

SES[^]

PACIFIC TELECOM CONFERENCE '23

DISASTER RECOVERY

SES Proprietary and Confidential | 2023



O3B MPOWER INFORMATIONAL 1

Networks must cope with this shift to the Cloud

85%

of all Enterprises will use a **multi-cloud** environment in 2018

47%

Enterprises said **Network Visibility** is necessary

Office productivity

1

2

Warehousing

3

File Apps/Device Management

~73%

Enterprises **using cloud** today

95%

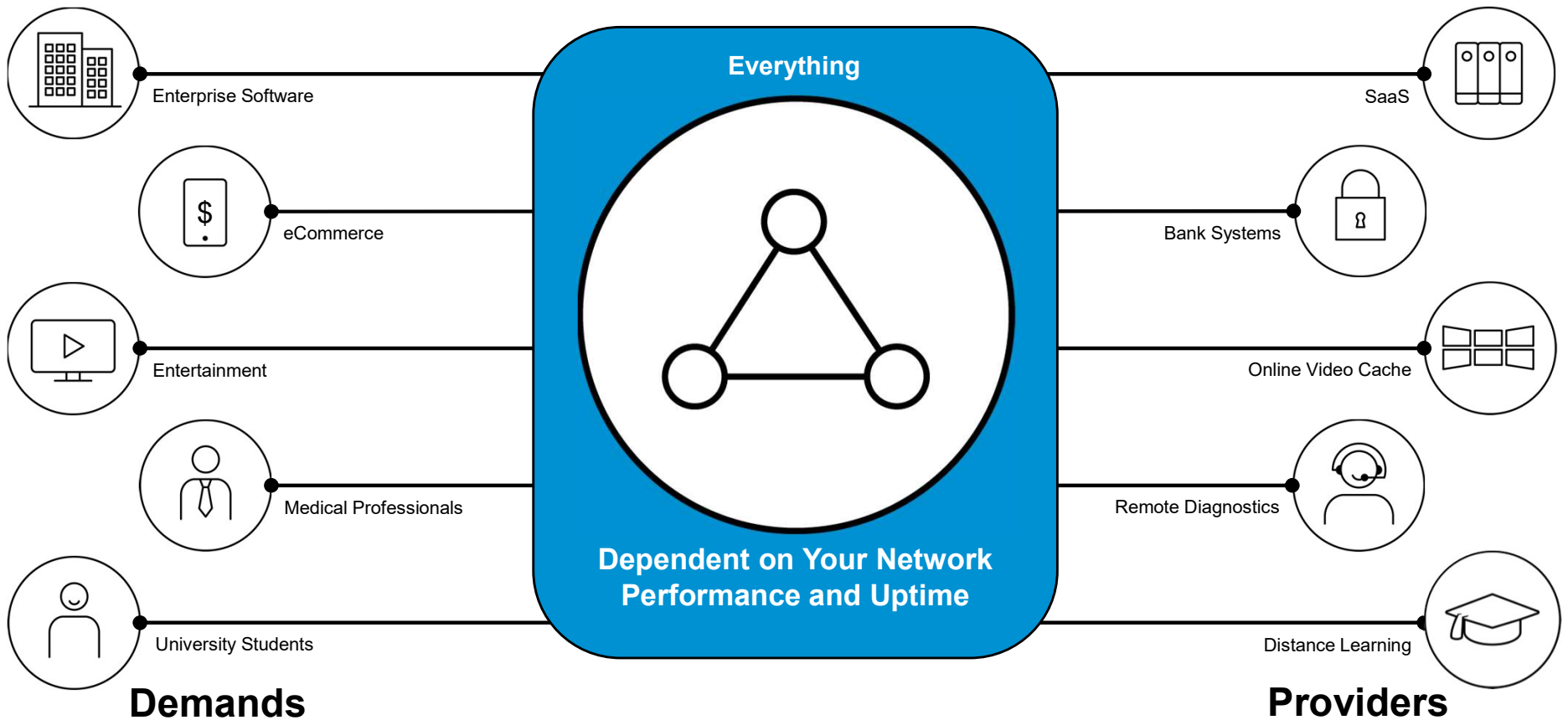
Enterprises view **Network Redundancy** as overall #1 factor for IT services

40%

Rate per year managing IT Assets in 3rd party Datacenters is growing

The Enterprise values Reliability and is prepared to pay More

Enterprise and Consumer Cloud Trends



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Enterprise apps rely on Quality Connections

Low Latency

**Mission
Critical**

**Highly
Available**



190

Countries

60 Million

Business and Consumer
Customers



137

Countries

137.5Mio

Passengers



188

Countries

110 Mio

Customers



2 of 3

Students

50,000

Online Courses



196

Countries

1.4 Mio

Business Customers



900

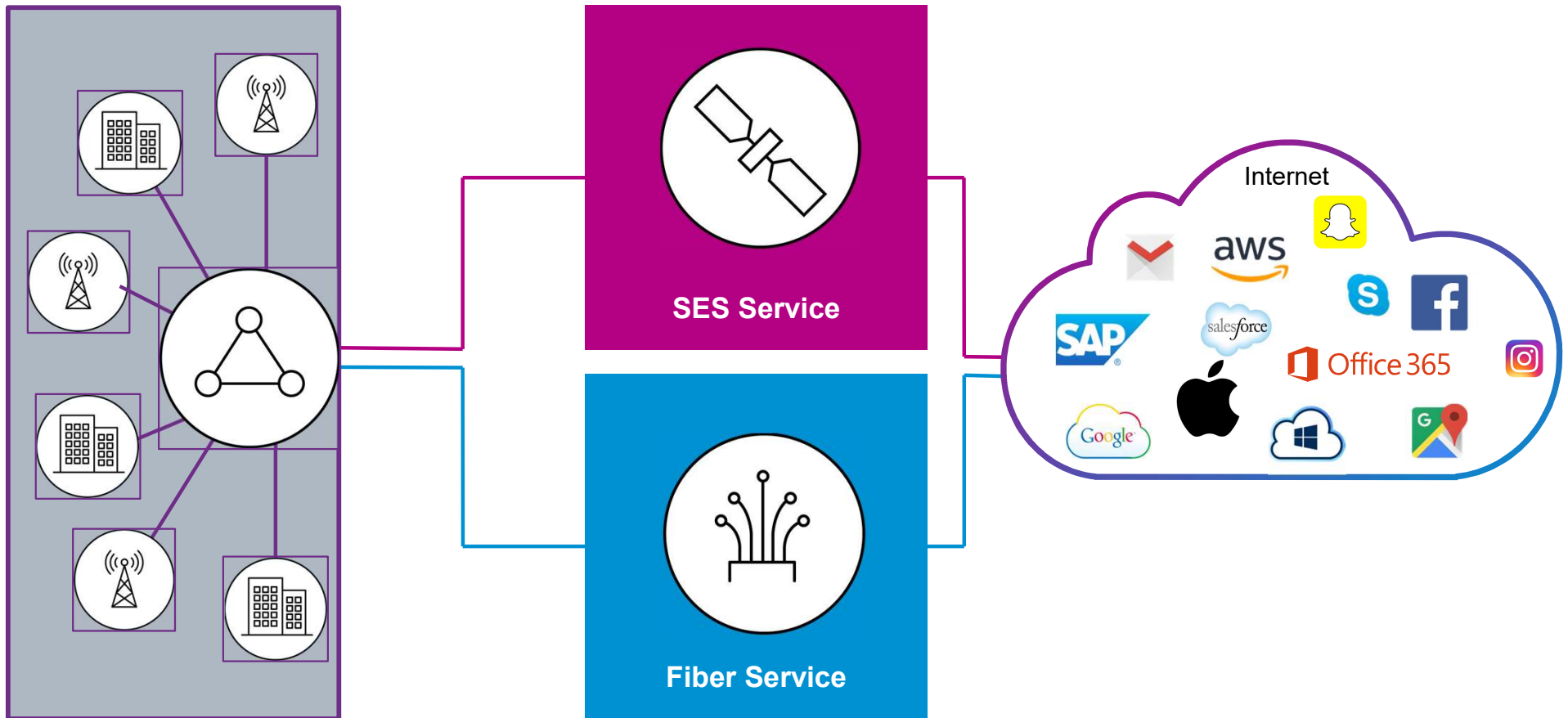
Transactions/Second

29.5 Mio

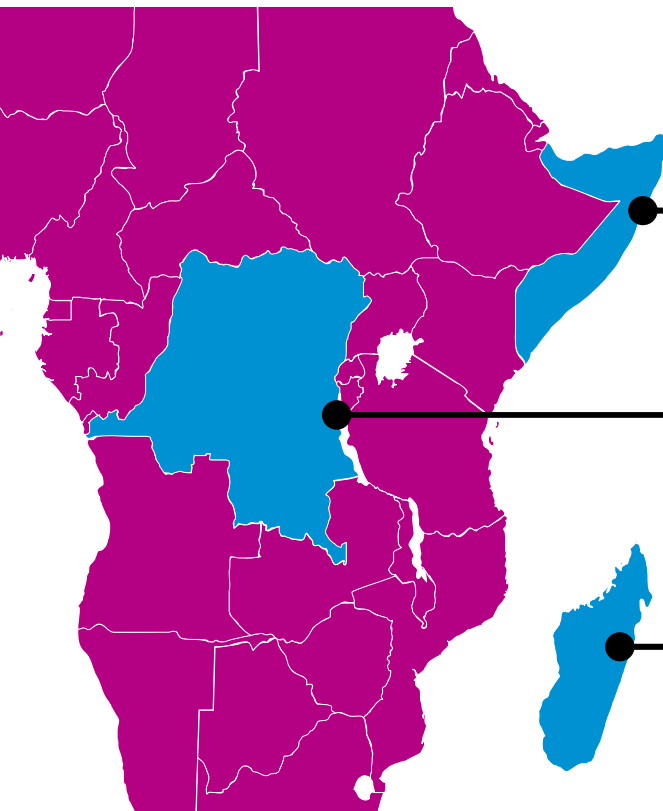
Customers

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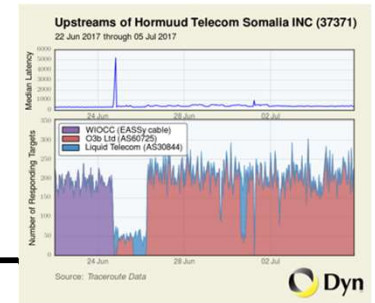
Connectivity must be Redundant, Resilient and Visible



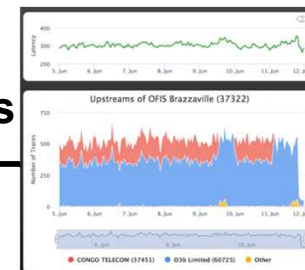
SES Ensuring Uptime for critical outages in Africa



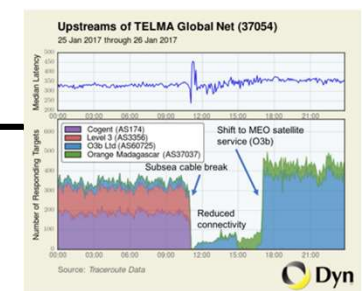
Somalia
Fiber Outage of **21 days**



Rep. of Congo
Fiber Outage of **15 days**



Madagascar
Fiber Outage of **14 days**





Disaster Recovery – range of preparedness

- ▲ DR preparedness tends to be a function of:
 - Mission and operation criticality
 - Geographic and economic exposure
 - Budget/value proposition
- ▲ Telecommunication DR solutions involve quick deploy and/or resilient systems – both wireless & satellite
- ▲ SES satellite services support a range of DR preparedness solutions – Proactive and Reactive





Community Response

- ▲ SES Space & Defense (formerly Government Solutions) partnered with SimbaCom in support of the AWS Disaster Recovery program – Lee County, Florida
- ▲ Multiple deployable User Terminals were implemented to provide the SES O3b MEO service - high-throughput, low-latency broadband services to the community
- ▲ AWS with SES was able to provide interim broadband connectivity to the following sites:
 - Florida Department of Financial Services (Insurance claims)
 - Distribution Centers
 - Fuel Relief Fund – distribution of emergency fuel





First Responders

- ▲ SES partnered with Microsoft, Pegatron and Wave-in to demonstrate a quick deploy Private 5G solution for a City Fire Department to respond to events
- ▲ Multiple deployable User Terminals were implemented to enable the Fire Department to deploy Private 5G bubbles to operate securely their various media devices in response to a natural disaster





Business Continuity

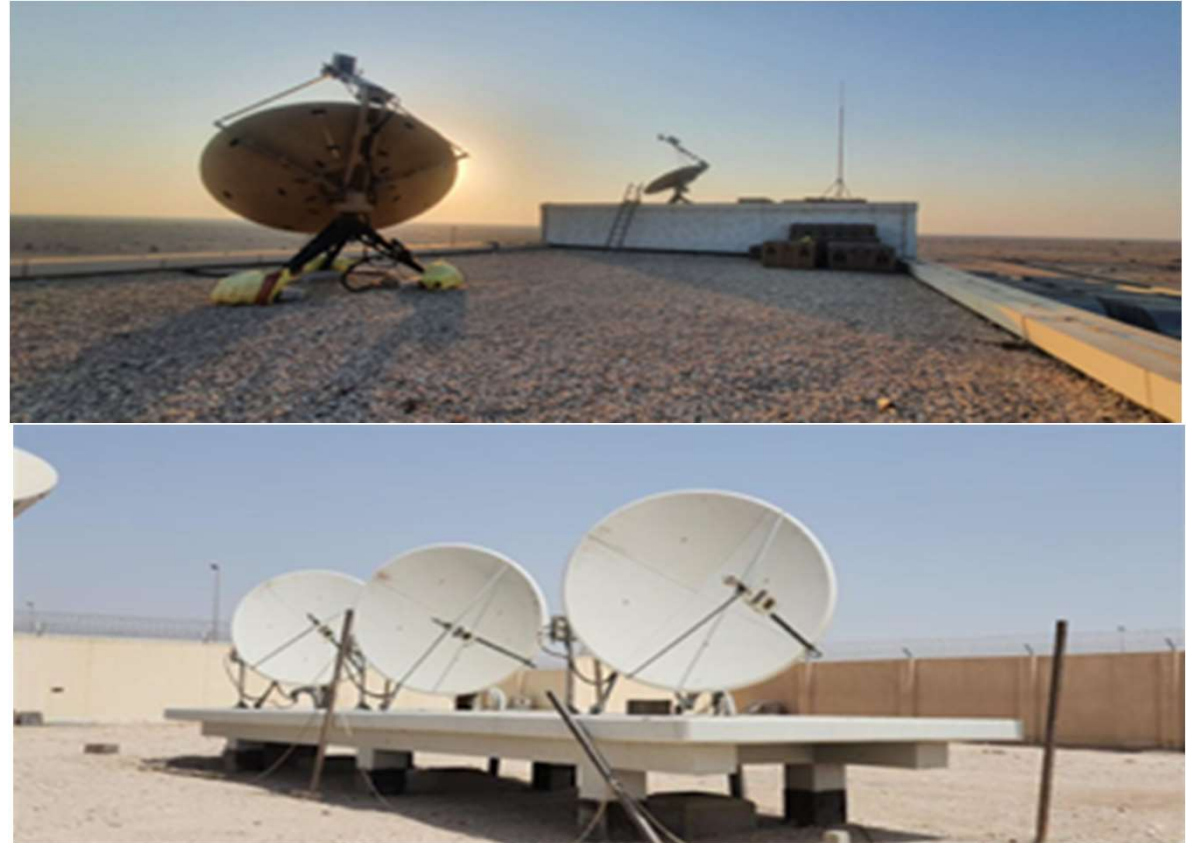
- ▲ In the wake of hurricane Maria, a large multinational customer engaged SES to develop Business Continuity solution that would restore services right after an event
- ▲ SES developed and delivered a hardened user terminal that can withstand hurricane force winds and enable restoration to O3b's MEO service to provide high-throughput (>100 Mbps) and low latency (<150ms)
- ▲ Customer is able to restore services and continue to move large data files after (during) an event





Network Resiliency

- ▲ SES supported a partner to implement a high throughput, low latency - hybrid network solution (fiber and MEO) to provide high availability for critical workloads that were being managed in the cloud
- ▲ In addition to the MEO service diversifying the fiber connectivity, the parties further diversified the MEO service with multiple user terminals





SES Networks O3b Offers

Our solution

Geographically diverse routing end-to-end

Combined fiber and wireless access **low latency redundancy**

Full diversity with automatic re-routing

Optimized **access to content**

Your benefits

Guaranteed performance with the highest availability

Reduced primary route spending to cover spikes in capacity demand

Reduced contention of primary route capacity through non-user generated traffic offloading

New revenue streams through enablement of new cloud based value added services