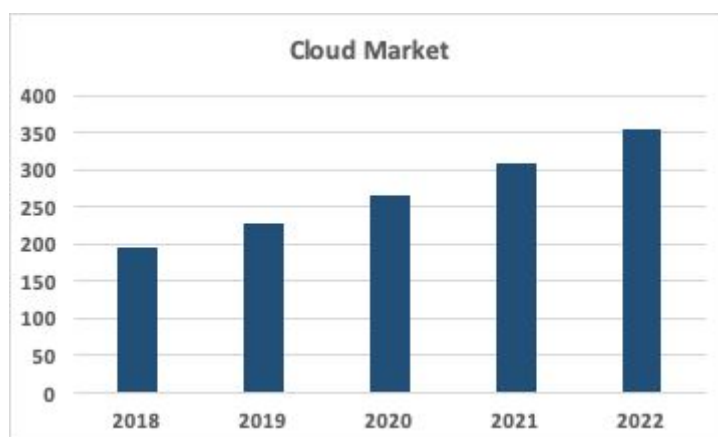# CLOUD WASTE REPORT

According to Gartner, the global market for cloud is 266.4b which is 17% higher than previous year 2019.

Among that, **Software as a Service** (**SaaS**) leads the race followed by **Infrastructure as a Service** (**IaaS**) .IaaS is forecast to grow 24% year over year, which is the highest growth rate across all market segments. This growth is attributed to the demands of modern applications and workloads, which require infrastructure that traditional data centers cannot meet.
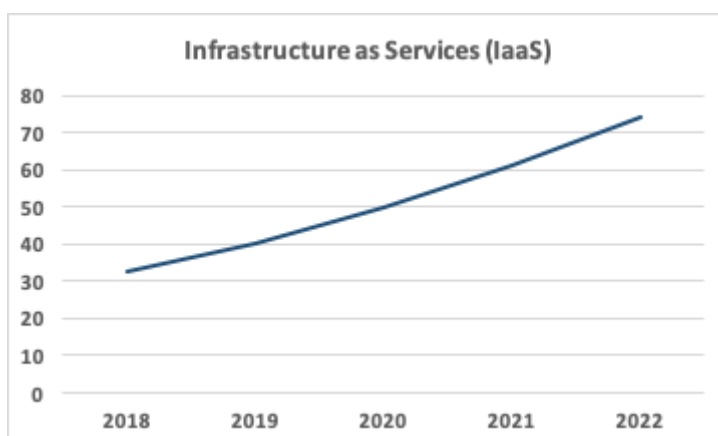
Every day a new organization or two stepping into the cloud, which has further hastened the increase. With the tremendous rise in resource-heavy tasks, cloud spending is rising. Increase in usage comes with wastage too. Cloud waste happens when the resources paid

for are not utilized properly. As per Syncsort, there are around 62 % of people report higher than anticipated costs when it comes to cloud services.

Cloud waste can happen in different forms,

1. **Idle Resources:**
    a. Letting resources run full-time (24hrs), even though they remain idle on non working hours i.e (**6 pm to 8 am**).
    b. These can be for development, demo, testing, or training environments that forget to switch the cloud off after their work is complete. e.g Teams running both the test and development environment even after the release of the application.
    c. The cost of idle resources form a significant part of cloud waste being generated globally; they stand at **$8.8** billion every year.

2. **Oversized Resources**
    a. Developers, while forecasting how much of a cloud instance is required, often choose an instance that is larger than needed. It ensures that there is no-huddle to prevent smooth operation.
    b. Once the infrastructure is over-provisioned, it rarely gets downsized. As per reports, around 40 percent of these are up to two sizes bigger than required.
    c. The cost of oversized resources is around $5.3 billion every year.

3. **Orphaned Resources**
    a. It mostly occurs when you have turned off your computing machine but forgets to switch off the storage or Networking. The storage will have no other work to do, and it will keep on piling the cost. It will lead to you ending up paying significantly more than what you should have.
    b. It also happens when a developer left the company but still the machine is running left unnoticed

4. **No Centralized View of Resources**
    a. According to Gartner, more than 70% of enterprises will be implementing a multi-cloud strategy by the end of this year.
    b. Having no centralized view of resources across the company and cloud providers, results in redundant resources.

Cloud waste is not only significant in terms of resources that go unused but also the expenditure on these resources goes unchecked. Monitoring usage and optimization is very important for both small and large enterprises to carry out their day to day tasks in a cost-effective manner.

Optimization is an ongoing challenge in the enterprise. Even after waste is identified and resolved, the dynamic nature of cloud use means that waste reoccurs. Automation is critical to dynamically monitor and respond to waste.

Finally looking into the other aspect , according to a recent Greenpeace report, Make IT Green: Cloud Computing and its Contribution to Climate Change, the electricity consumed by cloud computing globally will increase from 632 billion kilowatt hours in 2007 to 1,963 billion kWh by 2020.

CloudCanny is a cloud automation platform which empowers DevOps and Infra team to save cloud costs smartly. CloudCanny's app provides easy managing, scheduling and monitoring the cloud servers to save costs by optimising the cloud usage. Currently supported for DigitalOcean.

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