

# Cloud Computing & Infrastructure Services

## What is Cloud Computing?

- Cloud Computing is a model where computational resources (Data & Software) accessible via a computer network (e.g. Internet), rather than from a local computer. Cloud resources can be deployed rapidly & on-demand.

## What is Infrastructure as a Service (IaaS)?

- IaaS provides enterprise-grade data centre resources such as mail servers, web servers and application servers allowing customers to outsource Data Centre infrastructure on-demand.

## Key Unique Selling Points (USP)s:

- Business Continuity – ensures IT related processes are not unnecessarily interrupted thus keeping business running.
- Simplified Technology - the service has been made extremely user friendly.
- Increased Productivity - businesses will become more efficient by focusing on their core functions.
- Business Agility - the wide range of services on offer make businesses more dynamic.

## Why Use the Cloud IaaS Service? KEY BENEFITS OF SAFARICOM CLOUD IaaS

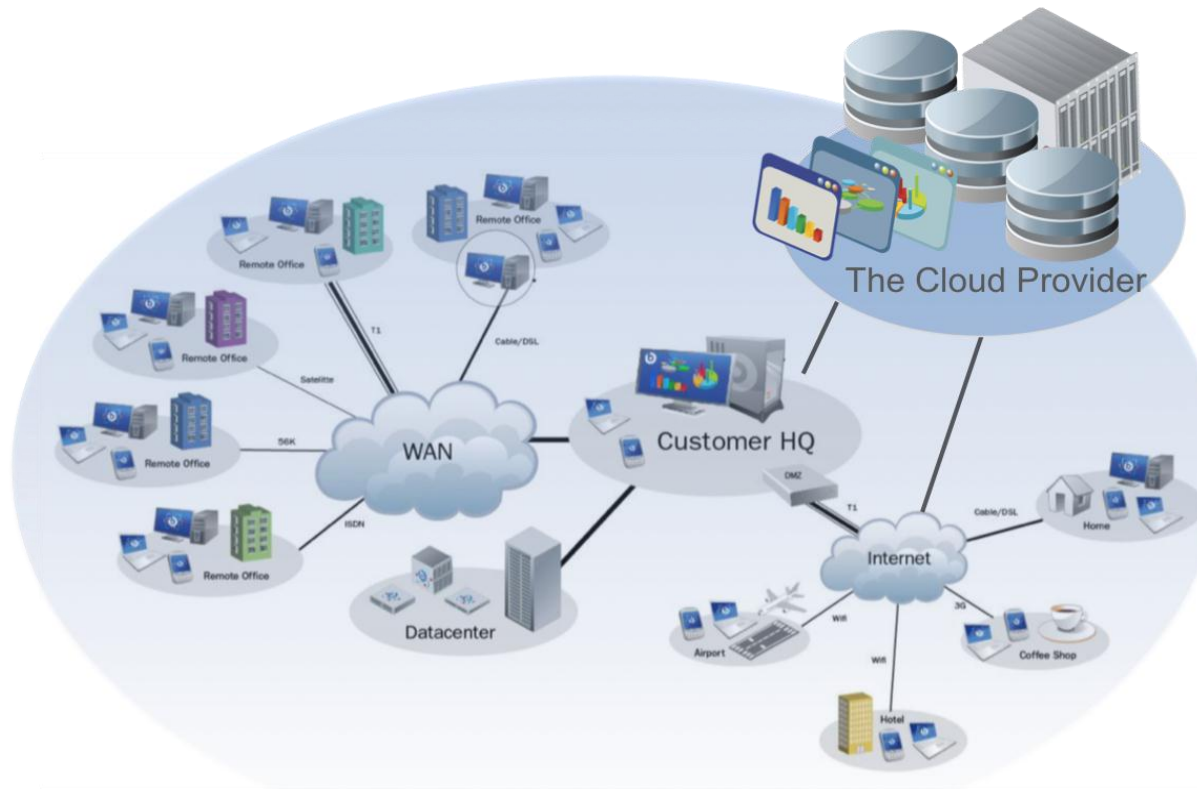
- **Low Capex**- Server, Storage, Software, DC set-up
- **Reduced Opex** - IT maintenance, Admin, training, DC costs, depreciation, power, space
- **Security** - Security Event Management, Encryption, Data Leakage Prevention
- **Availability** - Universally unmatched 99.999% availability, High Application uptime
- **Compliance** - Compliance with DR, Backup, Archiving Internal & Govt requirements
- **Simplicity** - Self-service access to service levels
- **Pay-for-Use** - Align costs with usage
- **Elastic** - Acquire, deploy, change, or release on demand
- **Business Agility** - Faster time-to-market, flexibility to change
- **Control** - Tenant in Control Model, Greater visibility into costs, Control over service levels

## The Cloud IaaS Services available include:-

- ❖ **Virtual Hosting (Data Centre as a Service):**  
Rapidly provision a complete data center on the cloud.
- ❖ **Back Up Service:**  
Back up your data directly onto the Safaricom cloud
- ❖ **Storage Service:**  
Securely store information online on the Safaricom Cloud

# How does Cloud Computing Work?

Service Architecture as below:



## Payment Options:

- ❖ Customer will make payments for the preferred service on pre-payment or post-payment; via Cheque or Cash payments

## Support: **Free 24/7 Support**

- ❖ Email: [cloudsupport@safaricom.co.ke](mailto:cloudsupport@safaricom.co.ke)
- ❖ Contact Number: 0722 002222

# Cloud Benefits to Business and IT

## The Business: ACCESS IT as a Service

### **Simplicity**

Self-service access to service levels

### **Pay-for-Use**

Align costs with utility

### **Agility**

Faster time-to-market flexibility to change

### **User-centric**

Outcome based approach to supporting business goals

## IT: DELIVER IT as a Service

### **Efficient**

Automation of tasks to do more faster

### **Elastic**

Acquire, deploy, change, or release on demand

### **Responsive**

Greater visibility into costs and control over service levels

### **Control**

Create the IT environment you need

## Cloud KPIs

### **Strategic**

Business alignment

Business Impact

### **Operational**

Speed and flexibility of IT

Operational effectiveness

Service Level delivery

### **Technology**

OpEx & CapEx reduction

Service Level capability of the infrastructure (PARS)

## Safaricom Data Centre Advantages to your Business:

### 1. **100% Network & Power Uptime**

All Safaricom data centers have an enviable record of 100% network and power uptime

### 2. **Multiple Level of Security**

24X7 physical security, Video surveillance, restricted access and biometric access

### 3. **24X7 Unescorted/Escorted Access**

All Safaricom data centers are manned 24X7 with access options for client representative.

### 4. **Basic Troubleshooting**

L1/L2 support on demand. Support staff is available 24X7 through the year

### 5. **Multiple options for connectivity**

On Tata communication domestic and global network and presence of all other connectivity providers

### 6. **On-Site Work Area**

Customer representative can avail the facility of work area at Data centers on demand.

## COLLOCATION SERVICES

- Sometimes referred to as “Server Colocation”
- Physically house servers and network equipment at Safaricom’s Data Centre.
- Facility provides a high-security environment, including fire detection, UPS power backup, access control, surveillance and backup power generators to ensure high availability.
- Saves customer time and costs in ensuring business continuity.
- Redundant clean Power Feed options.
- Partial or Full 42U to multi rack suite.
- Optional Rack, Server or application monitoring.
- 24x7 on-site hands providing support.
- Dedicated fixed bandwidth.

### Service Plans & Pricing - Collocation Service

RACK SPACE SIZE	PRICES KSH. (Excl. Tax)	PRICES KSH. (Excl. Tax)	BENEFITS of COLLOCATION SERVICE
4 U	28,000.00	32,480.00	
8 U	52,000.00	60,320.00	
12 U	78,000.00	90,480.00	
16 U	105,000.00	121,800.00	
21 U - Half Rack	140,000.00	162,400.00	
			<ul style="list-style-type: none"> <li>○ <b>Secure Space</b> - Equipment is located in locked cabinets or custom-built cages within our data centre which is further protected by multiple layers of physical security</li> <li>○ <b>Economies of Scale</b> - Leverage Safaricom infrastructure investment at a fraction of the cost to build or retrofit an in-house data centre</li> <li>○ <b>Service Level Agreements (SLAs)</b> - Financially backed industry leading guarantees for facility and Internet connectivity</li> <li>○ <b>Predictable Costs</b> - Fixed monthly costs that combine raised floor space, power, cooling and bandwidth provisioning</li> <li>○ <b>Risk Mitigation</b> - Secure facilities built with multiple redundancies will withstand any threat or disasters ensuring high-availability for your infrastructure</li> <li>○ <b>Redundancy</b> - Geographical redundancy offering disaster prevention</li> <li>○ <b>Bandwidth</b> - High bandwidth and redundant internet access</li> <li>○ <b>Security</b> – Performance - assurance</li> </ul>

# VIRTUAL HOSTING SERVICES

## Service Plans & Pricing - Virtual Hosting

PRODUCT	LITE	BASIC	STANDARD	STANDARD PLUS	PERFORMANCE
SERVICE DESCRIPTION	1 CPU(3.3 Ghz),2GB RAM,40GB	1 CPU (3.3 GHz speed), 2GB RAM, 120GB	1 CPU (3.3 GHz speed), 4GB RAM, 120GB	1 CPU (3.3 GHz speed), 8GB RAM, 120GB	2 CPU (3.3 GHz speed), 4GB RAM, 290GB
PRICE KSH. (Excl. Tax)	5,560	6,724	7,371	8,621	13,750
PRICE KSH. (Incl. Tax)	6,450	7,800	8,550	10,000	15,950
IP CAPACITY FREE	256	256	512	512	512
<ul style="list-style-type: none"> <li>Virtual Hosting allows customers to outsource their Data Centre infrastructure (servers and storage etc.) to Safaricom.</li> <li>This is delivered to customers through the purchase of Virtual Machines or Virtual Servers accessed over the Internet.</li> <li>The client configures the virtual machines to their specifications (Operating Systems, RAM, Storage (size and type) &amp; Processor.</li> </ul>					
PRODUCT	PERFORMANCE PLUS	FLASH	PERFORMANCE PREMIUM	FLASH PLUS	FLASH PREMIUM
SERVICE DESCRIPTION	2 CPU (3.3 GHz speed), 8GB RAM, 290GB	2 CPU (3.3 GHz speed),8GB RAM, 320GB	4 CPU (3.3 GHz speed), 16GB RAM, 290GB	4 CPU (3.3 GHz speed), 16GB RAM, 320GB	8 CPU (3.3 GHz speed), 32GB RAM, 320GB
PRICE KSH. (Excl. Tax)	15,000	15,216	28,190	28,362	54,698
PRICE KSH. (Incl. Tax)	17,400	17,650	32,700	32,900	63,450

## Pricing - IP Pricing (Virtual Hosting)

Capacity	Price (Excl. VAT)	Price (Incl. VAT)
512 Kbps	2,586	3,000
1 Mbps	5,129	5,950
2 Mbps	10,216	11,850
3 Mbps	15,302	17,750
4 Mbps	20,431	23,700
5 Mbps	25,517	29,600
6 Mbps	30,603	35,500
7 Mbps	35,733	41,450
8 Mbps	40,819	47,350
9 Mbps	45,905	53,250
10 Mbps	51,034	59,200
15 Mbps	76,509	88,750
20 Mbps	102,026	118,350
25 Mbps	127,543	147,950
30 Mbps	153,017	177,500

- ❖ Multiple Level of Physical & e-Security
- ❖ 100% Network & Power Uptime Guarantee
- ❖ 42U rack space in standard rack provided by Safaricom  
( Rack: 42U of 600 x 1000mm dimension)
- ❖ Rated AC power on single phase
- ❖ 2 nos of IEC type single phase power sockets of 230V/32A
- ❖ 2 nos of 12 x 5/15Amp vertical power strip in each rack
- ❖ Controlled Environment and Precision AC

# BACK UP SERVICE

## Service Plans & Pricing - Back Up Service (ASIGRA)

DESCRIPTION	CAPACITY (in GB)	PRICE KSH. (Excl. VAT)	PRICE KSH. (Incl. VAT)
Back Up 20GB	20	Ksh. 1,800	Ksh. 2,088
Back Up 40GB	40	Ksh. 3,600	Ksh. 4,176
Back Up 50GB	50	Ksh. 4,500	Ksh. 5,220
Back Up 100GB	100	Ksh. 9,000	Ksh. 10,440
Back Up 200GB	200	Ksh. 18,000	Ksh. 20,880
Back Up 400GB	400	Ksh. 36,000	Ksh. 41,760
Back Up 500GB	500	Ksh. 45,000	Ksh. 52,200
Back Up 800GB	800	Ksh. 72,000	Ksh. 83,520
Back Up 1 TB	1,024	Ksh. 92,160	Ksh. 106,906
Back Up 2 TB	2,048	Ksh. 184,320	Ksh. 213,811
Back Up 3 TB	3,072	Ksh. 276,480	Ksh. 320,717
Back Up 5 TB	5,120	Ksh. 460,800	Ksh. 534,528
Back Up 10 TB	10,240	Ksh. 921,600	Ksh. 1,069,056
Back Up 15 TB	15,360	Ksh. 1,382,400	Ksh. 1,603,584
Back Up 20 TB	20,480	Ksh. 1,843,200	Ksh. 2,138,112

### BENEFITS OF ASIGRA BACK UP SERVICE

- Back Up Service (ASIGRA) collects data from Data Centre, remote offices, laptops, desktops, smart phone and tablets.
- Data is de-duplicated, compressed, and encrypted before being transmitted across the network to a cloud-based target site to be stored.
- Target systems can be located onsite, in a remote Data Centre, or with a service provider.

# STORAGE SERVICE

## Service Plans & Pricing - Storage Service

DESCRIPTION	ITEM	PRICE KSH. (Incl. VAT)
Storage 100GB	100 GB	Ksh. 1,392
Storage 200GB	200 GB	Ksh. 2,552
Storage 400GB	400 GB	Ksh. 4,872
Storage 500GB	500 GB	Ksh. 6,032
Storage 800GB	800 GB	Ksh. 9,512
Storage 1 TB	1024 GB	Ksh. 12,110
Storage 2 TB	5120 GB	Ksh. 23,989
Storage 5 TB	1024 GB	Ksh. 59,624
Storage 10 TB	10240 GB	Ksh. 119,016
Storage 20 TB	20480 GB	Ksh. 237,800

### BENEFITS OF STORAGE SERVICE:

- Enable you to efficiently store, manage, and aggregate distributed big data across locations through a single pane of glass. Gain a common view and central management.
- Seamless scalability making it possible to add capacity, applications, locations or tenants to your cloud with zero need to develop or reconfigure.
- Reduce administration time and ensure availability. Storage-as-a-service capability allows enterprises and service providers to meter capacity, bandwidth, and usage across tenants.
- Enable users to self-manage and access storage. Easy storage access which provides flexible access across networks and platforms for traditional applications, web applications, Microsoft Windows, Linux, and mobile devices.
- Allow users and applications instant access to data.



## PRODUCT DETAILS

<b>Subscription/ Registration</b>	<ul style="list-style-type: none"> <li>○ Cloud Service Application form; signed and stamped by the Customer.</li> <li>○ Cloud Terms &amp; Conditions / SLA Booklet signed and stamped by the Customer.</li> <li>○ Provisioning Template filled with the customer's specifications and service requested for.</li> <li>○ Copy of Know Your Customer documents.</li> <li>○ Letter or Email requesting for the Service.</li> <li>○ Technical Proposal document from the pre sales engineers confirming service specifications.</li> </ul>
<b>Frequently Asked Questions</b>	<p><b>VIRTUAL HOSTING FAQs</b></p> <p><b>1. What can I do with a Cloud Server?</b> Anything you want to (within the law and our Acceptable Use Policy, of course)! The Safaricom Cloud Server solution is a fully unrestricted, root/Administrator level access, Linux or Windows environment. Any application or service that you can run from a traditional, physical, dedicated- unmanaged server can be run from your Cloud Server.</p> <p><b>2. What can I do with a Safaricom Virtual Server?</b> Anything you want to (within the law and our Acceptable Use Policy, of course)! The Safaricom virtual server solution is a fully unrestricted, root/Administrator level access, Linux or Windows environment. Any application or service that you can run from a traditional, physical, dedicated- unmanaged server can be run from your virtual Server.</p> <p><b>3. Are there SLA?</b> Yes, these are available and are provided as part of the contract.</p> <p><b>4. Will I be billed if my server is powered off?</b> Yes. You will be billed for the resources that are used on the host while your server is in the Active status. When your server is created, you are given a dedicated amount of RAM and hard drive space.</p> <p><b>5. How many domains can I host?</b> This is a question familiar to those who use shared hosting. There is no limit, since you are in control of everything on your virtual Server.</p> <p><b>6. Do you offer internal IPs?</b> Yes. Each server comes with an internal IP address that is used to communicate between servers. The traffic that flows over this interface (eth1) on your server is unmetered and is not billed.</p> <p><b>7. Will you help me install my software package?</b> No. Since the Safaricom Cloud is an un-managed service, you are responsible for installing and maintaining all software on your server. You can check out our help articles for tutorials and walk- through.</p> <p><b>8. What other optional services can add onto my virtual server?</b> You can add the following services – Firewalls, extra IP's (Public IP's), load balancers, guided and managed installation, NIC's</p>

**Frequently  
Asked  
Questions**

**STORAGE SERVICE FAQs**

**1. How does a customer obtain Atmos Storage GeoDrive? (Safaricom Online Storage Application)**

The Atmos GeoDrive downloads for Windows and Linux are available on the Safaricom website.

**2. Is there a minimum system requirement for Amos Storage GeoDrive?**

No hardware requirements have been defined for Atmos GeoDrive. The application is “lightweight” enough where it can install on PCs that support the Windows and Linux OS platforms listed below.

**3.What versions of Microsoft Windows are supported by Atmos Storage GeoDrive?**

The following platforms are qualified:

- Windows XP SP3 (32-bit only)
- Windows Server 2003 SP1 or later (32- and 64-bit)
- Windows Vista SP1 or later (32- and 64-bit)
- Windows Server 2008 (32- and 64-bit)
- Windows 7 (32- and 64-bit)
- Windows Server 2008 R2 (64-bit only)

**4.Does Atmos Storage GeoDrive support Mac?**

No. Atmos GeoDrive does not support any Mac operating system. This is a requirement for a future version but no date is currently available.

**5. Does Atmos GeoDrive support mobile devices?**

No. Atmos GeoDrive does not support any mobile device. This is a requirement for a future version but no date is currently available.