Cheatography

Understanding How Internet Services Are Priced Cheat Sheet
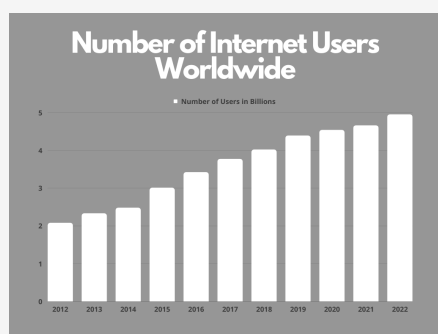by Lightyear.ai (Luden Digital) via cheatography.com/145114/cs/31272/

Understanding How Internet Services Are Priced

Internet access is becoming as much of a basic necessity as electricity and water, but the pricing of internet services can be confusing to consumers.

We dive into dedicated internet and best effort internet services to make sense of internet pricing.

Number of Internet Users Worldwide since 2012

The internet is becoming more congested each day- new technologies are combatting this issue.

BEIS vs DIA

Best Effort Internet Services	Dedicated Internet Access
Bandwidth for among a group of customers	Bandwidth for each customer alone
Using the internet at home for online shopping, social media, and streaming	Optimal choice when working from home, growing a business, and sharing large files

If a company uses voice-over-internet protocol (VOIP) and unified communications as a service (UCaaS), dedicated internet access is essential to consistent performance and connectivity.

Disadvantage of BEIS

The downside of best effort internet services is that if a customer and their neighbors are using the internet simultaneously, there can be a bandwidth shortage and slower internet speeds than advertised.

Dedicated internet pricing (DIA)

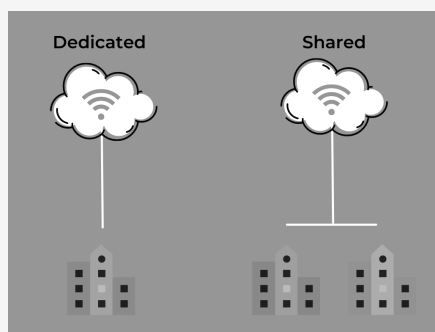| Each of these factors can affect dedicated internet pricing data and telecom pricing data:	The contract length
	The DIA price per Mbps
	The off-net DIA price

Most ISPs give their DIA customers individual quotes, so there isn't the internet pricing transparency needed to know whether each business is getting a good price.

When obtaining DIA service, a carrier will provide a service level agreement (SLA) guaranteeing quality, network uptime, and more. If the carrier does not live up to its SLA, everybody is guaranteed a refund or service credits.

Dedicated vs Shared Internet

Factors that influence DIA pricing.

DIA pricing by bandwidth	Generally, higher bandwidth translates into a higher internet bill. Bandwidth comes as either fixed bandwidth or burstable bandwidth. If a company attempts to transmit past its fixed limit, their data packets are dropped when using fixed bandwidth. Burstable bandwidth offers regular data usage. However, if a company needs a larger capacity, their bandwidth can burst as needed to serve everybody's needs.
Speed	The time between when a device sends a signal to a server and when that signal is answered by the server and sent to each person's device is their internet speed or latency. Higher speeds add up to higher costs.

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Factors that influence DIA pricing. (cont)

Quality	Connection quality includes speed and whether there is jitter or packet loss. Jitter, or when data packets arrive at different times, results in delays in audio or video. Packet loss is when data packets don't arrive or arrive out of order or late. All of this adds up to low-quality connections.
Competition	How much local competition there is in business internet service providers can influence the price each customer will pay for dedicated internet access.

Factors that influence DIA pricing. (cont)

On-net or off-net	If DIA for a company requires a build, it is off-net and will be more expensive each month. On-net DIA, which does not require a connection to be built, is less expensive. If an ISP has to make a capital expenditure to provide each business with dedicated internet access, that cost will either come as a non-recurring cost or a percentage of the cost will recur each month with each company's internet bill.
Transp-arency	Some companies offer pricing data from among their customer base including more than 15,000 quotes delivered over the past two years. For example, Lightyear partners with hundreds of ISPs to provide quotes from all major carriers and many regional carriers.

Overview of Internet Usage (2022)

Conclusion

Speed, quality, and competition all influence best effort internet and dedicated internet pricing. There is more transparency in pricing for best effort internet, which is less expensive, but it comes with the downsides of connectivity being at the mercy of bandwidth traffic. DIA prices can differ widely among regions and cities and ISPs. The choices made - fixed or burstable bandwidth, speeds, connection quality, and more - also factor into the price each company will pay for dedicated internet access.. With DIA essential for doing business, understanding how dedicated internet pricing works is vital for controlling costs.

Overview of Internet Usage (2022)

Global Overview

TOTAL INTERNET USERS	**4.95 Billion**
62.5%	TOTAL INTERNET USERS AS A PERCENTAGE OF THE POPULATION
ANNUAL CHANGE IN THE NUMBER OF INTERNET USERS	**+4.0%** +192 Million
6H 58M	AVERAGE DAILY TIME SPENT USING THE INTERNET
PERCENTAGE OF USERS ACCESSING THE INTERNET VIA MOBILE PHONES	**92.1%**