



The Impact Of Migration To The Cloud On Telecoms

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IT AS WE KNOW IT...

- Cabling for phones and PC's
- Computer room with batteries
- Server + O/S + Exchange = File Server + Email
- ERP leading to improved workflows
- Access only when at the office.
- Later VPN access for after hours access to systems... mainly email...
- Isolated network... secure due to isolation



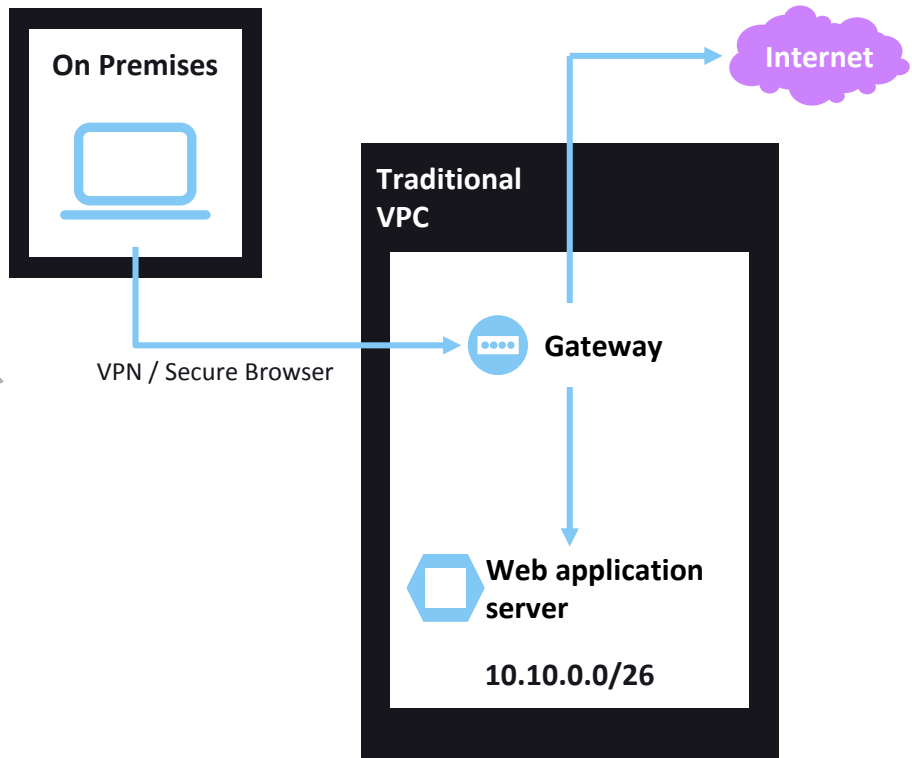
MOVING TO THE CLOUD THEREFORE LOOKS & FEELS APPEALING



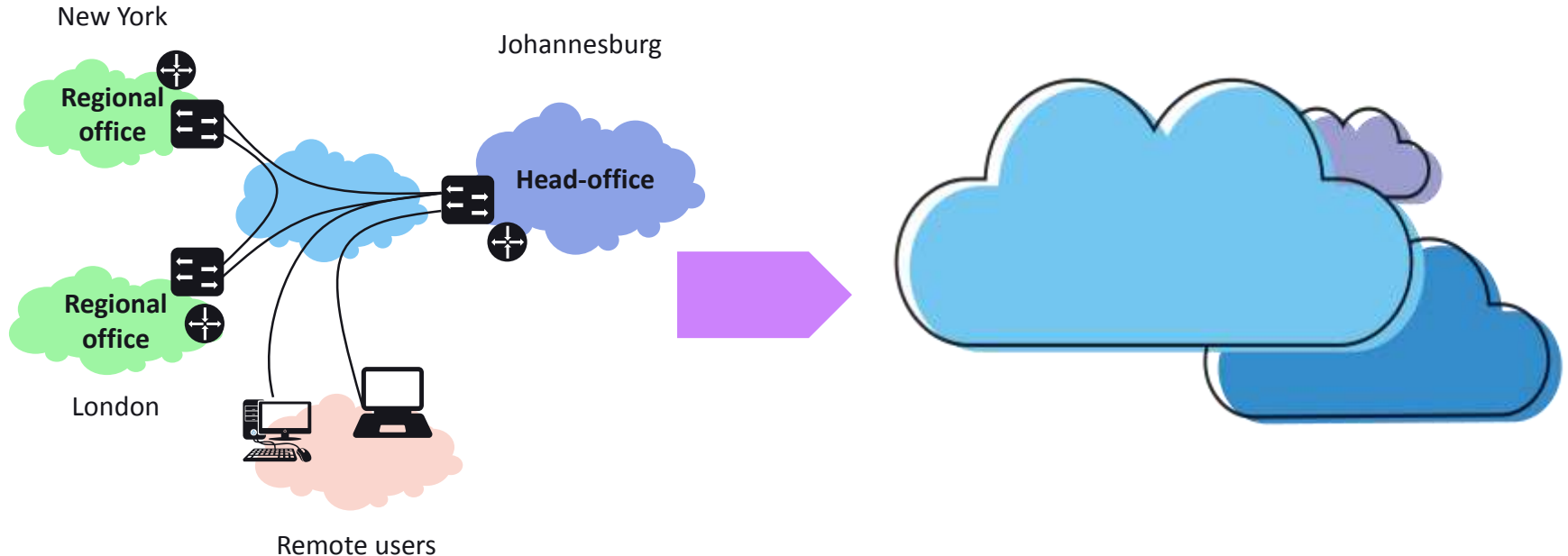
WHAT WE IMAGINE HAPPENS WHEN WE MOVE INTO A VIRTUAL PRIVATE CLOUD

Traditionally a VPC is regional in nature

Connected using VPN or public IPs



IN REALITY MOVING TO THE CLOUD REQUIRES US TO MOVE SEVERAL SERVER LOCATIONS & CONNECT MANY REGIONAL OFFICES



IN REALITY OUR CLOUD LOOKS MORE LIKE THIS:

We move into two or more cloud regions for redundancy - which then need to connect to each other

Traditionally a VPC is regional in nature

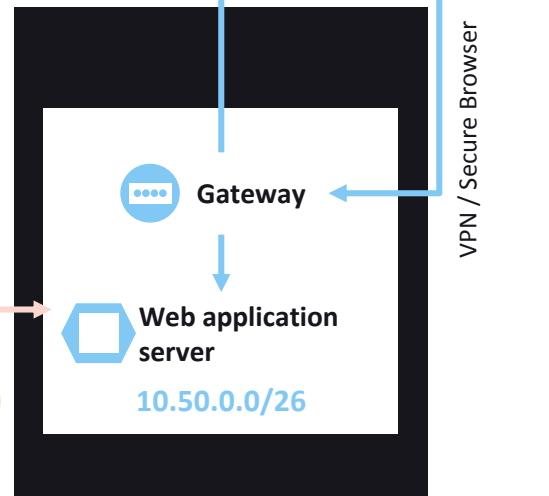
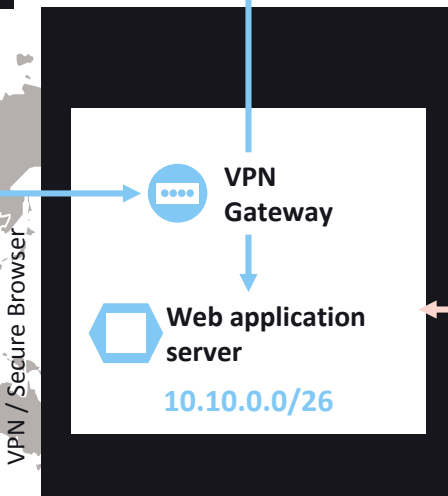
Connected using VPN or public IPs

On Premises



Internet

On Premises



CLOUD PROVIDER AS A CONNECTIVITY PROVIDER

VPC is a global construct

No inter-VPC VPN requirement

On Premises



Internet

Direct Connect

On Premises



VPN / Secure Browser

Internet

Public IP
197.11.234.6

Gateway
interconnect

Subnet
10.10.0.0/26

VM
Compute Engine

London or other

Subnet
10.50.0.0/26

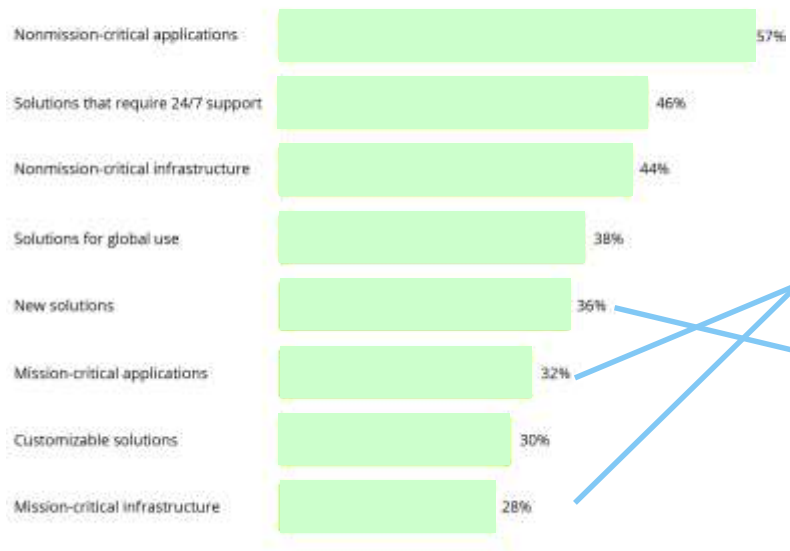
VM
Web server

Johannesburg

ONCE OPERATIONAL ISSUES ARE RESOLVED - CIO'S WILL SHIFT THEIR ATTENTION TO INNOVATION USING ML AND AI

Figure 1: Current Uses of Cloud Computing

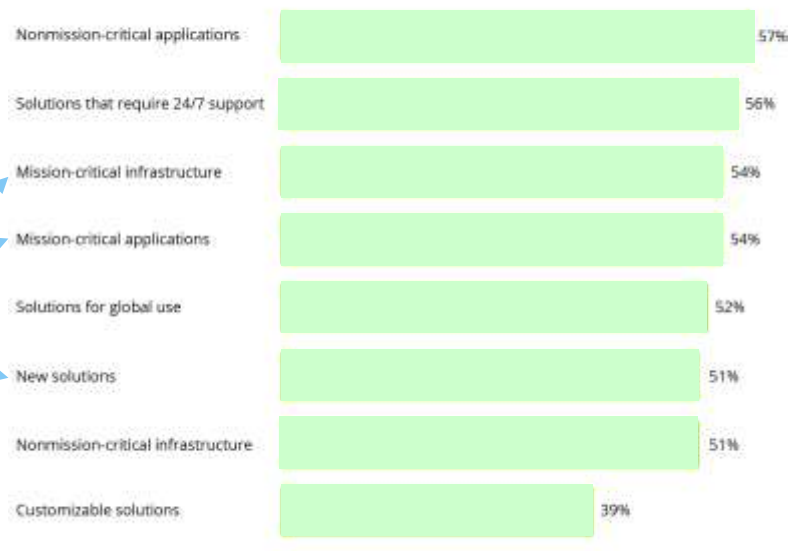
Which of the following areas are currently cloud-based?



Source: Deloitte 2018 Global CIO Survey

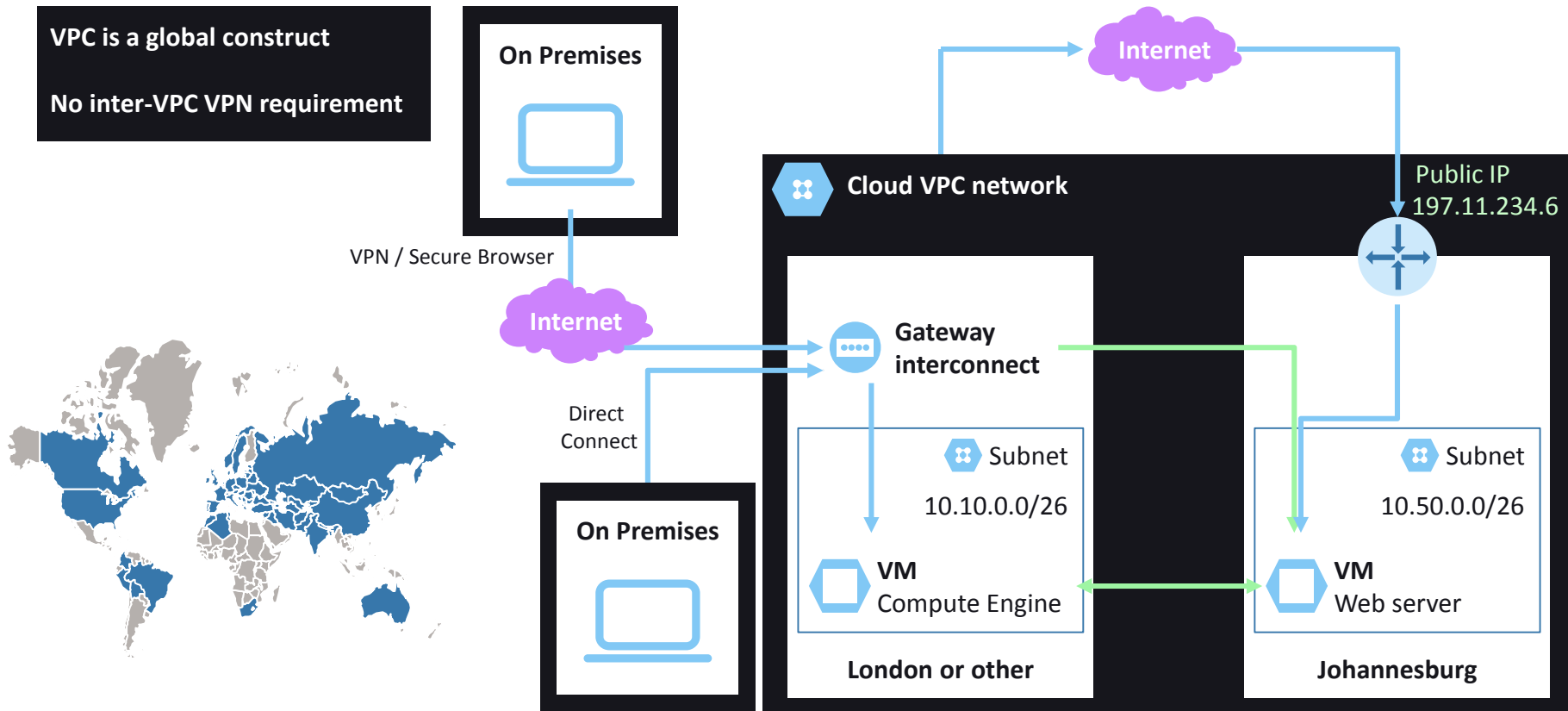
Figure 2: Expected Uses of Cloud Computing in Three Years

Which of the following areas do you foresee shifting to a cloud-based flexible consumption model in the next three years?

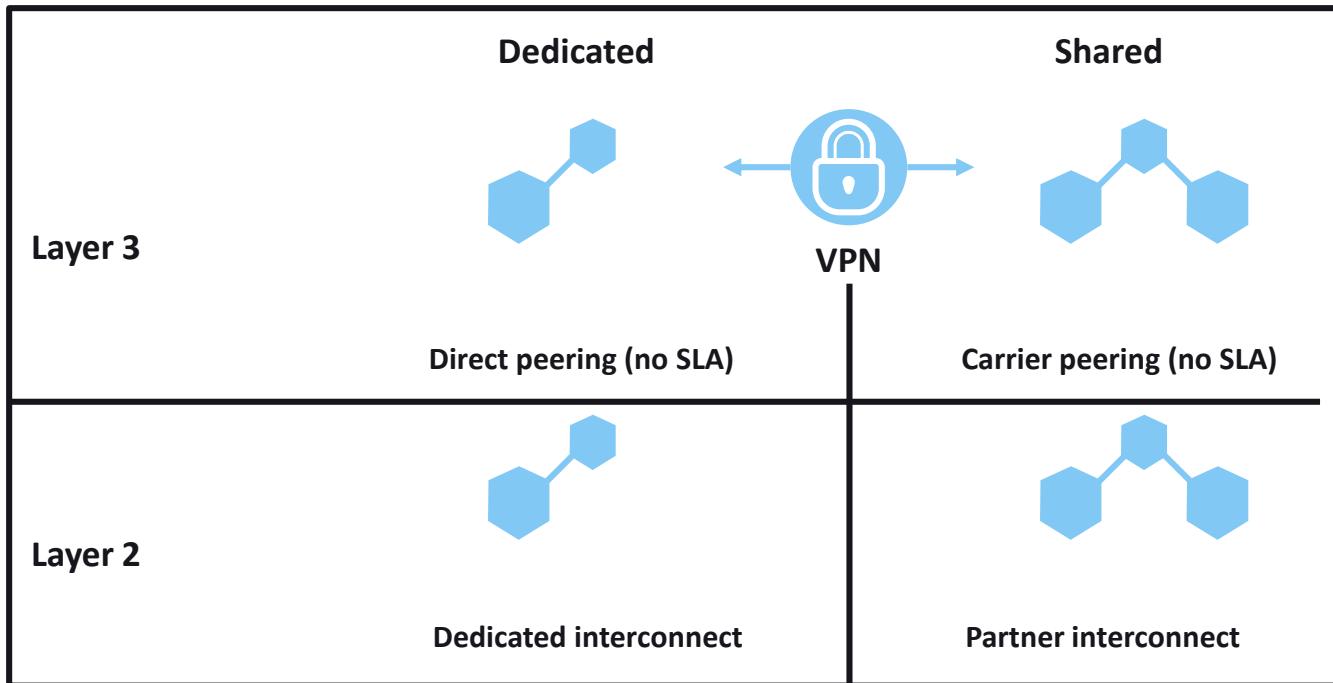


Source: Deloitte 2018 Global CIO Survey

CLOUD PROVIDER AS A CONNECTIVITY PROVIDER

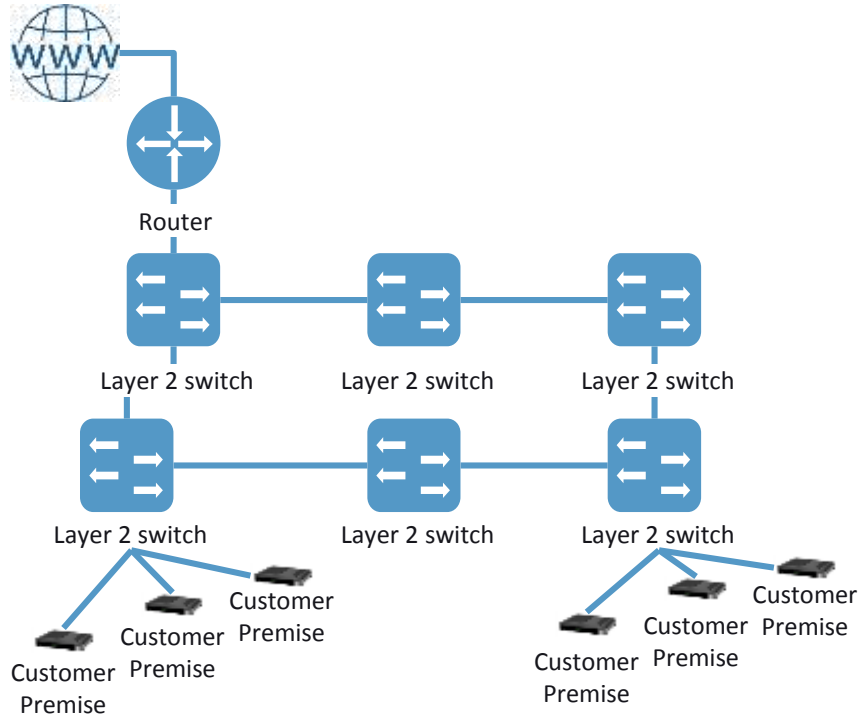


CONNECTING INTO THE CLOUD HAS SEVERAL OPTIONS – EACH HAVING DIFFERENT PERFORMANCE CHARACTERISTICS

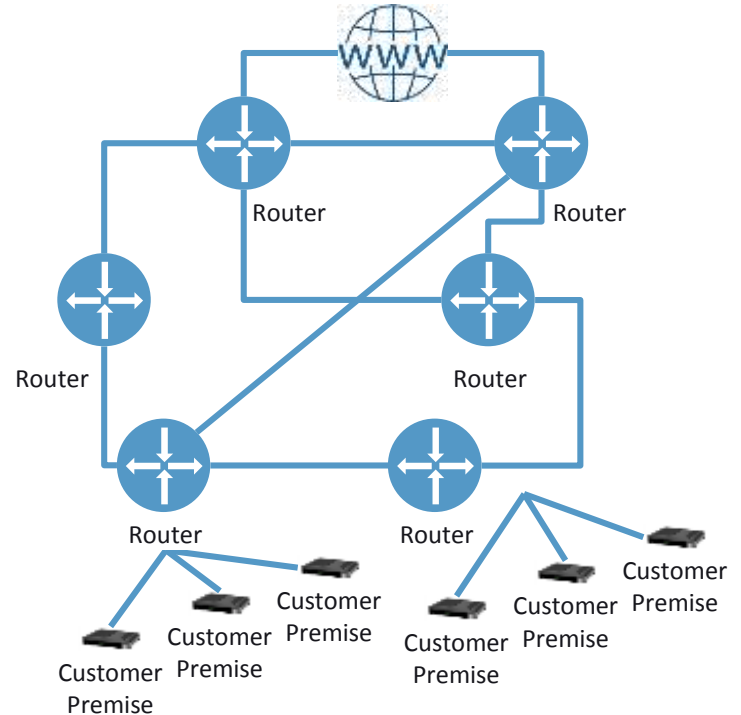


THE UNDERLYING ARCHITECTURE OF YOUR SERVICE PROVIDER AFFECTS THE EXPERIENCE OF YOUR MIGRATION TO THE CLOUD

Broadband: Layer 2 Architecture



Telco Enterprise Grade: Layer 3 Architecture



WE WISH YOU WELL ON YOUR JOURNEY TO THE CLOUD...

- You can begin to see why Cloud providers tend to recommend that you use private connections to connect into your cloud infrastructure... they tend to be more secure and have guaranteed performance.
- While VPN's will work as a means of a private connection, you still need the underlying internet performance to be reliable, and as such, you should consider an enterprise grade service rather than broadband service at core locations.
- Even for workloads in the public space such as Office 365 need reliable and guaranteed connectivity from enterprise grade services which can be enhanced by a private connection into the Office 365 infrastructure or by enterprise grade internet.
- Depending on the complexity of the environment, you need a partner that can aide you with the complex networking that you may accidentally find yourself having to deal with.

THANK YOU