

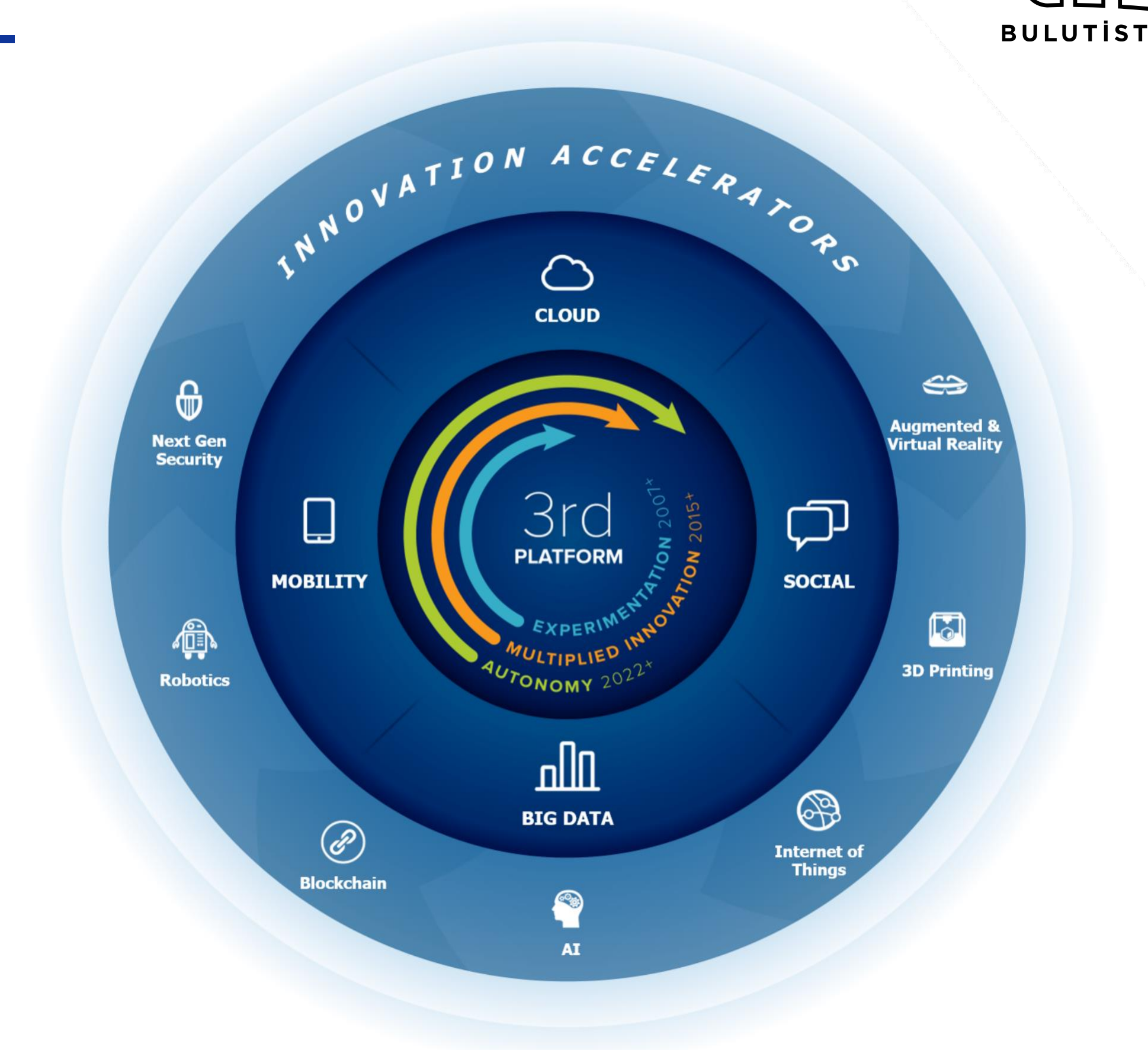
# COMPANY OVERVIEW PRESENTATION

**2020 v1**



Until 2022, cloud computing spending, which provides the processor power at the center of digital transformation, will reach 40% of the basic computing budgets of the companies..

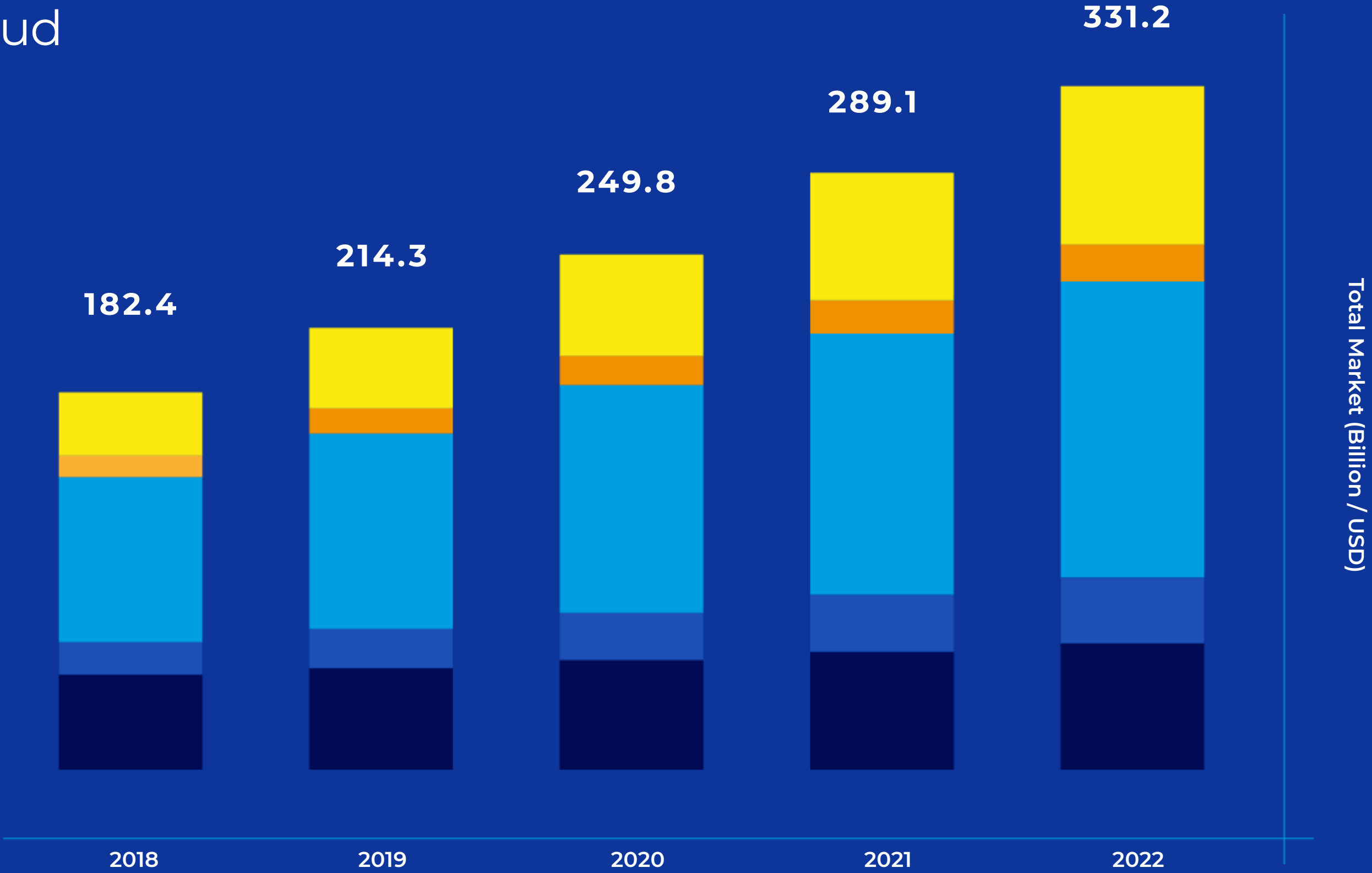
It is expected  
to reach 80%  
by 2028.



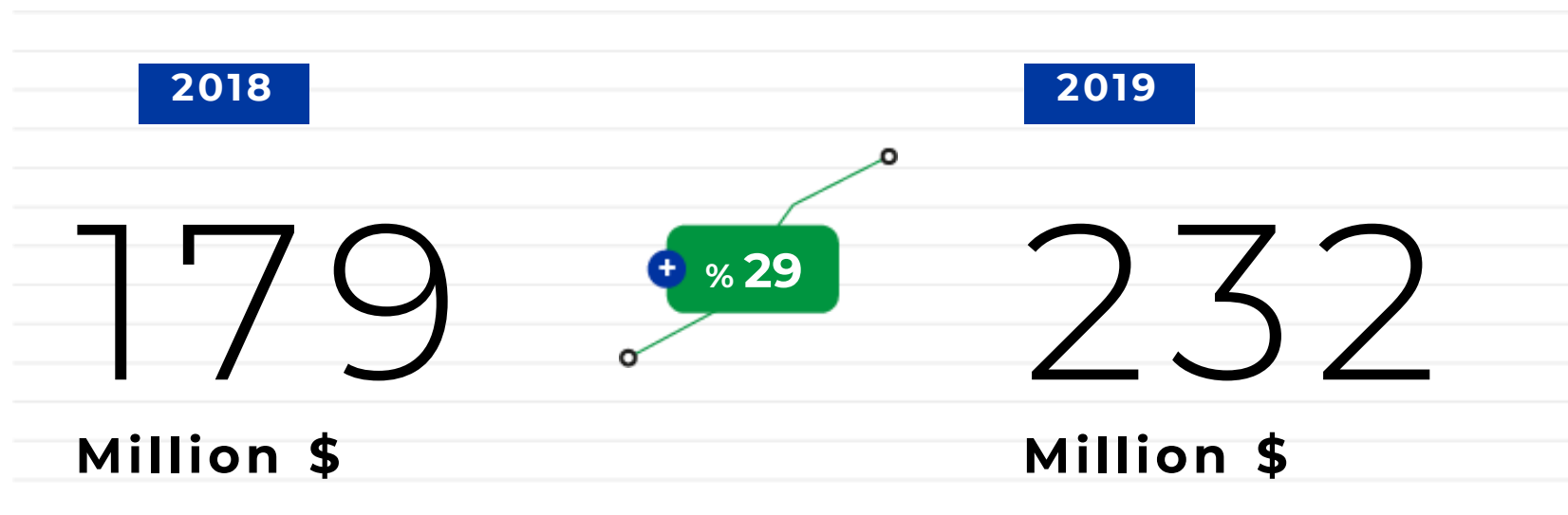


While the Global General Cloud Market grew 17.5% in 2019

- Cloud Business Process (BPaaS)
- Cloud App Infrastructure Services (PaaS)
- Cloud Software Services Application Services (SaaS)
- Cloud Management Services Management and Security
- Cloud Hardware Services System Infrastructure (IaaS)



Whereas, the General Cloud Market in Turkey grew **29%** in **2019**.



- 1 Demand for cloud providers and brokers will increase.
- 2 Cloud orchestration and cloud management solutions will be needed with the increase in hybrid cloud applications.
- 3 50% of the entire enterprise market will use multiple clouds by 2022.
- 4 Need will arise for a channel for transition to the cloud.
- 5 Flexibility and integration will become a critical agenda for CIOs.



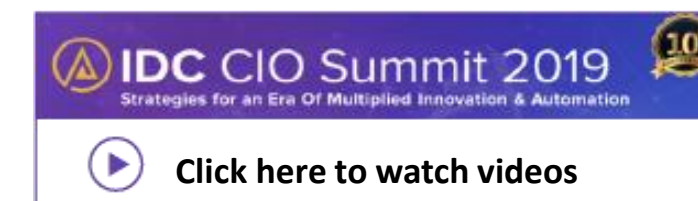
## OUR COMPANIES



Cloud Platform of  
Turkey



Multiple Cloud Platform of  
Turkey



20+

Services Abroad

25+

Total (IaaS / PaaS) Services

5,000 + (TB)

Total Data Volume

99,99% (15 minutes M / 73 minutes. Ç.)

Total SLA

200+

Total Customers

- 20 Managed Services Customers
- 40 Backup / DR Service Customers
- 50 SAP Cloud Services (With 50 TB + Hana Capacity)
- 100 Enterprise Cloud Services Customers





OUTSTANDING SOLUTION DRIVING CLIENT  
INNOVATION AND TRANSFORMATION WITH  
IBM POWER SYSTEMS - BULUTISTAN

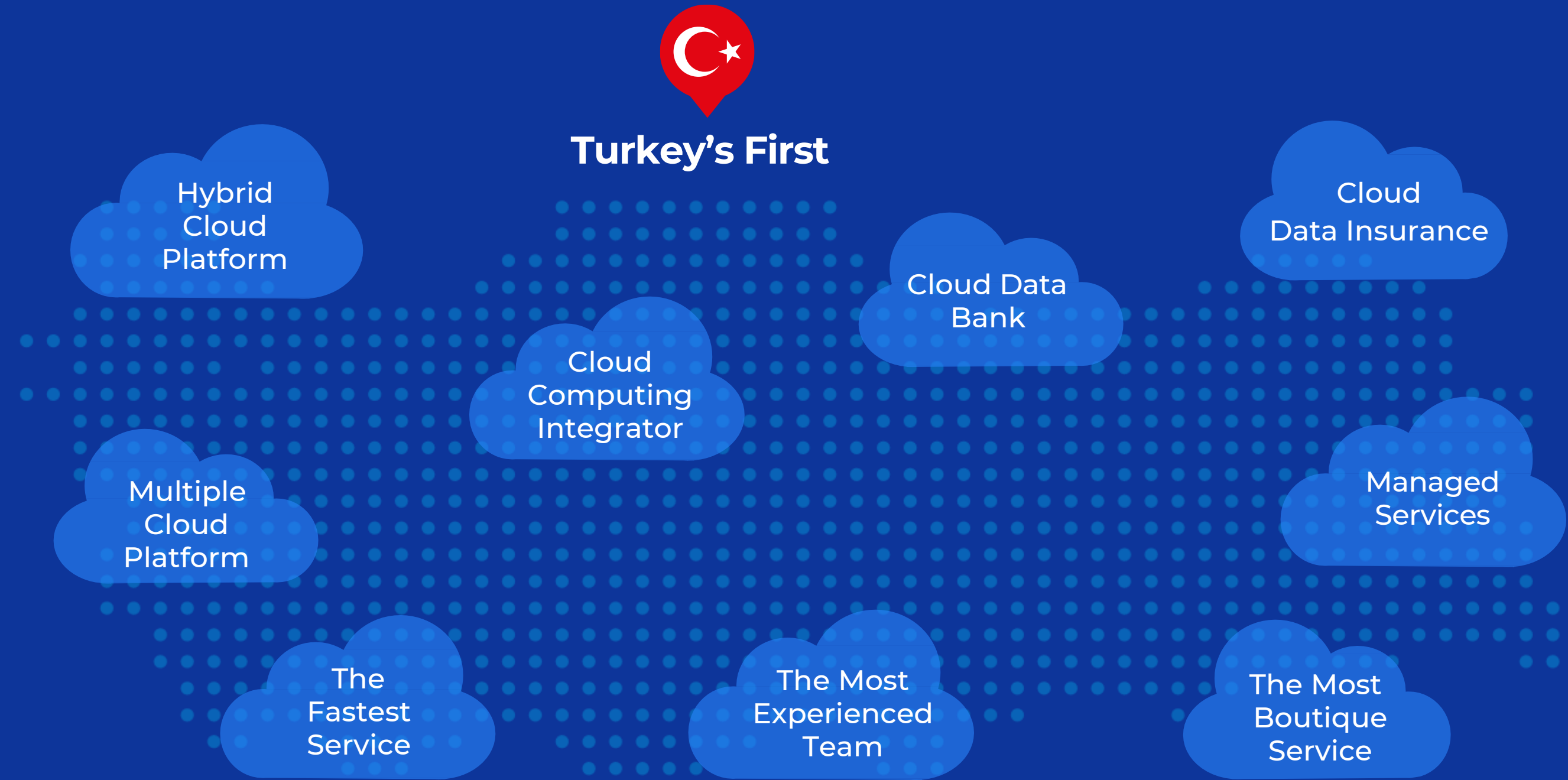
IBM



THE FASTEST GROWING TECHNOLOGY  
COMPANY BETWEEN 2015-2020 IN  
TURKEY AWARD - BULUTISTAN


Deloitte.

We are striving  
for **Turkey**  
**Gaining**  
**competitive**  
**power with**  
**cloud**  
**computing ...**





We assign a “Technical Customer Representative” to each of our customers.



Number of customers lost due to SLA within the last 5 years: 0

Uptime %	Annually	Monthly	Weekly
90% (one nine)	36.5 days	72 hours	16.8 hours
95%	18.25 days	36 hours	8.4 hours
97%	10.96 days	21.6 hours	5.04 hours
98%	7.30 days	14.4 hours	3.36 hours
99% (two nines)	3.65 days	7.20 hours	1.68 hours
99,5%	1.83 days	3.60 hours	50.4 minutes
99,8%	17.52 hours	86.23 hours	20.16 minutes
✓ 99,9% (three nines)	8.76 hours	43.8 minutes	10.1 minutes
99,95%	4.38 hours	21.56 minutes	5.04 minutes
99,99% (four nines)	52.56 minutes	4.32 minutes	41.01 minutes
✓ 99,999% (five nines)	5.26 minutes	25.9 seconds	6.05 seconds
99,9999% (six nines)	31.5 seconds	2.59 seconds	0.605 seconds
99,99999% (seven nines)	31.5 seconds	0.259 seconds	0.0605 seconds

We make a difference with our Proactive Tests, Standard Monitoring Services (Reports) and SIEM services.

✓

Committed (SLA)

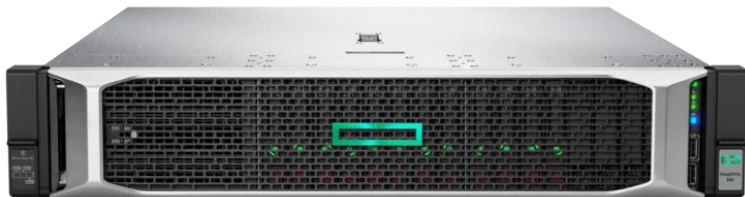
✓

Actualized (SLO)



We provide services with optimum price / performance  
by choosing the most suitable platform according to the needs of our customers (IOPS, SLA)

Processor  
Power



HyperConverged

Simplivity – Full SSD

SAP® Certified  
Hardware for SAP HANA®



HyperConverged

Dell EMC - Lenovo

SAP® Certified  
Hardware for SAP HANA®



Power 950/922/822

IBM HANA

Data Storage



Netapp  
(FAS / E Series...)

SAP® Certified  
Hardware for SAP HANA®



Storwize 7010

SAP® Certified  
Hardware for SAP HANA®



Veritas Netbackup



WE ARE EXPANDING OUR CLOUD SERVICES SELECTIVELY



- Container Service
- Virtual Server & Database Service
- Private Cloud (Private DC) Service with Dedicated FW  
(across 5 continents, in 22 countries, >210 DC )

- SAP Hana (TDI) Cloud
- SAP Cloud
- Q&A Cloud
- Dev &Test Cloud
- DR Cloud

- Data Storage Space
- Cold Archive
- Backup
- Replication (DR)
- Office 365 Backup

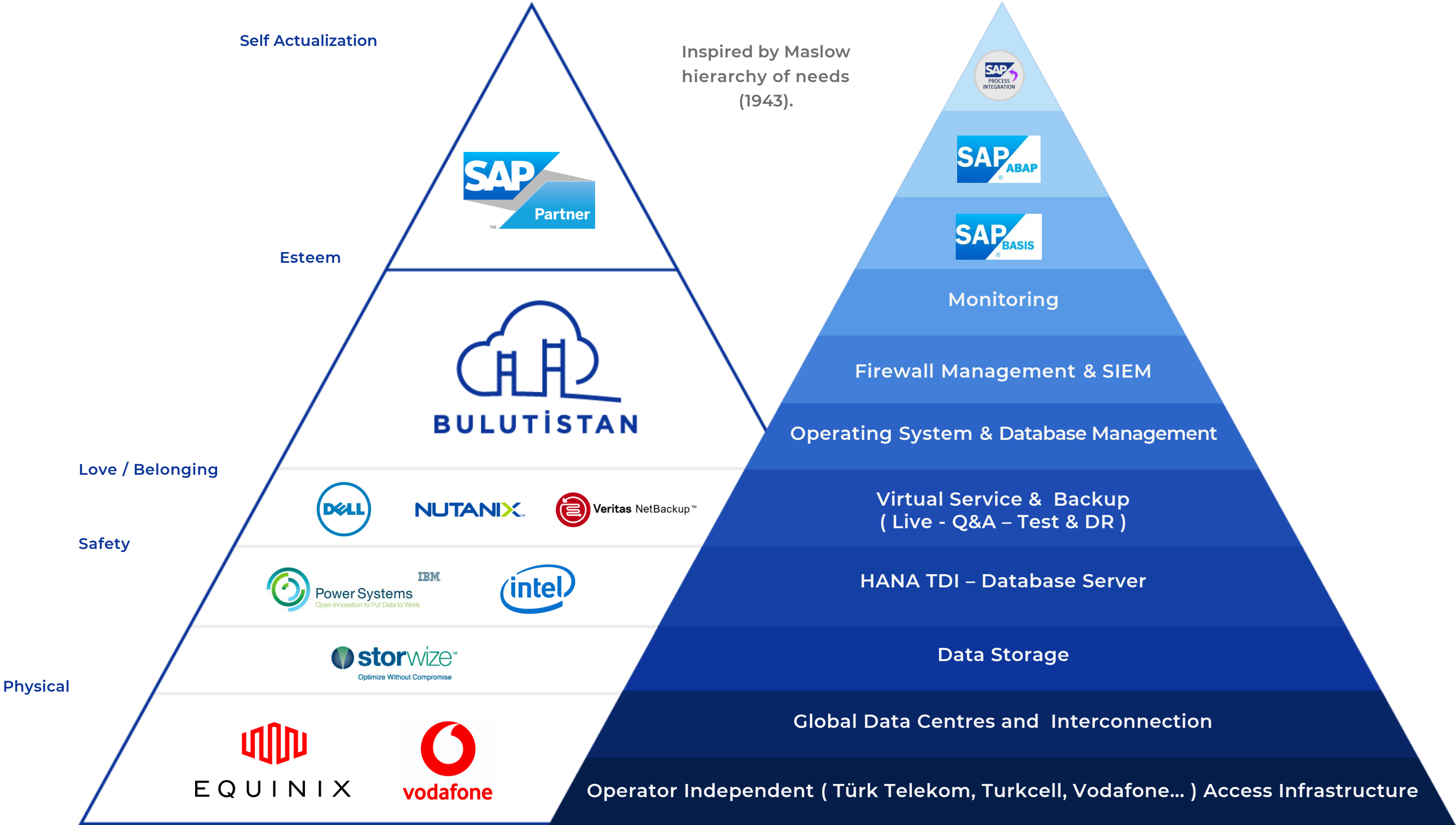
- Global Products Sales
  - Aws
  - Azure
  - SoftLayer
  - Google
- Installation & Management
- Integrated Hybrid Cloud Projects with Bulutistan

- Microsoft
  - EA
  - CSP
  - SPLA
- Office 365 & Active Directory Installation & Management
- Enterprise Email (Hosted Exchange) Service

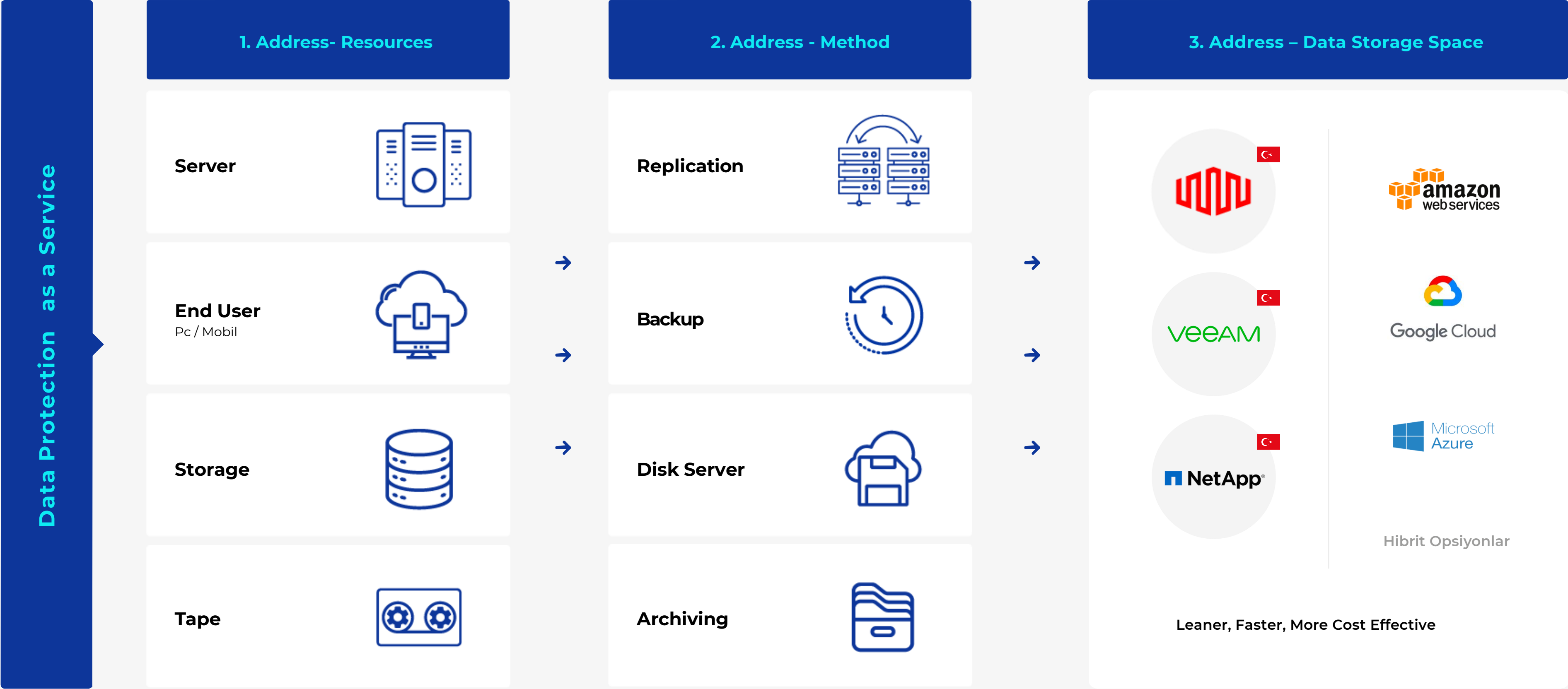
Security Services



# OUR SAP CLOUD SERVICES AND HANA PLATFORM



# OUR BACKUP SERVICES AND DATA INSURANCE PLATFORM

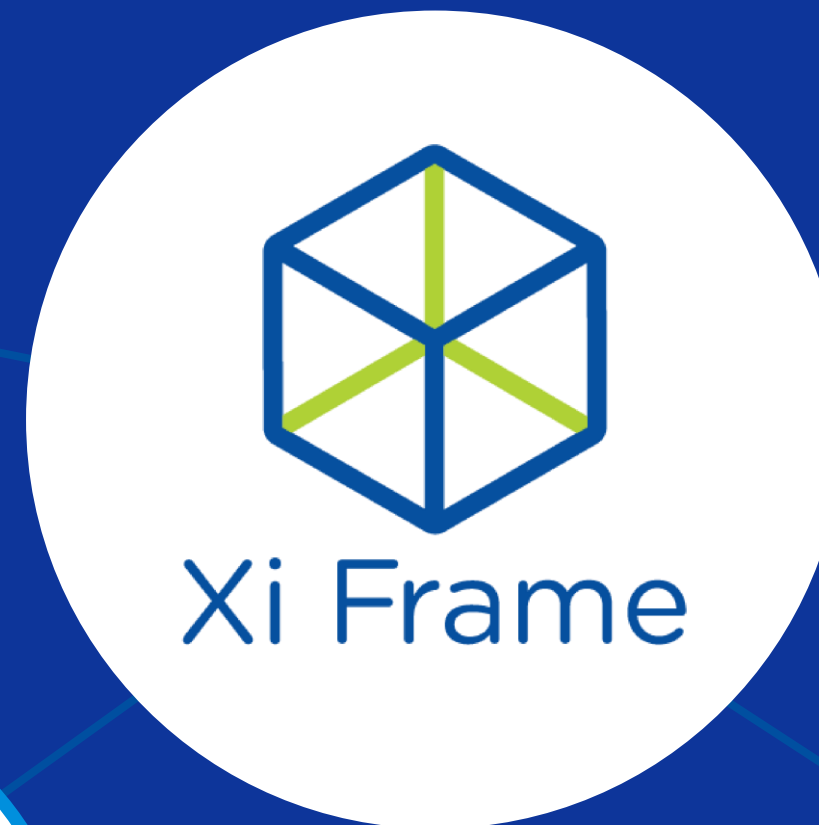




## Provide VDI Service (Compute, Graphics, Network)



## Authorized Users (Plug in to your domain)



## Loaded Apps (.exe, packages, licenses)



## 4 Linked Files (Storage)



## Access from any location, any device (Any location, any device)



# FIRST CLOUD COMPUTING INTEGRATOR IN TURKEY



Ensures supply and management of cloud services.



Ensures simple and fast access to different cloud services.



Installs, integrates, converges and custom designs



“one-stop-shop” in supply and management of cloud service



Acts as a mediator with other cloud service providers.



Shapes the cloud by improving the cloud ecosystem.



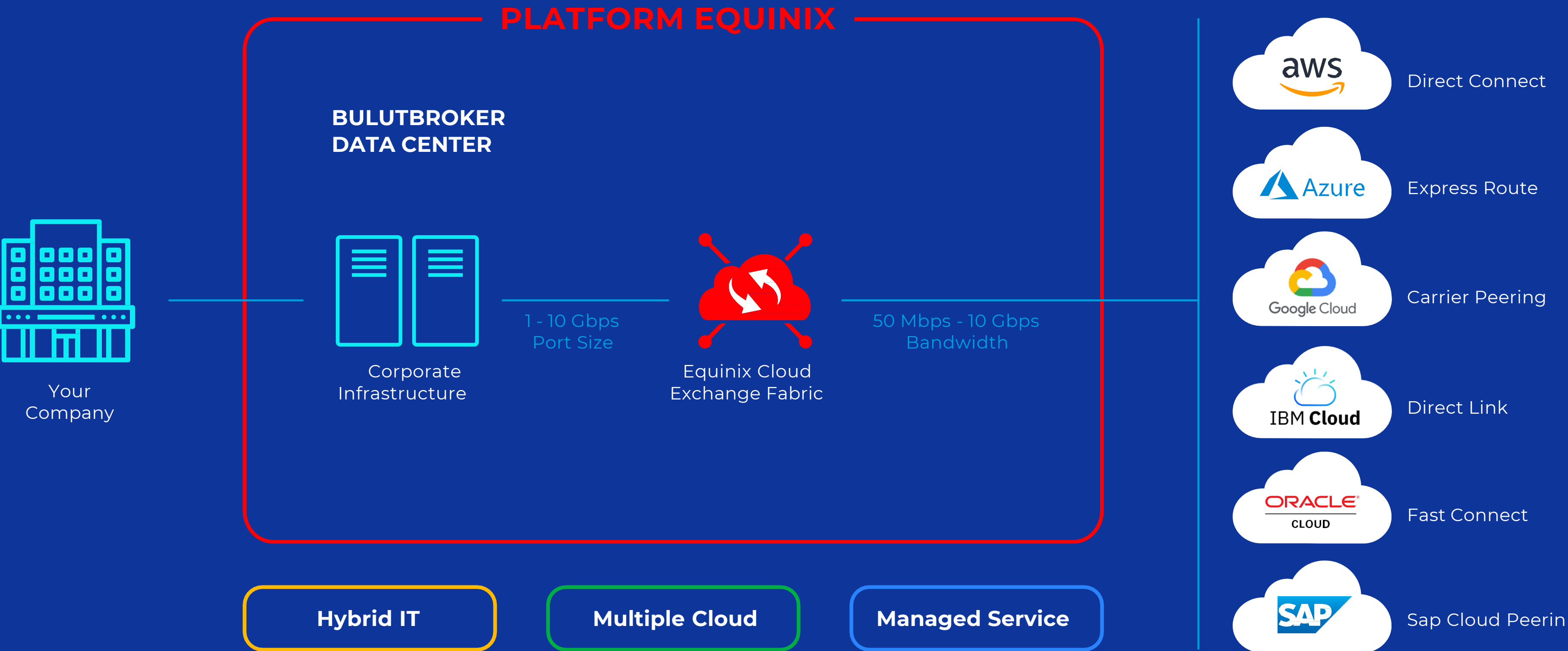
It provides the highest added value from the cloud.

Cloud Services Users

Cloud System Integrator

Cloud Services







### Infrastructure Security

- DDOS Attack Prevention
- IDS/IPS
- Firewall
- Power Balancing & VPN SIEM

Log collection in all environments

Advance correlation,analytics

Real Time monitoring and reporting



### Business Continuity & Disaster

- 100% uninterrupted service within the country with İzmir DC or outside the country with 200+ Equinix VM
- Active / Active & Active / Passive scenarios
- High RTO and RPO values with the replication of Virtual Server and SAP environments

### Governance & Compliance

Pre-defined, regularly produced regulation reports (PCI DSS, HIPAA, 5651...)

## Ethics and Regulations

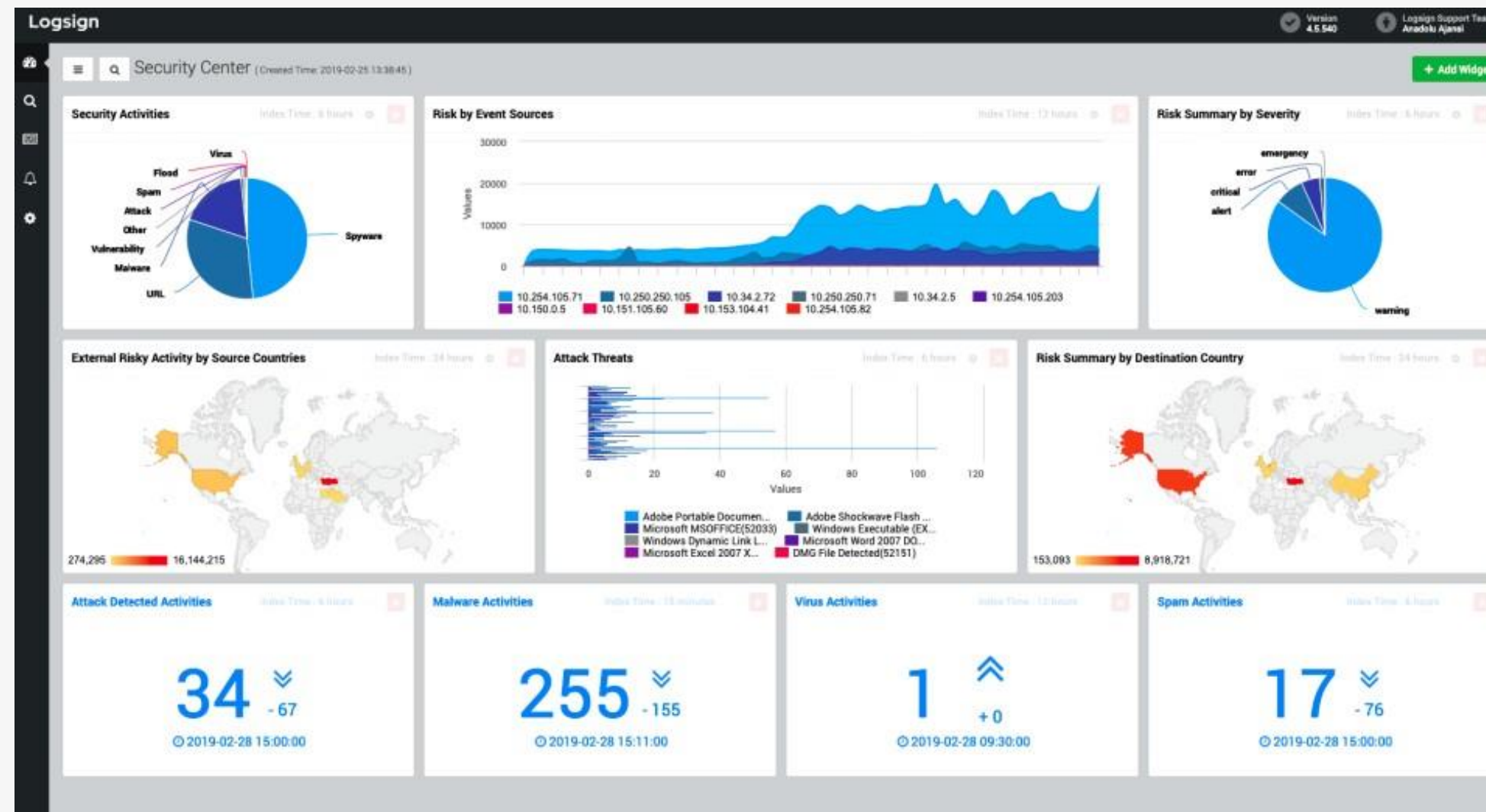
- Pre-defined
- Automatically available
- Regulation report generation (PCI DSS, HIPAA, 5651...)

## Intelligent Security

- Real-time detection
- Application monitoring and event matching
- Alert identification and automatic action execution

## Corporate Log Management

- Logging from all environments
- Advanced correlation, role-based authorization
- Real Time monitoring and reporting







# OUR SERVICE INFRASTRUCTURE – TRACKING & MONITORING



Server

42

Name

Processor

254

Processor Cores

Memory

4 TB

Memory Capacity

Calendar

May

16

Network Security

Clock

Change Tracking

Server Pending Reboot

OS Assessment

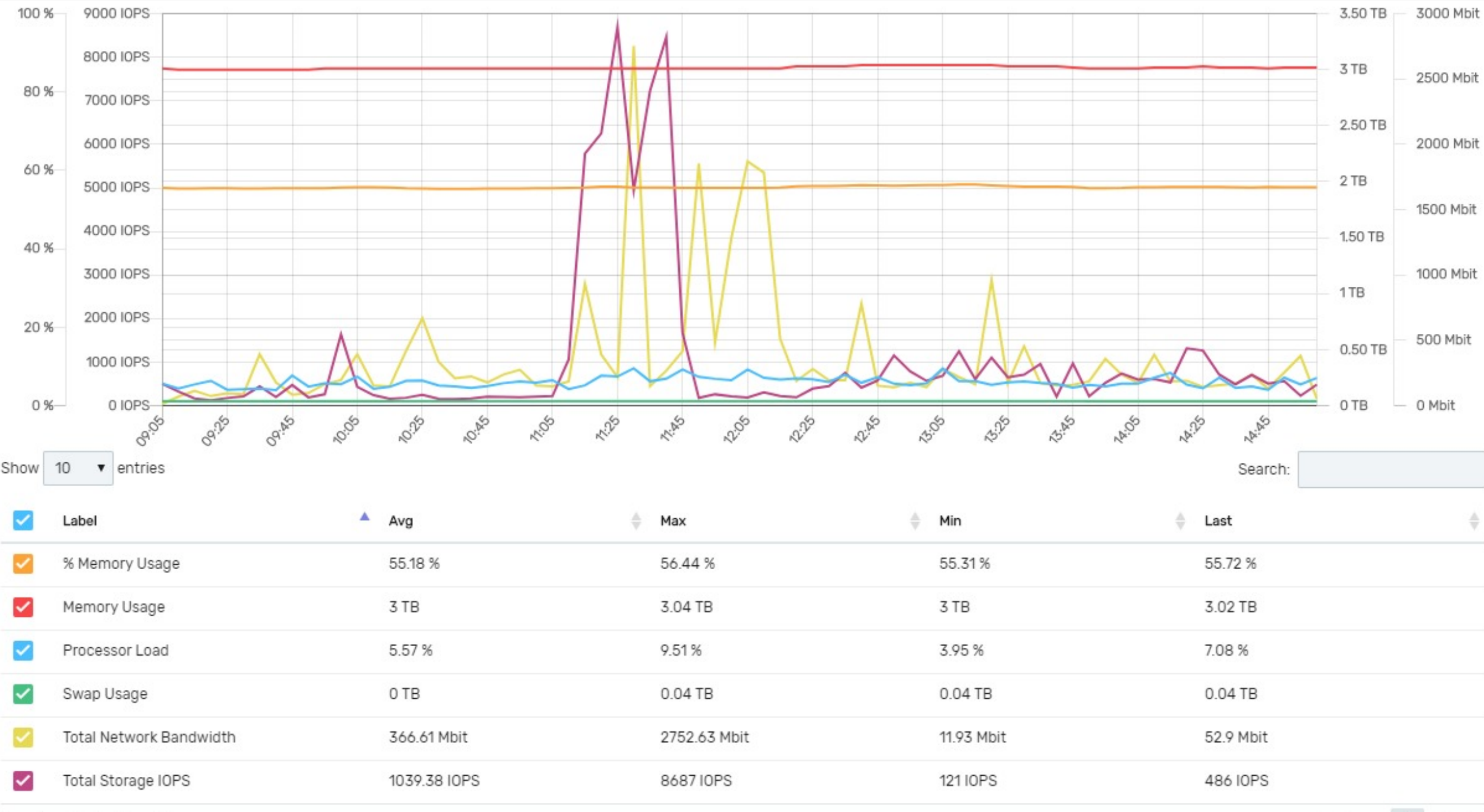
Geo Activity

System Update Assessment

Event Management

Security and Audit

Notes



2000+ Virtual Servers

50 TB+ SAP HANA

5 PB+ DATA STORAGE

2000+ CALLS

VirtualM=TRIC

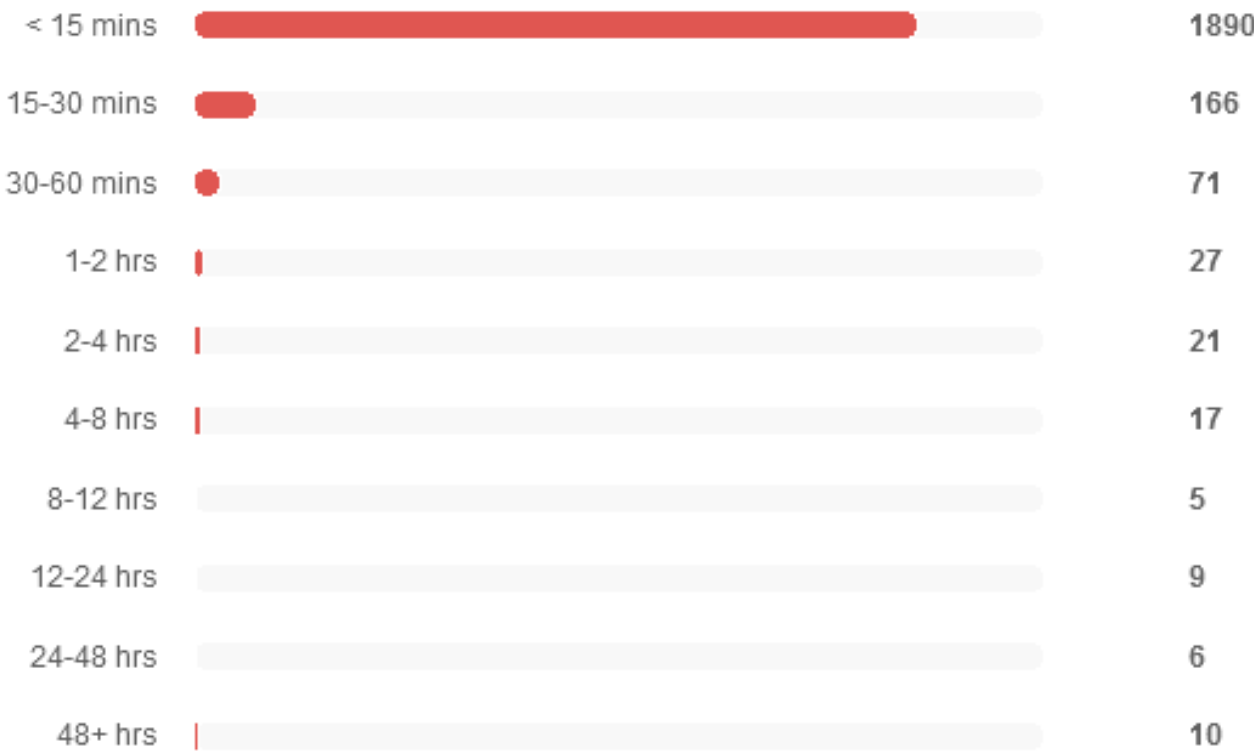




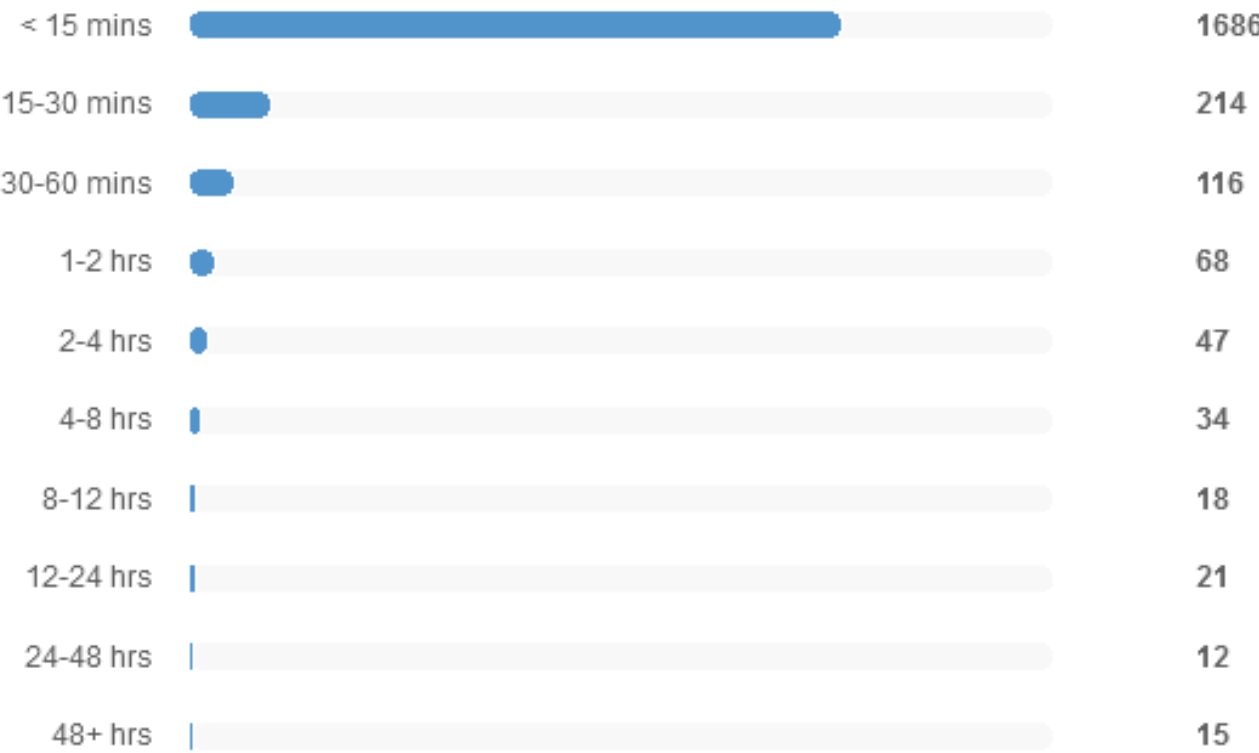
# OUR SERVICE INFRASTRUCTURE- CALL MANAGEMENT - 2019



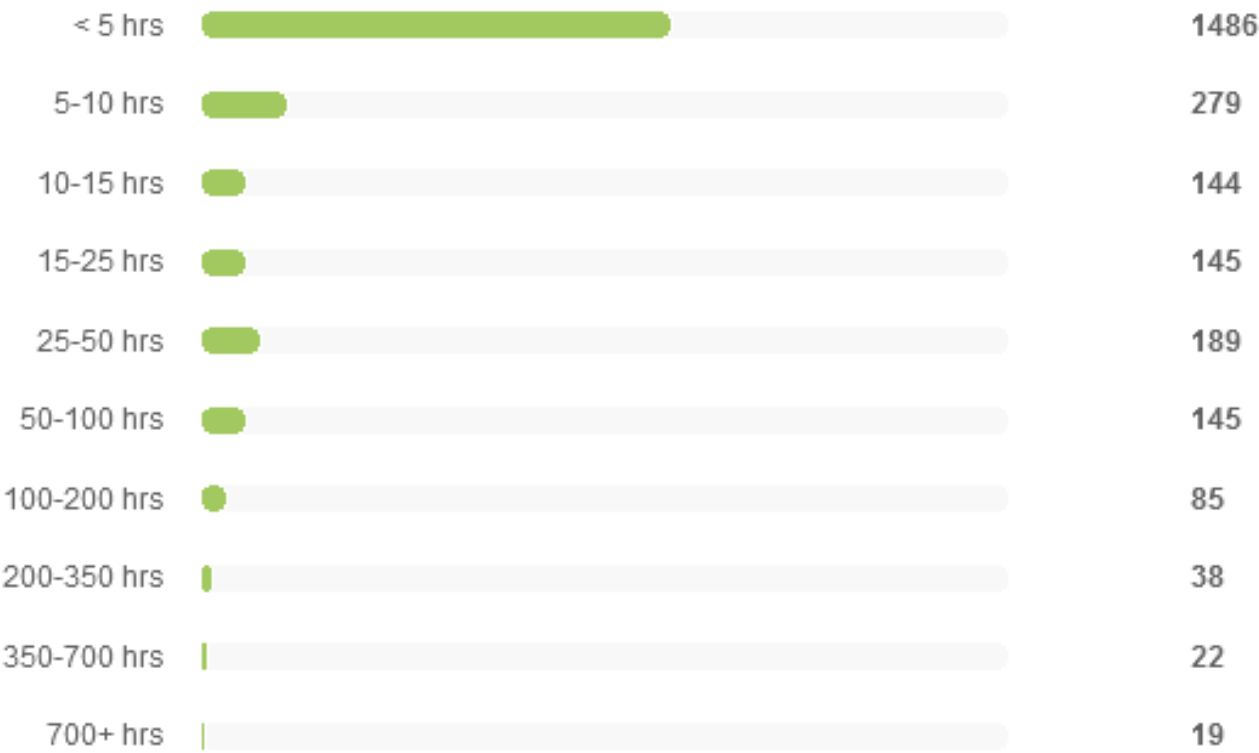
## Call Answer Time



## Average Response Time



## Resolution Time



### Customer Satisfaction Survey: How would you describe the service provided to you by your technical support representative?



Excellent	Satisfied	Not Sure	Not Satisfied	Not at all Satisfied	Total
120	18	1	4	3	145

Total Calls Filed	2544
Total Calls Closed	2522
Total Number of Calls Open	23

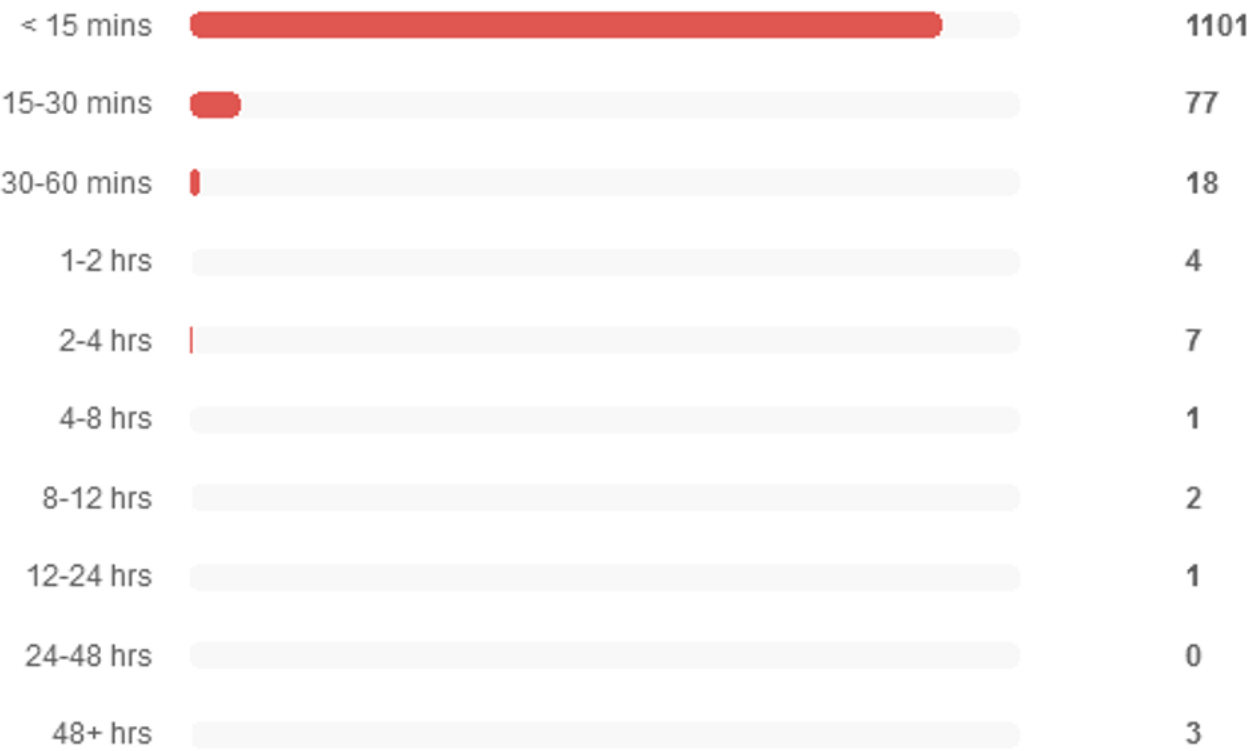
Email	2,429	Web	115
Low Priority	2,484	High Priority	60



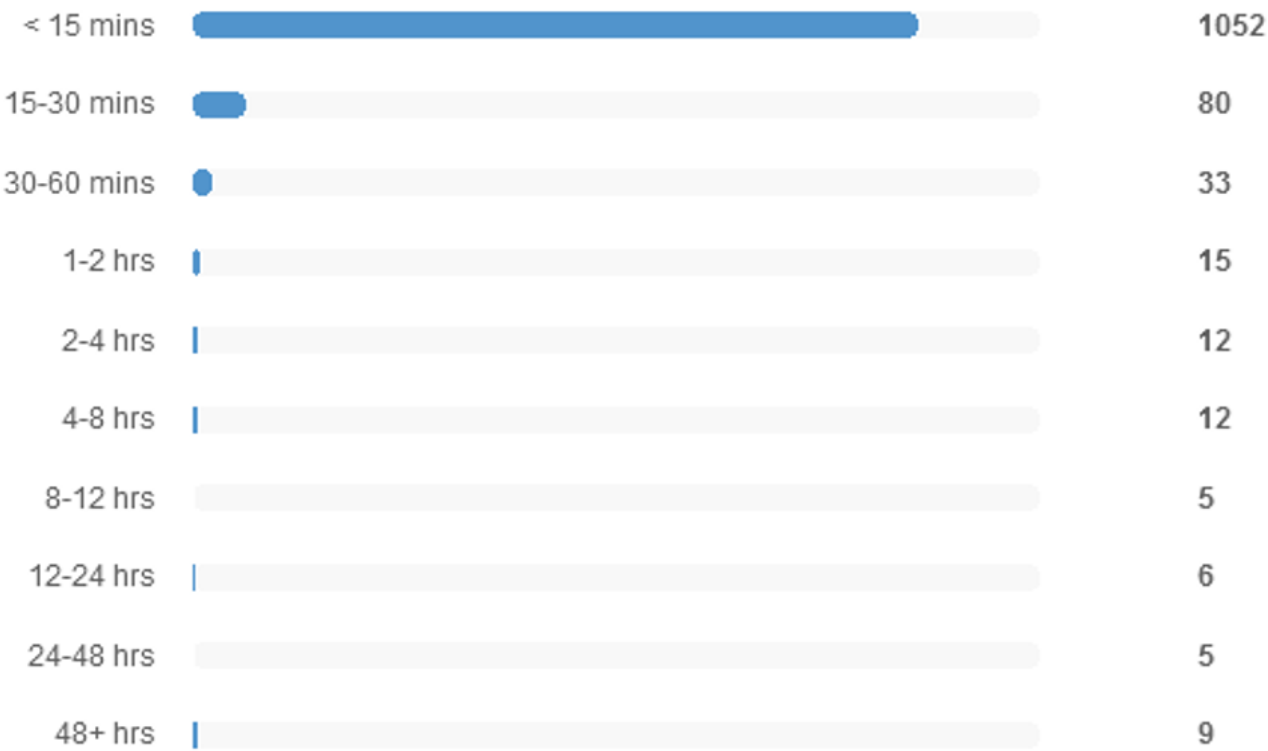
# OUR SERVICE INFRASTRUCTURE- CALL MANAGEMENT - 2020



## Call Answer Time



## Average Response Time



## Resolution Time



### Customer Satisfaction Survey: How would you describe the service provided to you by your technical support representative?



Excellent	Satisfied	Not Sure	Not Satisfied	Not at all Satisfied	Total
52	17	1	5	1	76

Total Calls Filed	1454
Total Calls Closed	1436
Total Number of Calls Open	18

Email	1349	Web	105
Low Priority	1454	High Priority	0

## SERVICE LISTING

### ALL SERVICES

Seçilen Servisler 122

Power On

Power Off

Yedekle

Yeniden Başlat

Sil

Tümü

Arama

	MACHINE NAME	PERFORMANCE	SECTION ID	IP ADRES	DATA CENTER	OS	OS VERSION	SYSTEM
	Akasya_Dev	Çalışıyor	3	10.6.42.11	Linux	AIX/Linux	Linux/SuSe 4.4....	Server-S....
	Akasya_Dev	Çalışıyor	3	10.6.42.11	Linux	AIX/Linux	Linux/SuSe 4.4....	Server-S....
	Akasya_Dev	Çalışıyor	3	10.6.42.11	Linux	AIX/Linux	Linux/SuSe 4.4....	Server-S....
	Akasya_Dev	Kapalı	3	10.6.42.11	Linux	AIX/Linux	Linux/SuSe 4.4....	Server-S....
	Akasya_Dev	Çalışıyor	3	10.6.42.11	Linux	AIX/Linux	Linux/SuSe 4.4....	Server-S....

### ALL SERVICES

Seçilen Servisler 122

Power On	Power Off	Yedekle	Yeniden Başlat	Sil	Tümü	Arama
Akasya_Dev Server-SH9520 260GB Allocated %7 %7 %0	Akasya_Dev Server-SH9520 260GB Allocated %7 %7 %0	Akasya_Dev Server-SH9520 260GB Allocated %7 %7 %0	Akasya_Dev Server-SH9520 260GB Allocated %7 %7 %0	Akasya_Dev Server-SH9520 260GB Allocated %7 %7 %0	Akasya_D Server-SH9520 260GB Allocated %7 %7 %0	Add media to the veritbal ab Lorem ipsum, dizgi ve baskı endü 12.03.2020 04:53:11 OS

## VIRTUAL MACHINE SCREEN

### VIRTUAL MACHINE DETAILS

Sanal Makine Listesi

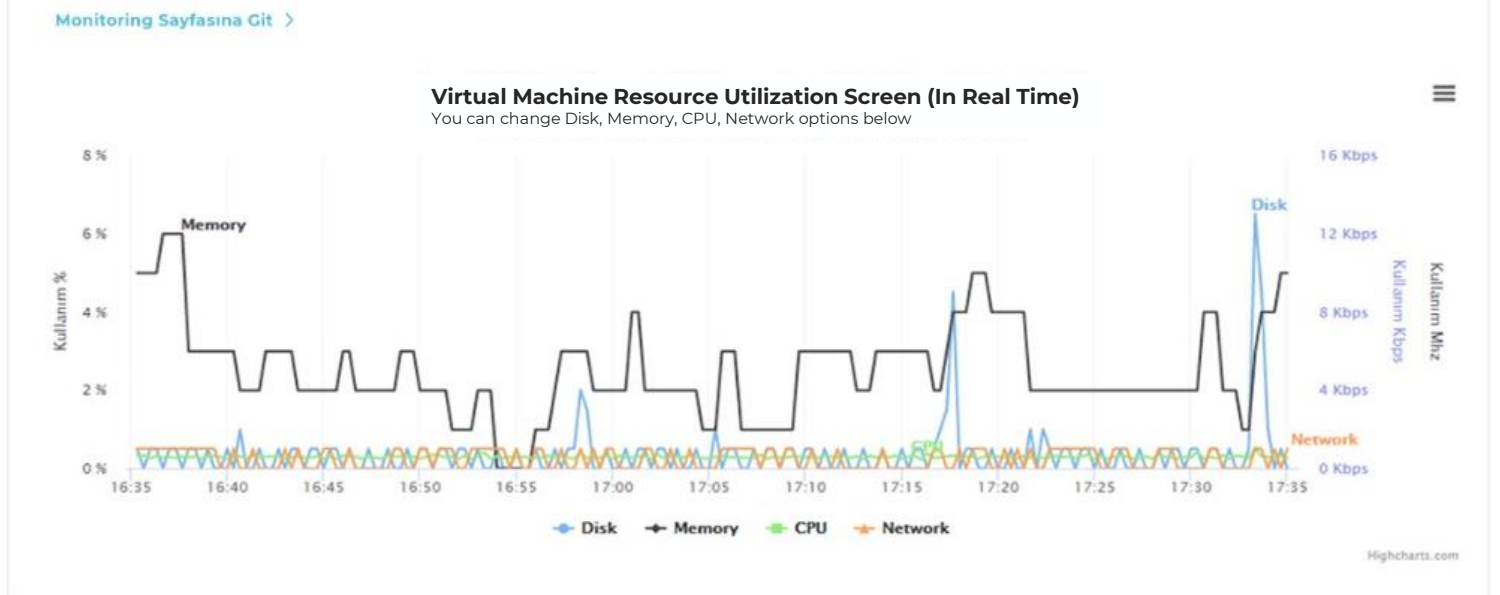
#### OVERVIEW

Define heading	Define description
vCpu	4 Core
vRam	2GB
vDisk	4 GB
Console screen (VMRC)	Kapat (Normal) Kapat (Force) Yeniden Başlat (Normal) Yeniden Başlat (Force)

#### GUEST INFORMATION

#### DEVICES / DRIVES

#### PERFORMANCE SCREEN



Costing

Standardization

Automation

Orchestration

Self Service

Physical

Virtual

Container

PaaS

FaaS



# BULUTISTAN vs OTHER CLOUD OPERATOR



## Bulutistan IaaS / PaaS

## Bulutistan HANA

## Other

Infrastructure

Hyper-Converged ( Nutanix / Simplivity )

Power and Intel

Classic Architecture / Intel

Support Services

System Administrators / SysAdmin

System Administrators / SysAdmin

Call Centre

Installation Time

1 -3 Days

1 -3 Days

1 -3 Weeks

SLA

%99.9

%99.9

99.7% - 99.9%

Private DC

Standard Service - Included

Standard Service - Included

On-Demand

Monitoring

Standard Service - Included

Standard Service - Included

On-Demand

Application Monitoring

Standard Service - Included

Standard Service - Included

On-Demand

Core Business

Cloud

Cloud

SI - SW - Operator

Regulation

Compliant

Compliant

Compliant - ?

Data Centres

Istanbul, Izmir and 210+ Global

Istanbul, Izmir and 210+ Global

Home / Abroad

Local Content Rate

100%

100%

0% - ?

Pricing

Pay as you go

Pay as you go

Committed

Currency

TL or USD

TL or USD

USD



IaaS / PaaS  
Cloud

MEMORIAL

nef



pwc

SiGORTA CiNi

TRTWORLD

SAP / HANA  
Cloud

anex  
tour  
WIR HABEN MILLIONEN HERZEN GEWONNEN

EMİNEVİM  
FAİZSİZ EV ALMA SİSTEMİNİN MUCİDİ

İNCİ HOLDİNG

istegelsin  
tam istediğin market

MİLLİ  
PİYANGO

VEFA  
İLAÇ

Backup  
Cloud

ay papım

CENGİZ  
HOLDİNG



farplas

RENAULT  
Passion for life

TEKFEN

Global  
IaaS / PaaS  
Cloud

BOYNERGRUP

FORA  
Sigorta

GLOBAL  
PORTS HOLDİNG

SABANCIDx

TIRSAN

ZORLU  
USA

Office (PC)  
Cloud

MM

BONY®

GiZiL  
ENERJİ

DOĞA GRUP

RIXOS  
HOTELS

ULUSAL FAKTORİNG

### Education



### Energy



### Retail

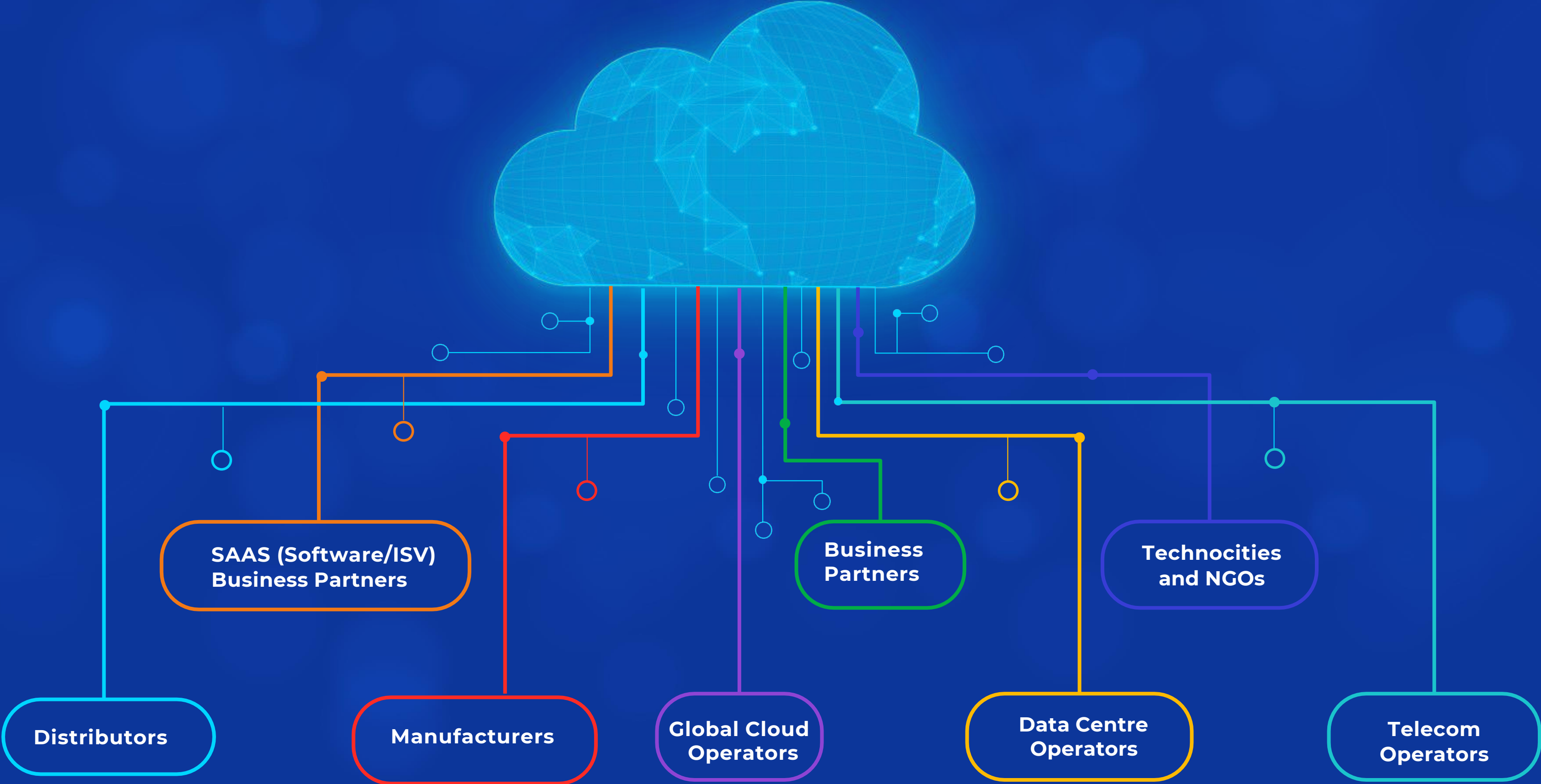


### Manufacturing



### Logistics





### Distributors

arena

ArmAdA  
An INGRAM MICRO Company

artim  
bilisim

LinkPlus

-penta

TechData

### Producers

IBM

Hewlett Packard  
Enterprise

NetApp™

NUTANIX

veeAM

VERITAS™

### Data Center Operators

EQUINIX

Premier DC

vodafone

### Teknokent ve STK

ITUARI  
TEKNOKENT

BRIGHTER  
TOGETHER

TAYSAD  
(Sivil Toplum Kuruluşu)

TOSB  
Otomotiv Yan Sanayi  
İhtisas Organize Sanayi Bölgesi

TÜBİSAD  
BİLİŞİM SANAYİCİLERİ DERNEĞİ

yasad  
YAZILIM SANAYİCİLERİ DERNEĞİ

### Telekom Operators

cogent

Equinix Cloud  
Exchange Fabric™

TURKCELL

Türk Telekom

vodafone



# We are **creating synergy** with the SaaS ecosystem in our country

We are providing value-added services to our customers by means of the collaborations we make with the software developers in Turkey.



**SaaS**



### SAAS / Software Work partners

**Cybersoft**  
vision@work to make IT happen

 **DIWY  
DRIVE**

**ditravo**

**KAREL**

**SIEMENS  
Healthineers**

### White Label

**dscience**

 **NetQuick**

**OneCloud**

 **r a s y o n a**

### Work partners

**ECZACIBAŞI  
BİLİŞİM**

 **NETAS**

 **telcoset**

 **TEKNOSER**

 **turcom®  
teknoloji**

### Global Cloud Operators

 **Alibaba Cloud**

 **IBM Cloud**

 **ORACLE®  
CLOUD**

 **Windows Azure**

### SAP

**ACRON**  
LET YOUR BUSINESS FLOW

 **detaysoft**

 **EasyIT**  
make it easy

**improva**

 **mbis**

**vektora**



**We provide employment in informatics with the partnership of Bulutistan Academy and ITU.**

- Internship opportunities for willing students
- Project competition for final year students
- 3-month certified training programs in summer (with Bilge Adam)
- Part-time work opportunity in Bulutistan and group companies
- Work opportunities in Bulutistan partners and channel structure
- Work opportunities in technology vendors of Bulutistan



**Turkey's data should stay in Turkey!**



### 2023

#### Vision

- Globalization with Regional Expansions (MEA, CIS, EU, UK)
- Vertical / Sectoral Cloud Platforms with ISV Ecosystem
- Hybrid Projects with Cloud BOX Equipment in Customer Environments
- IT Exports with Our Competencies in Managed Services

### 2020

#### We Will Make a Difference with Software in the Future

- Multi Cloud Management Platform (SSP) for customers
- RPA (Robotic Process Automation) & AI (Artificial Intelligent) for operation
- Dynamic Scaling
- Selective PaaS & Containers & Serverless (reverse brain drain... )

### 2019

The Most Powerful SAP HANA Cloud in the Region with hyper-converged architecture, with the fastest cloud system integration, with the most hybrid Cloud Digital Archiving Service, with the biggest cloud power processors in Turkey.

### 2015

Established as the first and only cloud integrator in Turkey in 2015, Bulutistan is aiming to be the first company that comes to mind in the region in cloud computing field.





WHILE HALF OF US IS STRIVING TO  
«INCREASE OUR IT EXPORTS», WHEREAS  
THE OTHER HALF IS STRIVING TO «ADD  
VALUE TO DIGITAL TRANSFORMATION IN THE  
BUSINESS WORLD» IN ORDER TO BECOME  
THE TURKCORN OF TURKEY

**#1** | Technology **Fast 50**  
2019 TURKEY **WINNER**  
**Deloitte.**

Thank you!



[bulutistan.com](https://bulutistan.com)



0850 22 BULUT

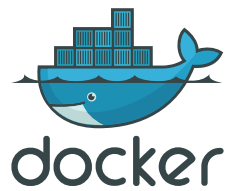


[info@bulutistan.com](mailto:info@bulutistan.com)





# OUR CLOUD TECHNOLOGIES



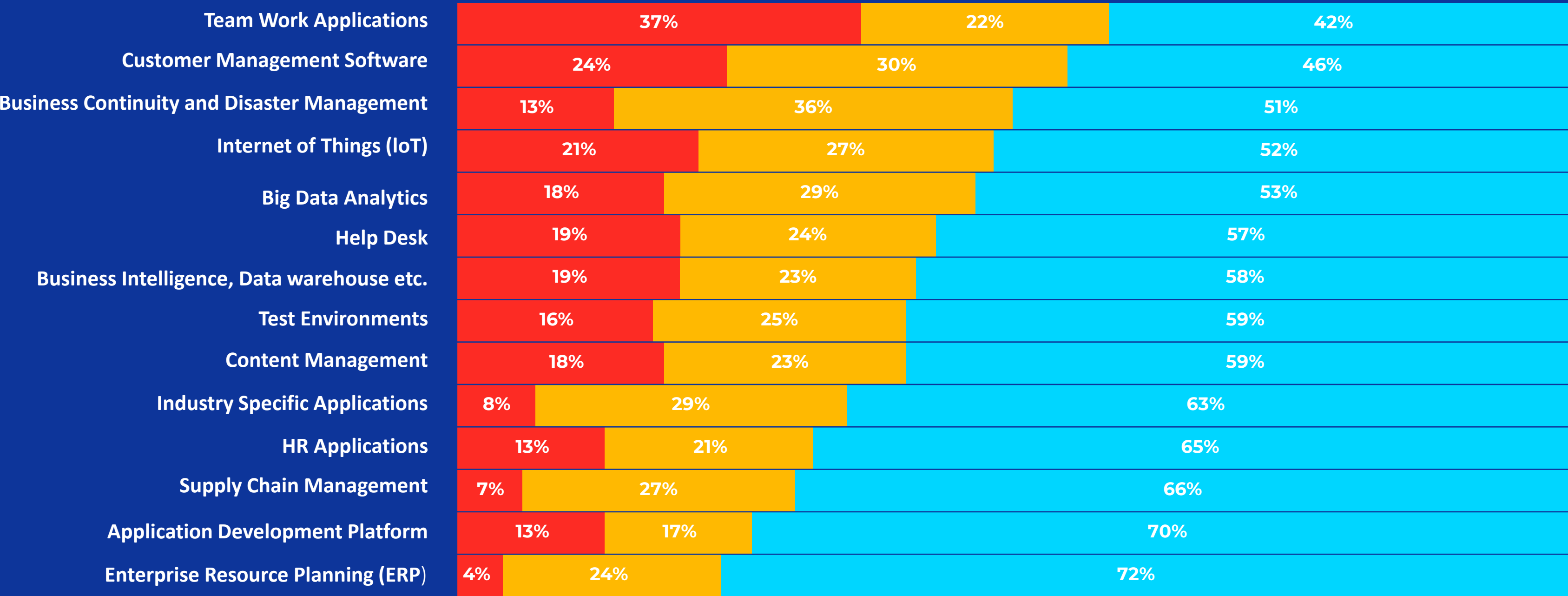
RED HAT  
CLOUDFORMS



RHEV

RED HAT  
SATELLITE

# CLOUD OR IN-HOUSE SOLUTION?



 General Cloud  Private Cloud  In-House Resource

Q. Has your company deployed, or does it intend to deploy, the following technologies/solutions on premises, in public cloud, or in private cloud?

Base: Organizations that implemented/planning to implement the technologies

Source: IDC MEA CIO Survey, Turkey Interim Data, Jan 2020, December 2019





**1.**  
Server Cost

Hardware – Server,  
Cabinet- PDUs, ToR Switches  
(+ Maintenance)

Software – OS,  
Virtualization licenses  
(+Maintenance)

Operating Cost

Space

Energy

Cooling



**2.**  
Disk Cost

Hardware – Data Storage,  
SAN/FC Switches  
(+Maintenance)

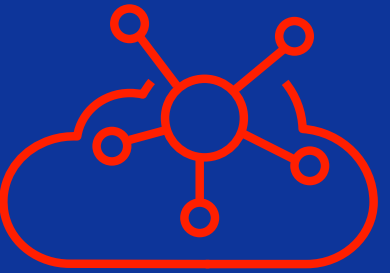
Data Storage  
Management Software  
(+Maintenance)

Operating Cost

Space

Energy

Cooling



**3.**  
Network Cost

Network Hardware – LAN  
Switches, Load Balancer  
(+Maintenance)

Connection Costs /  
Access Costs  
(+Maintenance)

Operating Cost

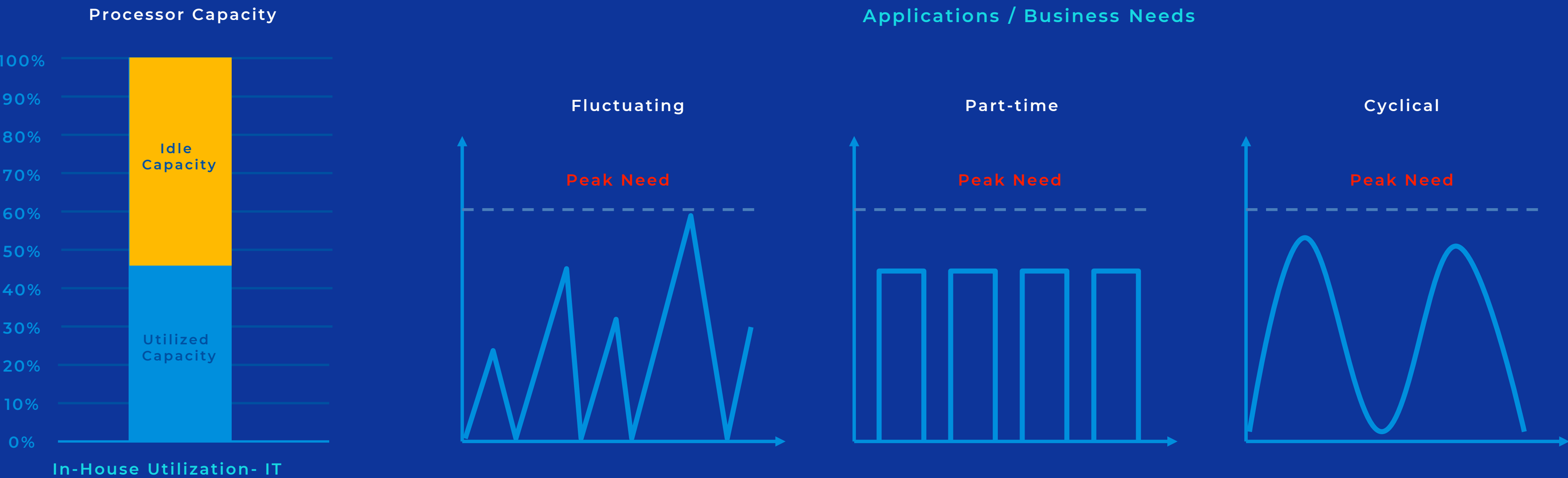
Space

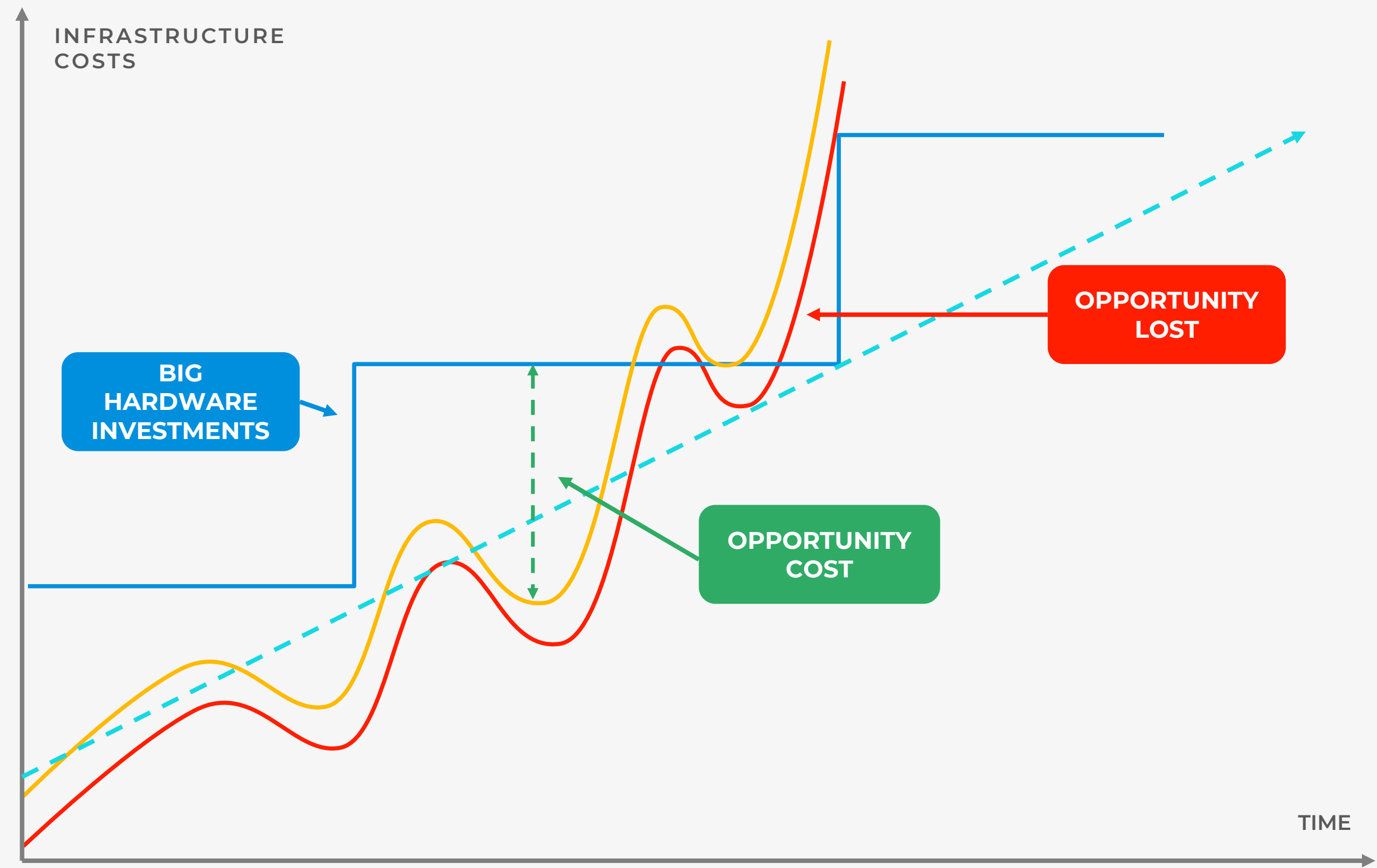
Energy

Cooling

The table does not include all expense items. For Example: Database software expenses, middleware, building rental expenses, security software etc., and most importantly, human resource expenses (security specialist, system specialist, etc.) must be added to the table when making detailed comparisons.

According to Gartner, McKinsey and the Uptime Institute, the average occupancy of data centers is lower than 50% of their capacity

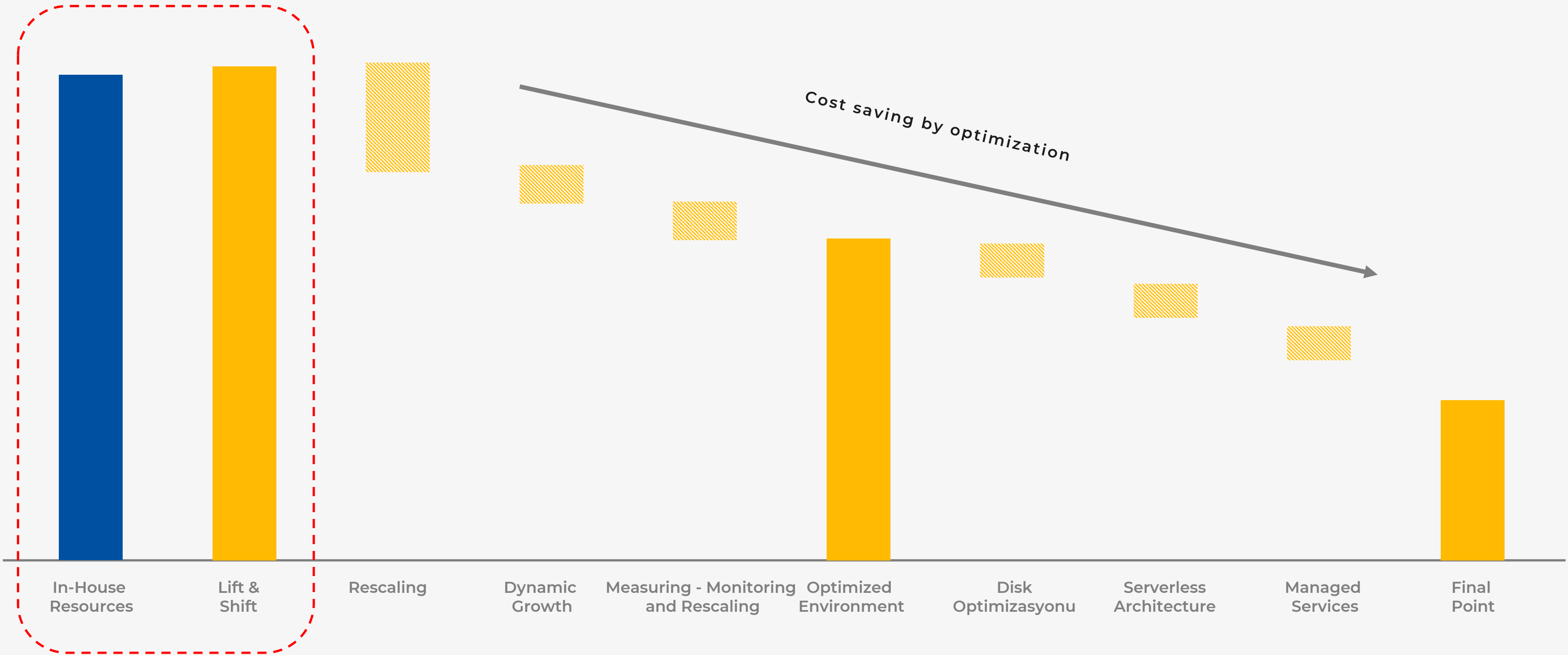




- Key:
- Estimated Need
  - Traditional Infrastructure (HW)
  - Real-time need
  - Bulutistan services

TASK	SAVING	EXPLANATION
Server Budgeting and Planning	90%	No Need for Server Budgeting and Planning in the Cloud
Server Purchasing Process	75%	Minimum Effort
Long-term Capacity Planning	75%	Minimum Effort or Automatic Scaling
Project Budgeting and Planning	75%	Minimum Effort
Detailed Implementation Plan	75%	Minimum Effort
Planning for Hardware Failures	100%	Not Required
Loading and Updating Software	50%	Automatic or Minimum Effort



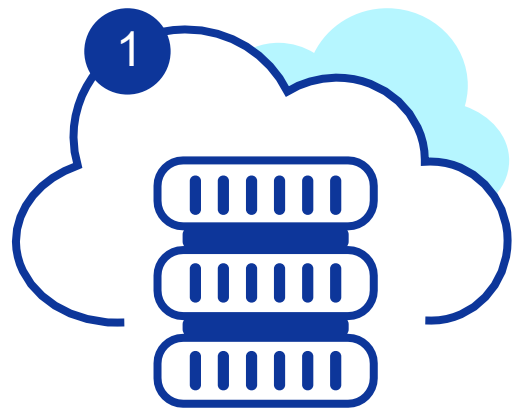


Typical TCO Comparison

# OPERATIONAL BUSINESS CONTINUITY: INTERRUPTION COST

CATEGORY	% TOTAL	EXPLANATION
Third Parties	1.3%	Losses arising from interruption of services from consultants and similar sources
Hardware	1.3%	Equipment wear
Out of Date Activities	1.1%	Losses arising from the delays experienced in ongoing activities.
Disaster Management	2.9%	Additional costs of secondary systems for disaster management
Identification / Detection	3.6%	Cost of time and resources spent on detecting the problem
Productivity (IT)	8.4%	The cost of inefficiency that will arise from the decrease in production during the interruption
End User Productivity	18.7%	The cost of inefficiency caused by the decrease in the productivity of the company employees
Revenue Loss	28.2%	Cost of revenue loss that will be arising from inability to access customers
Impact on the Company	34.6%	cost arising from the loss of reputation of the company and the loss of environmental opportunities for the business
TOTAL	100%	

# TOTAL COST OF OWNERSHIP ADVANTAGES OF BULUTISTAN CUSTOMERS?



Advantage of processor power scaling

**10-20% with average server utilization**



Advantage of scale economy and TL invoice

**Continuous cost improvement**



Advantage of different pricing models selected according to business types

**Service from the right source with our BulutBroker competencies**



Advantage of decreasing costs while growing

**Discounts from scale-based pricing**



## Topology

**Both Local and Global**

**Operator Independent**

**Container-based, Serverless**



## Performance

**Hyper-converged Infrastructure**

(Nutanix / Simplivity)

**High IOPS/ SAPs**

(IBM POWER / HANA)

**Bulutistan Private Cloud**

(Private DC)



## Pricing

**TL and USD Based Pricing**

**Pay as You Go**

**Non-committed Contract**



## Experience

**Solution Focused Approach with Boutique Service**

**Separated Live & Secondary System Management with Different Structures**

**Network and Security Services**



## 1 Global Clouds

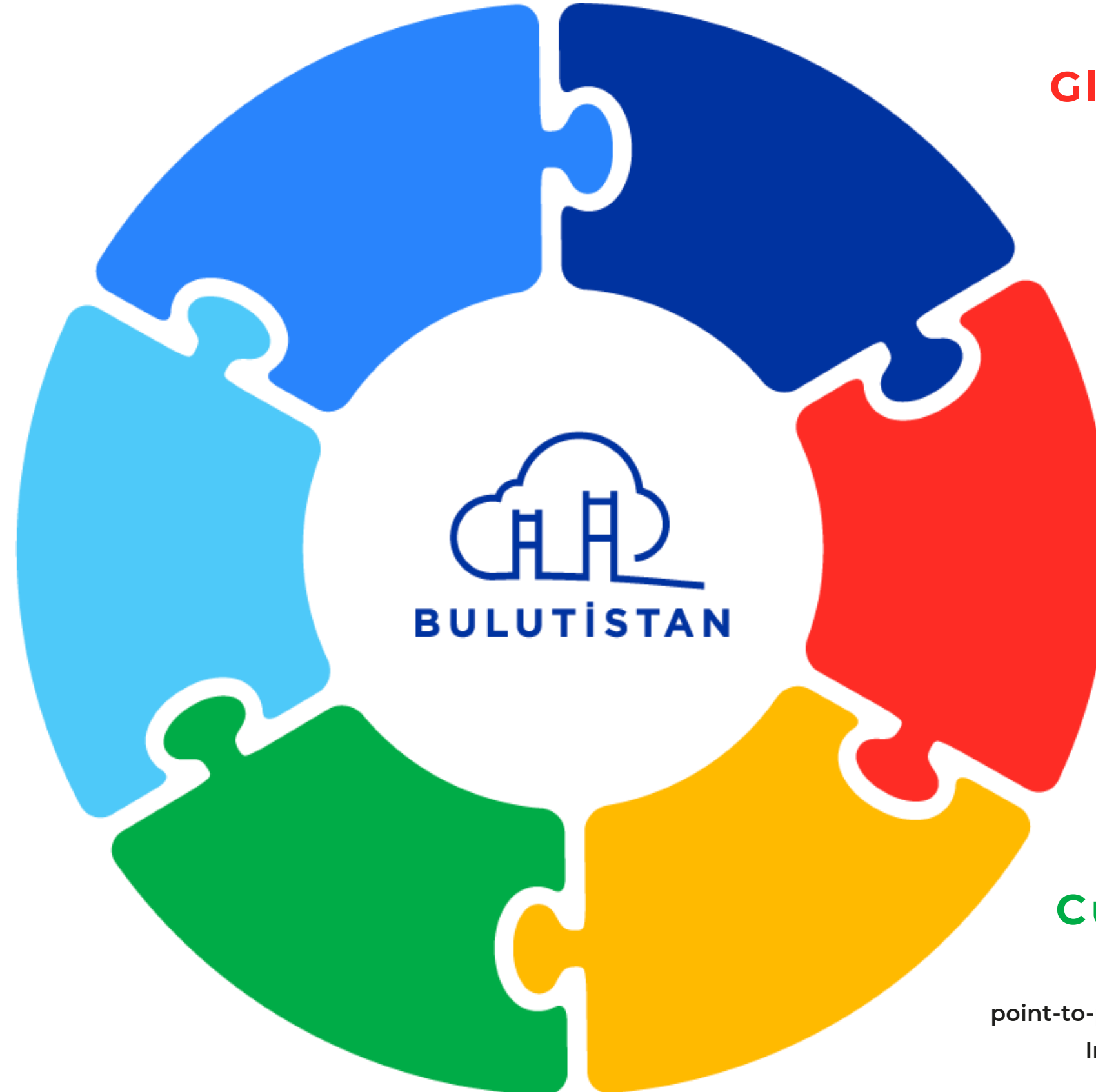
Sales and management of Amazon Web Service, Microsoft Azure, IBM SoftLayer, Google Cloud services

## 2 İSTANBUL European Side

commissioning of native cloud services from within the Equinix Flat office (@ Eyüp) data centre (IS1)

## 3 İSTANBUL Anatolian Side

Commissioning of native cloud services from within Equinix Umraniye OSB (@Dudullu) data centre (IS2)



## Global Data Centers

Starting to use more than 210 Data Centers and 2 Million m2 of white space with Equinix's IBX infrastructure.

## Izmir

Commissioning of Disaster Recovery (DR) and business continuity (BC) services from within Vodafone Data Centre.

## Customer Environment

Connecting to Bulutistan Data centres with point-to-point closed circuits (P2P, VPN over MPLS or the Internet) with the customer's own infrastructure.

### 1 Requirement

Starting from the operations abroad, the transition of data centers primarily to the cloud platforms in the country and providing comparative service as a cloud broker in this process.

### 2 Solution

Primarily in USA, the transfer of SAP systems to HANA services in global cloud environments

Moving the infrastructure in the IBM data center within the country to our cloud platform that will provide optimum cost with a dedicated terrestrial circuit.



### 4 Summary

“ We are very impressed with the creative solutions offered by the expert staff, who focuses on their subject and can tailor all technologies in their field according to the needs. Achieving to be a whole with our teams and reducing our costs strengthen our desire to work with them in different projects. ”

Murat Zeren | Zorlu Holding CIO

### 3 Conclusion

In addition to managing different cloud systems through a single company, very serious time savings were gained in demand management. Expectations in performance requirements are exceeded with hyper-converged systems.

Transmission of data that is also software encrypted over end-to-end encrypted circuits within the structures closed to internet with dedicated firewall..