Software Defined EVERYTHING

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More data has been created in the last 2 years than in the entire history of human race.
The World is creating a Digital Replica of Its own faster than we all can imagine!

**TODAY**
- Smart Phones
- Enterprise Applications
- P2P

**TOMMOROW**
- Smart Machines
- Internet of Everything
- Wearables
- Automated Composition Engines

"By 2018, 50% of the fastest-growing companies will have fewer employees than instances of smart machines."

"By 2018, 20% of all business content will be authored by machines."

Source: Gartner
Highest Mobile Phone Penetration in South Asia with 90% Geographical Coverage and over 140 Millions Subscribers

The cost of Telco & Internet service is amongst the lowest in the World
By 2018 there will be over 50 Million SMARTPHONE Users in Pakistan.

On Average they will spend 2.5 Hours Daily on their Smartphones.

In 2016 Combined 35.4 Million 3G & 4G Users in Pakistan.

In 2016 Total 40 Million SMARTPHONE Users in Pakistan.

By 2018 there will be over 50 Million SMARTPHONE Users in Pakistan.

On Average they will spend 2.5 Hours Daily on their Smartphones.

Mobile Internet Users: 77% Male, 23% Female.

A Brand New Smartphone Costs US$ 35 Approximately.

Out of 27% of Smartphone Users, 20% Are mobile Internet Users.

There are at least 160 Million People who have yet to log on to the Internet.
Access Network densification

Geometric growth in number of access end points to meet broadband coverage and capacity demands

Network convergence

Fixed and mobile networks integrating to provide ubiquitous ultra-broadband services

Network Transformation

Service providers re-thinking architectures and moving quickly toward cloud + SDN / NFV for networks and data centers
SaaS: Software as a Service

What: Diverse range of apps (e.g., productivity, unified comms) available on demand, billed in usage increments.

PaaS: Platform as a Service

What: Management platform and associated development tools to build, test, deploy and integrate cloud-based applications.

IaaS: Infrastructure as a Service

What: Pool of computing resources (e.g., compute, storage) that are available and consumed on demand, billed on a per-usage basis.

Virtualization of physical infrastructure

Using public or private resources
Video Storage Computing

Virtualized Services (IaaS, PaaS, SaaS)

Cloud Brokerage Platform

Northbound APIs

Virtualized Network Functions

Traffic Management BSS/OSS Orchestration

Southbound APIs

Base Station Routers Switches Servers

Few Examples of Network “Devices”
Traditional On-Premises

Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking

Infrastructure as a Service

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Platform as a Service

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Software as a Service

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Customization; higher costs; slower time to value

Client Manages
Vendor Manages in Cloud

Standardization; lower costs; faster time to value

Vendor Manages in Cloud
Client Manages

Infrastructure as a Service

Platform as a Service

Software as a Service
A **better** approach to IT infrastructure to achieve unprecedented agility, predictable scale and **low** TCO

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tr>
<td>Integrated Compute &amp; Storage</td>
<td>White BOX – x86 Servers</td>
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<td>100% Software Defined</td>
<td>All Intelligence in the Software</td>
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<td>Cluster Wide Data &amp; Services</td>
<td>Distribute Every thing</td>
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<td>Fault Isolation with Distributed Recovery</td>
<td>Self Healing Systems</td>
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<td>Data Driven Efficiency</td>
<td>API Driven Automation &amp; Rich Analytics</td>
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Focus on modern software architecture paradigms and frameworks.

Replace heavyweight platforms with lightweight application infrastructure.

Invest in automation and strive for increased agility across the life cycle.

Gear up for this Mammoth Growth in Traffic and at Transactional Layer.
Just imagine an app store with on-demand and elastic network functions.

What If you could have this ..... 

....... At Your Access Network
Thank You

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