

Cloud Hosting Categories

Cloud computing provide on-demand scalable IT services based on the needs. This enables IT to be flexible and react quickly to accommodate the needs of the Department, which results in cost savings and a more effective use of available capacity.

The Proposed Cloud Models under MeghRaj are as follows:

1. ***CAT-A Private Cloud:*** This means having a Cloud Infrastructure setup in one of the Government owned Data Centre and the infrastructure in owned and managed by the Govt. This model is similar to the SDC- Maharashtra model and the National Data Centre implemented at Shastri Park by NIC. ***Cloud environment is established and maintained by the Government, meant for highly sensitive/ strategic applications.***

Example: This is applicable for any large, medium or small application whose data is very sensitive and personal. Under this hosting category the department shall have full control over the infrastructure. The department can start its application with the immediate effect as it is currently available

2. ***CAT-B Private Cloud- Off Premise (Dedicated):*** This entails to a situation where the Data Centre (Physical Site) is owned by a private entity wherein they will implement a dedicated Cloud infrastructure for a Government Agency. A separate physical space will be earmarked for the Govt. private cloud infrastructure which may be caged in a dedicated enclosure. ***Cloud environment is established and maintained by the private industry on outsourced basis, dedicated to a Government Agency, meant for important applications.***

Example: This is applicable to a large Govt. department who wants to host their application in a secured Data Centre environment and can use the infrastructure in pay as you go model. This will help th department in starting their application without putting in lot of initial investments and saving a lot of time in selection & procurement. The lead time for setting up of dedicated infrastructure for a Department will be approx-6 weeks.

3. ***CAT-C Private Cloud- Off Premise (Shared):*** Same as above with the only difference now the cloud is being shared by several Government Department. A separate physical space will be earmarked for the Govt. private cloud infrastructure which may be caged in a dedicated enclosure. ***Cloud environment is established and maintained by the private industry on outsourced basis, but shared by several Government departments, meant for applications of medium importance.***

Example: This is applicable for any large, medium or small application whose data is not sensitive and personal but internal. This category is very much similar to the CAT-A, with the only deference that the Data Centre site is now being owned and managed by a

private entity. All the security controls which are applicable to CAT-A shall be applicable to this category as well.

4. **CAT-D Private- Public Cloud:** This form of deployment is done by a Private entity in its own Data Centre. The complete stack of compute, software and orchestration layer is deployed by the provider and given on various service delivery models such pay per use, subscription based, etc. to the Govt. Users. **Cloud environment is established and maintained by the private industry on outsourced basis, but shared by several Government departments and also the private sector, meant for routine applications.**

Example: This is applicable for any large, medium or small application whose data is public/ date which is freely available in public domain. Department will not have any control on infrastructure and Data residing in the private Data Centre.

Selection of suitable Cloud hosting Model

For selecting the suitable cloud model for any Govt. application it is important to evaluate the application based on its requirement, usage, date etc. Leveraging cloud computing model warrants a broad-based assessment against both the IT and business objectives.

It is essential that the departments / agencies that want to host its application onto the Cloud perform a check to understand its applications requirement and its associated data which is being hosted in the cloud. The below table will help the Govt. Department/ Ministry to choose the most suitable model for their application.

#	Factors	Cat- A	Cat-B	Cat-C	Cat-D
1.	Common Factors				
2.	Access Control and Management of the Application remains with the Government	Yes	Yes	Yes	Yes
3.	Data Remains in the India	Yes	Yes	Yes	Yes
4.	Meeting the Security Compliance of the Govt.	Yes	Yes	Yes	Yes
5.	Service Level Assurance and Contractual arrangement	Yes	Yes	Yes	Yes
6.	Differentiating Factors				
7.	Physical Premises (DC Site) of the	Yes	No	No	No

#	Factors	Cat- A	Cat-B	Cat-C	Cat-D
	Govt.				
8.	IT Infrastructure dedicated for the Govt. Departments	Yes	Yes	Yes	No
9.	IT Infrastructure dedicated for a specific Govt. Department (One Department)	Yes	Yes	No	No
10.	Access to self monitoring of IT Infrastructure, backup, archiving etc	Yes	Yes	Yes	No
11.	Dedicated Security Equipment (Firewall, IPS, SIEM, GRC etc)	Yes	Yes	Yes	No
12.	Cost Effective Solution	Low	Low	Medium	High
13.	MIS Reports	Customized	Customized	Customized	Standard
14.	Type of Data	Personal Sensitive	NON Personal Sensitive	NON Personal Sensitive	Public

Type of Data	Meaning and Examples
Personal Sensitive *	<p>Sensitive personal data or information of a person means such personal information which consists of information relating to:</p> <ul style="list-style-type: none"> (i) password; (ii) financial information such as Bank account or credit card or debit card or other payment instrument details ; (iii) physical, physiological and mental health condition; (iv) sexual orientation; (v) medical records and history; (vi) Biometric information;

	<p>(vii) any detail relating to the above clauses as provided to body corporate for providing service; and</p> <p>(viii) It also include any other contextual data such as defence, nuclear, Criminal record etc which is concerned with national security</p> <p>(viii) any of the information received under above clauses by body corporate for processing, stored or processed under lawful contract or otherwise:</p> <p>Provided that, any information that is freely available or accessible in public domain or furnished under the Right to Information Act, 2005 or any other law for the time being in force shall not be regarded as sensitive personal data or information for the purposes of these rules.</p>
<p>NON Personal Sensitive</p>	<p>Data or information which does not fall in the category of above and which is not considered as personal sensitive. Any information/ data that are freely available or accessible in public domain or furnished under the Right to Information Act, 2005 or any other law for the time being in force shall not be regarded as sensitive personal data or information.</p> <p>For Eg--> <i>Any information which is freely available or accessible in public or furnished under the Right to Information Act 2005, Agriculture Information, Subsidy information, Seismic mapping records, Electricity and water supply & consumption records, Voter records.</i></p>
<p>Public</p>	<p>It is data/information which is explicitly approved by the organization/ department for release to the public. Data which is freely available or meant to be in public domain.</p> <p>For Eg--> Information that is generally available in public, Static information (such as Government websites), Heritage and Tourism rated information, Scholarships information, Transport related information, Rules / procedures / acts for Public, Weather / climate records and Census records</p>

(*CAT: Category)