



Microsoft Power BI Application Landscape

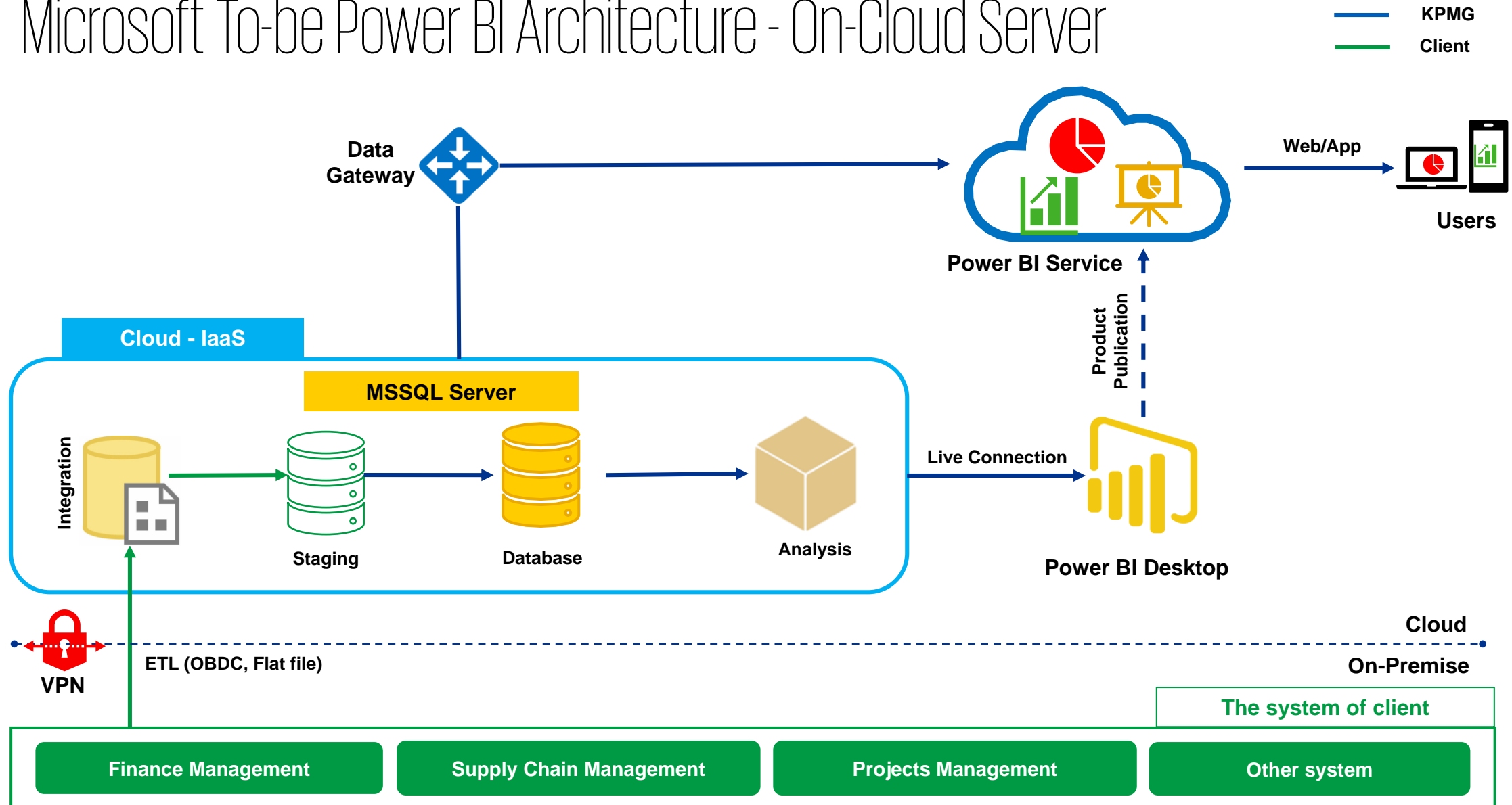
KPMG Tax and Advisory Limited Branch

April 2020

Agenda

- ✓ Microsoft To-be Power BI Architecture - On-Cloud Server
- ✓ Hardware Sizing for Data Warehouse with the Optimized shape
- ✓ Cost Components Estimation for reference

Microsoft To-be Power BI Architecture - On-Cloud Server



Hardware Sizing for Data Warehouse with the Optimized shape

No	Component	Quantity
1	Core of CPU(s) (Processor)	8 Cores
2	Ram (Memory)	64 GB
3	SSD (<i>Storage for OS & Data</i>)	512 GB

The sizing methodology is based on the recommendations of Microsoft sizing document dedicated for data warehouse with Microsoft SQL Server - Enterprise Edition combines with KPMG's experience with the below following assumptions:

- ✓ Data Sources and Data Models:
- ✓ Total number of Users: ≤ 10
- ✓ Total number of Reports/ KPIs/ Analytics: ≤ 50
- ✓ Total number of Dashboards: ≤ 10
- ✓ Max rows returns of Analytics: 100,000
- ✓ Max rows returns of unformatted Reports: 1,000,000
- ✓ The available features of Power BI Pro:
<https://powerbi.microsoft.com/en-us/pricing/#powerbi-comparison-table>
- ✓ Optimized shape for implementation phase & 1st year Going live. After 1st year, Data Warehouse may be considered to scale up based on the actual usage.
- ✓ Disaster Recovery & High Availability are not covered
- ✓ Dev/Test and Production environment will be utilized in the same environment.

Cost Components Estimation for reference

No	Cost Component	Type	Option 1 (Viettel Cloud)	Option 2 (Azure Cloud)	Note
1	Subscription Fee for Microsoft Power BI Pro 10 Users	Annual	\$1,200	\$1,200	<ul style="list-style-type: none"> ✓ Minimum #Users: 10 ✓ Microsoft Power BI Pricing for reference: https://powerbi.microsoft.com/en-us/pricing/
2	License Fee for Microsoft SQL Server – Enterprise Edition 8 Cores	One time	\$56,000	\$56,000	<ul style="list-style-type: none"> ✓ Microsoft SQL Server Pricing for reference: https://www.microsoft.com/en-us/sql-server/sql-server-2019-pricing ✓ This is the list price for license. It could be get high discount during actual negotiation
3	Subscription Fee for Hardware - CPU: 8 Cores - RAM: 64 GB - Storage: 512 GB	Annual	\$6,500	\$30,000	<ul style="list-style-type: none"> ✓ Viettel Cloud Server Pricing for reference: https://viettelidc.com.vn/cloud-server ✓ Microsoft Azure Cloud Pricing for reference: https://azure.microsoft.com/en-us/pricing/calculator/
4	License Fee for Microsoft Window Server	Annual	N/A	N/A	<ul style="list-style-type: none"> ✓ Utilize the existing license
5	Professional Fee of 3 rd Vendors development for integration & automation of data source (Bravo, KBH)	Annual	N/A	N/A	<ul style="list-style-type: none"> ✓ It is based on the design of integration & automation of data source and 3rd Vendors charge rate (Bravo, KBH)
6	Internal IT Development resource	Annual	N/A	N/A	<ul style="list-style-type: none"> ✓ This resources to join the project, coordinate 3rd resources & KPMG project team, receive the transition from KPMG, etc.

Screenshot of Viettel Cloud Server Estimation for reference

Your Estimate

Your Estimate

Estimate total: \$2,515.35

Virtual Machines

1 E8 v3 (8 vCPU(s), 64 GB RAM); AHB for Windows Serve...\$2,515.35

Virtual Machines

REGION:
East Asia

OPERATING SYSTEM:
Windows

TYPE:
SQL Server

TIER:
Standard

LICENSE:
SQL Enterprise

INSTANCE:
E8 v3: 8 Cores(s), 64 GB RAM, 200 GB Temporary storage, \$3.7608/hour

Billing Option

Save up to 72% on pay-as-you-go prices with 1-year or 3-year Reserved Virtual Machine Instances. Reserved Instances are great for applications with steady-state usage and applications that require reserved capacity. [Learn more about Reserved VM Instances pricing.](#)

☐ Pay as you go

☒ 1 year reserved (~7% savings)

☐ 3 year reserved (~10% savings)

Clone

Delete

More info

[Pricing details](#)

[Product details](#)

[Documentation](#)

Screenshot of Viettel Cloud Server Estimation for reference

Save up to 40% with Windows Server Licenses you already own. [Learn more about Azure Hybrid Benefit to save compute costs.](#) ☒

1
Virtual machines

= \$2,476.75
Effective cost per month

Reservation will be charged upfront for the entire 1 year duration
(~16% savings)

i Virtual Machines are billed per-second. [Learn more about Virtual Machines pricing.](#)

Managed Disks *i*

TIER:
Standard SSD ▼

DISK SIZE:
E20: 512 GiB, \$38.400/month ▼ ☐ ADD SNAPSHOT

1
Disks

× \$38.40
Per month

= \$38.40

Storage transactions

100
Transaction units
(10,000 transactions)

× \$0.0020
Per unit

= \$0.20

Sub-total \$2,515.35

Screenshot of Microsoft Azure Cloud Estimation for reference

1 Đăng ký

2 Giỏ hàng

3 Xác nhận

4 Thanh toán

Thông tin gói

Customize

0đ/Tháng

Số lượng

1

Thời gian

12

Tháng

Khu vực

Miền Nam

Chọn tài nguyên, dịch vụ bổ sung

TÀI NGUYÊN

THỜI GIAN

SỐ LƯỢNG

THÀNH TIẾN / ĐƠN GIÁ

CPU

1vCPU

32vCPU

12

x

8

9,600,000 đ

100,000 đ

RAM

1GB

96GB

12

x

64

76,800,000 đ

100,000 đ

Ổ cài hệ điều hành

HDD

10GB

4096GB

12

x

10

0 đ

3,000 đ

SSD

10GB

4096GB

12

x

50

2,400,000 đ

4,000 đ

Thông tin dịch vụ

Customize

0 đ

TÀI NGUYÊN/ DỊCH VỤ BỔ SUNG

CPU

8

9,600,000 đ

RAM

64 (GB)

76,800,000 đ

SSD

50 (GB)

2,400,000 đ

Lưu trữ - SSD

500 (GB)

24,000,000 đ

Băng thông

100 (Mbps)

0 đ

Lưu lượng chuyển tải

Unlimited (TB)

0 đ

IP

2 (IP)

1,800,000 đ

FW Compact HA

4,800,000 đ

International Cooperative

Screenshot of Microsoft Azure Cloud Estimation for reference

☒ Lưu trữ

HDD

10GB

4096GB

12

x

10

0 đ

3,000 đ

SSD

10GB

4096GB

12

x

500

24,000,000 đ

4,000 đ

Băng thông

100Mbps

100Mbps

12

x

100

0 đ

10,000 đ

☐ Backup Snapshot

Lưu lượng chuyển tải **Unlimited**

IP

1IP

3IP

12

x

2

1,800,000 đ

150,000 đ

☒ Cloud Firewall

FW Compact HA

12

x

1

4,800,000 đ

400,000 đ

☐ Cloud Loadbalancer

☒ License

Windows Server Standard

12

x

1

7,200,000 đ

600,000 đ

☒ Backup Cloud Server

Backup Medium

12

x

1

5,880,000 đ

350,000 đ

☐ Cloud Security

☐ vSwitch

Windows Server Standard

7,200,000 đ

Backup Medium

5,880,000 đ

Số lượng: 1

Thời gian: 12 Tháng

Phí khởi tạo

0 đ

Tiền chưa VAT

132,480,000 đ

Tổng

145,728,000 đ

Quay lại

MUA NGAY



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