



NETWORK FUNCTIONS VIRTUALIZATION & THE PATH FORWARD

@innovarista



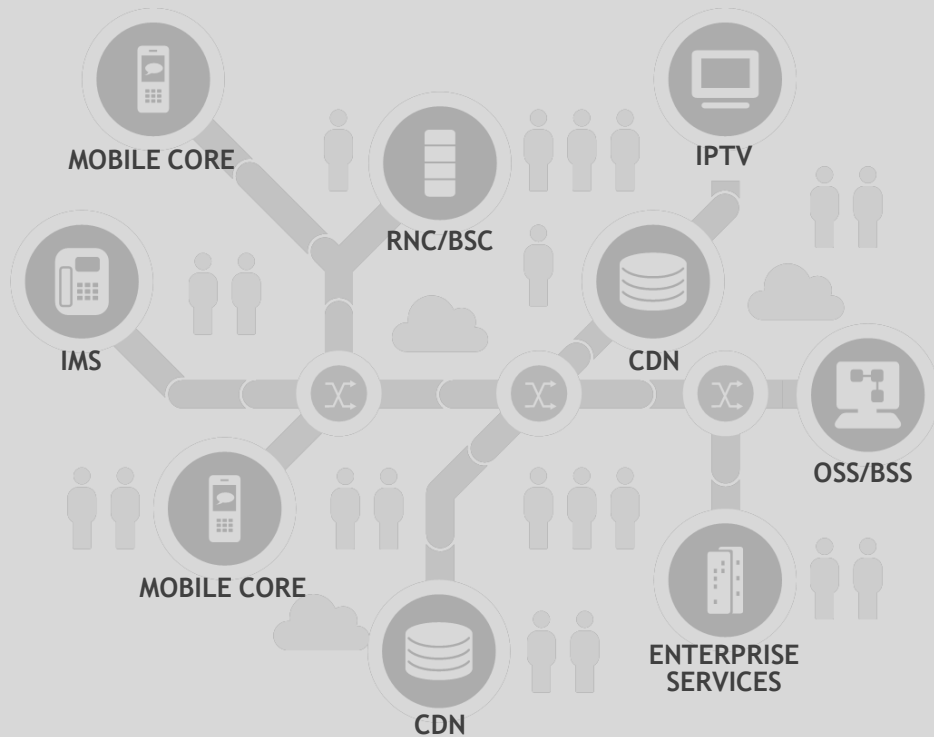
Jose de Francisco
Director, Cloud Solutions Marketing
IP Platforms Business Division



@ALU_Cloud

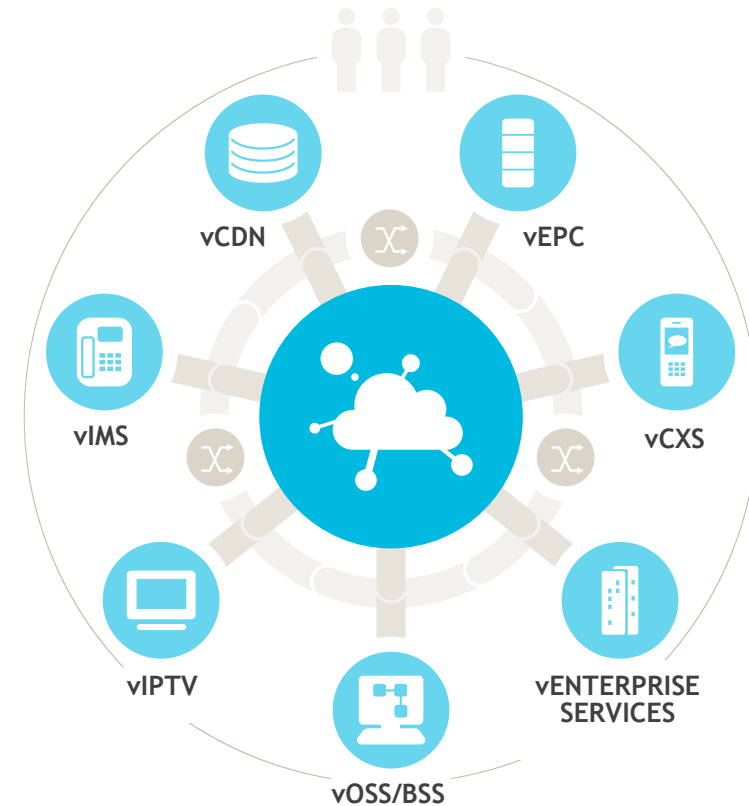
THIS IS A BRAVE NEW WORLD

FROM TODAY'S **CONVENTIONAL NETWORK**



RUNNING ON PURPOSELY BUILT
DEDICATED HARDWARE...

... TO A LEAN AND DYNAMIC
SOFTWARE DEFINED ENVIRONMENT



WITH VIRTUALIZATION, DATA CENTERS, SHARED
RESOURCE POOLS, LIFECYCLE AUTOMATION...

BECAUSE THE IP ECONOMY IS DRIVING NFV

VoLTE
145%



Predicted CAGR of
VoLTE subscribers
from 2012 to 2017

Video
66%



Over two-thirds world's
mobile data traffic will
be video by 2017

M2M
3x



Global M2M revenues
will triple - \$16.7bn in
2013 to \$44.8bn in 2018

Enterprise
37%



Of population - mobile
workforce of 1.3 billion
by 2015

AND THESE ARE CRITICAL SUCCESS FACTORS

INNOVATIVENESS WITH SPEED AND AT SCALE

RELEVANT SERVICES AND ENGAGING USER EXPERIENCES

DYNAMIC SERVICE DRIVEN NETWORKS

LEAN AND AGILE OPERATIONS

COMPELLING CLOUD ECONOMICS

CHECK POINT: NFV IS IN MOTION ALREADY



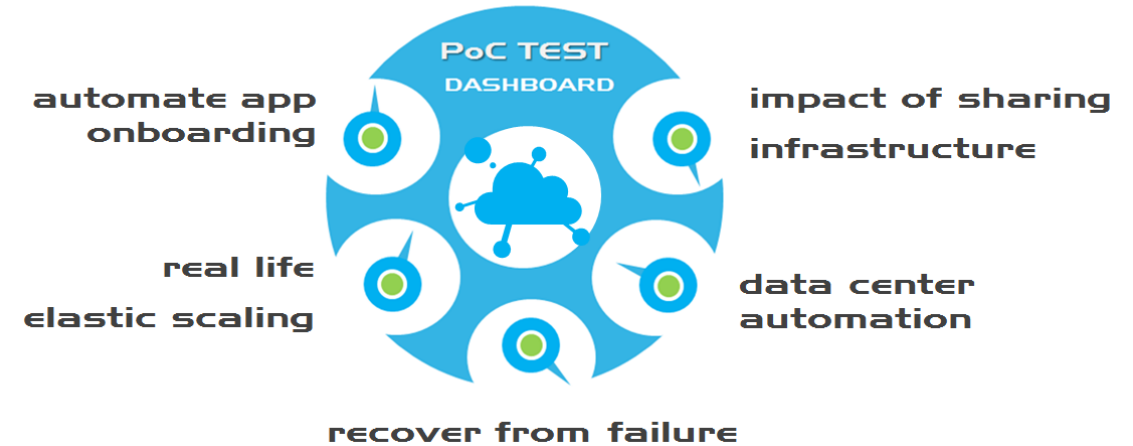
WHAT OPERATORS ARE TESTING



NFV USE CASES

1	Network Functions Virtualization Infrastructure as a Service
2	Virtual Network Function as a Service (VNaaS) – CPE, PE
3	Virtual Network Platform as a Service (VNPaaS)
4	VNF Forwarding Graphs
5	Virtualization of Mobile Core Network and IMS
6	Virtualization of Mobile Base Station
7	Virtualization of the Home Environment
8	Virtualization of CDNs
9	Fixed Access Network Functions Virtualization

http://www.etsi.org/deliver/etsi_gs/NFV/001_099/001/01.01.01_60/gs_NFV001v010101p.pdf



THE PLATFORM FOR NFV
CLOUDBAND



LESSONS LEARNED

SERVICE LEVELS

“We need to maintain or exceed the stringent service availability and real time performance”

OPERATIONS

“Cloud products must operate in an open and independent environment”

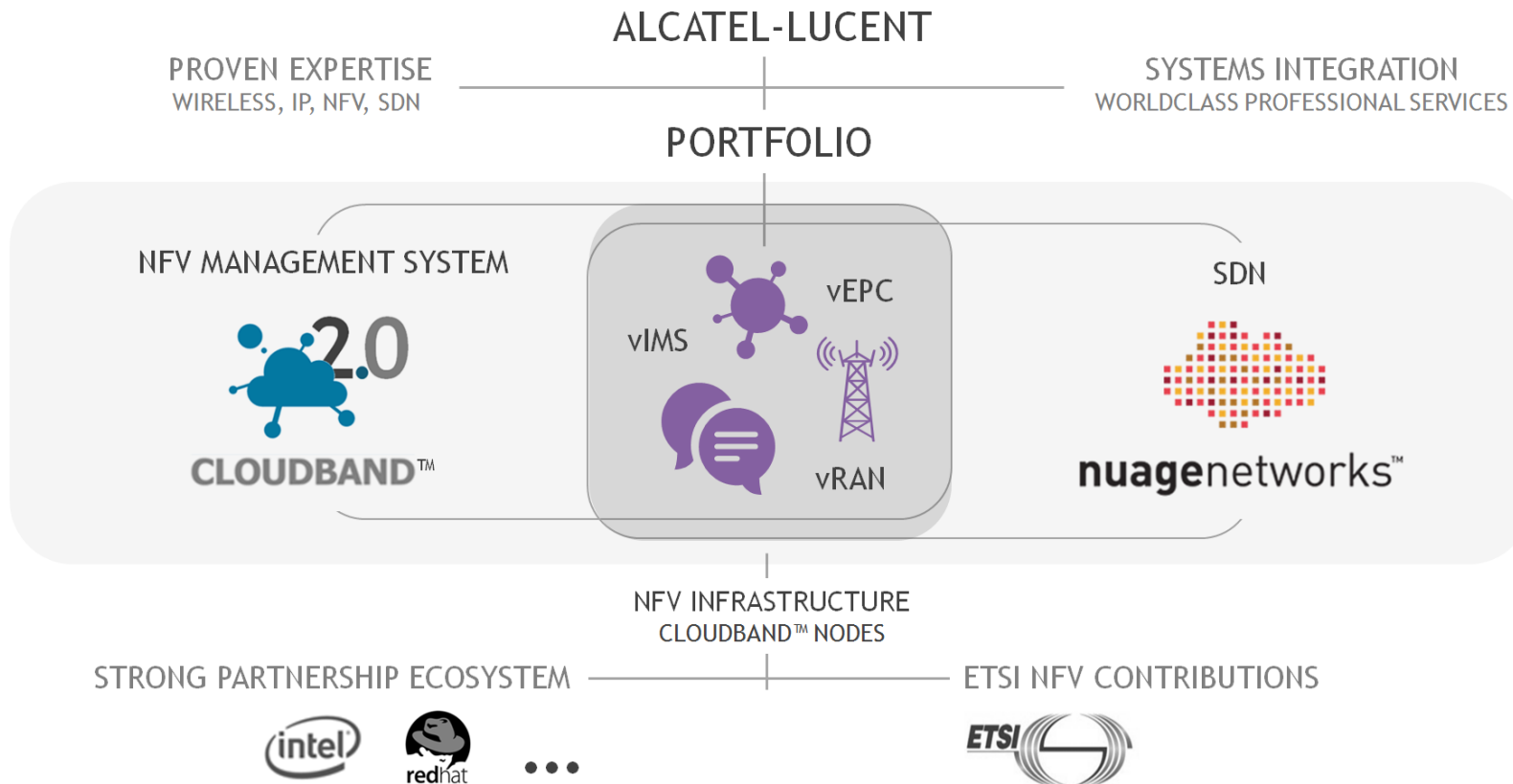
“Getting the operational aspects to work is critical to bring the automation we need”

INTEROPERABILITY

“Traditional services must seamlessly interwork with cloud services because the existing ones will be transitioned as capacity is exhausted in the current network”



WE ARE LISTENING AND TAKING **MOBILE NETWORKS** TO THE **CLOUD**



**INFONETICS
RESEARCH**



Alcatel·Lucent

TOP NFV & SDN VENDOR

“SDN and NFV Strategies:
Global Service Provider Survey”

March, 2014

LET'S ACCELERATE NFV WITH COMMUNITY

29

PARTNERS

inktank

radware

nominum

FRAFOS

vyatta

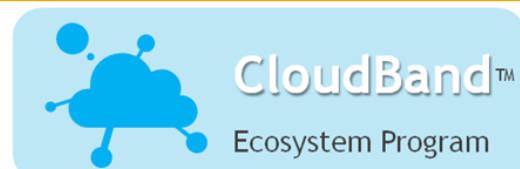
CITRIX

helo

nuagenetworks

SERVICE PROVIDERS

NFV PLATFORM / OSS TECHNOLOGY VENDORS



VIRTUALIZED APPLICATION VENDORS

AND MORE PARTNERS ARE SIGNING UP!

pt

Metaswitch Networks

intel

hp

StackIQ

GIGASPACES

redhat

openstack

Mellanox TECHNOLOGIES



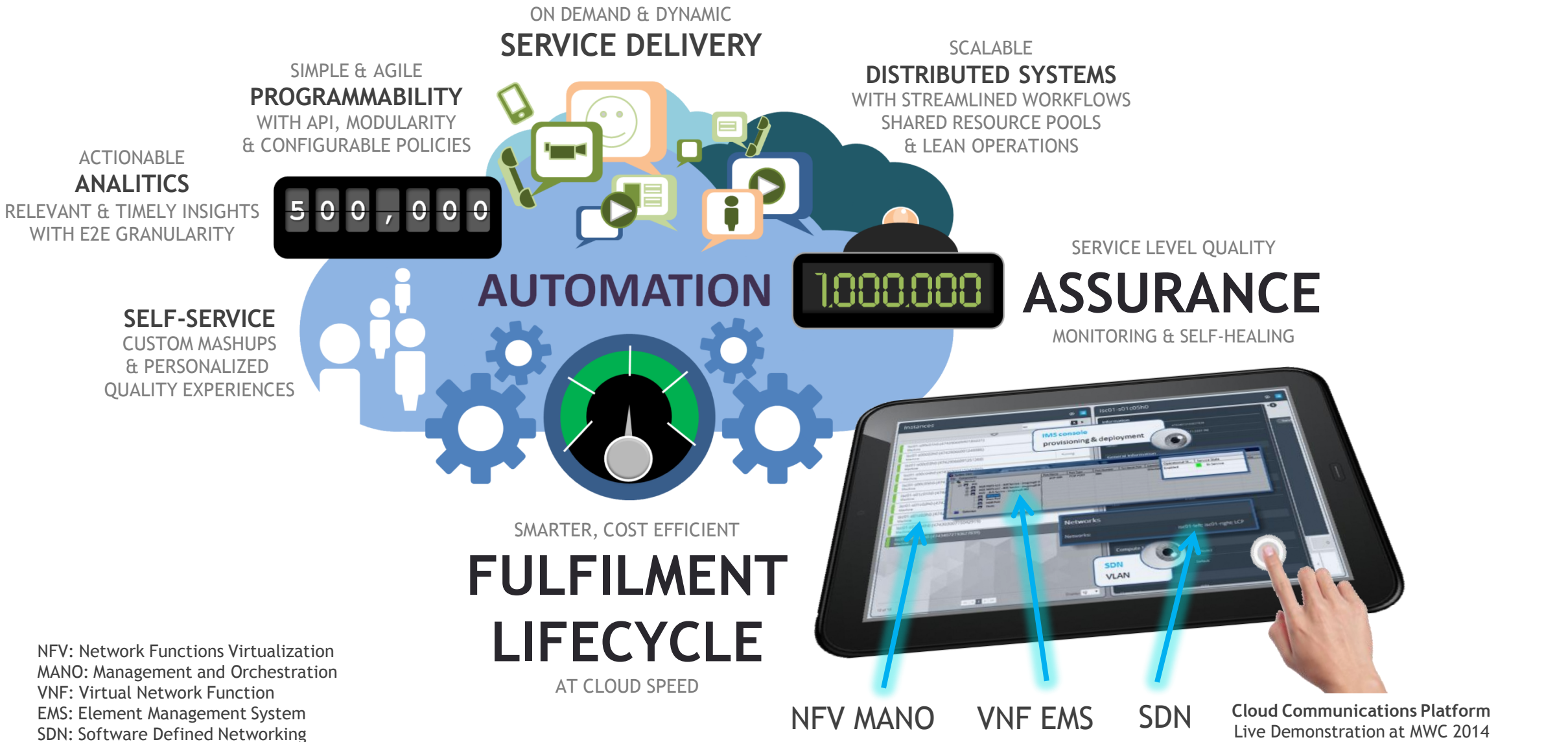
NFV Lab

NFV REQUIRES MANY
SPECIALIZED PLAYERS

CREATE A COMMUNITY
WITH COMMON GOALS

DEFINE E2E SOLUTION AND OPERATIONALIZE

TOWARD A SERVICE DRIVEN OSS/BSS FOR THE CLOUD AGE



NFV: Network Functions Virtualization
MANO: Management and Orchestration
VNF: Virtual Network Function
EMS: Element Management System
SDN: Software Defined Networking

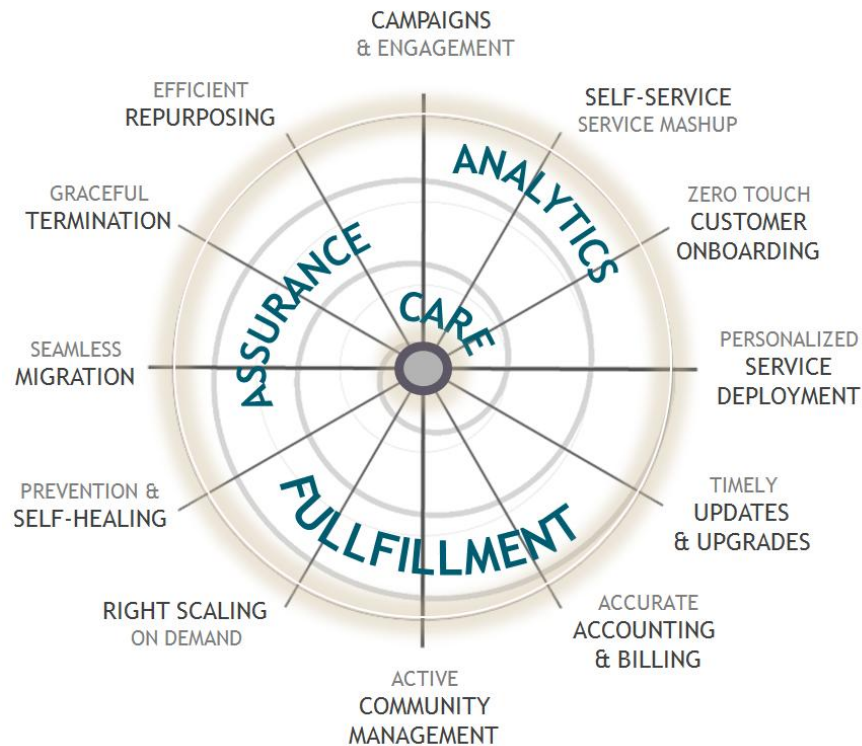
BUSINESS MODEL INNOVATION

EFFORTLESS LIFECYCLE AUTOMATION



FREES US TO TAKE ADVANTAGE

OF WHAT CLOUD HAS TO OFFER



A word cloud of DevOps-related terms. The words are arranged in a circular pattern, with some terms repeated. The words include: co-creation, with customers, rapid, service, creation, lead times, shorter, lean, business, & agile, operations, openness, performance, driven, analytics, & visibility, optimization, continuous, experience, & innovation, experimentation, DevOps, competition in, multivendor environments, ecosystems &. The words are in various shades of brown and tan, with some in a lighter, almost white, color. The font is a clean, sans-serif typeface. The overall shape is roughly circular, with the words filling the space and overlapping each other.

ALL LEVERAGING SHARED RESOURCE POOLS & WORKFLOWS

WHERE A NEW MINDSET MATTERS AS MUCH AS TECHNOLOGY



let's continue our discussion:



Alcatel-Lucent Cloud



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CloudBand NFV Ecosystem

www.alcatel-lucent.com/solutions/cloud