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

~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

1 Network productivity

2 Data Warehousing

3 Mobile Apps/Device Management

The Enterprise values Reliability and is prepared to pay More
Enterprise and Consumer Cloud Trends

Dependent on Your Network Performance and Uptime

Demands

Enterprise Software

eCommerce

Entertainment

Medical Professionals

University Students

Providers

SaaS

Bank Systems

Online Video Cache

Remote Diagnostics

Distance Learning
Enterprise apps rely on Quality Connections

<table>
<thead>
<tr>
<th>Low Latency</th>
<th>Mission Critical</th>
<th>Highly Available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office 365</strong></td>
<td><strong>SITA</strong></td>
<td><strong>SAP</strong></td>
</tr>
<tr>
<td>190 Countries</td>
<td>137 Countries</td>
<td>188 Countries</td>
</tr>
<tr>
<td><strong>60 Million</strong> Business and Consumer Customers</td>
<td><strong>137.5Mio</strong> Passengers</td>
<td><strong>110 Mio</strong> Customers</td>
</tr>
<tr>
<td><strong>2 of 3</strong> Students</td>
<td><strong>196</strong> Countries</td>
<td><strong>900</strong> Transactions/Second</td>
</tr>
<tr>
<td><strong>50,000</strong> Online Courses</td>
<td><strong>1.4 Mio</strong> Business Customers</td>
<td><strong>29.5 Mio</strong> Customers</td>
</tr>
</tbody>
</table>

Sources: Microsoft, SAP
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