

# COMPANY OVERVIEW PRESENTATION

**2020 v1**

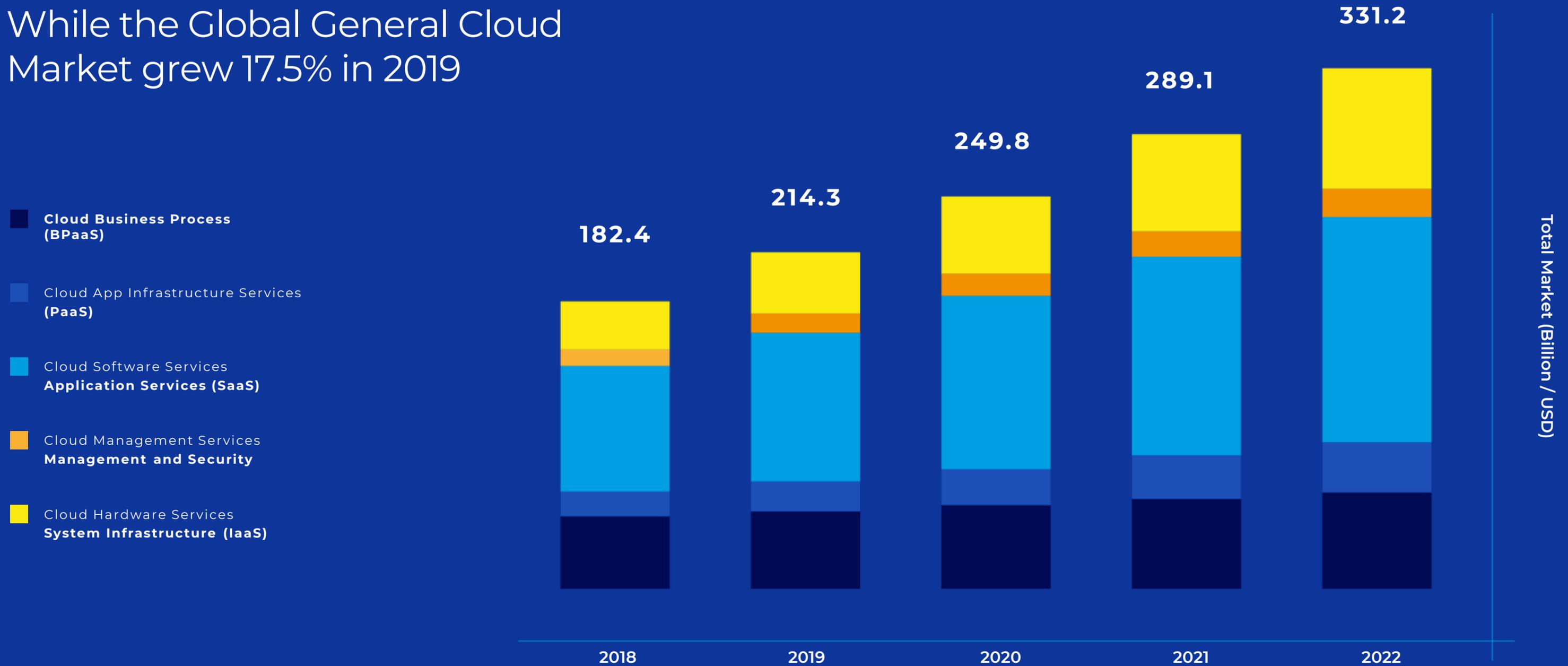


Until 2022, cloud computing spending, which provides the processor power at the center of digital transformation, will reach 40% of the basic computing budgets of the companies..

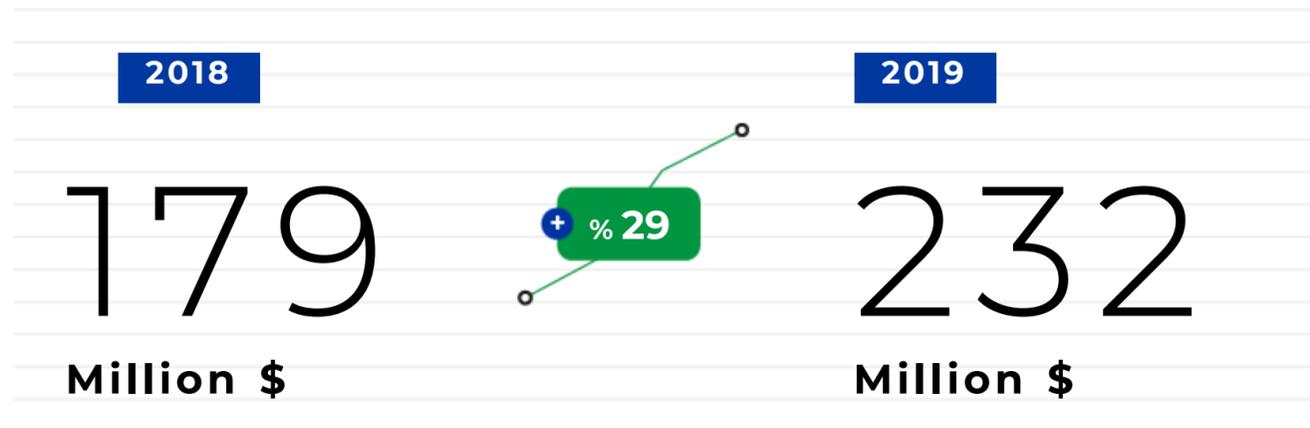
It is expected to reach 80% by 2028.



While the Global General Cloud Market grew 17.5% in 2019



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

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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





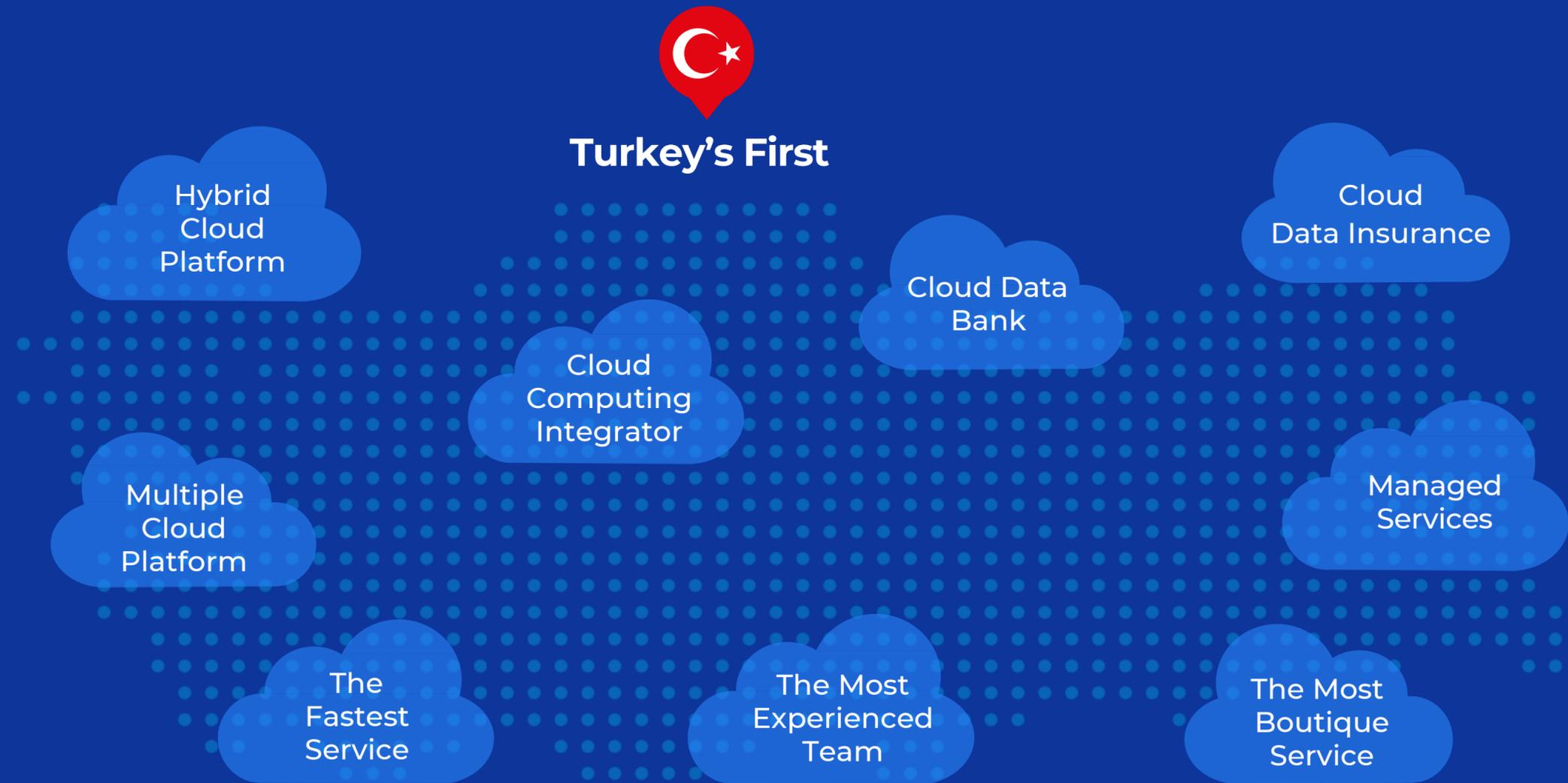
OUTSTANDING SOLUTION DRIVING CLIENT  
INNOVATION AND TRANSFORMATION WITH  
IBM POWER SYSTEMS - BULUTİSTAN



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



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
✓ <b>99,9% (three nines)</b>	<b>8.76 hours</b>	<b>43.8 minutes</b>	<b>10.1 minutes</b>
99,95%	4.38 hours	21.56 minutes	5.04 minutes
99,99% (four nines)	52.56 minutes	4.32 minutes	41.01 minutes
✓ <b>99,999% (five nines)</b>	<b>5.26 minutes</b>	<b>25.9 seconds</b>	<b>6.05 seconds</b>
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)**



BULUTBROKER

# EQUINIX CLOUD EXCHANGE FABRIC (ECX) AND OUR DATA CENTRES



BULUTİSTAN



● Equinix Location    
 ● ECX Location    
 ★ Business Partner Location

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

## Processor Power

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### 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

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### 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



**IaaS / PaaS  
Cloud**

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



**SAP / Hana  
Cloud**

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



**Backup  
Cloud**

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



**Global  
Cloud**

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

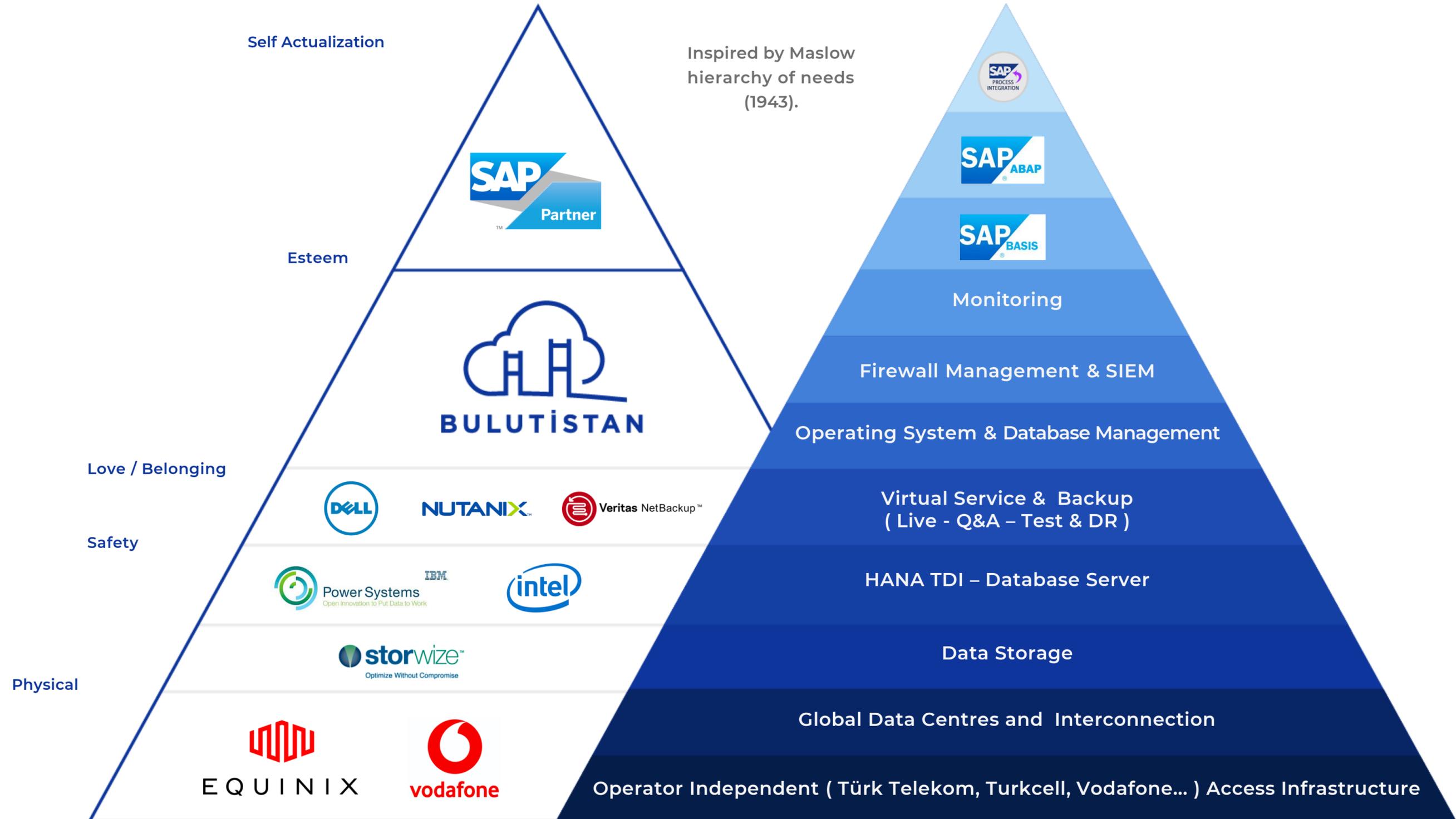


**Office (PC)  
Cloud**

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

## Security Services





Data Protection as a Service

## 1. Address- Resources

Server 

End User  
Pc / Mobil 

Storage 

Tape 



## 2. Address - Method

Replication 

Backup 

Disk Server 

Archiving 



## 3. Address – Data Storage Space



Hibrit Opsiyonlar

Leaner, Faster, More Cost Effective

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

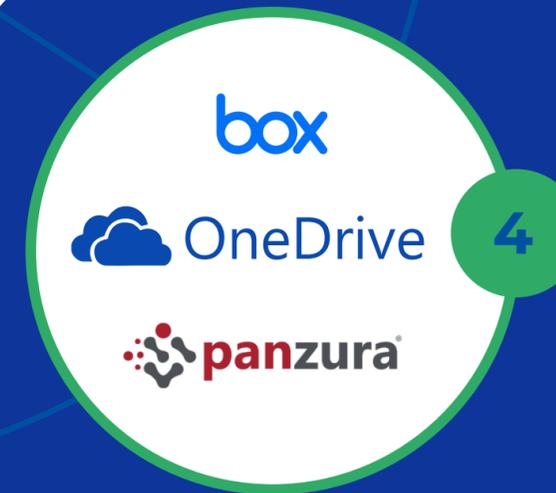


**Access from any location, any device**  
(Any location, any device)

**Authorized Users**  
(Plug in to your domain)



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



**Linked Files**  
(Storage)



# 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



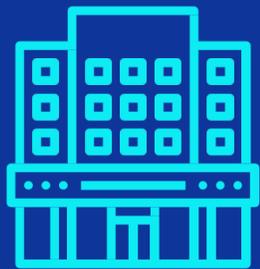
## BULUTBROKER

Cloud Services



## PLATFORM EQUINIX

### BULUTBROKER DATA CENTER



Your Company



Corporate Infrastructure

1 - 10 Gbps  
Port Size



Equinix Cloud Exchange Fabric

50 Mbps - 10 Gbps  
Bandwidth

Hybrid IT

Multiple Cloud

Managed Service



Direct Connect



Express Route



Carrier Peering



Direct Link



Fast Connect



Sap Cloud Peerin

## 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

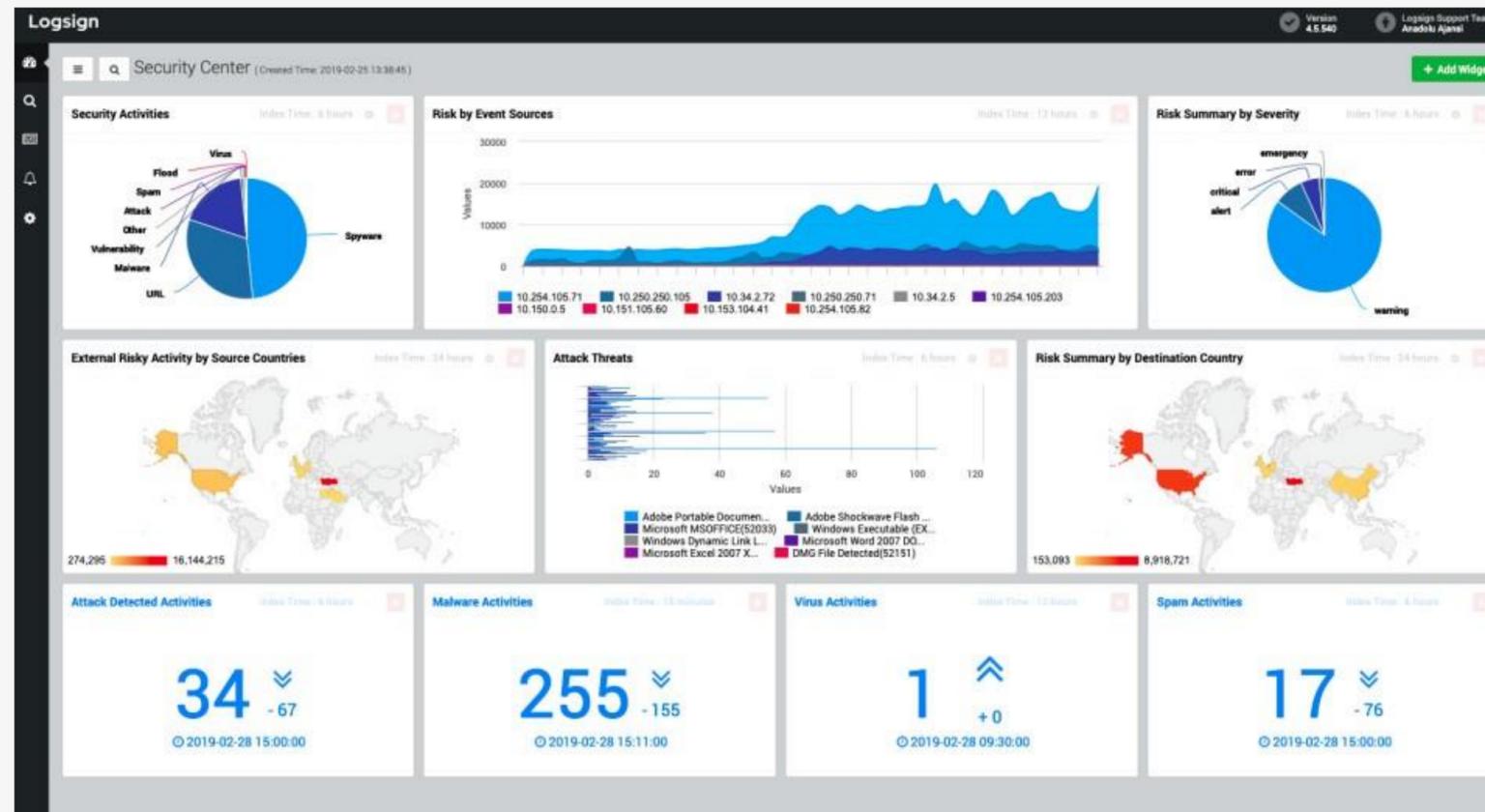
- Pre-defined
- Automatically available
- Regulation report generation (PCI DSS, HIPAA, 5651...)

## 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



**Server**

42  
Name

**Processor**

254  
Processor Cores

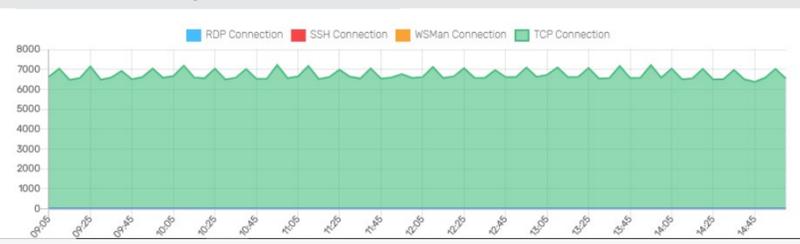
**Memory**

4 TB  
Memory Capacity

**Calendar**

May 16

**Network Security**



**Clock**



**Change Tracking**



**Server Pending Reboot**



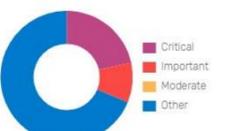
**OS Assessment**



**Geo Activity**



**System Update Assessment**



**Event Management**

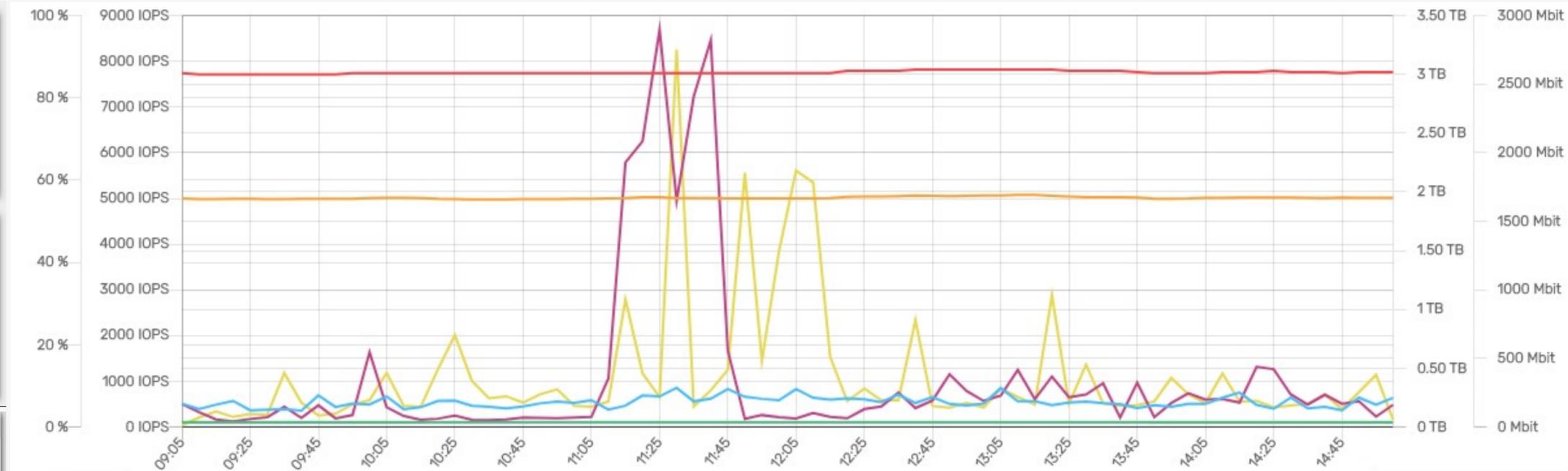


**Security and Audit**



**Notes**





Show 10 entries

Label	Avg	Max	Min	Last
<input checked="" type="checkbox"/> % Memory Usage	55.18 %	56.44 %	55.31 %	55.72 %
<input checked="" type="checkbox"/> Memory Usage	3 TB	3.04 TB	3 TB	3.02 TB
<input checked="" type="checkbox"/> Processor Load	5.57 %	9.51 %	3.95 %	7.08 %
<input checked="" type="checkbox"/> Swap Usage	0 TB	0.04 TB	0.04 TB	0.04 TB
<input checked="" type="checkbox"/> Total Network Bandwidth	366.61 Mbit	2752.63 Mbit	11.93 Mbit	52.9 Mbit
<input checked="" type="checkbox"/> Total Storage IOPS	1039.38 IOPS	8687 IOPS	121 IOPS	486 IOPS

**2000+ Virtual Servers**

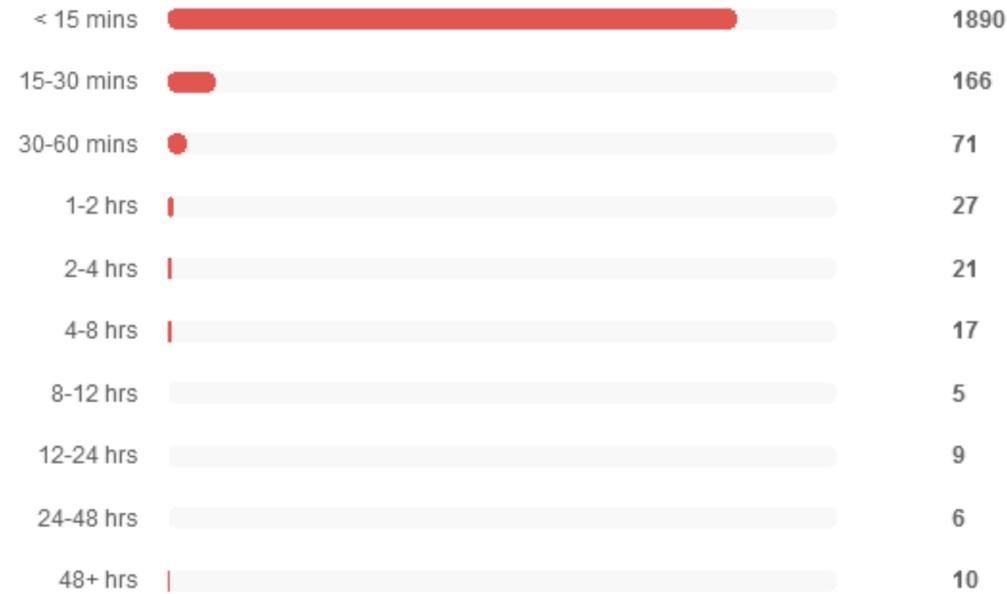
**50 TB+ SAP HANA**

**5 PB+ DATA STORAGE**

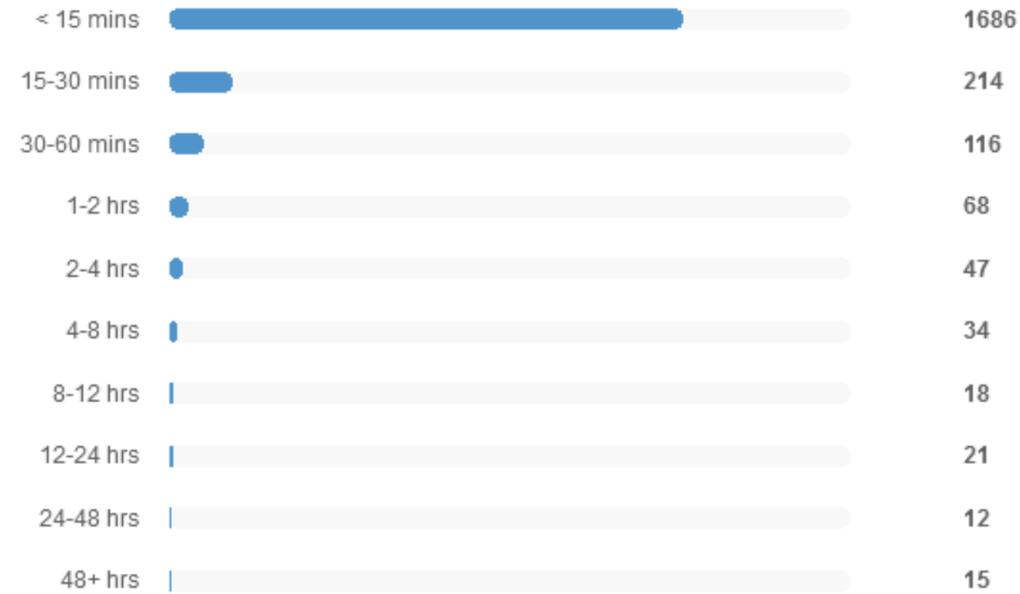
**2000+ CALLS**

**VirtualIM=TRIC**

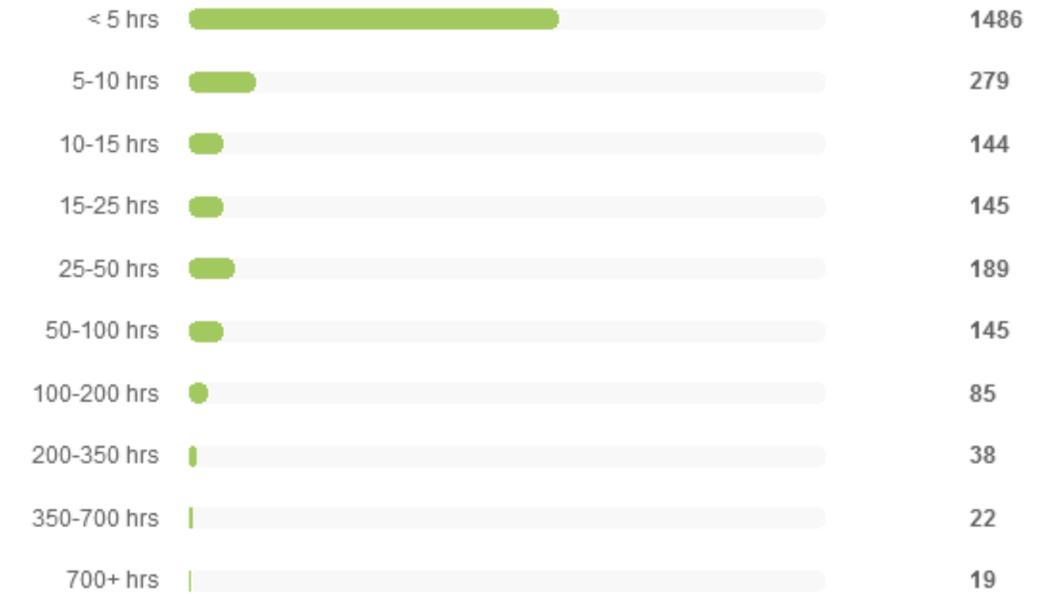
## Call Answer Time



## 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	<b>2544</b>
Total Calls Closed	<b>2522</b>
Total Number of Calls Open	<b>23</b>

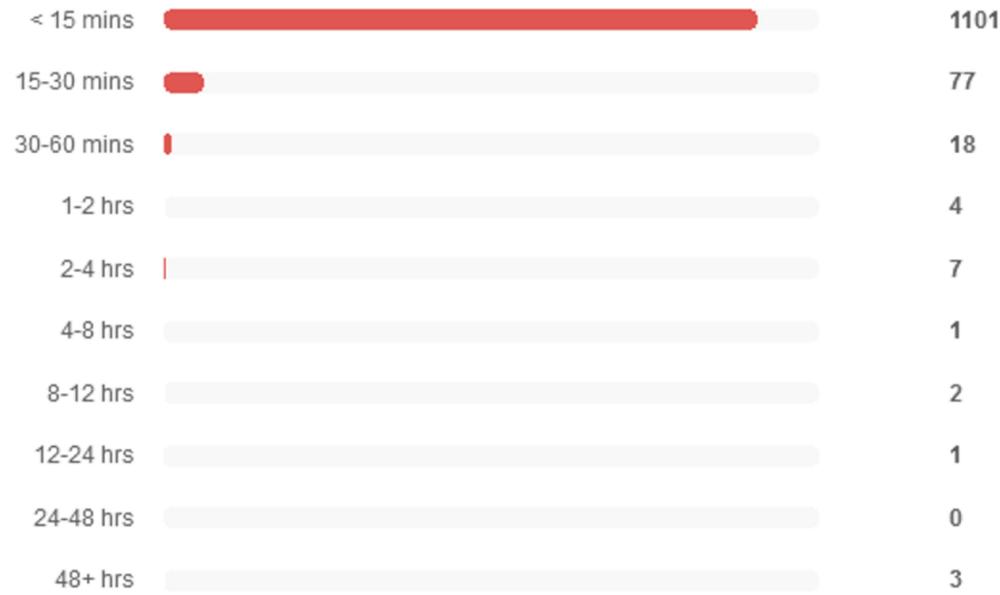
Email	<b>2,429</b>	Web	<b>115</b>
Low Priority	<b>2,484</b>	High Priority	<b>60</b>



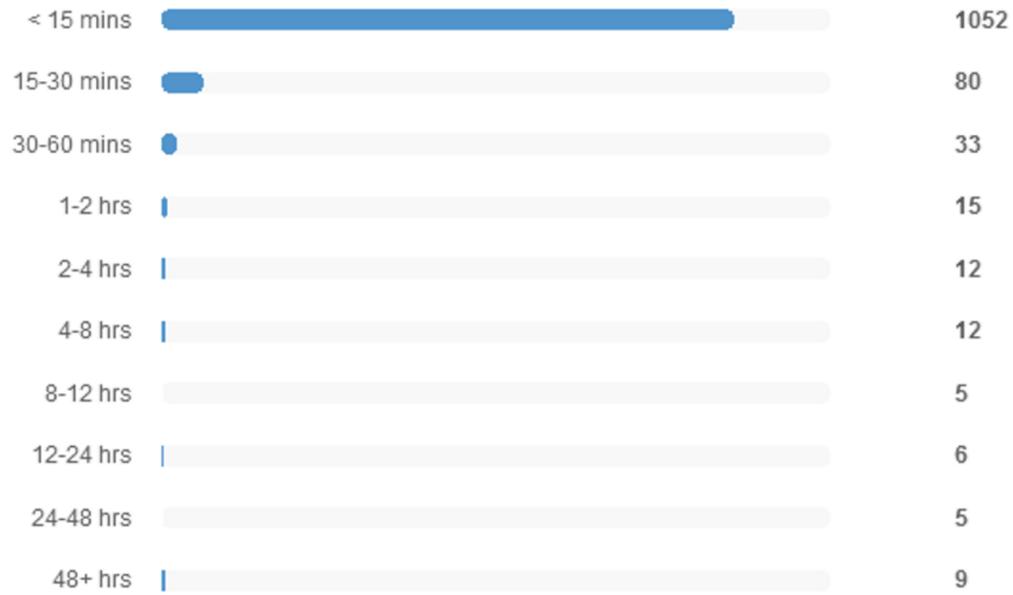
# OUR SERVICE INFRASTRUCTURE- CALL MANAGEMENT - 2020



## 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

MACHINE NAME	PERFORMANC E	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....

## VIRTUAL MACHINE SCREEN

### VIRTUAL MACHINE DETAILS

Sanal Makine Listesi

#### OVERVIEW

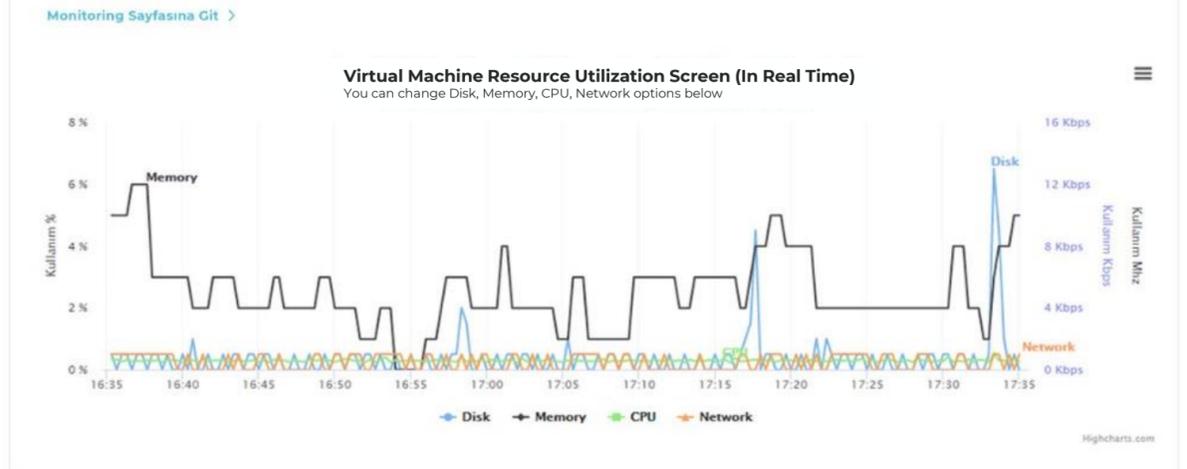
Define heading	Define description
vCpu	4 Core
vRam	2GB
vDisk	4 GB

Console screen (VMRC) Kapat (Normal) Kapat (Force) Yeniden Başlat (Normal) Yeniden Başlat (Force)

#### GUEST INFORMATION

#### DEVICES / DRIVES

#### PERFORMANCE SCREEN



### ALL SERVICES

Seçilen Servisler 122

Power On Power Off Yedekle Yeniden Başlat Sil Tümü Arama



Akasya\_Dev  
Server-SH9520

260GB Allocated



Akasya\_Dev  
Server-SH9520

260GB Allocated



Akasya\_Dev  
Server-SH9520

260GB Allocated



Akasya\_Dev  
Server-SH9520

260GB Allocated



Akasya\_Dev  
Server-SH9520

260GB Allocated



Akasya\_Dev  
Server-SH9520

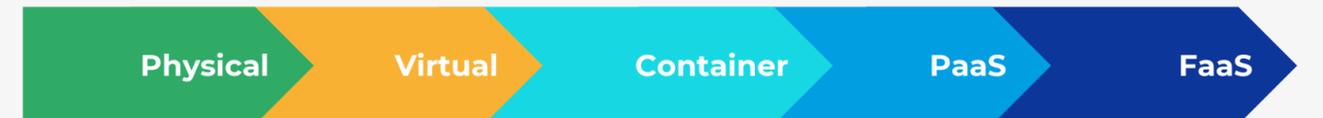
260GB Allocated



Akasya\_Dev  
Server-SH9520

260GB Allocated

Add media to the veritbal abi  
Lorem ipsum, dizgi ve baskı endü  
12.03.2020 04:53:11 OS



 **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

SABANCI Dx

TIRSAN

ZORLU  
USA

Office (PC)  
Cloud

MAM

BONY®

GİZİL  
ENERJİ

DOĞA GRUP

RIXOS  
HOTELS

ULUSAL FAKTORİNG

### Education



### Energy



### Retail

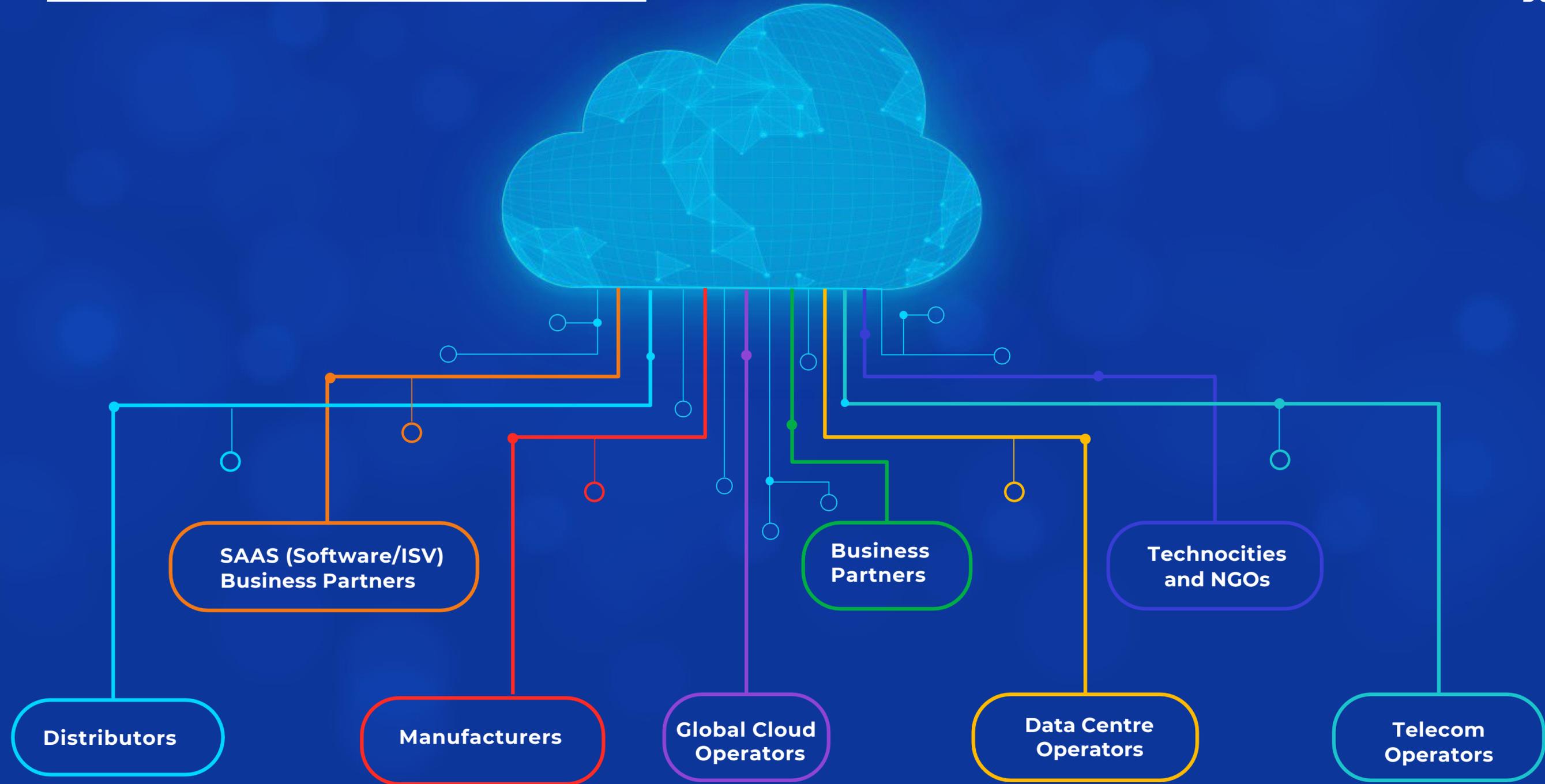


### Manufacturing



### 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



ditravo

KAREL



White Label



OneCloud



Work partners

ECZACIBAŞI  
BİLİŞİM



telcoset



Global Cloud  
Operators



SAP



improva



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

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#### 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

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#### 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

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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

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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!





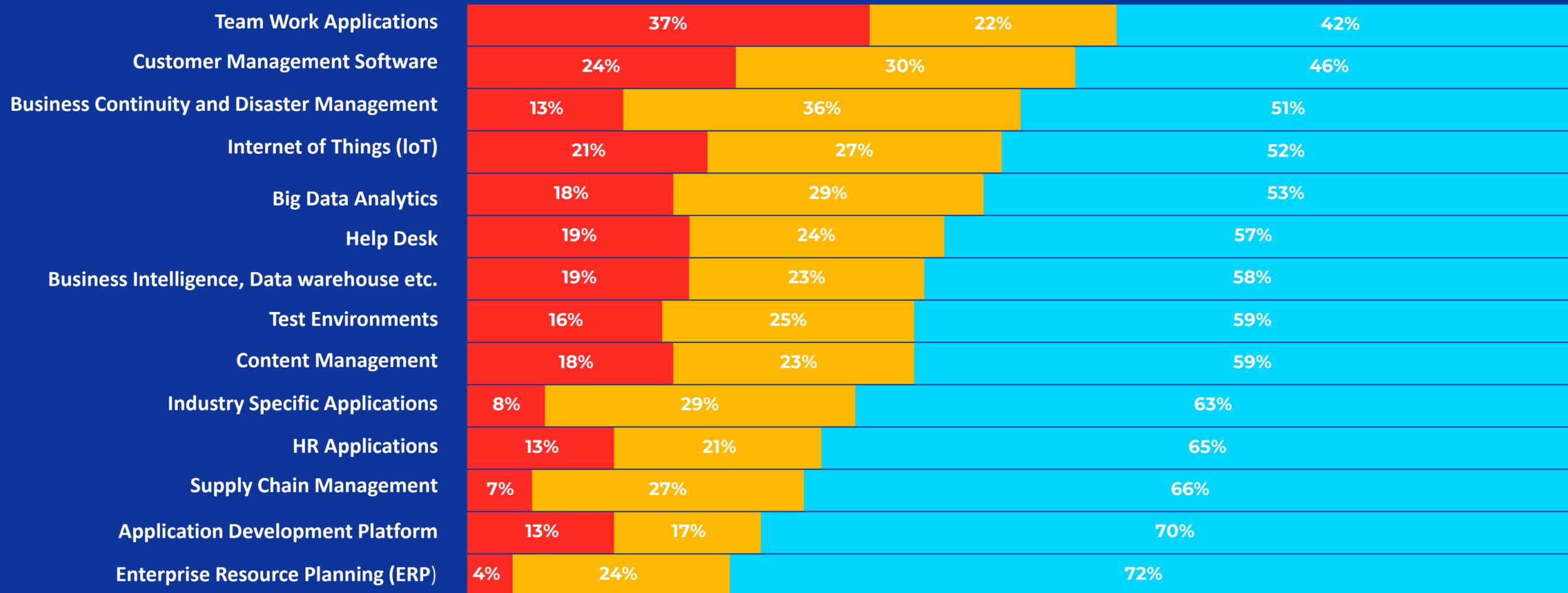
RED HAT  
CLOUDFORMS



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)**

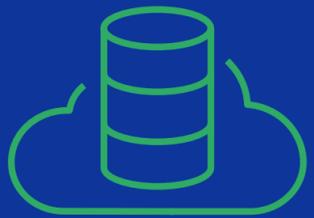
**Software – OS, Virtualization licenses (+Maintenance)**

**Operating Cost**

Space

Energy

Cooling



## 2. Disk Cost

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

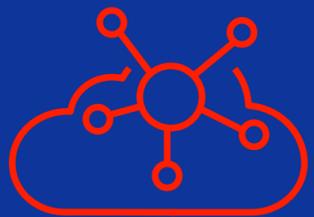
**Data Storage Management Software (+Maintenance)**

**Operating Cost**

Space

Energy

Cooling



## 3. Network Cost

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

**Connection Costs / Access Costs (+Maintenance)**

**Operating Cost**

Space

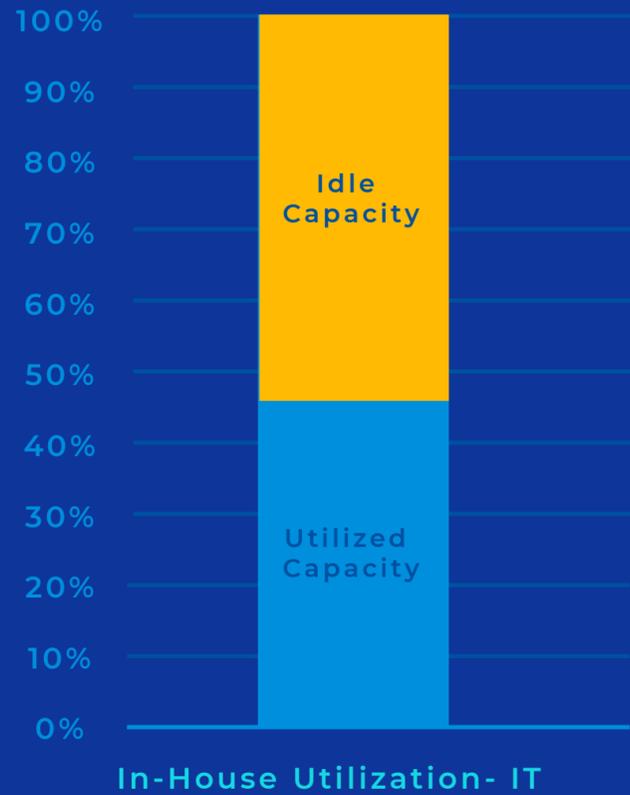
Energy

Cooling

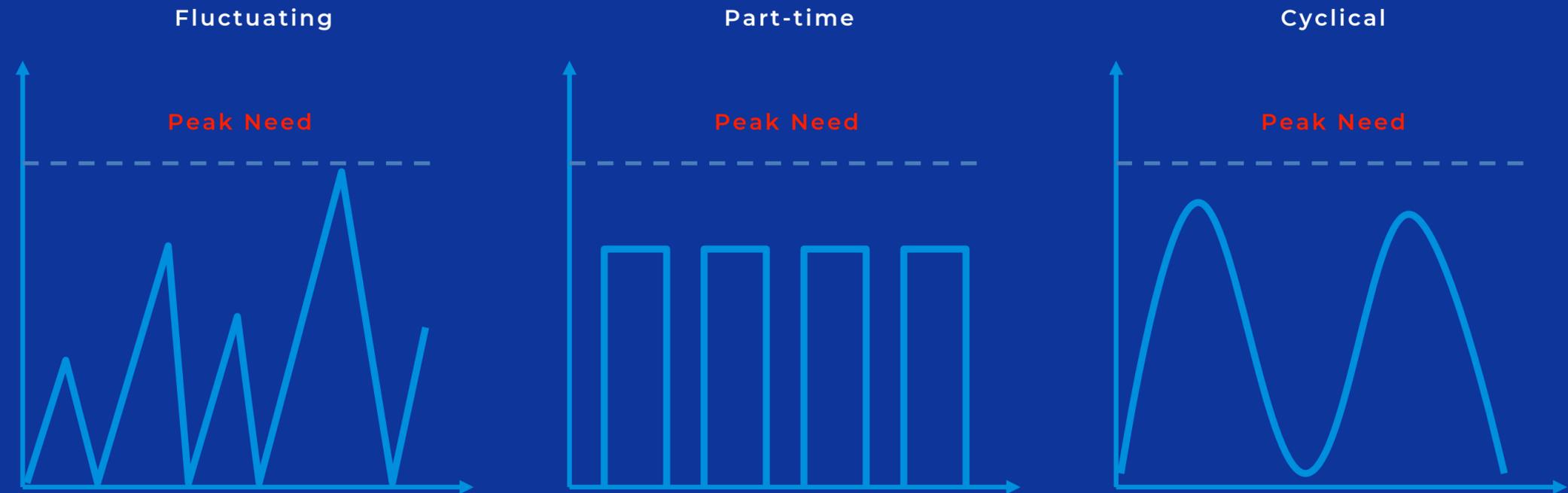
The table does not include all expense items. For Example: Database software expenses, middleware, building rental expenses, security software etc., and most importantly, human resource expenses (security specialist, system specialist, etc.) must be added to the table when making detailed comparisons.

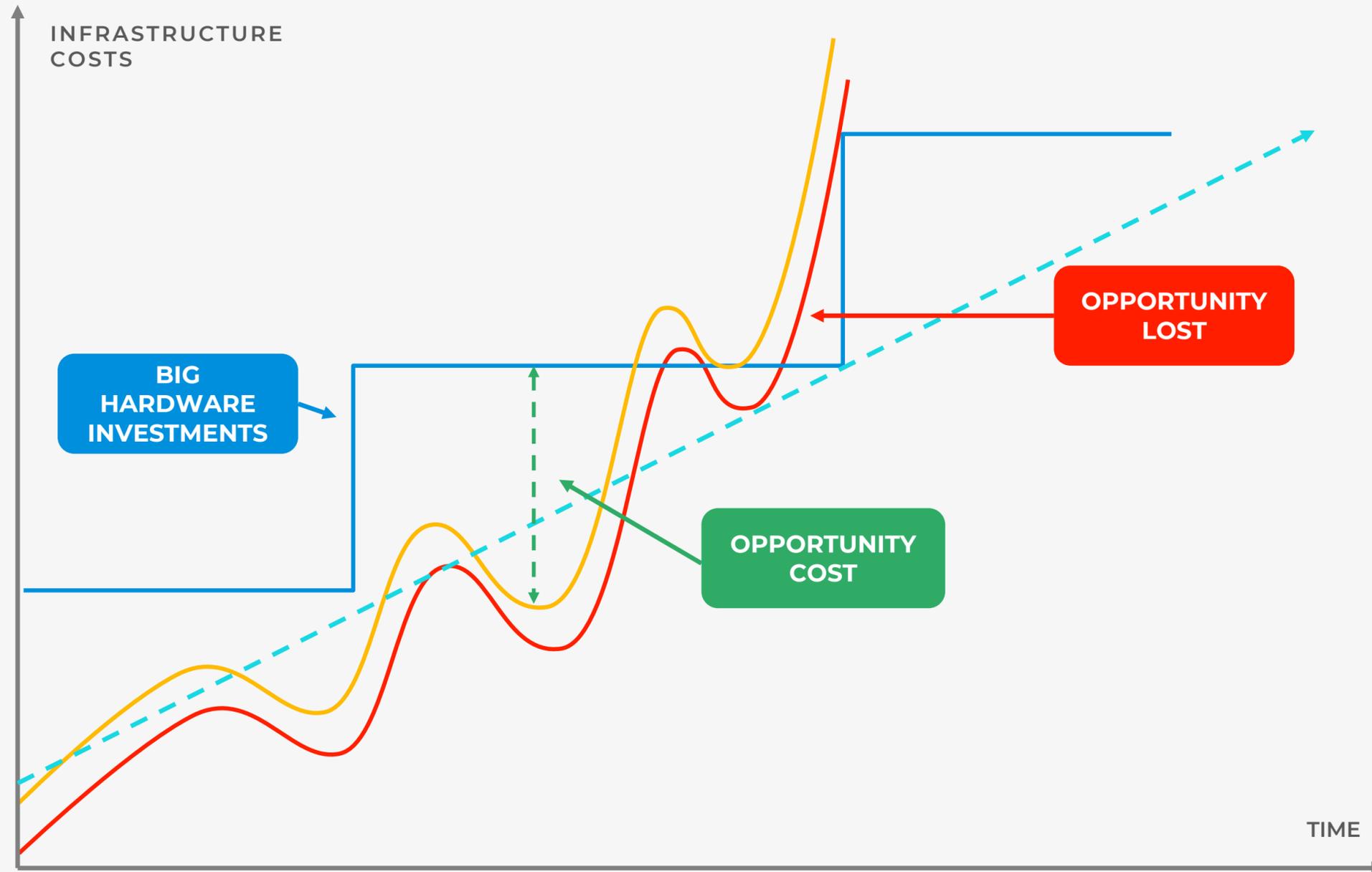
According to Gartner, McKinsey and the Uptime Institute, the average occupancy of data centers is lower than 50% of their capacity

Processor Capacity

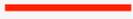


Applications / Business Needs

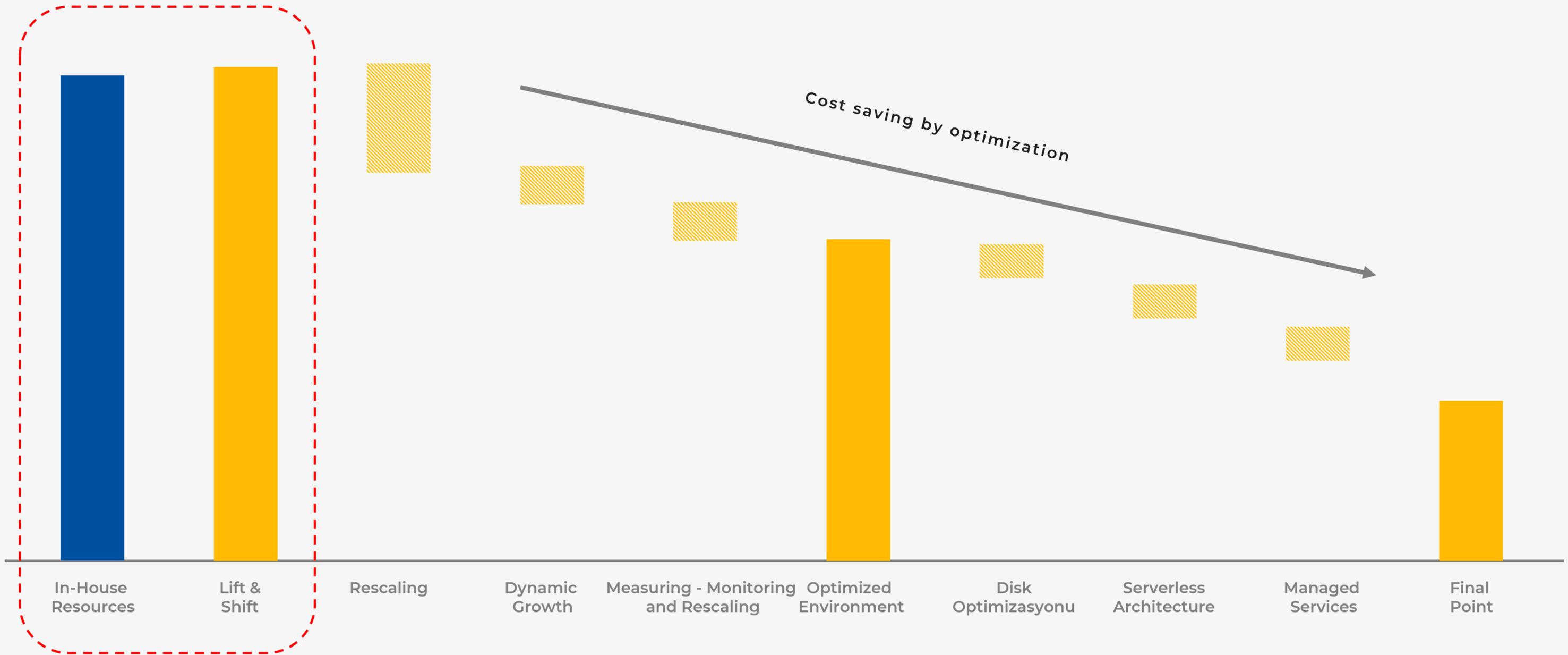




Key:

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

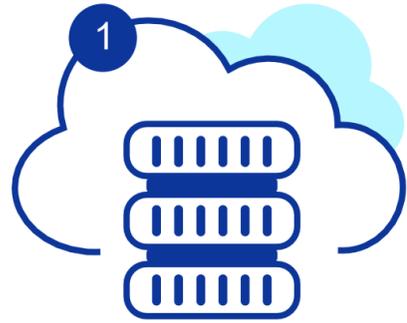
TASK	SAVING	EXPLANATION
Server Budgeting and Planning	90%	No Need for Server Budgeting and Planning in the Cloud
Server Purchasing Process	75%	Minimum Effort
Long-term Capacity Planning	75%	Minimum Effort or Automatic Scaling
Project Budgeting and Planning	75%	Minimum Effort
Detailed Implementation Plan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



Typical TCO Comparison

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
<b>TOTAL</b>	<b>100%</b>	

# 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

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**Both Local and Global**

**Operator Independent**

**Container-based, Serverless**



## Performance

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**Hyper-converged Infrastructure**

(Nutanix / Simplivity)

**High IOPS/ SAPs**

(IBM POWER / HANA)

**Bulutistan Private Cloud**

(Private DC)



## Pricing

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**TL and USD Based Pricing**

**Pay as You Go**

**Non-committed Contract**



## Experience

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**Solution Focused Approach with Boutique Service**

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

**Network and Security Services**

## 1 Global Clouds

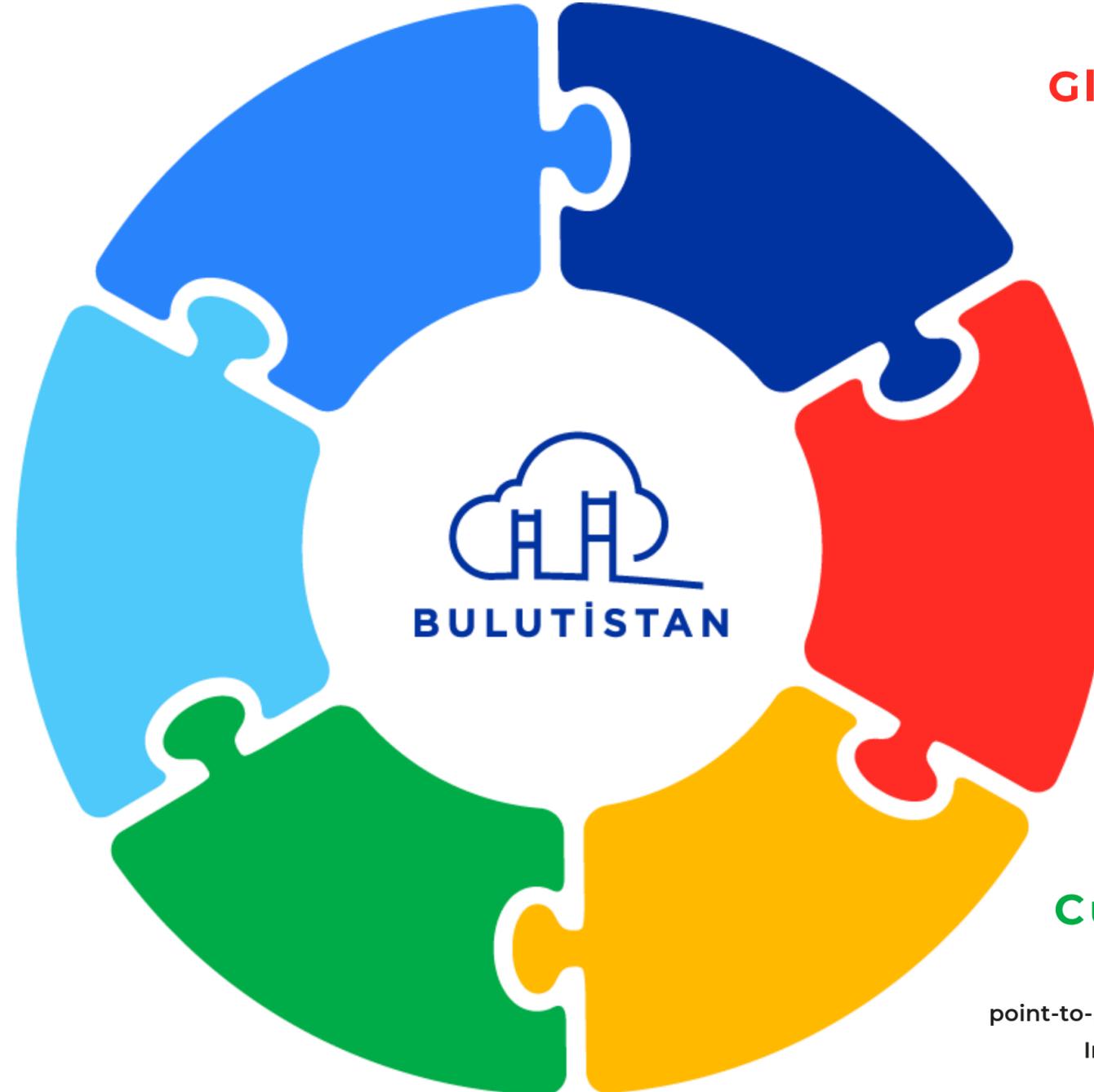
Sales and management of Amazon Web Service, Microsoft Azure, IBM SoftLayer, Google Cloud services

## 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.

4

## Izmir

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

5

## 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.

6

### 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.

### Solution 2

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

### Conclusion 3

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..