Understanding IP Address Types: Public Dynamic, CGNAT, and Static

Introduction:

Internet Protocol (IP) addresses play a crucial role in identifying devices and enabling communication across the internet. This support article aims to provide a brief explanation of the differences between three commonly used IP address types: Public Dynamic, Carrier-Grade Network Address Translation (CGNAT), and Static IP addresses.

Carrier-Grade Network Address Translation (CGNAT):

CGNAT is a technique used by ISPs to conserve IPv4 addresses by sharing a single public IP address among multiple customers. With CGNAT, the ISP assigns private IP addresses to customers' devices, and these addresses are then translated to a single public IP address when connecting to the internet.

Public Dynamic IP Address:

A public dynamic IP address is an IP address assigned by your internet service provider (ISP) that can change over time. Each time you connect to the internet, your ISP dynamically assigns an available IP address from its pool. These IP addresses are shared among multiple users and are typically cycled periodically to accommodate the dynamic nature of internet connections.

Static IP Address:

A static IP address is a fixed, unchanging IP address assigned to a device by an ISP. Unlike dynamic IP addresses, a static IP address remains constant over time and is exclusively assigned to a single device.