

Cloud Computing –

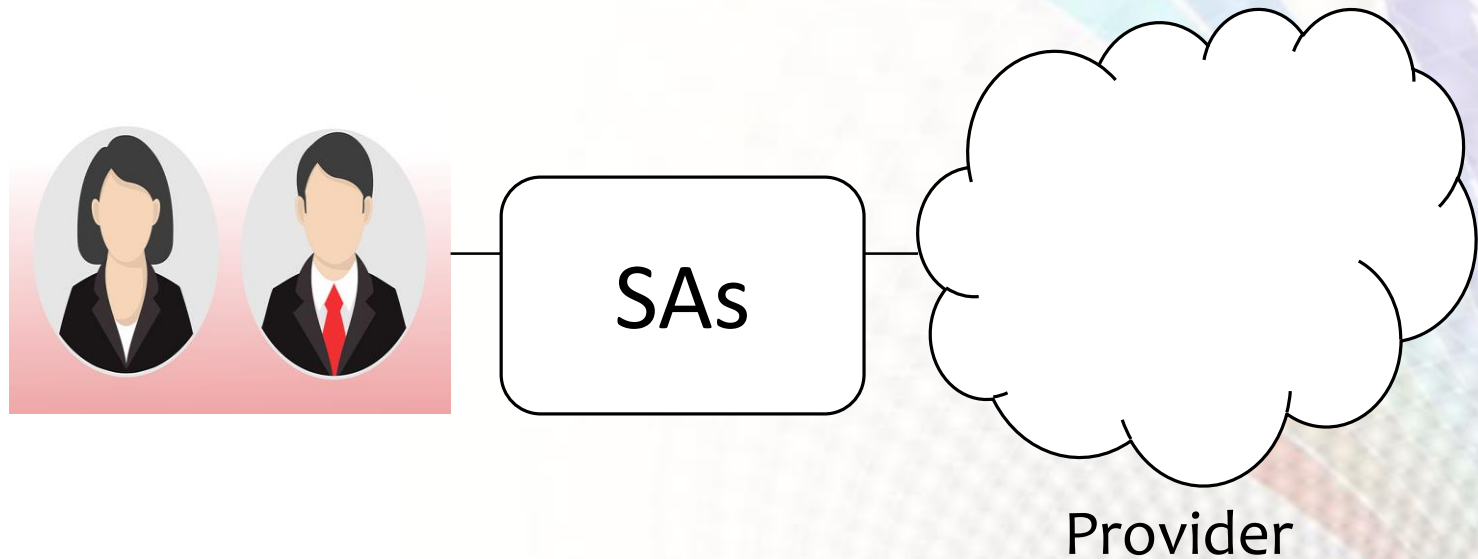
Cloud Service Agreements (SA's)

Topics Covered:

- What are Cloud Service Agreements (SA's)?
- Parts of a Service Agreement (SA)
- Terms of the Service Agreement
 - o - Promises made by the Provider to the Consumer
 - o - Limitations on the Consumer
 - o - General Obligations of the Consumer
 - o - NIST Recommendations

Service Agreements (SAs)

- NIST identifies that the consumer and provider are under a legal agreement or terms of service.



Components of Service Agreements (SAs)

- The Service Agreement has **two parts**:
 - Service Agreement
 - Service Level Agreement (SLA)
- Service agreement contains the legal terms of contract.
- The SLA contains the technical performance promises by the provider and the remedies for performance failures.
- Overall these are called ***Service Agreements (SA's)*** by NIST

Terms of Service Agreements (SAs) – Promises made to the Consumer

- The following promises are made to consumer by the provides:

1 - Availability:

- Usually 99.5% to 100% availability is assured.
- The assurance is for a time intervals of a billing cycle e.g., 15 minute, 1 hour, 1 Year etc. for which the service status will be “up” for sure.
- But this has to be clarified that for example time period of assurance is 15 minutes and even if the service is “down” for 14 minutes, then it legally means that the service was not “down” for the whole interval.
- Typically, several failures in subsystems are required to completely “down” a service for the whole period of billing.
- The provider may adjust the availability promises on case to case basis.

Terms of Service Agreements (SAs) – Promises made to the Consumer

2. Remedies for Failure to Perform:

- In case of violation of the promise of *availability* (during a time period) by the provider, the customer will be compensated in terms of service credit for future use of Cloud service.
- A refund is usually not given.
- Consumer is responsible to monitor the availability of service and claim for compensation.

Terms of Service Agreements (SAs) – Promises made to the Consumer

2. Remedies for Failure to Data Preservation (Cont'd):

- The following situations result in termination of Cloud IT resources usage for a consumer:
 - Voluntarily by consumer
 - Terminated by the provider for violating the provider's rule of service and/or for non-payment.
 - The providers usually take no responsibility for preserving the data in later case. While in former case, the preservation is done for few days.

Terms of Service Agreements (SAs) – Promises made to the Consumer

4. Legal Care of Consumer Information:

- The provider assures for not disclosing/viewing/using/sharing the consumer's data except in case of legal requirement.
- On the other hand the provider retains the right of monitoring the consumer data as well as may demand a copy of consumer's software for monitoring assistance.

Service Agreements (SAs) – Limitations on the Consumer

- The following limitations are included in the policies by the provider:
- 1. Scheduled Outages:
 - Will not be considered as service failure.
 - Will be informed in advance.
 - Will be of a limited time period.

Service Agreements (SAs) – Limitations on the Consumer

2. Force majeure events:

- Providers do take the responsibility for the events out of their realistic boundary. Such as:
- Power failure, natural disaster and unreliable connectivity between consumer and cloud service.

Service Agreements (SAs) – Limitations on the Consumer

3. Service Agreement Changes:

- The provider usually retain the right to change the terms of contract, billing amount etc. on limited notice.
- Consumers should keep a regular check for updated service charges
- Sometimes the provider inform a specific consumer by email or postage.
- The changes may take effect immediately or after few weeks.

Service Agreements (SAs) – Limitations on the Consumer

4. Security:

- The providers do not take liability of data loss, data corruption or unauthorized data usage if they happen due to security breach or due to service interruption caused by a malicious activity.
- At most, the service credit is compensated in case of data loss.
- Although the providers promises for best effort security but the responsibility of data security is placed on the consumer.
- It is difficult for the customer to determine the cause of data loss (malicious activity or some other reason).

Service Agreements (SAs) – Limitations on the Consumer

5. Service API Changes:

- The providers generally retain the right to delete or update the service API.
- Can happen any time and without prior notice.

Service Agreements (SAs) – General Obligations of the Consumer

- Generally the consumer has to agree upon the following **obligations**:
 1. **Acceptable Use Policies:** The consumers are generally required to refrain from:
 - Storing illegal data
 - Conducting security attacks on Cloud infrastructure and/or on any other user.
 2. **Licensed Software:** The provider require the consumer to install and use only the licensed third party software over the Cloud.
 3. **Timely Payments:** The consumer should timely pay the bill from the provider. Otherwise the consumer may get terminated after some time.

Service Agreements (SAs) – NIST Recommendations

- **Recommendations** by NIST:
 - The consumers should carefully study and negotiate the service agreements. Specially take care of the SLA assurances and responsibilities by the provider.
 - Choose the most suitable Cloud provider periodically after review.

The End - Q & A