Jio Cloud Starter Guide

4th February, 2014

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Getting Started

What are the services offered?

Jio Cloud is in the business of empowering innovation. It allows you to focus purely on innovating and shipping your idea to the market while handling all the infrastructure management needs for you in a completely hassle-free manner.

With Jio Cloud, you can move from ideation to implementation in a matter of minutes as compute, storage, networking and software resources are all available on demand through a simple web interface. You don't have to worry about any capital expenditure either, as you will only have to pay for what you use.

You are accustomed to having utilities like electricity, water and gas all available on an on-demand basis from a central supply grid and pay for only the amount you use. Jio Cloud allows you to utilize IT infrastructure in precisely the same way.

There is no limitation to what you can run on Jio Cloud, be it websites, media streaming applications, mobile applications, enterprise applications, databases, digital marketing campaigns, business intelligence and data analytics, payment gateways, gaming solutions or simple file storage.

The initial offering of Jio Cloud comprises of virtual server instances, Block Store and Object Store solutions.

Instance types

- **Micro:** 512 MB of memory, 40 GB of local instance storage, 32-bit or 64-bit platform
- **Small:** 2 GB of memory, 160 GB of local instance storage, 32-bit or 64-bit platform
- **Medium:** 4 GB of memory, 400 GB of local instance storage, 32-bit or 64-bit platform
- **Large:** 8 GB of memory, 800 GB of local instance storage, 64-bit platform
- **Extra Large:** 16 GB of memory, 1680 GB of local instance storage, 64-bit platform
- **Double Extra Large:** 32 GB of memory, 1680 GB of local instance storage, 64-bit platform
- **Quadruple Extra Large:** 64 GB of memory, 1680 GB of local instance storage, 64-bit platform

OS options

- CentOS
- Ubuntu

Use Cases

3-tier application

An application designed with a 3-tier architecture generally has the following structure:

- A front-end web server for serving static content, and potentially some cached dynamic content.
- A middle dynamic content processing and generation level application server, for example, Ruby on Rails, Java EE, ASP .NET, PHP, Perl, etc.
- A back-end database or data store, comprising both data sets and the database management system software that manages and provides access to the data.

Such an application uses server-side processing to build pages that are customized based on the user inputs and requests.

When deploying such an application, you typically need to ensure the following aspects:

- Set up a server to run your application
- Ensure security for your application and other resources

- Enable access to your application through a network
- Ability to scale your application as per demand
- Ability to monitor your application and resources
- Build fault-tolerance into the application for a richer experience

Instead of buying a physical computer with an OS, software and hardware that match your needs, you can instead start a virtual instance by selecting the required configuration through Jio Cloud.

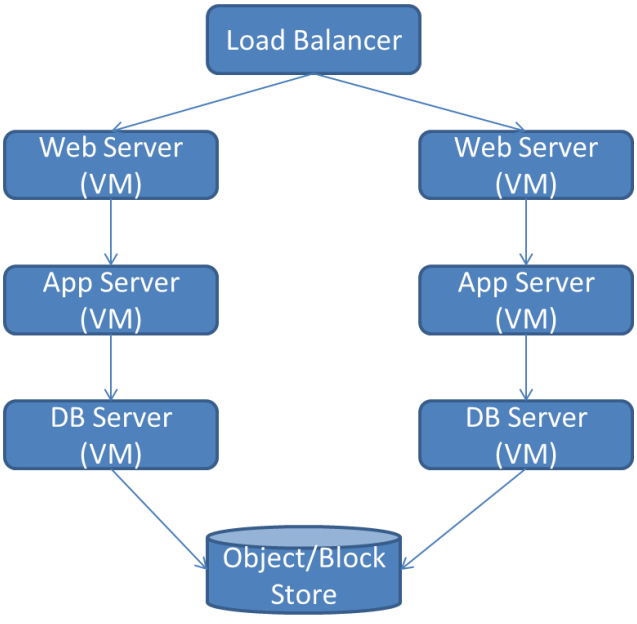
Jio Cloud offers several combinations of compute power in terms of CPU, RAM, Operating System and local storage. You can choose the instance type that suits your application the best. You can select appropriate instance types for your web server, application server and database servers.

You can either store your data in the local storage associated with the instance, or you can use Jio Cloud Block Store. Using Block Store will enable you to keep the data for later use even when the virtual machine is terminated. Hence, this is persistent storage. The local storage is ephemeral and will be wiped when the virtual machine is terminated.

In order to secure access to the virtual machines you set up, you need to use a public/private key pair to sign into your virtual machines. While the public key is embedded in your virtual machine, you can use the private key to securely login without a password.

Once your virtual machines are set up, you can control the traffic flows to them by setting up security groups. Jio Cloud allows you to define which ports need to be open and which closed, thus letting you add a layer of security to your virtual machines.

You can save a snapshot of the virtual machine you create and use the template for launching a new virtual machine automatically when the load on the first one increases. You can use a load balancer to split the load between the two virtual machines.



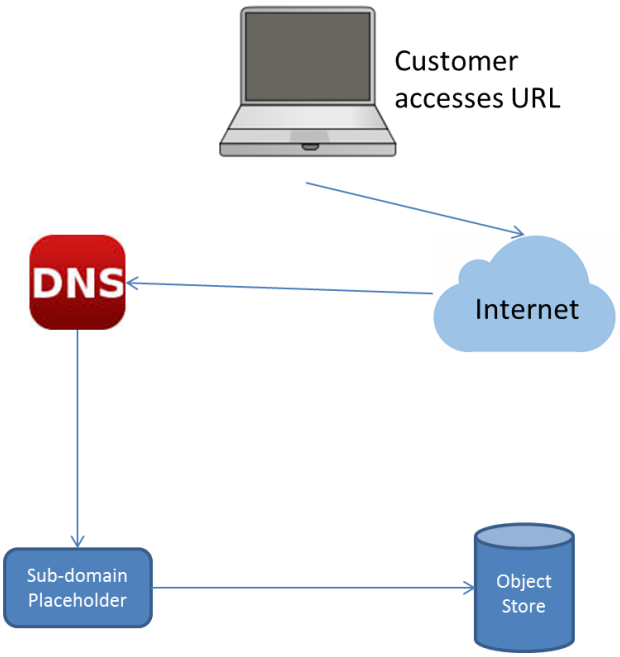
Website

A static website utilizes little server-side computing and relies primarily on client-side technologies like HTML, CSS and JavaScript.

While deploying a static website, you typically need to take care of the following aspects:

- Storing your files
- Delivering your content
- Ensure reliability and high performance of the website
- Route visitors to your website

Firstly, you can use Jio Cloud's Object Store to store all your files (HTML, CSS, etc). Jio Cloud allows you to configure files in the Object Store to be publicly viewable. Once this is done, you need to choose a domain name for your website and allow users to view the website by accessing the URL with the chosen domain name.



Mobile application

A mobile application generally has the following structure:

- A front-end web server for serving static content, and potentially some cached dynamic content.
- A middle dynamic content processing and generation level application server.
- A back-end database or data store, comprising both data sets and the database management system software that manages and provides access to the data.

Such an application uses server-side processing to build pages that are customized based on the user inputs and requests.

When deploying such an application, you typically need to ensure the following aspects:

- Set up a server to run your application
- Ensure security for your application and other resources
- Enable access to your application through a network
- Ability to scale your application as per demand
- Ability to monitor your application and resources
- Build fault-tolerance into the application for a richer experience

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Mobile applications generally serve a lot of files like photos, videos, etc. It is ideal to store these files in the Jio Cloud Object Store for best performance.

Every file stored in the Block Store or Object Store will be triplicated for durability.

In order to secure access to the virtual machines you set up, you need to use a public/private key pair to sign into your virtual machines. While the public key is embedded in your virtual machine, you can use the private key to securely login without a password.

Once your virtual machines are set up, you can control the traffic flows to them by setting up security groups. Jio Cloud allows you to define which ports need to be open and which closed, thus letting you add a layer of security to your virtual machines.

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