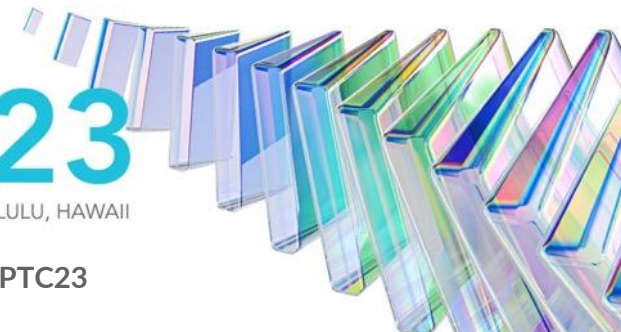




# SD(N)-WAN Evolution

18th January 2023, Honolulu

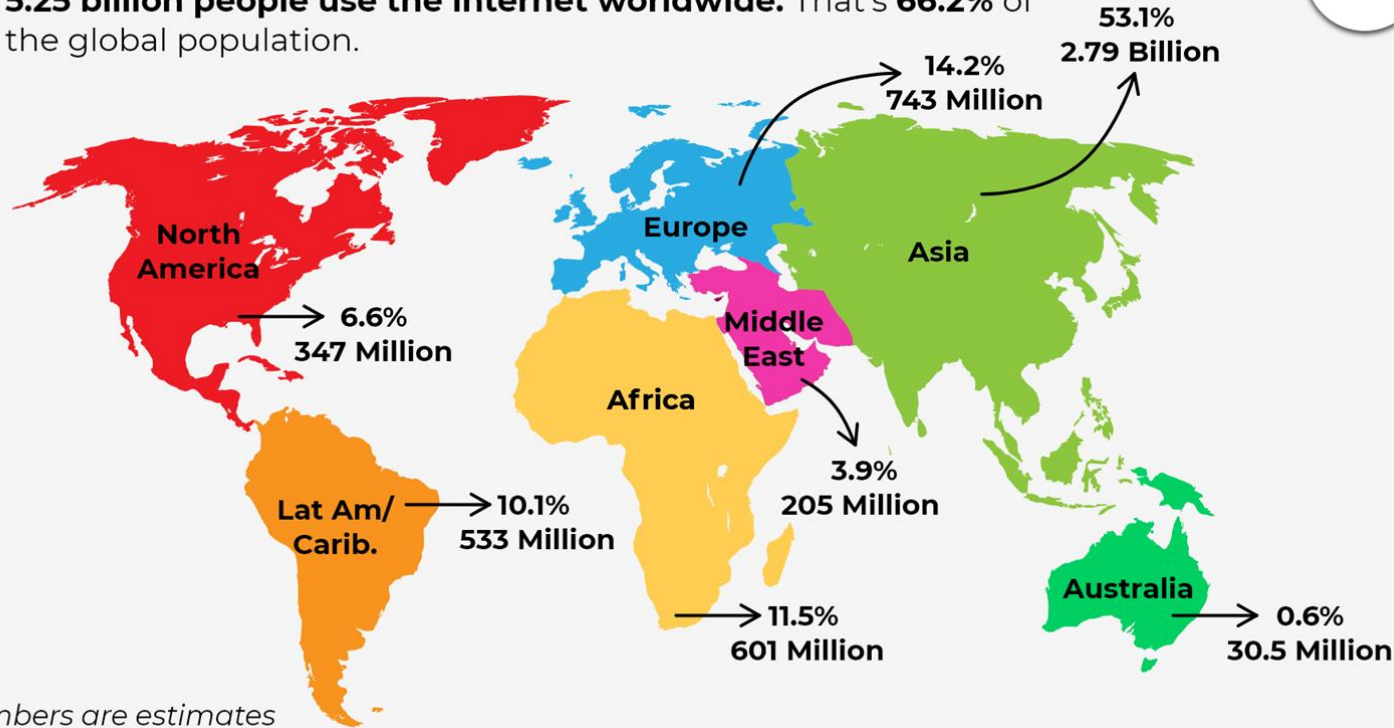
Marijana Novakovic



# Internet today

## Total Internet Users Worldwide Statistic

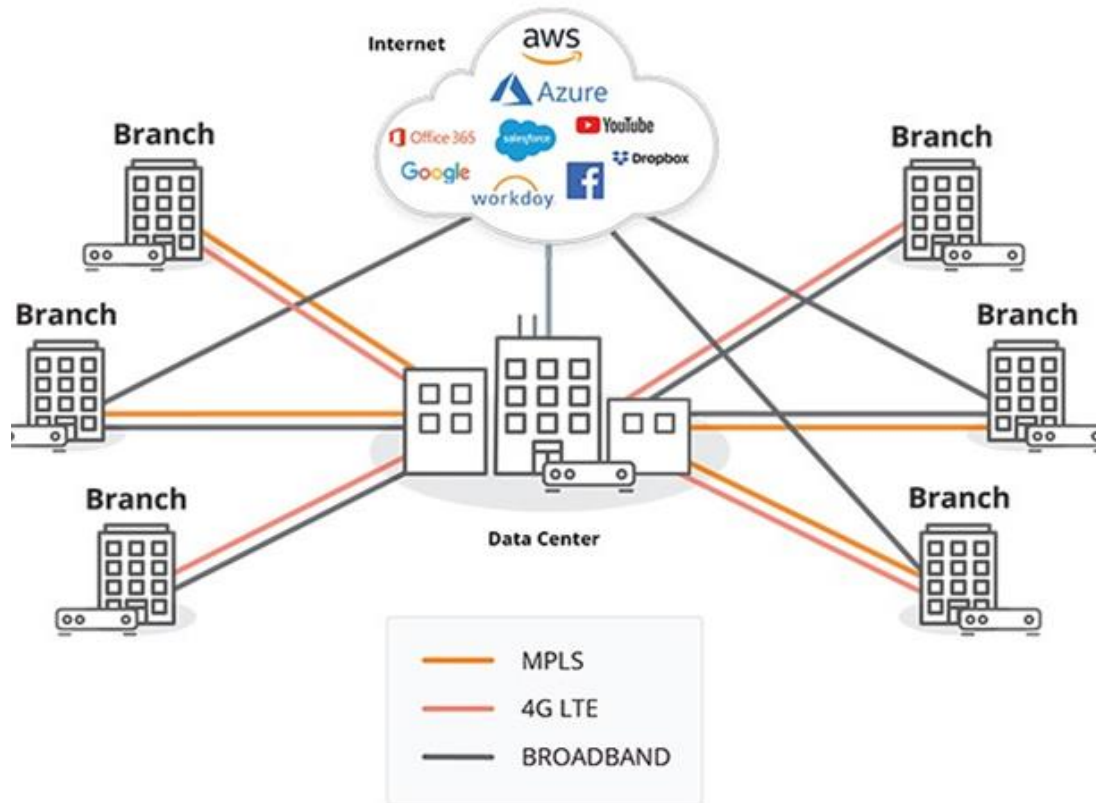
5.25 billion people use the internet worldwide. That's 66.2% of the global population.



- 5+ billion Internet users [1]
- 2.7 billion people are still offline [2]
- 1.145 trillion MB of data created per day [3]
- 1 Pbps of global Internet bandwidth [4]
- 486 active or under construction subsea cables [5]
- More than 90% of organizations use cloud [6]

# Why SD(N)-WAN?

## SD-WAN Architecture Explained



- Traditional WANs are not designed to manage complex multi-cloud environment in an optimal way.
- Due to lack of network resilience, the outages are still quite common. They cost money and resources for the enterprises.
- SD(N)-WAN is software-based solution designed to bring flexibility to network infrastructure.
- SD(N)-WAN helps solving challenges such as congestion, packet loss, jitter and high latency.
- Enhanced security comparing to traditional WAN.
- Cost reduction.

# SD(N)-WAN challenges

- SD(N)-WAN still depends heavily on public Internet and underlying service providers the enterprise is using.
- Difficulty to troubleshoot or detect the root cause of application underperforming if it is a network-related issue.
- Not all security concerns are addressed, especially for more sophisticated cyber attacks
- Cost reduction.

# To be discussed...

- Can you make public Internet better and reliable?
- SD-WAN vs SASE
- Cost reduction



# Sources information

- [1] <https://www.broadbandsearch.net/blog/internet-statistics>
- [2] <https://www.itu.int/en/mediacentre/Pages/PR-2022-09-16-Internet-surge-slows.aspx>
- [3] <https://techjury.net/blog/how-much-data-is-created-every-day/>
- [4] <https://www.capacitymedia.com/article/2amlvt4vjgru66ccltam8/news/global-internet-bandwidth-close-to-1pbps-in-2022-finds-telegeography>
- [5] <https://www.nokia.com/about-us/newsroom/articles/when-telecom-fiber-can-sense/>
- [6] <https://www.cloudzero.com/blog/cloud-computing-statistics>
- [7] Slide 3, picture source: <https://www.arubanetworks.com/faq/what-is-sd-wan/>