Empowering Without Constraint

Profile

C-NEST was created in 2014 in Gaborone, Botswana as a CSP (Cloud Service Provider) to provide internationally competitive services to the local and eventually pan-African markets. Our company is the first Botswana based CSP and we strive to be the best, most trusted, agile and professional local and ultimately pan-African CSP.

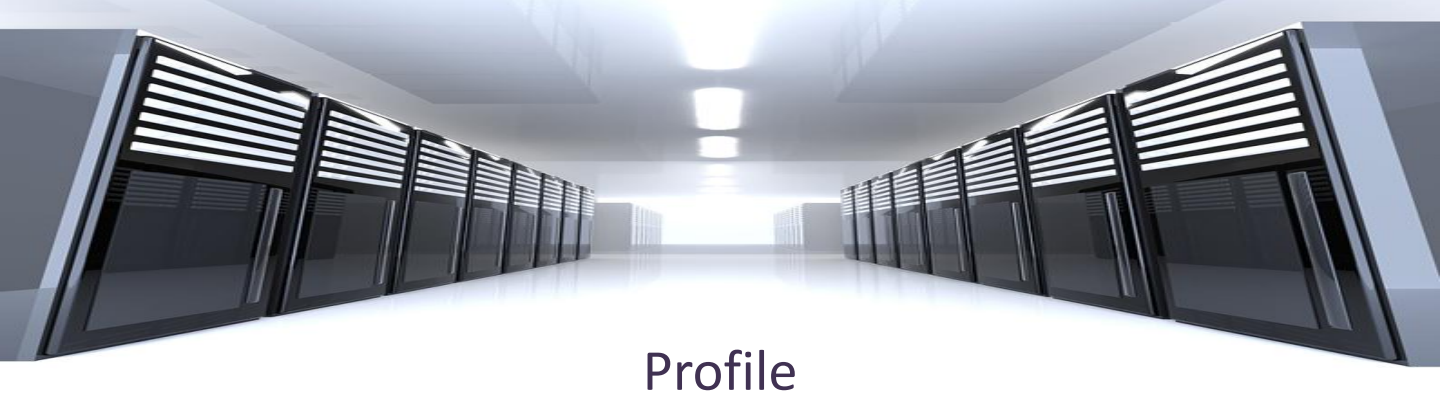
The company will provide secure, fast, reliable, scalable and redundant Cloud based services and solutions to local SME's, larger private corporations and government departments.

We absolutely value professionalism, integrity and the delivery of real business value to our clients. Our clients are our partners in a journey to continuously maximize our technological and human resources, ultimately to the benefit of our organizations and to the development of our continent.

C-NEST will initially provide IaaS based solutions and will in the near term evolve to providing PaaS and SaaS solutions and services. Along with the rest of the industry, we see Software-as-a-Service as both the most rapid growth area for a CSP and the highest value add to our customers. We will develop and engage in appropriate strategic partnerships within the SaaS arena in the provision of these services to our client base.

C-NEST will also provide cyclical retainer contracts and both closely aligned ad-hoc consulting assignments and projects within the Cloud Computing space.

- CLOUD AND VIRTUALIZATION ADOPTION CONSULTANCY
- CLOUD TECHNOLOGY AND SOLUTIONS IMPLEMENTATIONS
- CLOUD INFRASTRUCTURE AND SERVICES SUPPORT
- ENVIRONMENT MANAGENT SERVICES
- CLOUD AND VIRTUALIZED ENVIRONMENT ENHANCEMENT
- CLOUD AND VIRTUALIZATION ADVISORY SERVICES
- WEB APPS, MOBILE APPS & BROWSER EXTENSIONS
- INTEGRATION WITH OTHER CLOUDS AND SYSTEM
- ONGOING CLIENT EDUCATION



Profile

C-NEST offers services within what is commonly recognized as the three primary areas of opportunity in Cloud Computing delivery models:

IaaS *(Infrastructure as a Service)*

This is the provision of servers and services with 24/7 availability with uptime availability of 99.99%, including full replication and redundancy and that can be deployed by our clients almost instantly.

PaaS *(Platform as a Service)*

This is a deployment of Cloud Computing services providing a computing platform and a solution stack as a service, typically employed for development and test environments. Within this model, the consumer creates the software using tools and/or libraries from C-NEST. The consumer also controls software deployment and configuration settings. C-NEST provides the networks, servers, storage, and other services. PaaS offerings facilitate the deployment of applications without the cost and complexity of buying and managing the underlying hardware and software and provisioning hosting capabilities. C-NEST will provide typical pre-configured PaaS template environments such as a PHP, MySQL, Apache, Lunix or Unix based Ubuntu servers or MS Windows based Server from MS Server 2003 onwards, MS SQL Server etc that can be deployed within minutes for instant use.

SaaS *(Software as a Service)*

This is a software deployment model in which software and associated data are centrally hosted in the Cloud. SaaS is typically accessed by users using a thin client via a web browser. SaaS has become a common delivery model for many business applications, including CRM, Accounting, Office & Messaging software, DBMS software, CAD software etc. C-NEST has considerable expertise in business systems selections and implementations and aside from provisioning of SaaS via selected strategic partnerships, will work tirelessly with clients in the selection, implementation and support of appropriate and ubiquitously accessed, Cloud enabled business solutions.

Critically our cloud based and virtualized architecture that is easily fully replicated also allows us to also provide DRaaS solutions to our clients:

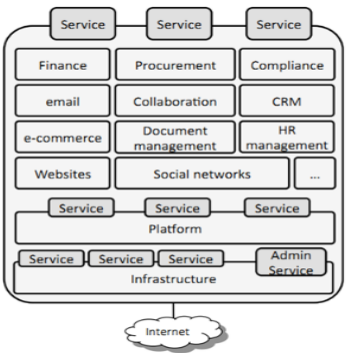
DRaaS *(Disaster Recover as Service)*

This is a service designed to protect our clients from the loss of mission critical data and systems. C-NEST hosted virtual servers that may contain complex configurations and applications that in the 'real world'; and assuming that your critical data and systems was actually available to recover, may take days to weeks to rebuild. C-NEST DRaaS will remove the need for costly and idle DR infrastructure and will ensure that your mission critical systems and data can be rebuilt easily and quickly with minimal impact to the operation of your business.

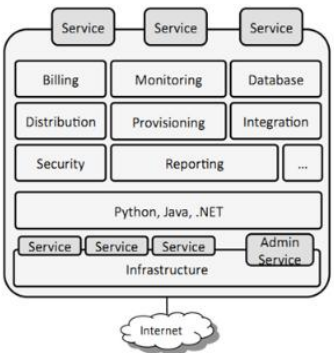
C-NEST Deployment Models

Delivery Model	Typical Consumer Control Level	Typical Functionality Available	Typical Consumer Activities	Common Provider Activities
SaaS	Usage & usage-related configuration	Access to front-end user-interface	Uses and configures cloud service	Implements, manages and maintains cloud service Monitors usage by consumer
PaaS	Limited administrative	Moderate level of administrative control over IT resources relevant to consumer's usage of platform	Develops, tests, deploys and manages cloud services and cloud-based solutions	Pre-configures platform and provides underlying infrastructure, middleware and other needed IT resources Monitors usage by consumer
IaaS	Full administrative	Full access to virtualized infrastructure-related IT resources and possibly to underlying physical IT resources	Sets up and configures bare infrastructure and installs, manages and monitors required software	Provisions and manages the physical processing, storage, networking and hosting required Monitors usage by consumer

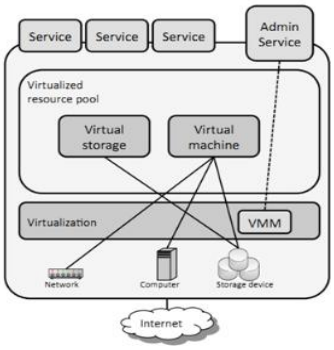
SaaS



PaaS



IaaS



What is CLOUD Computing

Cloud Computing is a still new paradigm in the world of computing and IT.

Cloud Computing is an Internet-based model of computing where shared resources, software, and information are provided to computers and other devices on demand, much like a public utility such as is provided by a national electricity grid.

It is not necessary for end-users or consumers to know any details of the location and configuration of the remote systems that delivers the services.

Prior to the advent of CLOUD computing, businesses (consumers) generally focused on either standalone or client-server applications. Standalone meaning that the user interface, the application and the business data store is maintained and executed within a single environment; the consumers machine and in comparison, client-server indicates a segregation between these components and resources e.g. the user interface can be executed locally – on the "client" – while business logic and data storage etc, are maintained and executed remotely – on the "server."

An example of cloud computing is the social network site Facebook, which is comprised of a thin application running in a web browser and a remote service running on Facebook's server farms.

Cloud Computing is an abstraction from traditional server hosting solutions. For a business prior to the cloud era, it could be necessary to invest in 10 servers and install them in a data centre. However, if only 10 percent of the computational power is needed 90 percent of the time, there is a vast surplus of resources most of the time. Equally so, there are bound to be excessive costs associated with management 90 percent of the time.

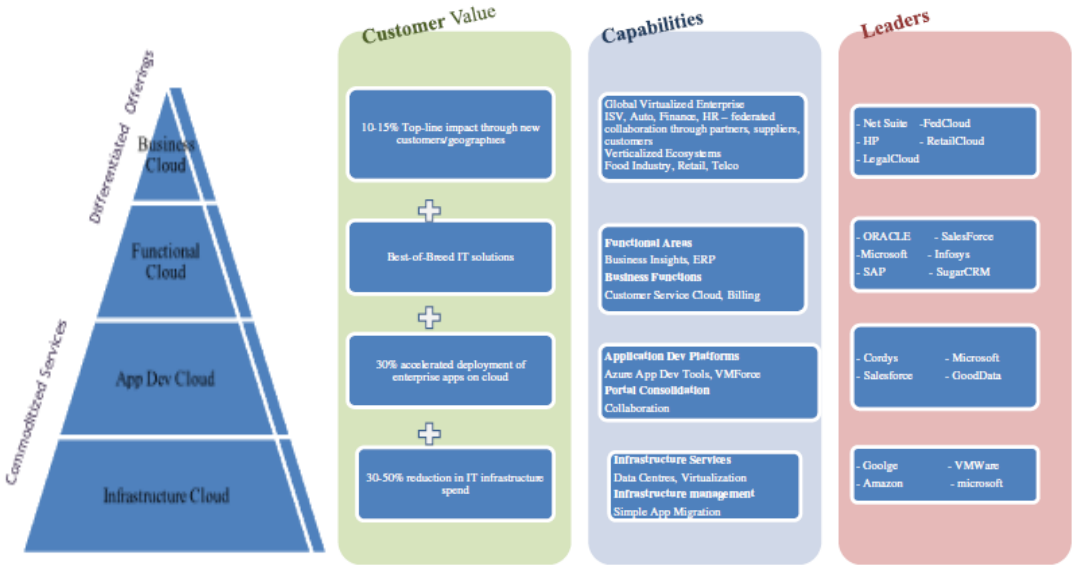
- Elastic on demand and scalable resources
- Ubiquitous anywhere any platform access
- No hardware to buy, upgrade, repair, and maintain
- No software licenses to pay for up-front
- No need to negotiate painful and expensive software and hardware installations
- No annual maintenance software and hardware maintenance fees
- No need for anti-virus programs
- No hard disk crashes and unavailable systems
- No need for redundant DR systems and to back up data
- Permission-based access/security technologies, typically much more secure than on-premise IT resources

The potential to access seemingly unlimited storage, capacity, and scale on an as-needed basis gives small and midsized businesses the ability to operate like major enterprises

CLOUD Econometrics

Cloud computing brings significant cost advantages to service consumers. Savings of up to 80% of IT CAPEX and 50% of IT OPEX can be realised by moving from on-site services to cloud based services e.g. on-site MS Exchange based e-mail generally costs 100USD/month/user with an equivalent cloud based offering from MS costing 25USD/month/user and 9USD/month from Google, open source offerings can cost even less. If 100 servers are moved from on-site data centres to the cloud, potential savings can be as much as 1M USD/year.

Layering Business Values



Four distinct stages of Cloud innovation and business values:

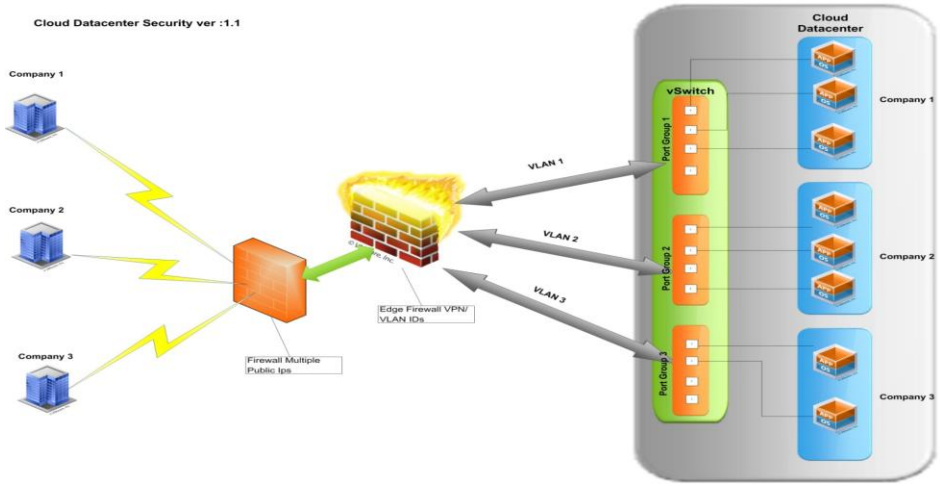
1) Focuses on infrastructure and also standard software applications
2) On building operating environments that manage "clouding" apps, resource management and integration
3) On functional areas and processes, significantly ERP systems.
4) The movement of entire business areas that are entirely cloud based

C-NEST expertise and resources allows our clients to:

- *Significantly* lower the opportunity cost of running technology
- Make a *massive* shift from CAPEX to variable OPEX
- *Significantly* lower the total cost of ownership (TCO) of technology
- To have *renewed focus* on core activities

C-NEST Technology

C-NEST employs industry leading technology and Could orchestrator and hypervisor software in the provision of it's services with multiple firewalls implemented to enable world class security features.



Access to C-NEST cloud resources is via the internet. However, within Botswana, clients will also have the option of an inexpensive data only radio link in providing a redundant connection to the C-NEST data centre.

C-NEST data centre has electronic security access systems, redundant servers and back-up (UPS) power supplies with offsite replication of client data ensuring absolute security and continuity of operations for our clients mission critical systems.

Cloud technologies are NOT new or untried and untested.

Pre-existing enabling technologies:

- Clustering
- Grid Computing
- Virtualization

Other enabling technologies in existence prior to "Cloud Computing":

- Broadband Networks & Internet Architectures
- Data Centre Technologies
- Virtualization Technologies
- Web technologies
- Multitenant Technologies

C-NEST

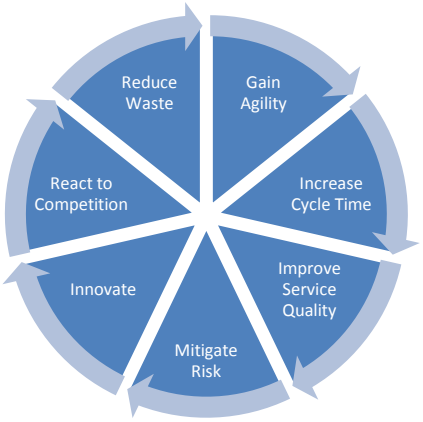
Old Thinking: Enterprise Software

Applications : Expensive to install and expensive to run
Custom Development : Slow and expensive
Integration : Very expensive to build and very difficult to change
Maintenance : Plagued by poor service due to uniqueness of environments
Hardware : Very expensive capital expenditure
Disaster Recovery :Typically partially implemented and seldom tested
Resources : Very expensive on-site technical staff or expensive maintenance contracts

C-NEST: CLOUD Thinking

Order
Create
Deploy

Applications : Pre-installed, Pre-integrated when utilising SaaS
Custom Development : Minimized or eliminated utilizing best of breed, a vendor service and not your headache
Integration : Pre-integrated, best of breed easy to use APIs
Maintenance : Taken care of by C-NEST. No environment maintenance or costs. Specific application maintenance supported by C-NEST.
Hardware : NO hardware = NO hardware costs
Disaster Recovery : Taken care of by C-NESTs VM technology . Client BCP/DR testing fully supported by C-NEST.



- We are experts in ZIMBRA implementations
- We provide hosted Alfresco CMS solutions
- We actively researching open source and best of breed SaaS solutions for the Botswana market. Our website provides updates of our work in this area
- We are incredibly passionate about providing you with the best fit Cloud based solutions, from vanilla IaaS to pre-configured instantly usable PaaS web-stacks to enterprise level SaaS
- C-NEST team members have done this before and are confident we will exceed your expectations

People

Skills Development

C-NEST is absolutely committed to the development and growth of Cloud Computing and ICT skills within Botswana and one of our missions is to enhance and add to this development at every opportunity. Our ambition is to continue to recruit and train local employees within this space to internationally recognised certification levels.

CTO : Tommy Sosa

15 years industry experience, 9 of these involved with the use and implementation if Linux and Open Source software solutions with extensive experience in the design and implementation of HP based mass storage solutions frequently employing virtualization solutions around Oracle VM and VMware servers, with additional senior consultant experience in designing/delivering SAN, VMware and DR solutions for large corporate clients. Tommy has relevant formal industry certifications and training covering HP SAN solutions, HP StorageWorks EVA Solutions and certified VMware solutions qualifications and experience in addition to MS certifications in Win2008 AD configuration, Win7 Configuring etc., previously worked for ASC Botswana as their principal consultant on server farm and virtualization solutions design and implementation.

CEO : Raymond Broome

25 years' experience as an IT professional the majority of which has been in the financial sector and latterly as a consultant for global software solutions providers specializing in trading and fund administration systems, with in-depth knowledge of investments systems. Extensive solutions design and implementation. He has significant international experience having worked on-site with clients from Iceland to African. Held roles from software designer/developer to development project leader for global investment banks and spent last 6 years working in Africa.

Senior Technical Engineer : Shane Cooper

Shane's last role was as a Systems and Networks manager. He has 6+ years experience configuring and supporting complex international network technologies across VPNs, LANS, MANs, WANs for corporate and ISP clients and he has expert level Cisco and Linux skills

- Highly experienced with deep technical and business skills
- Undertaken projects in most business sectors from agriculture to banking
- Multiple cloud solution projects including complete large scale data centre redesigns
- Passionate about staff and local skills development
- Actively pursues and maintains vendor product and industry certifications

Corporate Headquarters
C-NEST, Plot 61 GICP, Gaborone, Botswana. Postal PO Box AE382 AEH Molapo Crossing, Gaborone, Botswana
Phone: +(267) 75431188 / Email: enquiry@c-nest.com/ Website : http:www.C-NEST.com