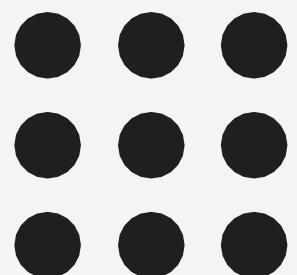# SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107
Accredited by NAAC-UGC with 'A' Grade
Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai

Department of Information Technology

Architectural influences on Cloud insights
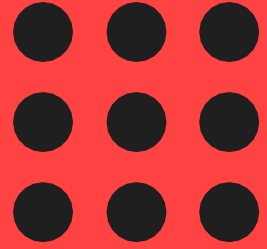
Prepared by
T.R.Lekhaa,
AP/IT
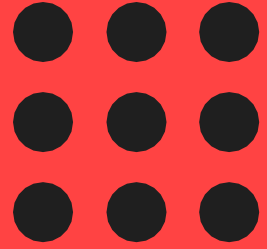
Cloud Insights

- NetApp Cloud Insights is a cloud infrastructure monitoring tool that gives you visibility into your complete infrastructure.
- With Cloud Insights, you can monitor, troubleshoot and optimize all your resources including your public clouds and your private data centers.
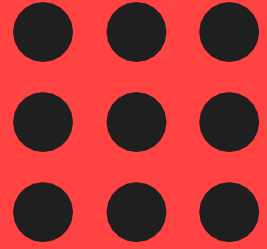
Cloud Insights

- heterogeneous parties
- cutting costs
- economy of scale
- simplicity of maintainability
- flexibility/changeability of a product/service
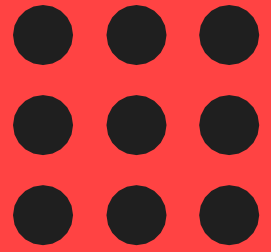
Belongs to life-cycle.

Cloud Insights

- **Choice between public/private cloud**

    choice for private or public cloud will be mainly data security and privacy driven, like legal compliance, corporate principles, but also network latency and the available skills within the company to create and maintain a private cloud.

Cloud Insights

Choice between cloud computing groups (SaaS, PaaS, IaaS)
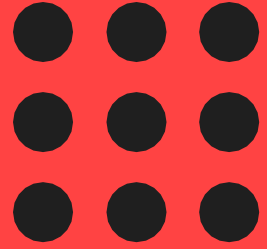
SaaS: no responsibilities

PaaS: only responsibility for the application and the data the application uses

IaaS: the responsibility of configuring the OS and middleware, software updates and licenses (in addition to PaaS).

Cloud Insights

Three cloud promises to keep in mind while designing a cloud product/service

• Elastic Scalability

• Agility

• SLA-driven
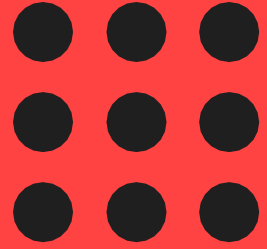
Cloud Insights

Elastic Scalability:

• Cloud environments allow businesses to serve larger audiences;

• solve bigger, more challenging problems;

• access incremental compute resources on-demand;

• reduce the financial risk of new projects by starting small and growing as the need develops.
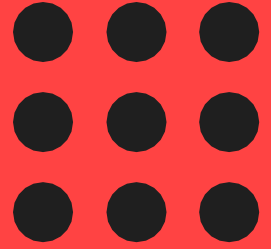
Cloud Insights

Agility :

•Able to set functionality live

•Without high investments in hardware infrastructure and middleware

•Deploying and scaling functionality is so fast and easy

Cloud Insights

SLA-driven :

• Policies like delivery parameters, costs, and other factors.

•Enterprises can so rely upon a service/application once it has been published.

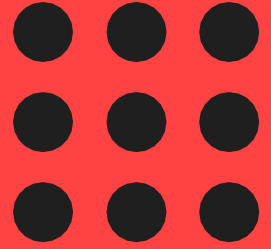# Cloud Insights helps you:

- **Reduce mean time to resolution by as much as 90%**
Stop log hunting for days and failing to manually correlate infrastructure: use our dynamic topology and correlation analysis to pinpoint the problem area immediately.
- **Reduce cloud infrastructure costs by an average of 33%**
Remove inefficiencies by identifying abandoned and unused resources and right-size workloads to their optimized performance and cost tiers.
- **Prevent as much as 80% of cloud issues from impacting end users**
End searching through vast amounts of data to find the relevant piece, by using advanced analytics and machine learning to identify issues before they become critical outages.

High-performance computing

•It is the use of parallel processing for running advanced application programs efficiently, relatives, and quickly.

Need of High performance Computing :

•It will complete a time-consuming operation in less time.

•It will complete an operation under a light deadline and perform a high numbers of operations per second.

•It is fast computing, we can compute in parallel over lot of computation elements CPU, GPU, etc. It set up very fast network to connect between elements.

•https://www.youtube.com/watch?v=nIBu1EFYmBU

Grid Computing and Utility Computing

Grid Computing	Utility Computing
It is a process architecture that combines different computing resources from multiple locations to achieve desired and common goal.	It is process architecture that provide on-demand computing resources and infrastructure on basis of pay per use method.
It distributes workload across multiple systems and allow computers to contribute their individual resources to common goal.	It allows organization to allocate and segregate computing resources and infrastructure to various users on basis of their requirements.
It makes better use of existing resources, address rapid fluctuations in customer demands, improve computational capabilities, provide flexibility, etc.	It simply reduces IT costs, easier to manage, provide greater flexibility, compatibility, provide more convenience, etc.
It mainly focuses on sharing computing resources.	It mainly focuses on acquiring computing resources.

Grid Computing and Utility Computing

Grid Computing	Utility Computing
It is of three types i.e., computational grid, data grid, and collaborative grid.	It is of two type i.e., Internal and external utility.
It is used in ATMs, back-end infrastructures, marketing research, etc.	It is used in large organizations such as Amazon, Google, etc., where they establish their own utility services for computing storage and applications.
Its main purpose is to integrate usage of computer resources from cooperating partners in form of VO (Virtual Organizations).	Its main purpose is to make computing resources and infrastructure management available to customer as per their need, and charge them for specific usage rather than flat rate.
Its characteristics include resource coordination, transparent access, dependable access, etc.	Its characteristics include scalability, demand pricing, standardized utility computing services, automation, etc.