple users at a time should be good to go.

Yet, dedicated proxies are a more suitable option for more complex operations, giving you complete control over the proxy. As a single user uses them at a time, dedicated proxies can reduce the number of substantial slowdowns and IP blocks and improve privacy.

Semi-dedicated proxies are an in-between option, possessing some of the advantages of dedicated proxies and evading specific cons of the shared ones. These proxies are used by a small number of users (often up to 3) at a time. Still being shared, they might be subject to slowdowns; however, it's a cost-efficient alternative to shared proxies with a better performance

IP refresh API

While scraping the web, some of your IP addresses might get flagged or blacklisted. Thus, it's important to be able to replace these IPs in your existing proxy list easily. IP refresh API serves this purpose and is designed for efficient blocked IPs management. Usually, you'd need to send a specific request to the proxy's endpoint, indicating your proxy list details. Proxy providers outline this information in their datacenter proxy documentations.

IP status check API

After the above-described IP replacement is initiated, you would typically wish to check the status of your request. Again, the easiest way is to employ IP status check API, which requires you to submit a request to the endpoint with replacement details. You should find specific instructions on the documentation of your proxy service provider.

Location variety

Location variety is extremely significant as far as geo-restrictions are concerned. Much online content is accessible from certain locations only; thus, proxies are of huge help when your real IP address doesn't have a privilege to reach specific information. The more locations are covered by a proxy server, the more diversified data you can get

Proxy rotator

Proxy rotator is another feature that some providers offer together with datacenter proxies. Instead of connecting an individual IP address with this tool, a proxy provider gives you a single endpoint to a whole list of proxies. This way, the endpoint brings a different IP with each request. As an alternative, some providers might offer you the possibility to keep the same IP address even while using a proxy rotator.

Statistics dashboard

Similar to residential proxies, the ability to easily track usage statistics through a user-friendly dashboard is one of the key elements when choosing a datacenter proxy provider. In addition, let's say you are not using a proxy rotator – then you're in need to add individual IPs you're going to use for accessing a proxy manually. A dashboard is usually a place where you can manage your whitelisted IP addresses.



NOTE: IP location lookup on databases such as IP2location.com should be an integral part of choosing a reliable datacenter proxy provider. The mentioned databases hold information on the location, ISP, hostname, type, blacklist status, and more.

Conclusion

Both residential and datacenter proxies can help you minimize IP bans and access geo-specific content. However, it's crucial to take a closer look into your business needs and use cases when selecting a suitable proxy type and, of course, a reliable proxy service provider.

We hope the checklists provided in this guide will be a great help in the proxy purchasing process. If you're still unsure of the type of proxies you need, we'd recommend you talking to an expert who could assist you in finding the best solution based on your activities and budget.



Want to Know More?

If you would like to know more about any of the topics mentioned in this white paper or [learn about our products](#), please get in touch! Our team is ready to answer any of your questions and offer you the best solution for your business needs.

[Get in touch with Oxylabs](#)

Our Mission

Our mission is to share all the know-how that we collected over the years in the industry in order to create the future where big data is accessible to all businesses. We seek to create a healthy environment for everyone to grow and thrive in.

Our Values

As a leading company in the proxy and web scraping industry, we ensure that the highest standards of business ethics lead all our operations. Our core values guide us toward achieving our mission. [Learn more](#)