LAMPIRAN C

Katalog Perkhidmatan

Google Cloud Platform

Lampiran C: Katalog Perkhidmatan GCP - IaaS

	AI Infrastructure	Machine type	No of GPU	Memory	USD / month	*Indicative Price (RM) / month
IaaS	GPU	NVIDIA® A100	1,2,4,8,16	40 per GPU		
		Standard			$2,327.98 per GPU	RM10,010.31 per GPU
		Preemptible			$698.4 per GPU	RM3,003.12 per GPU
		NVIDIA® Tesla® T4	1,2,4	16 per GPU		
		Standard			$194.4 per GPU	RM835.92 per GPU
		Preemptible			$87.28 per GPU	RM375.3 per GPU
		NVIDIA® Tesla® P4	1,2,4	8 per GPU		
		Standard			$333.26 per GPU	RM1,433.01 per GPU
		Preemptible			$171.39 per GPU	RM736.97 per GPU
		NVIDIA® Tesla® V100	1 ,2,4,8	16 per GPU		
		Standard			$1,377.47 per GPU	RM5,923.12 per GPU
		Preemptible			$587.17 per GPU	RM2,524.83 per GPU
		NVIDIA® Tesla® P100	1,2,4	16 per GPU		
		Standard			$810.93 per GPU	RM3,486.99 per GPU
		Preemptible			$341.19 per GPU	RM1,467.11 per GPU
		NVIDIA® Tesla® K80	1 ,2,4,8	12 per GPU		
		Standard			$249.94 per GPU	RM1,074.74 per GPU
		Preemptible			$107.11 per GPU	RM460.57 per GPU
		NVIDIA® Tesla® T4 Virtual Workstation	1,2,4	16 per GPU		
		Standard			$353.09 per GPU	RM1,518.28 per GPU
		Preemptible			$245.97 per GPU	RM1,057.67 per GPU
		NVIDIA® Tesla® P4 Virtual Workstation	1,2,4	8 per GPU		
		Standard			$491.95 per GPU	RM2,115.38 per GPU
		Preemptible			$330.08 per GPU	RM1,419.34 per GPU
		NVIDIA® Tesla® P100 Virtual Workstation	1,2,4	16 per GPU		
		Standard			$969.63 per GPU	RM4,169.4 per GPU
		Preemptible			$499.89 per GPU	RM2,149.52 per GPU
	TPU	TPU type (v2)	8	64		
		Standard			$3,570.65 / month	RM15,353.79 / month
		Preemptible			$1,071.19 / month	RM4,606.11 / month
		TPU type (v3)	8	128		
		Standard			$6,347.82 / month	RM27,295.62 / month
		Preemptible			$1,904.34 / month	RM8,188.66 / month

	Compute	Machine type	Virtual CPUs	Memory	USD / Month	*Indicative Price (RM) / Month
IaaS	General Purpose Compute	e2 Family				
		e2-standard-2	2	8GB	$65.59	RM282.02
		e2-standard-4	4	16GB	$131.17	RM564.05
		e2-standard-8	8	32GB	$262.35	RM1,128.10
		e2-standard-16	16	64GB	$524.70	RM2,256.19
		e2-standard-32	32	128GB	$1,049.40	RM4,512.43
		e2-highmem-2	2	16GB	$88.47	RM380.41
		e2-highmem-4	4	32GB	$176.95	RM760.87
		e2-highmem-8	8	64GB	$353.88	RM1,521.69
		e2-highmem-16	16	128GB	$707.77	RM3,043.42
		e2-highcpu-2	2	2GB	$48.42	RM208.22
		e2-highcpu-4	4	4GB	$96.85	RM416.45
		e2-highcpu-8	8	8GB	$193.70	RM832.89
		e2-highcpu-16	16	16GB	$387.39	RM1,665.78
		e2-highcpu-32	32	32GB	$774.79	RM3,331.61
		n2 Family				
		n2-standard-2	2	8GB	$76.05	RM327.03
		n2-standard-4	4	16GB	$152.10	RM654.02
		n2-standard-8	8	32GB	$304.21	RM1,308.09
		n2-standard-16	16	64GB	$608.40	RM2,616.13
		n2-standard-32	32	128GB	$1,216.82	RM5,232.31
		n2-standard-48	48	192GB	$1,825.22	RM7,848.43
		n2-standard-64	64	256GB	$2,433.62	RM10,464.56
		n2-standard-80	80	320GB	$3,042.03	RM13,080.74
		n2-highmem-2	2	16GB	$102.59	RM441.12
		n2-highmem-4	4	32GB	$205.18	RM882.29
		n2-highmem-8	8	64GB	$410.36	RM1,764.54
		n2-highmem-16	16	128GB	$820.72	RM3,529.08
		n2-highmem-32	32	256GB	$1,641.43	RM7,058.17
		n2-highmem-48	48	384GB	$2,462.15	RM10,587.25
		n2-highmem-64	64	512GB	$3,282.87	RM14,116.34
		n2-highmem-80	80	640GB	$4,103.59	RM17,645.42
		n2-highcpu-2	2	2GB	$56.14	RM241.41
		n2-highcpu-4	4	4GB	$112.29	RM482.86
		n2-highcpu-8	8	8GB	$224.59	RM965.72
		n2-highcpu-16	16	16GB	$449.17	RM1,931.45
		n2-highcpu-32	32	32GB	$898.35	RM3,862.90
		n2-highcpu-48	48	48GB	$1,347.52	RM5,794.34
		n2-highcpu-64	64	64GB	$1,796.68	RM7,725.74
		n2-highcpu-80	80	80GB	$2,245.86	RM9,657.19
		n2d Family				
		n2d-standard-2	2	8GB	$66.16	RM284.50
		n2d-standard-4	4	16GB	$132.34	RM569.05
		n2d-standard-8	8	32GB	$264.66	RM1,138.05
		n2d-standard-16	16	64GB	$529.33	RM2,276.10
		n2d-standard-32	32	128GB	$1,058.65	RM4,552.20
		n2d-standard-48	48	192GB	$1,587.98	RM6,828.31
		n2d-standard-64	64	256GB	$2,117.30	RM9,104.41
		n2d-standard-80	80	320GB	$2,646.64	RM11,380.56
		n2d-standard-96	96	384GB	$3,175.97	RM13,656.66
		n2d-standard-128	128	512GB	$4,234.62	RM18,208.86

	Compute	Machine type	Virtual CPUs	Memory	USD / Month	*Indicative Price (RM) / Month
IaaS	General Purpose Compute	n2d-standard-224	224	896GB	$7,410.59	RM31,865.52
		n2d-highmem-2	2	16 GB	$89.26	RM383.82
		n2d-highmem-4	4	32 GB	$178.51	RM767.60

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Compute	Machine type	Virtual CPUs	Memory	USD / Month	*Indicative Price (RM) / Month
IaaS	General Purpose Compute	n2d-highmem-8	8	64 GB	$357.02	RM1,535.19
		n2d-highmem-16	16	128 GB	$714.05	RM3,070.43
		n2d-highmem-32	32	256 GB	$1,428.11	RM6,140.87
		n2d-highmem-48	48	384 GB	$2,142.16	RM9,211.30
		n2d-highmem-64	64	512 GB	$2,856.22	RM12,281.73
		n2d-highmem-80	80	640 GB	$3,570.27	RM15,352.17
		n2d-highmem-96	96	768 GB	$4,284.33	RM18,422.60
		n2d-highcpu-2	2	2 GB	$48.85	RM210.05
		n2d-highcpu-4	4	4 GB	$97.70	RM420.09
		n2d-highcpu-8	8	8 GB	$195.39	RM840.18
		n2d-highcpu-16	16	16 GB	$390.78	RM1,680.37

	Compute	Machine type	Virtual CPUs	Memory	USD / Month	*Indicative Price (RM) / Month
IaaS	General Purpose Compute	n2d-highcpu-32	32	32 GB	$781.57	RM3,360.73
		n2d-highcpu-48	48	48 GB	$1,172.35	RM5,041.10
		n2d-highcpu-64	64	64 GB	$1,563.13	RM6,721.46
		n2d-highcpu-80	80	80 GB	$1,953.91	RM8,401.83
		n2d-highcpu-96	96	96 GB	$2,344.70	RM10,082.19
		n2d-highcpu-128	128	128 GB	$3,126.26	RM13,442.92
		n2d-highcpu-224	224	224 GB	$5,470.96	RM23,525.11
		n1 Family				
		n1-standard-1	1	3.75GB	$32.54	RM139.94
		n1-standard-2	2	7.5GB	$65.10	RM279.92
		n1-standard-4	4	15GB	$130.20	RM559.84
		n1-standard-8	8	30GB	$260.39	RM1,119.68
		n1-standard-16	16	60GB	$520.77	RM2,239.32
		n1-standard-32	32	120GB	$1,041.55	RM4,478.68
		n1-standard-64	64	240GB	$2,083.10	RM8,957.32
		n1-standard-96 (Skylake)	96	360GB	$3,125.00	RM13,437.50
		n1-highmem-2	2	13GB	$81.10	RM348.72
		n1-highmem-4	4	26GB	$162.18	RM697.39
		n1-highmem-8	8	52GB	$324.37	RM1,394.79
		n1-highmem-16	16	104GB	$648.75	RM2,789.63
		n1-highmem-32	32	208GB	$1,297.50	RM5,579.25
		n1-highmem-64	64	416GB	$2,594.99	RM11,158.45
		n1-highmem-96 (Skylake)	96	624GB	$3,892.39	RM16,737.28
		n1-highcpu-2	2	1.80GB	$48.54	RM208.74
		n1-highcpu-4	4	3.60GB	$97.09	RM417.47
		n1-highcpu-8	8	7.20GB	$194.18	RM834.99
		n1-highcpu-16	16	14.40GB	$388.36	RM1,669.94
		n1-highcpu-32	32	28.80GB	$776.72	RM3,339.88
		n1-highcpu-64	64	57.6GB	$1,553.43	RM6,679.77
		n1-highcpu-96 (Skylake)	96	86.4GB	$2,330.43	RM10,020.87
	Compute-optimized Compute	c2 Family				
		c2-standard-4	4	16	$163.51	RM703.09
		c2-standard-8	8	32	$327.02	RM1,406.18
		c2-standard-16	16	64	$654.04	RM2,812.37
		c2-standard-30	30	120	$1,226.32	RM5,273.19
		c2-standard-60	60	240	$2,452.65	RM10,546.38
	Memory-optimized Compute	m1 Family				
		m1-ultramem-40	40	961GB	$4,117.60	RM17,705.70
		m1-ultramem-80	80	1922GB	$8,235.26	RM35,411.64
		m1-ultramem-160	160	3844GB	$16,470.53	RM70,823.28
		m1-megamem-96	96	1433.6GB	$6,968.82	RM29,965.92
	Acelerator-optimized	a2 Family				
		a2-highgpu-1g	12	85 GB	$3,184.83	RM13,694.75
		a2-highgpu-2g	24	170 GB	$6,369.66	RM27,389.55
		a2-highgpu-4g	48	340 GB	$12,739.32	RM54,779.06
		a2-highgpu-8g	96	680 GB	$25,478.64	RM109,558.16
		a2-megagpu-16g	96	1360 GB	$47,986.57	RM206,342.23
	E2 Shared-core	e2 Family				
		e2-micro	2	1GB	$8.20	RM35.24
		e2-small	2	2GB	$16.39	RM70.48
		e2-medium	2	4GB	$32.79	RM141.01
	N1 Shared-core	n1 Family				
		f1-micro	0.2	0.60GB	$5.11	RM21.97
		g1-small	0.5	1.70GB	$17.27	RM74.27
	Sole Tenant Nodes	c2-node-60-240	60	240	$2,697.91	RM11,601.03
		m1-node-96-1433	96	1433	$7,663.59	RM32,953.42
		m1-node-160-3844	160	3844	$18,117.83	RM77,906.65
		n1-node-96-624	96	624	$4,279.86	RM18,403.39
		n2-node-80-640	80	640	$4,513.95	RM19,409.97
		n2d-node-224-896	224	896	$8,151.64	RM35,052.06
	VMWare Engine	ve1-standard-72	36	768	$8,109.35	RM34,870.20
		• Includes VMware vSphere, VMware vSAN,				
	Miscellaneous		License Metric Per Month			
	Instance memory and device state		per GB		$0.203 per GB	RM0.872 per GB
	Custom vCPU and Memory	e2-Custom vCPUs	per vCPU per Month		$21.34 / vCPU	RM91.76 / vCPU
		e2-Custom Memory	per GB per Month		$2.85 / GB	RM12.25 / GB
		n2-Custom vCPUs	per vCPU per Month		$24.75 / vCPU	RM106.42 / vCPU
		n2-Custom Memory	per GB per Month		$3.31 / GB	RM14.23 / GB

	Compute	Machine type	Licence MetricPer Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Custom vCPU and Memory	n2-Extended custom memory above 8GB per	per GB per Month		$7.13 / GB	RM30.65 / GB
		n2d-Custom vCPUs	per vCPU per Month		$22.61 / vCPU	RM97.22 / vCPU
		n2d-Custom Memory	per GB per Month		$3.03 / GB	RM13.02 / GB
		n2d-Extended custom memory above 8GB	per GB per Month		$6.19 / GB	RM26.61 / GB
		n1-Custom vCPUs	per vCPU per Month		$21.66 / vCPU	RM93.13 / vCPU
		n1-Custom Memory	per GB per Month		$2.9 / GB	RM12.47 / GB
		n1-Extended custom memory	per GB per Month		$6.23 / GB	RM26.78 / GB
	Confidential VM	vCPUs	per vCPU per Month		$4.34 / vCPU	RM18.66 / vCPU
		Memory	per GB per Month		$0.58 / GB	RM2.49 / GB

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Compute	Machine type	Licence MetricPer Month		USD / Month	*Indicative Price (RM) / Month
Iaas	Migrate for Compute	The Migrate for Compute Engine 4.x software solution is provided at no charge for migrations into Google Cloud. However, Google Cloud charges for resources such as Compute Engine instances, storage, and networking which are necessary to perform migrations. The Migrate for Compute Engine 5.x service is provided at no charge for migrating VMs to Google Cloud. However you can incur charges for resources consumed during replication, such as charges for storage and for processing instances.			No charge	No charge
	VM manager	Cost per VM with an active agent (1st 100 VMs free)	per VM managed		$2.38	RM10.24
	Recommender	Insights based on customer support level				
		Free: Committed use discount				
		Standard: All insights and recommendations not present in other tiers				
		Premium: Firewall insights				

	Container and Serverless	Type	License Metric		USD / Month	*Indicative Price (RM) / Month
IaaS	Container	GKE Cluster Management after free tier of	Per cluster per month		$79.35 per cluster	RM341.21 per cluster
		Container Registry			Refer to storage (standard) and egress (internet)	Refer to storage (standard) and egress (internet)
		Artifact Registry				
		- Storage Up to 0.5 GB	Per GB per Month		Free	Free
		- Storage Over 0.5 GB	Per GB per Month		$0.11 per GB	RM0.47 per GB
		- Egress (Asia) via Interconnect	Per GB per Month		$0.046 per GB	RM0.198 per GB
		- Egress for data moving within same	Per GB per Month		Free	Free
		- Data moves between different continents	Per GB per Month		$0.087 per GB	RM0.374 per GB
	Anthos	Anthos				
		Anthos (Google Cloud)	Per vCPU per Month		$9 / vCPU	RM38.70 / vCPU
		Anthos (AWS) AWS	Per vCPU per Month		$9 / vCPU	RM38.70 / vCPU
		Anthos (attached clusters - multi-cloud)	Per vCPU per Month		$9 / vCPU	RM38.70 / vCPU
		Anthos (on-premises - VMware)	Per vCPU per Month		$26 / vCPU	RM111.80 / vCPU
		Anthos (on-premises - bare metal)	Per vCPU per Month		$26 / vCPU	RM111.80 / vCPU
	Serverless Compute	App Engine Standard				
		B1	Per instance per month		$39.67	RM170.60
		B2	Per instance per month		$79.35	RM341.20
		B4	Per instance per month		$158.70	RM682.39
		B4_1G	Per instance per month		$238.04	RM1,023.59
		B8	Per instance per month		$317.39	RM1,364.78
		F1	Per instance per month		$39.67	RM170.60
		F2	Per instance per month		$79.35	RM341.20
		F4	Per instance per month		$158.70	RM682.39
		F4_1G	Per vCPU per Month		$238.04	RM1,023.59
		App Engine Flexible				
		- vCPU	per vCPU per month		$39.67	RM170.60
		- Memory	per vCPU per month		$107.12	RM460.61
		Cloud Functions				
		Invocations				
		- First 2 million invocations in a month	per million invocations		Free	Free
		- Beyond 2 million invocations in a month	per million invocations		$0.43	RM1.87
		Compute				
		- First 400,000 GB-Seconds	per GB-seconds		Free	Free
		- Beyond 400,000 GB-Seconds	per GB-seconds		$0.0000038	RM0.0000164
		- First 200,000 GHz-Second	per GHz-second		Free	Free
		- Beyond 200,000 GHz-Second	per GHz-second		$0.000015	RM0.000065
		Network				
		- Outbound Data (Egress) - First 5GB Free	per GB per month		$0.13	RM0.56
		- Inbound Data (Ingress)			Free	Free
		- Outbound Data to Google APIs in the same			Free	Free
		Cloud Run				
		CPU				
		First 180,000 vCPU-seconds per month			Free	Free
		Beyond free tier	per vCPU-seconds per month		$0.0000365	RM0.0001570
		If idle	per vCPU-seconds per month		$0.0000038	RM0.0000164
		Memory				
		First 360,000 GiB-seconds per month			Free	Free
		Beyond free tier	per GiB-seconds		$0.00000380	RM0.0000164
		If idle	per GiB-seconds		$0.00000380	RM0.0000164
		Requests				
		2 million requests per month	per million requests		Free	Free
		Beyond free tier	per million requests		$0.435	RM1.87
		Network				
		1 GiB egress within North America per month			Free	Free

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Container and Serverless	Type	License Metric		USD / Month	*Indicative Price (RM) / Month
IaaS	Serverless Compute	Beyond free tier	per GiB per month		Google Cloud Network Premium tier pricing	Google Cloud Network Premium tier pricing
		Workflows				
		Internal Steps				
		First 5,000 steps in a month			Free	Free
		Steps after 5,000	per steps per month		$0.011	RM0.047
		External steps				
		First 2,000 steps in a month			Free	Free
		Steps after 2,000	per steps per month		$0.027	RM0.117

	Cloud Storage	Type	Licence Metric		USD / Month	*Indicative Price (RM) / Month
IaaS	Storage Classes	Standard (first 5GB free)	per GB per month		$0.022	RM0.093
		Nearline	per GB per month		$0.011	RM0.047
		Coldline	per GB per month		$0.0054	RM0.023
		Archive	per GB per month		$0.0016	RM0.007
		Storage Class A Operations (per 10,000) -				
		Standard Storage	per 10,000 operations		$0.054	RM0.234
		Nearline Storage and Durable Reduced	per 10,000 operations		$0.11	RM0.47
		Coldline Storage	per 10,000 operations		$0.11	RM0.47
		Archive Storage	per 10,000 operations		$0.54	RM2.34
		Storage Class B Operations (per 10,000) first				
		Standard Storage	per 10,000 operations		$0.0043	RM0.0187
		Nearline Storage and Durable Reduced	per 10,000 operations		$0.011	RM0.047
		Coldline Storage	per 10,000 operations		$0.054	RM0.234
		Archive Storage	per 10,000 operations		$0.54	RM2.34
		Data retrieval				
		Standard	per GB per month		$0.00	RM0.00
		Nearline	per GB per month		$0.011	RM0.0467
		Coldline	per GB per month		$0.022	RM0.093
		Archive	per GB per month		$0.054	RM0.234
	Filestore	Basic HDD (Standard)	per GB per month		$0.000328	RM0.00141
		Basic SSD (Premium)	per GB per month		$0.000492	RM0.00212
		High Scale SSD	per GB per month		$0.000492	RM0.00212
		Backup for Filestore	per GB per month		$0.10	RM0.42

	Developer Tools	Type			USD / Month	*Indicative Price (RM) / Month
IaaS	Cloud Build	Machine type	Virtual CPUs	Memory		
		e2-medium	1	4GB	$0.0033 / build-minute. First 120 builds-minutes per day are free	RM0.0142 / build-minute. First 120 builds-minutes per day are free
		e2-highcpu-8	8	8GB	$0.0174 / build-minute	RM0.0748 / build-minute
		e2-highcpu-32	32	32GB	$0.070 / build-minute	RM0.301 / build-minute
	Cloud Code	Cloud Code for VS Code			No charge	No charge
		Cloud Code for IntelliJ			No charge	No charge
		Cloud Code for Cloud Shell Editor			No charge	No charge
			License Metric			
	Cloud Scheduler	3 free jobs per month, per billing account	per job per month		$0.11	RM0.47
	Cloud SDK	Tools and libraries for interacting with Google Cloud products and services.			No charge for users with Google Cloud Account	No charge for users with Google Cloud Account
	Cloud Source Repositories	Number of repositories (max of 1,000 per project)			No charge	No charge
		Per-project users	per project-user above 5 project-users per month		$1.1	RM4.67
		Storage charges	per GB per month above 50 GB		$0.11	RM0.47
		Network egress charges	per GB of network egress per month above 50 GB		$0.11	RM0.47
	Cloud Tasks	Billable operations per month (chunked at 32KB)				
		First 1 Million			Free	Free
		Up to 5 billion	per million billable operations		$0.43	RM1.87
		More than 5 billion	per million billable operations		Contact sales	Contact sales
	Tools for Eclipse	Cloud Tools for Eclipse is a Google-sponsored open source plugin that supports Google Cloud Platform development inside the Eclipse IDE.			No charge	No charge
	Tools for PowerShell	Full cloud control from Windows PowerShell			No charge	No charge

	Cloud Operations	Type	License Metric per month		USD / Month	*Indicative Price (RM) / Month
IaaS	Cloud Logging	Logging ingestion (free allotment: first 50 GiB/project)	Per GiB per month		$0.54	RM2.34
		Logging storage	per GiB for logs retained past 30 days		$0.011	RM0.047
	Cloud Monitoring	Monitoring data				
		150–100,000 MiB	per MiB per month		$0.28	RM1.21
		100,000–250,000 MiB			$0.164	RM0.706
		>250,000 MiB			$0.066	RM0.285

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Cloud Operations	Type	License Metric per month		USD / Month	*Indicative Price (RM) / Month
IaaS	Cloud Monitoring	Free allotment for monitoring data			All GCP metrics and first 150 MiB per billing account for chargeable metrices	All GCP metrics and first 150 MiB per billing account for chargeable metrices
		Monitoring API calls	per 1,000 Read API calls		$0.000011	RM0.000047
		Free allotment for monitoring API calls			first 1,000,000 Read API calls including per billing account	first 1,000,000 Read API calls including per billing account
	Cloud Trace	Trace ingestion	per million spans		$0.22	RM0.93
		Free allotment for Trace ingestion			First 2.5 million spans	First 2.5 million spans
	Error Reporting				same as Cloud Logging	same as Cloud Logging
	Cloud Debugger				No charge	No charge
	Cloud Profiler				No charge	No charge
	Anthos System Logs and				No charge	No charge

	Identity and Access Management	Type	License Metric per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Identity Platform	Tier 1 providers: Email,				
		Monthly Active Users (MAU)			Price Per MAU ($)	Price Per Mau
		0 - 49,999			$0.00	RM0.00
		50,000 - 99,999	per Monthly Active User		$0.0060	RM0.0257
		100,000 - 999,999	per Monthly Active User		$0.0050	RM0.0215
		1,000,000 - 9,999,999	per Monthly Active User		$0.0035	RM0.0150
		10,000,000 +	per Monthly Active User		$0.0027	RM0.0117
		Tier 2 providers:				
		Monthly Active Users (MAU)			Price per MAU ($)	Price Per Mau
		0 - 49	per Monthly Active User		$0.00	RM0
		50 +	per Monthly Active User		$0.016	RM0.0701
		Phone authentication				
		Country			Price Per Verification ($)	Price Per Verification
		First 10,000 successful verifications			Free	Free
		US, Canada, India	per successful verification		$0.011	RM0.047
		All other countries	per successful verification		$0.065	RM0.280
		Multi-factor authentication				
		Country			Price Per Verification ($)	Price Per Verification
		First 100 successful verifications			Free	Free
		US, Canada, India	per successful verification		$0.011	RM0.047
		All other countries	per successful verification		$0.065	RM0.280

	Identity and Access Management	Type	License Metric per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Managed Service for Microsoft Active Directory	Managed Active Domain	per region		$317.39	RM1,364.78
	Resource Manager				No charge	No charge
	Web Risk	Lookup API (uris.search)				
		1–100,000 calls/month			No cost	No cost
		100,001–10,000,000 calls/month	per 1,000 URLs		$0.54	RM2.34
		10,000,000+ calls/month	per 1,000 URLs		Contact Sales	Contact Sales
		per 1,000 URLs				
		1–100,000 calls/month	per 1,000 URLs		$54	RM233.70
		> 101,000 calls/month	per 1,000 URLs		Contact Sales	Contact Sales
IaaS	IoT Core	Monthly data volume:			Price per MB	Price per MB
		Up to 250 MB with unlimited registered	per MB per month		$0.00000	RM0
		250 MB to 250 GB with unlimited registered	per MB per month		$0.00489	RM0.02103
		250 GB to 5 TB with unlimited registered	per MB per month		$0.00217	RM0.00935
		5 TB and above with unlimited registered	per MB per month		$0.00049	RM0.00210
		Billable messages				
		MQTT				
		CONNECT				
		PUBLISH (both cloud- and device-bound)				
		PUBACK (ack of device configuration, cloud-				
		SUBSCRIBE				
		PINGREQ				
		HTTP				
		Requests: total bytes in the body				
		Responses: total bytes in the body				
		Nonbillable messages				
		MQTT				
		CONNACK				
		PUBACK (publish telemetry or state, from				
		SUBACK				
		PINGRESP				
		DISCONNECT				
		UNSUBSCRIBE				
		UNSUBACK				
		QPS maximums.:				
		Project, device, and telemetry limits:				

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Identity and Access Management	Type	License Metric per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	IoT Core	Quota	Limit	Can be		
		Devices per project, per region	Unlimited, but the default	Yes		
		Device registries per project, per region	100	Yes		
		Devices bound to a gateway	10,000	No		
		Devices attached to a gateway	1,000	No		
		Gateways bound to a device	10	No		
		Device ID length	256 bytes	No		
		Device registry ID length	256 bytes	No		
		Device metadata	500 key-value pairs	No		
		Device metadata key	128 characters	No		
		Device metadata value	32 KB	No		
		Combined size of metadata key-value pairs	256 KB	No		
		Credentials per device	3	No		
		Configuration versions per device	10	No		
		Device configuration data	64 KB	No		
		Maximum page size for list request	500	No		
		Device state payload	64 KB	No		
		Telemetry event notification configurations	10	No		
		Telemetry event payload	256 KB	No		
		MQTT connections per device	1	No		
		Open MQTT connections, per project per	10,000	Yes		
		Active HTTP device connections (within the	10,000	Yes		
		Rate Limits				
		Quota	Limit	Can be		
		HTTP device telemetry publishes per device	6,000 per min	No		
		Device telemetry publishes per project	Unlimited, but the default			
		Device-to-cloud throughput, per device	512 KB/s	No		
		Cloud-to-device throughput, per device	512 KB/s	No		
		Configuration updates per device	1 per sec	No		
		Attribute updates per device	1 per sec	No		
		Attribute updates per registry	1 per sec	No		
		Device manager API read calls per project	30,000 per min	Yes		
		Device manager API create and delete calls	3,000 per min	No		
		Device manager API update calls per project	3,000 per min	Yes		
		Device manager API	6,000 per min	Yes		
		MQTT incoming messages per sec, per	100 per sec	No		
		Device MQTT connections per device	1 per sec	No		
		Device MQTT connections and HTTP	60,000 per min	Yes		
		State updates per device	1 per sec*	No		
		State updates per project	6,000 per min*	Yes		
		Number of logged events per project	1,000 per sec	Yes		
		Size of logged events per project	1 MB per sec (each log	Yes		
		Commands per registry	1,000 per sec	Yes		
		Commands per project	1,000 per sec	Yes		
		MQTT subscriptions to the commands topic	1 per sec	No		
		Time limits				
		Quota	Limit	Can be		
		JWT authorization clock skew	10 min	No		
		JWT lifetime (exp minus iat cannot exceed	24 hr	No		
		MQTT idle time (without heartbeat or	20 min	No		
		MQTT connection time	24 hr**	No		
		Command timeout	60 sec	No		
		Command retries	60 sec	No		

	Management Tools				USD / Month	*Indicative Price (RM) / Month
IaaS	Cloud Console				No charge	No charge
	Cloud Deployment Manager				No charge	No charge
	Cloud Shell				No charge	No charge
	Cost Management				No charge	No charge
	Private Catalog				No charge	No charge

	Media and Gaming	Type	License Metric		USD / Month	*Indicative Price (RM) / Month
IaaS	Game Servers	1st game cluster	per cluster per hour		No charge	no charge
		2nd game server cluster onwards	per cluster per hour		$0.54	RM2.34

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Migration	Type	License Metric		USD / Month	*Indicative Price (RM) / Month
IaaS	BigQuery Transfer Services	Except for datasource: Google Play.			No charge	No charge
		Google Play	per unique Package Name in the Installs_country table.		$27	RM116.85
		The following Quotas and Limits apply.				
		Load jobs per table per day — 1,500 (including failures)				
		Load jobs per project per day — 100,000 (including failures)				
		Maximum size per load job — 15 TB across all input files for CSV, JSON, Avro, Parquet, and ORC				
		Maximum size for Avro file data blocks — 16 MB				
		Maximum number of source URIs in job configuration — 10,000 URIs				
		Maximum number of files per load job — 10 Million total files including all files matching all wildcard URIs				
		Load job execution time limit — 6 hours				
		Row and cell size limits:				
		Data format:				
		CSV (max limit 100 MB roll and cell size)				
		JSON (max limit 100MB row size)				
		Maximum columns per table — 10,000				
		Maximum File Sizes: File Type CSV (4GB compressed, 5GB uncompressed) JSON (4GB compressed, 5GB uncompressed)				
	Storage Transfer Service	Storage Transfer Service (not on-prem data)			No charges	No charges
		Transfer service for on-premises data	per GB transferred to the destination successfully		$0.0136	RM0.05842
		*Network usage and operations and storage charges apply				
	Transfer Appliance	40 Terabyte Transfer Appliance				
		Use fee			$326	RM1,402.17
		Free days: 10				
		Late fee	per day		$33	RM140.22
		Shipping fee			May vary based on delivery to and from your location, and carrier rates. Freight shipping typically starts around $652 round-trip from our data centers to your location.	May vary based on delivery to and from your location, and carrier rates. Freight shipping typically starts around RM2,804 round-trip from our data centers to your location.
		300 Terabyte Transfer Appliance				
		Use fee			$1,957	RM8,413.04
		Free days: 25				
		Late fee			$98	RM420.65
		Shipping fee			May vary based on delivery to and from your location, and carrier rates. Freight shipping typically starts around $761 round-trip from our data centers to your location.	May vary based on delivery to and from your location, and carrier rates. Freight shipping typically starts around RM3,272 round-trip from our data centers to your location.

	Networking	Type	License Metric per Month		USD / Month	*Indicative Price (RM)/Month
IaaS	Cloud Amour	Standard Tier				
		WAF HTTP requests	per million requests		$0.82	RM3.51
		WAF security policies	per policy per month		$5.4	RM23.37
		WAF rules	per rule per month		$1.1	RM4.67
		Plus Tier				
		Subscription (1 year committment)	per month (includes up to 100 protected resources)		$3,261	RM14,021.74
		Protected resources	per protected resource per month after initial 100		$33	RM140.22
		WAF HTTP requests	included in subscription		included	included

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Networking	Type	License Metric per Month		USD / Month	*Indicative Price (RM) /Month
IaaS	Cloud Amour	WAF security policies	included in subscription		included	included
		WAF rules	included in subscription		included	included
		Data processing fee (TBs egressed)				
		- From Cloud Load Balancing, internet, and Cloud Interconnect				
		0-100	per GB per month		$0.054	RM0.234
		101-500	per GB per month		$0.043	RM0.187
		501-1000	per GB per month		$0.033	RM0.140
		1001+	per GB per month		Available upon request	Available upon request
		- From Cloud CDN				
		0-100	per GB per month		$0.033	RM0.140
		101-500	per GB per month		$0.022	RM0.093
		501-1000	per GB per month		$0.022	RM0.093
		1001+	per GB per month		$0.011	RM0.047
		- From Cloud DNS			included	included
	Cloud CDN	Cache egress	per GB per month		$0.022 - $0.22	RM0.095 - RM0.95
		Cache fill	per GB per month		$0.011 - $0.043	RM0.047 - RM0.185
		HTTP/HTTPS cache lookup requests	per 10,000 requests		$0.0082	RM0.03505
		Requests sent from Cloud CDN to custom origins			Refer to internet egress rates	Refer to internet egress rates
	Cloud DNS	Queries				
		0-1 billion	per million queries per		$0.43	RM1.87
		Over 1 billion	per million queries per		$0.22	RM0.93
		Managed zones				
		0-25	per managed zone per month		$0.22	RM0.93
		26-10,000	per managed zone per month after 25		$0.11	RM0.47
		Over 10,000	per managed zone per month after 10,000		$0.033	RM0.14
	Cloud Load Balancing	For all Load Balancing except Internal				
		First 5 forwarding rules	Flat fee		$22.22	RM95.53
		Per additional forwarding rule	Per forwarding rule		$8.73	RM37.53
		Ingress data processed by load balancer	Per GB per month		$0.0098	RM0.0421
		Internal HTTP(s) Load Balancing				
		Per proxy instance	per instance		$19.84	RM85.30
		Data processed by load balancer	per GB per month		$0.009	RM0.0374
	Virtual Private Cloud	VM-VM egress pricing within Google Cloud				
		Egress to the same Google Cloud zone when using the internal IP addresses of the resources1	Per GB Per Month		No charge	No charge
		Egress to a different Google Cloud zone in the same Google Cloud region when using the internal IP addresses1	Per GB Per Month		$0.011	RM0.047
		VM-to-VM egress when both VMs are in the same Google Cloud region, regardless of zone, when using the external IP addresses	Per GB Per Month		$0.011	RM0.047
		VM-to-VM egress when both VMs are in different regions of the same network using internal or external IP addresses	Per GB Per Month		See the rest of this table.	See the rest of this table.
		Egress from a Google Cloud region in the US or Canada to another Google Cloud region in the US or Canada	Per GB Per Month		$0.011	RM0.047
		Egress between Google Cloud regions within Europe	Per GB Per Month		$0.022	RM0.093
		Egress between Google Cloud regions within Asia	Per GB Per Month		$0.054	RM0.234
		Egress between Google Cloud regions within South America	Per GB Per Month		$0.09	RM0.374
		Egress between Google Cloud regions within Oceania	Per GB Per Month		$0.09	RM0.374
		Egress to a Google Cloud region on another continent (excludes Oceania)	Per GB Per Month		$0.09	RM0.374
		Indonesia and Oceania2 to/from any Google Cloud region	Per GB Per Month		$0.16	RM0.701
		VM-to-Google service				
		Egress to specific Google non-cloud products such as YouTube, Maps, DoubleClick, and Drive, whether from a VM in Google Cloud with an external IP address or an internal IP address.	Per GB Per Month		No charge	No charge
		Egress to a different Google Cloud service within the same region using an external IP address or an internal IP address, except for Memorystore for Redis, Filestore, GKE, and Cloud SQL	Per GB Per Month		No charge	No charge

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Networking	Type	License Metric per Month		USD / Month	*Indicative Price (RM)/ Month
IaaS	Virtual Private Cloud	Egress to Memorystore for Redis, Filestore, Cloud SQL, and Google Kubernetes Engine within the same region is priced the same as VM-to-VM traffic.	Per GB Per Month		VM-VM egress pricing within Google Cloud	VM-VM egress pricing within Google Cloud
		Egress to a Google Cloud service in a different region.	Per GB Per Month		VM-VM egress pricing within Google Cloud	VM-VM egress pricing within Google Cloud
		Internet Egress (Premium Tier)				
		Network (Ingress)	Per GB Per Month		Free	Free
		Worldwide Destinations (excluding China & Australia,				
		0-1 TB	Per GB Per Month		$0.15	RM0.65
		1-10 TB	Per GB Per Month		$0.14	RM0.61

	Networking	Type	License Metric per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Virtual Private Cloud	10+ TB	Per GB Per Month		$0.10	RM0.42
		Network (Egress) China Destinations (excluding Hong Kong)				
		0-1 TB	Per GB Per Month		$0.25	RM1.08
		1-10 TB	Per GB Per Month		$0.24	RM1.03
		10+ TB	Per GB Per Month		$0.22	RM0.93
		Network (Egress) Australia Destinations				
		0-1 TB	per GB Per month		$0.21	RM0.89
		1-10 TB	Per GB Per Month		$0.20	RM0.84
		10+ TB	Per GB Per Month		$0.16	RM0.70
		Internet Egress (Standard Tier)				
		0-10 TB	Per GB Per Month		$0.12	RM0.51
		10-150 TB	Per GB Per Month		$0.08	RM0.35
		150-500 TB	Per GB Per Month		$0.08	RM0.33
		External IP Pricing				
		Static IP address (assigned but unused)	Per IP address Per Month		$8.73	RM37.53
		Static and ephemeral IP addresses in use on	Per IP address Per Month		$3.17	RM13.65
		Static and ephemeral IP addresses in use on	Per IP address Per Month		$1.59	RM6.82
		Static and ephemeral IP addresses attached to forwarding rules, used by Cloud NAT, or used as a public IP for a Cloud VPN tunnel.	Per IP address Per Month		No charge	No charge
		VPC firewall rules				
		500 or fewer attributes in the policy (standard)	per VM covered by the policy		$1.1	RM4.67
		501 or more attributes in the policy (large)	per VM covered by the policy		$1.6	RM7.01
		Network telemetry				
		Log generation				
		0—10 TB per month	per GB per month		$0.54	RM2.34
		10—30 TB per month	per GB per month		$0.27	RM1.17
		30—50 TB per month	per GB per month		$0.11	RM0.47
		>50 TB per month	per GB per month		$0.054	RM0.23
		Packet Mirroring				
		Ingress data processed by load balancer for	per GB per month		$0.010	RM0.04
	Cloud Router				Free	Free
	Cloud NAT	Number of assigned VM instances				
		Up to 32 VM instances				
		- Price per month	no of VM instances using the gateway		$1.111	RM4.78
		- Price per GB Processed (egress and	Per GB		$0.054	RM0.23
		More than 32 VM instances				
		- Price per month	no of VM instances using the gateway		$34.91	RM150.13
		- Price per GB Processed (egress and	Per GB		$0.054	RM0.23
	Service Directory	Service Directory namespace, service, or endpoint	per namespace, service, or endpoint		$0.11	RM0.47
		Service Directory API calls	per million Service Directory API calls		$1.1	RM4.67
	Cloud Interconnect	Dedicated Interconnect				
		Interconnect connection	per 10-Gbps circuit		$1,847.22	RM7,943.03
		Interconnect connection	per 100-Gbps circuit		$14,322.28	RM61,585.82
		A 50-, 100-, 200-, 300-, 400-, or 500-Mbps VLAN attachment	per vLAN Attachment		$79	RM341.20
		A 1-, 2-, 5-, or 10-Gbps VLAN attachment	per vLAN Attachment		$79	RM341.20
		A 20-Gbps VLAN attachment	per vLAN Attachment		$159	RM682.39
		A 50-Gbps VLAN attachment	per vLAN Attachment		$397	RM1,705.98
		Partner Interconnect				
		Partner VLAN attachment capacity				
		50 Mbps	per vLAN Attachment		$42.98	RM184.81
		100 Mbps	per vLAN Attachment		$49.60	RM213.27
		200 Mbps	per vLAN Attachment		$66.12	RM284.31
		300 Mbps	per vLAN Attachment		$88.15	RM379.05
		400 Mbps	per vLAN Attachment		$110.22	RM473.93

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Networking	Type	License Metric per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Cloud Interconnect	500 Mbps	per vLAN Attachment		$137.75	RM592.33
		1 Gbps	per vLAN Attachment		$220.42	RM947.82
		2 Gbps	per vLAN Attachment		$451.80	RM1,942.76
		5 Gbps	per vLAN Attachment		$991.85	RM4,264.95
		10 Gbps	per vLAN Attachment		$1,872.61	RM8,052.22
		20 Gbps	per vLAN Attachment		$2,864.46	RM12,317.16
		50 Gbps	per vLAN Attachment		$7,157.17	RM30,775.85
		Egress traffic from a VPC network through				
		Asia (asia-east1, asia-east2, asia-northeast1, asia-northeast2, asia-northeast3, asia-south1, asia-south2, asia-southeast1, asia-southeast2)	Per GB		$0.046	RM0.1963
		Europe (europe-central2, europe-north1, europe-west1, europe-west2, europe-west3, europe-west4, europe-west6)	Per GB		$0.022	RM0.0935
		North America (northamerica-northeast1, us-central1, us-east1, us-east4, us-west1, us-west2, us-west3, us-west4)	Per GB		$0.022	RM0.0935
		South America (southamerica-east1)	Per GB		$0.09	RM0.3739
		Australia (australia-southeast1, australia-southeast2)	Per GB		$0.046	RM0.1963
	Traffic Director	Service Endpoint	Per Service Endpoint		$0.54	RM2.3370

	Operating Systems	Type	License Metric Per month		USD / Month	*Indicative Price (RM) / Month
IaaS	Premium Images	Windows Server (f1-micro and g1-small	Per core		$18.25	RM78.48
		Windows Server (all other types)	Per core		$36.50	RM156.95
		SQL Server Enterprise	Per core		$316.60	RM1,361.37
		SQL Server Standard	Per core		$130.53	RM561.29
		SQL Server Web	Per core		$8.73	RM37.53
		SQL Server Express	Per core		no additional charge	no additional charge
		SLES (f1-micro and g1-small machine types)	Per instance		$15.87	RM68.24
		SLES (all other types)	Per instance		$87.28	RM375.32
		SLES for SAP (1 - 2 vCPU)	Per instance		$134.89	RM580.03
		SLES for SAP (3 - 4 vCPU)	Per instance		$269.78	RM1,160.07
		SLES for SAP (5 or more vCPU)	Per instance		$325.33	RM1,398.90
		Ubunto Pro				
		- Memory	Per GB		$0.10	RM0.42
		- 1 vCPU	Per instance		$1.32	RM5.66
		- 2 VCPU	Per instance		$2.36	RM10.14
		- 4 VCPU	Per instance		$4.40	RM18.92
		- 6 to 8 vCPU	Per instance		$7.91	RM34.02
		- 10 to 16 vCPU	Per instance		$14.33	RM61.63
		- 18 to 48 vCPU	Per instance		$26.48	RM113.88
		- 50 to 78 vCPU	Per instance		$48.04	RM206.59
		- 80 to 96 vCPU	Per instance		$61.79	RM265.69
		- 98 to 222 vCPU	Per instance		$81.25	RM349.39
		- 222 vCPU	Per instance		$96.85	RM416.47

	Security	Type	License Metric Per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Cloud Asset Inventory				No charge	No charge
	Cloud Data Loss Prevention	Storage data inspected per month				
		Up to 1 GB	Per GB		Free	Free
		1 GB to 50 terabytes (TB)	Per GB		$1.09	RM4.67
		Over 50 TB	Per GB		$0.82	RM3.51
		Over 500 TB	Per GB		$0.65	RM2.80
		Content data inspected per month				
		Up to 1 GB	Per GB		Free	Free
		Over 1 GB	Per GB		$3.3	RM14.02
		Over 1 TB	Per GB		$2.2	RM9.35
		Content data transformed per month				
		Up to 1 GB	Per GB		Free	Free
		Over 1 GB	Per GB		$2.2	RM9.35
		Over 1 TB	Per GB		$1.1	RM4.67
	Cloud Key Management Service	Cloud KMS: active key versions	Per active key version		$0.07	RM0.28
		Cloud KMS: key use operations (Encrypt/	Per 10,000 operations		$0.033	RM0.14
		Cloud KMS: key admin operations			free	free
		Cloud HSM: key versions (AES256,	Per active key version		$1.1	RM4.67
		Cloud HSM: key versions (RSA 3072, RSA				
		0–2000 key versions:	Per active key version		$2.7	RM11.68
		2001+ key versions:	Per active key version		$1.1	RM4.67
		Cloud HSM: key versions (EC P256, EC				
		0–2000 key versions:	Per active key version		$2.7	RM11.68
		2001+ key versions:	Per active key version		$1.1	RM4.67
		Cloud EKM: key versions	Per active key version		$3.3	RM14.02
		Cloud EKM: key use operations	Per 10,000 operations		$0.033	RM0.14
	Secret Manager	Active secret versions (free tier: 6)	Per version per location		$0.07	RM0.28
		Destroyed secret versions			Free	Free
		Access operations (free tier: 10,000)	Per 10,000 operations		$0.033	RM0.140
		Management operations			Free	Free
		Rotation Notifications (free tier; 3)	Per Rotation		$0.054	RM0.234

Lampiran C : Katalog Perkhidmatan GCP - IaaS

	Security	Type	License Metric Per Month		USD / Month	*Indicative Price (RM) / Month
IaaS	Security Command Center	Standard tier			Free	Free
		Premium tier (includes Web Security Scanner)	Percentage of actual annualized spend or committed annual spend (per annum)		5% of actual annualized spend or committed annual spend. Minimum cost is $25,000	5%. Minimum cost is RM107,500
	Shielded VM				No extra charge	No extra charge
	VPC Service Controls				No extra charge	No extra charge
	BeyondCorp Enterprise	Identity Aware Proxy and Context Aware	Per User		$6.5	RM28.04
	Cloud Identity	Free edition provides 50 user license			Free	Free
		Premium Edition	Per User		$6.5	RM28.04
	Storage/Disks	Custom Image storage	Per GB		$0.060	RM0.25707
		Standard provisioned space	Per GB		$0.048	RM0.20565
		SSD provisioned space	Per GB		$0.203	RM0.87402
		Balanced provisioned space	Per GB		$0.12	RM0.51413
		Extreme provisioned space	Per GB		$0.149	RM0.64266
		Regional standard provisioned space	Per GB		$0.096	RM0.41130
		Regional SSD provisioned space	Per GB		$0.407	RM1.74804
		Regional balanced provisioned space	Per GB		$0.24	RM1.02826
		Snapshot storage	Per GB		$0.032	RM0.13554
		Multi-regional snapshot storage	Per GB		$0.028	RM0.12152
		Local SSD provisioned space	Per GB		$0.096	RM0.41130

	Pre-emptible VMs	Type	License Metric Per Month		USD / Month	*Indicative Price (RM) / Month
IaaS		vCPU for Predefined and custom E2	Per vCPU		$6.40	RM27.53
		Memory for Predefined and custom E2	Per GB		$0.86	RM3.69
		vCPUs for Predefined N2 machine Type	Per vCPU		$7.12	RM30.61
		vCPUs for Custom N2 machine Type	Per vCPU		$6.90	RM29.68
		Memory for Predefined and custom N2	Per GB		$0.96	RM4.11
		Extended Memory for N2 machine Type	Per GB		$1.84	RM7.90
		vCPU for Predefined and custom N2D	Per vCPU		$6.18	RM26.59
		Memory for Predefined and custom N2D	Per GB		$0.83	RM3.55
		Extended Memory for N2D machine Type	Per GB		$1.78	RM7.67
		Custom vCPUs for N1 machine Type	Per vCPU		$5.54	RM23.82
		Custom Memory for N1 machine Type	Per GB		$0.75	RM3.23
		Extended Memory for N1 machine Type	Per GB		$1.60	RM6.87
		vCPU for C2 machine type	Per vCPU		$7.65	RM32.90
		Memory for C2 machine type	Per GB		$1.02	RM4.39
		vCPU for M1 machine type	Per vCPU		$6.50	RM27.95
		Memory for M1 machine type	Per GB		$0.96	RM4.11

	Pre-emptible VMs	Type	License Metric Per Month		USD / Month	*Indicative Price (RM) / Month
IaaS		vCPU for A2 machine type	Per vCPU		$7.52	RM32.34
		Memory for A2 machine type	Per GB		$1.01	RM4.35

Nota:-

*Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)

*Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa

*Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - PaaS

	AI Building Blocks		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	**Vision API**		Price Per 1000 units	First 1000 units per month - Free	First 1000 units per month - Free
		Units 1001 - 5,000,000 / month			
		Label Detection		$1.63	RM7.01
		Text Detection		$1.63	RM7.01
		Document Text Detection		$1.63	RM7.01
		Safe Search (explicit content) Detection		Free with Label Detection, or $1.63	Free with Label Detection, or RM7.01
		Facial Detection		$1.63	RM7.01
		Facial Detection - Celebrity Recognition		$1.63	RM7.01
		Landmark Detection		$1.63	RM7.01
		Logo Detection		$1.63	RM7.01
		Image Properties		$1.63	RM7.01
		Crop Hints		Free with Image Properties, or $1.63	Free with Label Detection, or RM7.01
		Web Detection		$3.80	RM16.36
		Object Localization		$2.45	RM10.52
		Units 5,000,001 and higher / month			
		Label Detection		$1.09	RM4.67
		Text Detection		$0.65	RM2.80
		Document Text Detection		$0.65	RM2.80
		Safe Search (explicit content) Detection		Free with Label Detection, or $0.65	Free with Label Detection, or RM2.80
		Facial Detection		$0.65	RM2.80
		Facial Detection - Celebrity Recognition		$0.65	RM2.80
		Landmark Detection		$0.65	RM2.80
		Logo Detection		$0.65	RM2.80
		Image Properties		$0.65	RM2.80
		Crop Hints		Free with Image Properties, or $0.65	Free with Image Properties, or RM2.80
		Web Detection		Contact Sales	Contact Sales
		Object Localization		$1.63	RM7.01
	Vision Product Search API		Price Per 1000 units	First 1000 units per month - Free	First 1000 units per month - Free
		1001-5,000,000			
		Prediction per 1000 images		$4.89	RM21.03
		Storage per 1000 images		$0.11	RM0.47
		5,000,001-20,000,000			
		Prediction per 1000 images		$1.96	RM8.41
		Storage per 1000 images		$0.11	RM0.47
	Video Intelligence API	**Stored video annotation**	Price per 1000 minutes	First 1000 minutes per month - Free	First 1000 minutes per month - Free
		> 1000 minutes			
		Label detection		$0.11	RM0.47
		Shot detection		$0.054	RM0.23
		Explicit content detection		$0.11	RM0.47
		Speech transcription		$0.052	RM0.22
		Object tracking		$0.16	RM0.70
		Text detection		$0.16	RM0.70
		Logo detection		$0.16	RM0.70
		Face detection		$0.11	RM0.47
		Person detection		$0.11	RM0.47
		Celebrity recognition		$0.11	RM0.47
		Streaming video annotation			
		> 1000 minutes	Price per 1000 minutes		First 1000 minutes per month - Free
		Label detection		$0.13	RM0.56
		Shot detection		$0.08	RM0.33
		Explicit content detection		$0.13	RM0.56
		Object Tracking		$0.18	RM0.79
	Cloud Natural Language		Price per 1000 units where 1		
		5K+ - 1M		First 5000 units free per month	First 5000 units free per month
		Entity Analysis		$1.09	RM4.67
		Sentiment Analysis		$1.09	RM4.67
		Syntax Analysis		$0.54	RM2.34
		Entity Sentiment Analysis		$2.17	RM9.35
		1M+ - 5M			
		Entity Analysis		$0.54	RM2.34
		Sentiment Analysis		$0.54	RM2.34
		Syntax Analysis		$0.27	RM1.17
		Entity Sentiment Analysis		$1.09	RM4.67
		5M+ - 20M			
		Entity Analysis		$0.27	RM1.17
		Sentiment Analysis		$0.27	RM1.17
		Syntax Analysis		$0.14	RM0.58
	Cloud Natural Language	**Content Classification**		First 30K units free per month	First 30K units free per month
		30K+ - 250K		$2.17	RM9.35
		250K+ - 5M		$0.54	RM2.34
		5M+		$0.11	RM0.47
	Cloud Translation	**Cloud Translation Basic**			
		Total usage for language detection and text	Per million characters		
		First 500,000 characters* per month		Free (applied as $10 credit every month)	Free (applied as RM43 credit every month)
		500,000 to 1 billion characters* per month		$21.74 per million characters	RM93.48 per million characters
		Over 1 billion characters* per month		Contact sales	Contact sales
		Cloud Translation - Advanced			
		Translate Document with NMT models (DOCX, PPT, and PDF formats only)	Per page sent	$0.09	RM0.37
		Total usage for language detection, text translation, batch translation, and XLSX document translation (Preview) by using either the NMT or PBMT models	Per million characters		
		First 500,000 characters* per month		Free (applied as $10 credit every month)	Free (applied as RM43 credit every month)
		500,000 to 1 billion characters* per month		$21.74 per million characters	RM93.48 per million characters
		Over 1 billion characters* per month		Contact sales	Contact sales
	Media Translation	**Streaming translation**			
		First 60 mins per month		Free	Free
		60 minutes to 1 million minutes			
		Standard Models	per min	$0.074 / minute	RM0.318 / minute
		Enhanced Models	per min	$0.091 / minute	RM0.391 / minute
	Text to Speech	Standard (non-WaveNet) voices (0 to 4 million chars free per month)	per million characters	$4.35 USD / 1 million characters	RM18.71 / 1 million characters
		WaveNet voices (0 to 1 million chars free per month)	per million characters	$17.39 USD / 1 million characters	RM74.78 / 1 million characters
	Speech to Text	**Standard models (all models except enhanced**	First 60 mins free		
		Speech Recognition (without Data Logging - default) > 60 mins, < 1,000,000 mins	per 15 secs	$0.0065 / 15 seconds	RM0.0280 / 15 seconds
		Speech Recognition (with Data Logging opt-in) > 60 mins, < 1,000,000 mins	per 15 secs	$0.0043 / 15 seconds	RM0.0185 / 15 seconds
		Enhanced models (video, phone call)	First 60 mins free		
		Speech Recognition (without Data Logging - default) > 60 mins, < 1,000,000 mins	per 15 secs	$0.0098 / 15 seconds	RM0.0421 / 15 seconds
		Speech Recognition (with Data Logging opt-in) > 60 mins, < 1,000,000 mins	per 15 secs	$0.0065 / 15 seconds	RM0.0280 / 15 seconds

Lampiran C : Katalog Perkhidmatan GCP - PaaS

	AI Building Blocks		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Dialogflow	CX Agent			
		Text	per request	$0.0076 per request	RM0.0327 per request
		Audio input/output	per min	$0.065 per minute	RM0.280 per minute
		Design-time requests		Free	Free
		Other session requests		Free	Free
		ES Agent			
		Text	per request	$0.0022 per request	RM0.0095 per request
		Audio input (also known as speech recognition, speech-to-text, STT)	per 15 seconds of audio	$0.0071 per 15 seconds of audio	RM0.0305 per 15 seconds of audio
		Audio output (also known as speech synthesis, text-to-speech, TTS)	Standard voices: per 1 million characters WaveNet voices: per 1 million characters	Standard voices: $4.35 per 1 million characters WaveNet voices: $17.39 per 1 million characters	Standard voices: RM18.71 per 1 million characters WaveNet voices: RM74.78 per 1 million characters
		Knowledge connectors (Beta)		Free	Free
		Sentiment analysis			
		0-1 million requests	per 1,000 requests	0-1 million requests: $1.09 per 1,000 requests	0-1 million requests: RM4.69 per 1,000 requests
		1-5 million requests	per 1,000 requests	1-5 million requests: $0.54 per 1,000 requests	1-5 million requests: RM2.32 per 1,000 requests
		5-20 million requests	per 1,000 requests	5-20 million requests: $0.27 per 1,000 requests	5-20 million requests: RM1.16 per 1,000 requests
		Dialogflow phone gateway Includes audio input and output.			
		Tolled Number	per minute of phone call processed	Tolled number: $0.054 per minute of phone call processed	Tolled number: RM0.232 per minute of phone call processed
		Toll-free Number	per minute of phone call processed	Toll-free number: $0.065 per minute of phone call processed	Toll-free number: RM0.280 per minute of phone call processed
		Mega agent <= 2k intents	per request	<=2k intents: $0.0022 per request	<=2k intents: RM0.0095 per request
		Mega agent > 2k intents	per request	>2k intents: $0.0065 per request	>2k intents: RM0.0280 per request
		Design-time requests		Free	Free
		Other session requests		Free	Free
	Recommendations AI	Prediction requests per month			
		Up to 20,000,000	Price per 1000 predictions	$0.29	RM1.26
		Next 280,000,000	Price per 1000 predictions	$0.20	RM0.84
		After 300,000,000	Price per 1000 predictions	$0.11	RM0.47
		Training and tuning	per hour	$2.72 per node per hour	RM11.70 per node per hour

	AI Platform (Vertex AI)		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Deep Learning VM Images	Preconfigured VM Images		No extra charge on top of Compute Engine	No extra charge on top of Compute Engine
	Vertex Training: AutoML models	Image Data			
		Operation (Classification)		Price per node hour (classification)	Price per node hour (classification)
		Training	per node hour	$3.42	RM14.72
		Training (on-device)	per node hour	$5.38	RM23.14
		Deployment and online prediction	per node hour	$1.36	RM5.84
		Batch prediction	per node hour	$2.20	RM9.44
		Operation (object detection)		Price per node hour (object detection)	Price per node hour (object detection)
		Training	per node hour	$3.42	RM14.72
		Training (on-device)	per node hour	$19.57	RM84.13
		Deployment and online prediction	per node hour	$1.98	RM8.51
		Batch prediction	per node hour	$2.20	RM9.44
		Video Data			
		Operation		Price per node hour	
		Training	per node hour	$3.20	RM13.74
		Predictions	per node hour	$0.46	RM1.96
		Tabular Data			
		Operation (classification/regression)		Price per node hour for classification/regression	Price per node hour for classification/regression
		Training	per node hour	$21.00	RM90.30
		Deployment	per node hour	Same price as predictions for custom-trained models	Same price as predictions for custom-trained models
		Online prediction	per node hour	$0.23	RM0.98
		Batch prediction	per node hour	$1.26	RM5.42
		Operation (forecasting)		Price for forecasting	Price for forecasting
		Training	per node hour	$21 per node hour	RM90.30 per node hour
		Deployment	per node hour	n/a	n/a
		Online prediction	per node hour	n/a	n/a
		Batch prediction	per node hour	No charge during Preview	No charge during Preview
		Text Data			
		Operation		Price	Price
		Training	per hour	$3.26 per hour	RM14.02 per hour
		Deployment	per hour	$0.054 per hour	RM0.232 per hour
		Prediction	per 1000 text records	$5.43 per 1,000 text records	RM23.35 per 1,000 text records
				A text record is plain text of up to 1,000 Unicode characters (including whitespace and any markup such as HTML or XML tags).	A text record is plain text of up to 1,000 Unicode characters (including whitespace and any markup such as HTML or XML tags).
	Vertex Training: Custom-trained models	The cost of a training job in all available Asia		$0.59	RM2.52
		List of resources in training units			
		Machine types	per hour (training units)		
		n1-standard-4		$0.2391 (0.4074)	RM1.0281 (0.4074)
		n1-standard-8		$0.4783 (0.8148)	RM2.0562 (0.8148)
		n1-standard-16		$0.9565 (1.6296)	RM4.1129 (1.6296)
		n1-standard-32		$1.9130 (3.2593)	RM8.2259 (3.2593)
		n1-standard-64		$3.8261 (6.5185)	RM16.4518 (6.5185)
		n1-standard-96		$5.7391 (9.7778)	RM24.6781 (9.7778)
		n1-highmem-2		$0.1489 (0.2537)	RM0.6402 (0.2537)
		n1-highmem-4		$0.2978 (0.5074)	RM1.2805 (0.5074)
		n1-highmem-8		$0.5957 (1.0148)	RM2.5610 (1.0148)
		n1-highmem-16		$1.1913 (2.0296)	RM5.1225 (2.0296)
		n1-highmem-32		$2.3826 (4.0593)	RM10.2451 (4.0593)

Lampiran C : Katalog Perkhidmatan GCP - PaaS

	AI Platform (Vertex AI)		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Vertex Training: Custom-trained models	n1-highmem-64		$4.7652 (8.1185)	RM20.4903 (8.1185)
		n1-highmem-96		$7.1478 (12.1778)	RM30.7355 (12.1778)
		n1-highcpu-16		$0.7139 (1.2163)	RM3.0697 (1.2163)
		n1-highcpu-32		$1.4278 (2.4326)	RM6.1395 (2.4326)
		n1-highcpu-64		$2.8557 (4.8652)	RM12.2790 (4.8652)
		n1-highcpu-96		$4.2835 (7.2978)	RM18.4186 (7.2978)
		a2-highgpu-1g		$0.8849 (1.5075)	RM3.8046 (1.5075)
		a2-highgpu-2g		$1.7698 (3.0151)	RM7.6097 (3.0151)
		a2-highgpu-4g		$3.5395 (6.0301)	RM15.2194 (6.0301)
		a2-highgpu-8g		$7.0788 (12.0602)	RM30.4388 (12.0602)
		a2-megagpu-16g		$10.5261 (17.9334)	RM45.2618 (17.9334)
		e2-standard-4		$0.1848 (0.3061)	RM0.7942 (0.3061)
		e2-standard-8		$0.3587 (0.6123)	RM1.5419 (0.6123)
		e2-standard-16		$0.7174 (1.2246)	RM3.0843 (1.2246)
		e2-standard-32		$1.4348 (2.4491)	RM6.1692 (2.4491)
		e2-highmem-2		$0.1196 (0.2065)	RM0.5138 (0.2065)
		e2-highmem-4		$0.2391 (0.4130)	RM1.0281 (0.4130)
		e2-highmem-8		$0.4891 (0.8259)	RM2.1031 (0.8259)
		e2-highmem-16		$0.9674 (1.6518)	RM4.1593 (1.6518)
		e2-highcpu-16		$0.5326 (0.9041)	RM2.2901 (0.9041)
		e2-highcpu-32		$1.0652 (1.8082)	RM4.5803 (1.8082)
		n2-standard-4		$0.2609 (0.4437)	RM1.1214 (0.4437)
		n2-standard-8		$0.5217 (0.8875)	RM2.2433 (0.8875)
		n2-standard-16		$1.0435 (1.7749)	RM4.4866 (1.7749)
		n2-standard-32		$2.0870 (3.5498)	RM8.9736 (3.5498)
		n2-standard-48		$3.1304 (5.3247)	RM13.4607 (5.3247)
		n2-standard-64		$4.1630 (7.0996)	RM17.9009 (7.0996)
		n2-standard-80		$5.2065 (8.8754)	RM22.3879 (8.8754)
		n2-highmem-2		$0.1739 (0.2993)	RM0.7477 (0.2993)
		n2-highmem-4		$0.3478 (0.5986)	RM1.4955 (0.5986)
		n2-highmem-8		$0.7065 (1.1971)	RM3.0379 (1.1971)
		n2-highmem-16		$1.4022 (2.3943)	RM6.0290 (2.3943)
		n2-highmem-32		$2.8152 (4.7886)	RM12.1053 (4.7886)
		n2-highmem-48		$4.2174 (7.1828)	RM18.1343 (7.1828)
		n2-highmem-64		$5.6196 (9.5771)	RM24.1638 (9.5771)
		n2-highmem-80		$7.0217 (11.9714)	RM30.1933 (11.9714)
		n2-highcpu-16		$0.7717 (1.3104)	RM3.3183 (1.3104)
		n2-highcpu-32		$1.5435 (2.6207)	RM6.6366 (2.6207)
		n2-highcpu-48		$2.3043 (3.9311)	RM9.9084 (3.9311)
		n2-highcpu-64		$3.0761 (5.2415)	RM13.2268 (5.2415)
		n2-highcpu-80		$3.8478 (6.5519)	RM16.5455 (6.5519)
		c2-standard-4		$0.2826 (0.4770)	RM1.2151 (0.4770)
	Vertex Training: Custom-trained models	c2-standard-8		$0.5652 (0.9540)	RM2.4304 (0.9540)
		c2-standard-16		$1.1196 (1.9080)	RM4.8143 (1.9080)
		c2-standard-30		$2.0978 (3.5776)	RM9.0205 (3.5776)
		c2-standard-60		$4.1957 (7.1551)	RM18.0415 (7.1551)
		Accelerators	per hour (training units)		
		NVIDIA_TESLA_A100		$3.3696 (5.7407)	RM14.4893 (5.7407)
		NVIDIA_TESLA_K80		$0.5326 (0.9074)	RM2.2902 (0.9074)
		NVIDIA_TESLA_P4		$0.7065 (1.2037)	RM3.0380 (1.2037)
		NVIDIA_TESLA_P100		$1.7391 (2.9630)	RM7.4781 (2.9630)
		NVIDIA_TESLA_T4		$0.4239 (0.7222)	RM1.8228 (0.7222)
		NVIDIA_TESLA_V100		$2.7717 (4.7222)	RM11.9183 (4.7222)
		Disks -	per GB per hour (training units)		
		pd-standard		$0.0000785 (0.0001)	RM0.0003376 (0.0001)
		pd-ssd		$0.0003472 (0.0006)	RM0.0014930 (0.0006)
	Notebooks	Google Cloud resources used with Notebooks		See prices for Compute etc	See price for compute
		Management fee for notebooks	vCPU usage per core hour	vCPU usage will incur a charge of $0.016 USD per core hour	vCPU usage will incur a charge of RM0.069 per core hour
		T4, K80, and P4	Additional premium per core hour	T4, K80, and P4 usage will incur a premium of $0.054 USD per core hour	T4, K80, and P4 usage will incur a premium of RM0.232 per core hour
		P100, V100 and A100	Additional premium per core hour	P100, V100 and A100 usage will incur a premium of $0.33 USD per core hour	P100, V100 and A100 usage will incur a premium of RM1.42 per core hour
	Tensorflow Enterprise			No additional charge	No additional charge
	Vertex Prediction	Predictions (online or batch)			
		vCPU	per vCPU hour	$0.042390 per vCPU hour	RM0.182277 per vCPU hour
		RAM	per GB hour	$0.005680 per GB hour	RM0.024424 per GB hour
		Accelerator			
		- NVIDIA_TESLA_P4	per GPU hour	$0.6739 per GPU hour	RM2.8978 per GPU hour
		- NVIDIA_TESLA_14	per GPU hour	$0.40 per GPU hour	RM1.72 per GPU hour
	Vertex Data Labeling				
		Data type: Image			
		Tier 1 (first 50,000 units per month in each Google Cloud project)	per 1,000 units per human labeler		
		Classification by image		$38.04	RM163.59
		Bounding box by bounding box		$68.48	RM294.46
		Segmentation by segment		$945.65	RM4,066.30
		Rotated box by bounding box		$93.48	RM401.96
		Polygon/polyline by Polygon/Polyline		$279.35	RM1,201.20
		Tier 2 (next 950,000 units per month in the project, up to 1,000,000 units)	per 1,000 units per human labeler	Tier 2 (next 950,000 units per month in the project, up to 1,000,000 units)	Tier 2 (next 950,000 units per month in the project, up to 1,000,000 units)
		Classification by image		$27	RM116.85
		Bounding box by bounding box		$53	RM229.02
		Segmentation by segment		$924	RM3,972.83
		Rotated box by bounding box		$65	RM280.43
		Polygon/polyline by Polygon/Polyline		$196	RM841.30
		Data type: Video			
		Tier 1 (first 50,000 units per month in each Google Cloud project)	per 1,000 units per human labeler	Tier 1	Tier 1
		Classification by 5sec video		$93	RM401.96
		Object tracking by Bounding box		$93	RM401.96
		Action recognition Event in 30sec video		$233	RM1,000.22
		Tier 2 (next 950,000 units per month in the project, up to 1,000,000 units)	per 1,000 units per human labeler	Tier 2	Tier 2
		Classification by 5sec video		$65	RM280.43
		Object tracking by Bounding box		$65	RM280.43
		Action recognition Event in 30sec video		$163	RM701.09
		Data Type: Text			
		Tier 1 (first 50,000 units per month in each Google Cloud project)	per 1,000 units per human labeler	Tier 1	Tier 1
		Classification by 50 words		$140.22	RM602.93
		Sentiment 50 words		$217.39	RM934.78
		Entity extraction by entity		$93.48	RM401.96
		Tier 2 (next 950,000 units per month in the project, up to 1,000,000 units)	per 1,000 units per human labeler	Tier 2	Tier 2
		Classification by 50 words		$98	RM420.65

Lampiran C : Katalog Perkhidmatan GCP - PaaS

	AI Platform (Vertex AI)		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Vertex Data Labeling	Sentiment 50 words		$152	RM654.35
		Entity extraction by entity		$65	RM280.43
		Tier 1	per 1,000 units per human labeler	Tier 1	Tier 1
		Active Learning all by data item		$87	RM373.91
		Custom Labeler all by data item		$87	RM373.91
		Tier 2	per 1,000 units per human labeler	Tier 2	Tier 2
		Active Learning all by data item		$60.87	RM261.74
		Custom Labeler all by data item		$60.87	RM261.74
		Required use of Cloud Storage includes:			
		Staging your training application package for			
		Storing your training input data.			
		Storing the output of your training jobs.			

	API Management		License Metric Per Year	Price (USD) per Year	*Indicative Price (RM) per Year
PaaS	Apigee SaaS (public cloud) pricing	Apigee Edge Standard		$114,130.43	RM490,760.87
		Apigee Edge Enterprise		$278,260.87	RM1,196,521.74
		Apigee Edge Enterprise Plus		$661,956.52	RM2,846,413.04
		Monetization Pack (per 500M Calls)		$15,217.39	RM65,434.78
		Org/Env Expansion Pack (per region*)		$38,043.48	RM163,586.96
		Data Retention Pack		$10,869.57	RM46,739.13
		Traffic Isolation Pack (per environment/region)		$30,434.78	RM130,869.57
		Edge Sense (per 100M calls)		$22,826.09	RM98,152.17
		Apigee Support Enhancement		$91,304.35	RM392,608.70
		Apigee Edge [Enterprise] One Region DN		$76,086.96	RM327,173.91
		Apigee Edge Standard Additional SaaS Call Pack		$15,217.39	RM65,434.78
		Apigee Edge Enterprise Additional SaaS Call		$15,217.39	RM65,434.78
		Apigee Edge Enterprise Plus Additional SaaS Call		$15,217.39	RM65,434.78
		Apigee Edge Enterprise Plus Additional SaaS Call		$98,913.04	RM425,326.09
		Apigee Edge Enterprise Plus Additional SaaS Call		$989,130.43	RM4,253,260.87
		Apigee Edge Enterprise Additional Hybrid Call		$7,608.70	RM32,717.39
		Apigee Edge Enterprise Plus Additional Hybrid		$7,608.70	RM32,717.39
		Apigee Edge Enterprise Plus Additional Hybrid		$57,065.22	RM245,380.43
	Apigee (private cloud licenses):	Edge 125 for Private Cloud without BaaS		$167,391.30	RM719,782.61
		Edge 125 for Private Cloud- Monetization Pack		$95,869.57	RM412,239.13
		Edge 250 for Private Cloud		$302,826.09	RM1,302,152.17
		Edge 250 for Private Cloud- Monetization Pack		$150,652.17	RM647,804.35
		Edge 500 for Private Cloud		$500,652.17	RM2,152,804.35
		Edge 500 for Private Cloud- Monetization Pack		$217,608.70	RM935,717.39
		Edge 1250 for Private Cloud		$728,913.04	RM3,134,326.09
		Edge 1250 for Private Cloud- Monetization Pack		$363,695.65	RM1,563,891.30
		Edge for Private Cloud (unlimited calls)		$1,166,666.30	RM5,016,665.11
		Edge for Private Cloud (unlimited calls) -		$583,333.70	RM2,508,334.89

	Databases		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	BigTable	Production instance	Per Hour Per Node	$0.78 (min 1 nodes)	RM3.35 (min 1 nodes)
		Development instance	Per Hour	$0.78	RM3.37
		SSD storage	GB/month	$0.21	RM0.89
		HDD storage	GB/month	$0.032	RM0.14
		Backup Storage	GB/month	$0.032	RM0.14
		Network Ingress		Free	Free
		Network Egress to the same zone		Free	Free
		Network Egress between zones in the same		Free	Free
		Cross-region network egress to the same	Per GB	$0.011	RM0.05
		Inter-continental egress		At Internet egress rate	At Internet egress rate
	Cloud Spanner	Regional Node	Per Hour Per Node	$1.12	RM4.81
		Multi-region Node (asia)	Per Hour Per Node	$4.24	RM18.23
		Regional Database	Per GB Per Month	$0.37	RM1.59
		Multi-region Database (asia)	Per GB Per Month	$0.71	RM3.04
		Backup Storage (regional)	Per GB Per Month	$0.11	RM0.47
		Backup Storage (multi-regional)	Per GB Per Month	$0.33	RM1.40
		Network Ingress		Free	Free
		Network Egress within the same region except US		Free	Free
		Inter-continental egress		At Internet egress rate	At Internet egress rate
	MySQL and PostgresSQL	vCPUs	Per vCPU Per month	$45.88	RM197.29
		Memory	Per GB Per month	$7.77	RM33.42
		HA vCPUs	Per vCPU per month	$88.48	RM380.46
		HA Memory	Per vCPU per month	$15.54	RM66.84
		SSD storage	Per GB Per month	$0.259	RM1.11
		HDD storage	Per GB Per month	$0.137	RM0.59
		For Backups (Used)	Per GB Per month	$0.122	RM0.52
		HA SSD storage	Per GB Per month	$0.517	RM2.22
		HA HDD storage	Per GB Per month	$0.274	RM1.18
		HA For Backups (Used)	Per GB Per month	$0.122	RM0.52
		Serverless export		No charge until February 1, 2022, thereafter $0.011/GB of the instance storage capacity.	No charge until February 1, 2022, thereafter RM0.047/GB of the instance storage capacity.
		Ingress to Cloud SQL		Free	Free
		Egress from Cloud SQL		See Network Egress Pricing.	See Network Egress Pricing.
		IPv4 addresses while idle.	Per Address	$0.016	RM0.070
		Egress Destination Compute Engine instances and Cloud SQL cross-region replicas	Per GB	Within the same region: free Between regions: $0.13	Within the same region: free Between regions: RM0.56
		Egress Destination Google Products (except Compute Engine and traffic to Cloud SQL cross-region replicas)	Per GB	Intra-continental: free Inter-continental: $0.13	Intra-continental: free Inter-continental: RM0.56
		Internet egress using Cloud Interconnect	Per GB	$0.054	RM0.234
		Internet egress (not using Cloud Interconnect)	Per GB	$0.207	RM0.888
	SQL Server	vCPUs	Per vCPU Per month	$0.0628	RM0.2702
		Memory	Per GB Per month	$0.0107	RM0.0458
		HA vCPUs	Per vCPU per month	$0.1257	RM0.5403
		HA Memory	Per vCPU per month	$0.0213	RM0.0916
		SSD storage	Per GB Per month	$0.259	RM1.112
		For Backups (Used)	Per GB Per month	$0.122	RM0.523
		HA SSD storage	Per GB Per month	$0.517	RM2.225
		HA For Backups (Used)	Per GB Per month	$0.122	RM0.523
		Serverless export		No charge until February 1, 2022, thereafter $0.011/GB of the instance storage capacity.	No charge until February 1, 2022, thereafter RM0.047/GB of the instance storage capacity.
		Ingress to Cloud SQL		Free	Free
		Egress from Cloud SQL		See Network Egress Pricing.	See Network Egress Pricing.
		IPv4 addresses while idle.	Per Address	$0.02	RM0.07
		Egress Destination Compute Engine instances and Cloud SQL cross-region replicas	Per GB	Within the same region: free Between regions: $0.13	Within the same region: free Between regions: RM0.56
		Egress Destination Google Products (except Compute Engine and traffic to Cloud SQL cross-region replicas)	Per GB	Intra-continental: free Inter-continental: $0.13	Intra-continental: free Inter-continental: RM0.56
		Internet egress using Cloud Interconnect	Per GB	$0.054	RM0.23
		Internet egress (not using Cloud Interconnect)	Per GB	$0.21	RM0.89

Lampiran C : Katalog Perkhidmatan GCP - PaaS

	Databases		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	SQL Server	License	Price per Core Hour		
		Enterprise	Price per Core HourMinimum	$0.51087	RM2.19674
		Standard	Price per Core Hour	$0.14130	RM0.60761
		Web	Price per Core Hour	$0.01233	RM0.05300
		Express		$0.00000	RM0.00000
	Database Migration	MySQL-native migration or replication to Cloud		no charge	no charge
		PostgreSQL-native migration or replication to Cloud SQL for PostgreSQL		no charge	no charge
		Network ingress from external source databases		no charge	no charge
		*There may be additional costs incurred due to platform egress charges outside of Google			
	Firestore	Document Reads (free quota: 50,000)	per 100,000 documents	$0.041	RM0.178
		Document Writes (free quota: 20,000)	per 100,000 documents	$0.125	RM0.538
		Document Deletes (free quota: 20,000)	per 100,000 documents	$0.014	RM0.061
		Stored Data (free quota 1 GB)	per GB per Month	$0.209	RM0.897
		Ingress		Free	Free
		Egress within a region		Free	Free
		Egress between regions in the same multi-region		Free	Free
		Egress between regions within the US (per GiB)	per GiB per Month	$0.011 (first 10 GiB per month are free)	RM0.047 (first 10 GiB per month are free)
		Egress between regions, not including traffic between US regions		Google Cloud Platform internet egress rates	Google Cloud Platform internet egress rates
	Memory Store for Redis	Basic (standalone)			
		M1 (1 to 4 GB) and max network performance 3	per GB per hour	$0.071	RM0.304
		M2 (5 to 10 GB) and max network performance 3	per GB per hour	$0.043	RM0.187
		M3 (11 to 35 GB) and max network performance	per GB per hour	$0.035	RM0.150
		M4 (36 to 100 GB) and max network performance	per GB per hour	$0.026	RM0.112
		M5 (> 100 GB) and max network performance 12	per GB per hour	$0.021	RM0.089
		Standard (with HA)			
		M1 (1 to 4 GB) and max network performance 3	per GB per hour	$0.124	RM0.533
		M2 (5 to 10 GB) and max network performance 3	per GB per hour	$0.082	RM0.351
		M3 (11 to 35 GB) and max network performance	per GB per hour	$0.068	RM0.294
		M4 (36 to 100 GB) and max network performance	per GB per hour	$0.051	RM0.220
		M5 (> 100 GB) and max network performance 12	per GB per hour	$0.040	RM0.173

	Data Analytics		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Looker	Platform Types:	Per Year		
		Standard	Flat Fee	$65,217.39	RM280,434.78
		Advanced	Flat Fee	$130,434.78	RM560,869.57
		Elite:	Flat Fee	$195,652.17	RM841,304.35
		Users Types:	Per User Per Month		
		Admin/Developers:	Per User Per Month	$135.87	RM584.24
		Standard/Explorers	Per User Per Month	$65.22	RM280.43
		View-Only	Per User Per Month	$32.61	RM140.22
	BigQuery	Queries (on-demand)	Per TB, first 1 TB Free	$7.34	RM31.55
		Queries (Flat fee)	Per 100 slots Per Month	$2,934.78	RM12,619.57
		Active storage	Per GB, First 10GB Free	$0.022 per GB	RM0.095 per GB
		Long-term storage	Per GB, First 10GB Free	$0.011 per GB	RM0.047 per GB
		Batch loading		Free using the shared slot pool.	Free using the shared slot pool.
		Streaming inserts (tabledata.insertAll)	per 200 MB	$0.0148	RM0.0636
		Batch exports		Free using the shared slot pool. Charged for cloud storage	Free using the shared slot pool. Charged for cloud storage
		BigQuery ML CREATE MODEL queries		The first 10 GB of data processed by queries that contain CREATE MODEL statements per month is free.	The first 10 GB of data processed by queries that contain CREATE MODEL statements per month is free.
		Streaming reads (BigQuery Storage Read API)	0	Customers using flat-rate billing can read up to 300 TB of data per month at no charge.	Customers using flat-rate billing can read up to 300 TB of data per month at no charge.
	Cloud Composer	Web core hours	per vCPU hour	$0.080	RM0.346
		Database core hours	Per vCPU hour	$0.136	RM0.584
		Web and database storage	per GB per month	$0.297	RM1.276
		Network egress	per GB	$0.170	RM0.729
	Data Fusion Editions for Development	Developer	Per instance per hour	$0.38	RM1.64
		Basic (first 120 hours free per month)	Per instance per hour	$1.96	RM8.41
		Enterprise	Per instance per hour	$4.57	RM19.63
	Data Catalog	Storage Up to 1 MiB		No charge	No charge
		Storage Over 1 MiB	per GiB per month	$108.70	RM467.39
		API calls - 1 million in a month		No charge	No charge
		API calls - Over 1 million in a month	per 100,000 API calls	$10.87	RM46.74
	Data Flow	Dataflow Worker Type - Batch 1 vCPU, 3.75 GB			
		vCPU	per hour	$0.0760870	RM0.3271739
		Memory	per GB per hour	$0.0048329	RM0.0207816
		Data Processed	per GB	$0.0147500	RM0.0634250
		Data Flow Worker Type: FlexRS 2 vCPU, 7.50 GB			
		vCPU	per hour	$0.0451087	RM0.1939674
		Memory	per GB per hour	$0.0028620	RM0.0123064
		Data Processed	per GB	$0.0147500	RM0.0634250
		Data Flow Worker Type: Streaming 4 vCPU, 15 GB			
		vCPU	per hour	$0.0937500	RM0.4031250
		Memory	per GB per hour	$0.0048329	RM0.0207816
		Data Processed	per GB	$0.0241413	RM0.1038076
		Storage - Standard Persistent Disk	per GB per hour	$0.0000734	RM0.0003155
		Storage - SSD Persistent Disk	per GB per hour	$0.0004049	RM0.0017410
		NVIDIA® Tesla® T4 GPU	per GPU per hour	$0.48	RM2.08
		NVIDIA® Tesla® P4 GPU	per GPU per hour	$0.85	RM3.65
		Storage Cost	per GB per month	$0.212	RM0.911
		Data Processed by a job Bill Adjustment	Billing Adjustment		
		First 250 GB		75% reduction	75% reduction
		Next 4870 GB		50% reduction	50% reduction
		Remaining data over 5120 GB (5 TB)		None	None
	Dataproc	Size of cluster (no of vCPUs) and duration	per vCPU per hour	$0.011	RM0.05
	Pub/Sub	Volume of Data Transmitted	Per TiB, first 10 GiB free	$43.48	RM186.96
		Network egress (outside region)		Internet egress fees	Internet egress fees

	Healthcare and Life Sciences		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Cloud Healthcare APIs	Data Storage			
		Structured Storage	Per GB per month	$0.00	RM0.00
		0-1 GB		$0.00	RM0.00
		1-1,024 GB (1 TB)		$0.32	RM1.36
		1 TB+		$0.26	RM1.12
		Blob Storage	Per GB per month		
		0-1 GB		$0.00	RM0.00
		1-1,024 GB (1 TB)		$0.022	RM0.093
		1 TB+		$0.022	RM0.093
		Request volume			
		Standard Requests	Per 100,000 requests	$0.00	RM0.00

Lampiran C : Katalog Perkhidmatan GCP - PaaS

	Healthcare and Life Sciences		License Metric	Price (USD)	*Indicative Price (RM)
PaaS	Cloud Healthcare APIs	0-25,000 requests		$0.00	RM0.00
		25,000-1 billion requests		$0.42	RM1.82
		1 billion+ requests		$0.32	RM1.36
		Complex Requests	Per 100,000 requests		
		0-25,000 requests		$0.00	RM0.00
		25,000-1 billion requests		$0.75	RM3.23
		1 billion+ requests		$0.64	RM2.76
		Multi-operation Requests	Per 100,000 requests		
		0-25,000 requests		$0.00	RM0.00
		25,000-1 billion requests		$0.42	RM1.82
		1 billion+ requests		$0.32	RM1.36
		Notifcation Volume			
		0-100,000 notifications		$0.00	RM0.00
		100,000+ notifications	Per million	$0.32	RM1.36
		ETL Operations			
		Export batch	Per GB per month		
		0-1 GB		$0.21	RM0.89
		1-1,024 GB (1 TB)		$0.15	RM0.65
		1 TB+		$0.10	RM0.42
		Export streaming	Per GB per month		
		0-1 GB		$0.37	RM1.59
		1-1,024 GB (1 TB)		$0.32	RM1.36
		1 TB+		$0.26	RM1.12
		Evaluate batch	Per GB per month		
		0-1 GB		$0.054	RM0.23
		1-1,024 GB (1 TB)		$0.054	RM0.23
		1 TB+		$0.054	RM0.23
		Transcode DICOM	Per GB per month		
		0-1 GB		$0.00	RM0.00
		1-1,024 GB (1 TB)		$0.00	RM0.00
		1 TB+		$0.00	RM0.00

Nota:-
*Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)
*Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa
*Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - SaaS

Productivity and Collaboration

SaaS	Google Workspace		License Metric Per Year	Price (USD)	*Indicative Price (RM)
		Business Starter with 30GB/user Drive Storage	Per User	$78.26	RM336.52
		Business Standard with 2TB/seat Drive Storage	Per User	$156.52	RM673.04
		Business Plus with 5TB/seat Drive Storage	Per User	$234.78	RM1,009.57
		Enterprise Essential with 1TB/user Drive Storage	Per User	$130.43	RM560.87
		Enterprise Standard with as much as you need storage	Per User	$260.87	RM1,121.74
		Enterprise Plus with as much as you need storage	Per User	$391.30	RM1,682.61
		Frontline with 2GB Drive Storage	Per User	$65.22	RM280.43
		Vault	Per User	$54.78	RM235.57
		Cloud Identity Premium	Per User	$78.26	RM336.52
		Archive User Business	Per User	$52.17	RM224.35
		Archive User Enterprise	Per User	$91.30	RM392.61
		Cloud Search E01		$26,086.96	RM112,173.91
		Cloud Search E02		$32,608.70	RM140,217.39
		Cloud Search E03		$39,130.43	RM168,260.87
		Cloud Search E04		$65,217.39	RM280,434.78
		Cloud Search E05		$84,782.61	RM364,565.22
		Cloud Search E06		$104,347.83	RM448,695.65
		Cloud Search E07		$169,565.22	RM729,130.43
		Cloud Search E08		$247,826.09	RM1,065,652.17
		Cloud Search E09		$326,086.96	RM1,402,173.91
		Cloud Search E10		$782,608.70	RM3,365,217.39
		Cloud Search E11		$1,369,565.22	RM5,889,130.43
		Cloud Search E12		$1,956,521.74	RM8,413,043.48
		Cloud Search E13		$4,565,217.39	RM19,630,434.78
		Cloud Search E14		$8,152,173.91	RM35,054,347.83
		Cloud Search E15		$11,739,130.43	RM50,478,260.87
	AppSheet		**Per Month**	**Price (USD)**	***Indicative Price (RM)**
		AppSheet Core	Per Named User	$10.87	RM46.74
		AppSheet Enterprise Standard	Per Named User	$21.74	RM93.48
			Per External User	$4.35	RM18.70
		AppSheet Enterprise Plus	Per Named User	$38.04	RM163.59
			Per External User	$7.61	RM32.72
		*A named user is a member of the customer's organization (i.e. the same email domain or an email domain that is managed by the customer)			

Security

SaaS	Chronicle-xxT		License Metric Per Year	Price (USD)	*Indicative Price (RM)
		Correlated enterprise & external telemetry for instant context, hunting, and detection. Includes: ● Subscription & License Fees ● No. of Employees - xxx & data ingested is up to xxxx GB/day or xxx TB/year ● Technical Support ● Cloud Infrastructure ● Training & Documentation ● Customer Success Manager (virtual support during the duration of service) ● Unlimited Ingest of Supported Security Telemetry ● 12 Months of Hot/Searchable Retention	- by Employee OR - by TB for total of log security telemetry ingested in 1 year	$49.00 per employee OR: $1,522 per TB	RM210.70 per employee OR: RM6,544.60 per TB
	VirusTotal Bundles	Type	**Per Year**	**Price (USD)**	***Indicative Price (RM)**
		Basic		$22,382.61	RM96,245.22
		Professional		$89,530.43	RM384,980.87
		Enterprise		$205,919.57	RM885,454.13
		DUET		$353,260.87	RM1,519,021.74

Nota:-

*Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)

*Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa

*Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - SaaS for Education

SaaS	Productivity and Collaboration			License Metric Per Year	Price (USD)	*Indicative Price (RM)
	Google Workspace		Education Fundamentals with 100TB shared pool cloud storage	licensed by total student count	$0.00	0.00
			Education Standard with 100TB shared pool cloud storage	licensed by total student count, min 50 seats	$3.26	$14.02
			Teaching and Learning Upgrade with additional 100GB/license (shared pool)	licensed by teacher, no min	$52.17	$224.35
			Education Plus with additional 20GB/license (shared pool)	licensed by total student count, min 50 seats	$5.43	$23.37

Nota:-

*Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)

*Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa

*Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - Perkhidmatan Professional

Package	Description	Deliverables	Price (USD)	*Indicative Price (RM)
Cloud Start - Infra | DA	GCP Exploration	1) Design and architecture white board recommendations 2) Executive Cloud Start report with insights and recommended next steps	$16,304	RM70,109
Cloud Sprint - Infra	Migrate first application	1) Foundational infrastructure in GCP 2) Migrated application running in GCP, time-permitting 3) Summary of key GCP infrastructure considerations 4) Summary of next steps	$81,522	RM350,543
Cloud Plan and Foundations - Infra	Technical architecture design	1) Technical Design Document 2) First Movers Assessment 3) Application Migration Plan Training Plan	$78,261	RM336,522
Cloud Plan - DA	Technical architecture design	1) Project Implementation Plan and Timeline 2) Training Plan 3) Technical Design Document	$78,261	RM336,522
Cloud Plan - App Dev	Technical architecture design	1) Application Design Document 2) Architectural Runway Document 3) Application Lifecycle Document	$78,261	RM336,522
Cloud Deploy - Infra | DA | App Dev | ML monthly	Project-based deployment advisory	1) Program Charter 2) Progress reports at the beginning, middle, and end of the engagement	$52,174	RM224,348
Cloud Deploy - Infra | DA | App Dev | ML weekly	Weekly version of Cloud Deploy	1) Program Charter 2) Progress reports at the beginning, middle, and end of the engagement	$13,043	RM56,087
Google Workspace Change Management Advisory	Weekly advisory support	1) Change Plan, including 2) User group and impact analysis 3) Change management metrics 4) Sponsorship and engagement planning 5) Messaging and communications strategy 6) Training plan	$16,304	RM70,109

Nota:-

Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)
Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa
Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - Latihan

Product	SKU Code	SKU Description	Unit List Price (USD)	*Unit List Indicative Price (RM)	SKU Quantity	Notes
Instructor Led Training	CP-PROF-SVC-TRAIN	Instructor Led Training Max 16 Students	$5,543	RM23,836.96	Per Day	Min 3+ days.
On Demand Training	CP-PROF-SVC-OLT	Subscription to on-demand, online training (Coursera OR Pluralsight - includes a Qwiklabs subscription)	$489	RM2,103.26	Per User	Min. 5 Learners
Qwiklabs Subscription	CP-PROF-SVC-OLL	Hands-on labs (annual subscription)	$321	RM1,378.80	Per User	Min. 5 Learners
Qwiklabs Credits	CP-PROF-SVC-LABS	Hands-on labs (pricing based on min. 2,500 credits)	$2,717	RM11,684.78	Per Credit	Min. 2500 credits
Advanced Solutions Lab	ASL-PROF-SVC-PHASE1	1-month deep training at Google	On request	On request	Per Cohort	Max. 5 Learners
Certification - Associate	CP-CERT-ASC	Associate level certification exam	$82	RM350.54	Per exam voucher	Min. 5 Vouchers
Certification - Professional	CP-CERT-PRO	Professional level certification exam	$130	RM560.87	Per exam voucher	Min. 5 Vouchers

Nota:-

*Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)
*Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa
*Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - Google Premium Support

Product	Description	Deliverables	Price (USD)	*Indicative Price (RM)
Google Premium Support	Google Cloud Platform	15 mins, P1 response SLO, unlimited Contacts, Dedicated Technical Account Management, Context-aware expertise, Recommenders, 3rd party technology Support, Programmatic case mgmt (API), Operational health reviews, Managed event service, Training, New product previews	$163,043 per year + 4% of Net spend	RM701,086.96
Google Premium Support	Google Workspace	15 mins, P1 response SLO, unlimited Contacts, Dedicated Technical Account Management, Context-aware expertise, Recommenders, 3rd party technology Support, Programmatic case mgmt (API), Operational health reviews, Managed event service, Training, New product previews		

Nota:-

*Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)
*Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa
*Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

Lampiran C : Katalog Perkhidmatan GCP - Non-GCP

PaaS	Firebase			
	Products	**FreeSpark Plan**	**Pay as you goBlaze Plan**	***Pay as you go**
	A/B Testing	Free		Free
	Analytics	Free		Free
	App Distribution	Free		Free
	App Indexing	Free		Free
	Authentication	10k/month	$0.011/verification	RM0.047/verification
	Cloud Firestore	1 GiB total	$0.20/GiB	RM0.86/GiB
	Cloud Functions	Not available	Free up to 2M/month Then $0.43/million	Free up to 2M/month Then RM1.85/million
	Cloud Messaging (FCM)	Free		Free
	Crashlytics	Free		Free
	Dynamic Links	Free		Free
	Hosting	10 GB	$0.028/GB	RM0.120/GB
	In-App Messaging	Free		Free
	Firebase ML	Included Not available	includedSee cloud Vision pricing	included
	Performance Monitoring	Free		Free
	Predictions	Free		Free
	Realtime Database	100	200k/database	200k/database
	Remote Config	Free		Free
	Cloud Storage	5 GB	$0.028/GB	RM0.120/GB
	Test Lab	10 tests/day	Free up to 60 min/day Then $1.1/device/hour	Free up to 60 min/day Then RM4.7/device/hour
	Google Cloud	Available	AvailableAvailable	Available

Hardware	Chrome		License Metric
		1. Hardware	Per Device
		Enterprise	
		Acer Chromebook13 - $722	
		Acer Chromebook Spin 13 CP713-1WN-55YH	
		Education	
		Acer Chromebook 13 CB713-1W-52KM (Teacher)	
		Chromebook 311 C733-C8F7 (Student)	
		2. Management License (non-transferable	Perpetual per device
		Enterprise	
		Education	
		*Further discounting available for known quantities	

Nota:-

Harga di dalam RM adalah harga indikatif dan untuk tujuan rujukan sahaja berdasarkan kadar pertukaran wang asing pada 13.08.2021 (Ia akan tertakluk kepada sebarang perubahan berdasarkan kadar pertukaran wang asing semasa pada masa pesanan dibuat)

Harga yang dinyatakan tidak termasuk SST 6% dan apa-apa cukai lain yang dikenakan oleh pihak berkuasa

Harga indikatif ini hanya terpakai untuk pembelian terus oleh agensi Kerajaan daripada Awantec

LAMPIRAN C

Katalog Perkhidmatan Managed Service Provider

Awantec Systems Sdn Bhd

MSP Offerings Overview

1 CUSTOMER SUCCESS ADVISORY

Support customers who need technical advice on Cloud Technologies

2 ADOPTION AND CHANGE MANAGEMENT

To drive Cloud adoption and to ensure smooth transition to cloud. Change Management to control the lifecycle and enables changes.

3 SOFTWARE LIFECYCLE MANAGEMENT

Comprehensive software lifecycle management to manage end to end software procurement.

4 CONTACT CENTRE AND SUPPORT

Provide a comprehensive contact center and support to ensure smooth Cloud business operation.

5 PROFESSIONAL SERVICES

Provide Professional Service to agency that requires assistance on cloud strategy, migration, implementation and support.

6 TRAINING AND COMPETENCY DEVELOPMENT

Provide training for services offered by the CSP. Competency Development focuses on how to develop employee skills and competencies

7 CLOUD MANAGEMENT PLATFORM (CMP)

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Cloud Computing Services

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Cloud computing services are attractive because they enable businesses to transfer the responsibility of running on-premises hardware and software to a specialist provider, who manage the hassles and costs that otherwise burden IT departments, such as software upgrades and hardware maintenance.

1 **Cloud Assessment and Strategy**

Position a methodology that provides you with a comprehensive pathway to cloud migration.

2 **Cloud Migration**

Holistic end-to-end migration program to help customers simplify and accelerate their path to success.

3 **Cloud Integration**

Enable hyper-active delivery and integration of various automation tools with reduced human touch support, security, required upgrades, and migration.

4 **Cloud Managed Services**

Reduce costs, increase efficiency and provide total peace of mind with Managed IT Services.

5 **Cloud Optimizations**

Enables you to take control of cost and continuously optimize your spend, while building modern, scalable applications to meet your needs.

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Awantec Service Catalogue							
Public Sector High Level Offerings							
Apigee - Connected Experiences via API Management platform	High Performance Computing with Scalable VMs	Anthos: Hybrid/Multi-cloud Application Platform for enabling customer's operation in both on-prem and cloud environment	Hybrid AI environment - Auto meeting recording in both on-prem and cloud environment	Chatbot - Auto Ordering System	Moonwalk - Data Crawler	Demand Forecasting via graph embedding and recurrent neural network (LSTM) models	Receipt recognition with high accuracy and multiple format - famous food ordering platform
Cloud Operations with Security Command Center - increased cloud security	DevOps - CI/CD pipeline assessment, recommendation and implementation	OCR with high accuracy for internal Letter of Credit	Cloud Architecture design and implementation for legacy infrastructure	Chatbot-Information Kiosk	Recommendation Engine based on customer's behavior and patterns	IDC migration to cloud operation on legacy OS	Content Storage and Delivery with quick ticketing response - Airline ticketing system
Machine Learning and Pattern Recognition on Textile company	Creation of New Business Channels using APIs			High performance media service platform	Data Warehouse Modernization	Google Maps optimization - certified Maps partner	High performance fintech platform via expertise on GKE
				Marketing Analytics			
Work Optimization (Google Workspace)							

Offerings based on Solutions

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Infrastructure Modernization		Application Modernization	Data Management	Smart Analytics & AI		Productivity & Collaboration
Backup & Restore	Marketing Technology	Anthos: Hybrid/Multi-cloud Application Platform	Database Migration	AI Tools for Builders	Data Lake	Work Transformation
Cloud Operations	Microsoft Windows App & OS Migration	Apigee: Connected Experiences using APIs	Database Modernization	Asset Tracking	Data Warehouse Migration	Modern End User Computing
Content Storage & Delivery	PaaS Platform Migration	DevOps		Business Process Optimization	Data Warehouse Modernization	Google Workspace for Education
Data Archival	Parallel Computation	Event-Driven Architectures		Customer Analytics	Marketing Analytics	Device Management
Disaster Recovery	SAP	Modernization of eCommerce Applications		Customer Experience through AI	Processing Logs at Scale	
File Store Migration	VDI Migration	New Business Channels using APIs		Data Analytics	Streaming Data Analytics	
High Performance Computing	VM Migration	Serverless		Chatbot		

Professional Services – Mandays Pricing

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Designation	Price (RM) / mandays
Senior Cloud Architect	3,400
Cloud Architect	3,300
Cloud Engineer / Security Engineer	2,500
Data Analyst	2,850
Data Engineer	3,200
Project Manager	2,850
Google Workspace Customer Engineer	2,500
Google Cloud Professional Training and Enablement (PSO Trainer)	6,950

* The man days rates are indicative and for reference purposes only. There may be instances where more than one expertise is utilized within a certain time frame.
* The final man days rates will be subject to the actual scope of work of the project.
* Price indicated is not inclusive of 6% SST and any other applicable taxes imposed by the authorities.

Support Package

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Support Plan

	Essential	Business	Enterprise	Premier
Price	RM 470 / month	RM 2,800 / month	RM 23,350 / month	RM 21,000 / month + 4% GCP consumption
Provided Service	Unlimited tickets	Unlimited tickets Annually Business Review	Unlimited tickets Bi-Annually Business Review	Unlimited tickets Bi-Annually Business Review
SLA*	P2 < 12 hrs (5x8) P3 < 24 hrs (5x8) P4 < 24 hrs (5x8)	P2 < 4 hrs (5x8) P3 < 4 hrs (5x8) P4 < 8 hrs (5x8)	P1 < 1 hr (7x24) P2 < 12 hrs (5x8) P3 < 24 hrs (5x8) P4 < 24 hrs (5x8)	P1 < 1 hr (7x24) P2 < 12 hrs (5x8) P3 < 24 hrs (5x8) P4 < 24 hrs (5x8)

Remarks
P1 Critical Impact: Service Unusable in Production
P2 High Impact: Service Use Severely Impaired but is available now in Production
P3 Medium Impact: Service Use Partially Impaired in Testing and Development environment.
P4 Low Impact: Service Fully Usable but require some consultation or advises.

The scope of SLA under GCP only covers infrastructure on GCP and applications developed/deployed on cloud by Awantec.

Support Hours: 9-00 am - 6-00pm

Assumption on Support Package

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- Awantec reserves the right to amend the quotation at any time. Changes to the quotation are not effective unless mutually agreed by parties (which agreement shall not be unreasonably withheld).
- In the event, the Customer wishes to change the service plan during the term of the Cloud Service Agreement, both parties agree that the change of the service fee shall be only effected in the following month, and that the initial service fee shall prevail in the month of the change. Your Service plan can be scaled up and down at any time for an unlimited number of times in the same month, but if the service plan has been upgraded in the same month, the service plan fee can only be downgraded in the following month.
- The detailed terms and conditions are subject to the Cloud Service Agreement entered by and between Awantec and the Client.
- The parties agree that at the expiry of the initial term or any subsequent renewed term, the terms and conditions set forth in this quotation shall be renewed for a further term of 12 months on the same terms and conditions as contained in this Quotation, unless written notice is given by one party to the other parties of its intention not to renew the Quotation at least 30 days before the expiry of the initial term or any subsequent renewed term.
- The price of this product is based on Google's official price (https://cloud.google.com/pricing/). Both parties agree that in the event Google's official price changes, the price of this product will change accordingly.
- The service level of the product and the service content is based on Google's official instructions (https://cloud.google.com/terms/sla/; https://cloud.google.com/terms). Both parties agree that in the event Google changes the service level or service content; the service level and the service content of the product will also change accordingly.

Introduction of Change Management

Change management is a **systematic approach to enable stakeholders to transition from their current state to a desired future state**, with specific focus on encouraging the needed changes in behavior and mind-set.

It is the **capability and set of interventions** that deliver the people side of a change effort. Successful change management not only targets leaders but also **engages people across the organization**, while adjusting key enabling processes.

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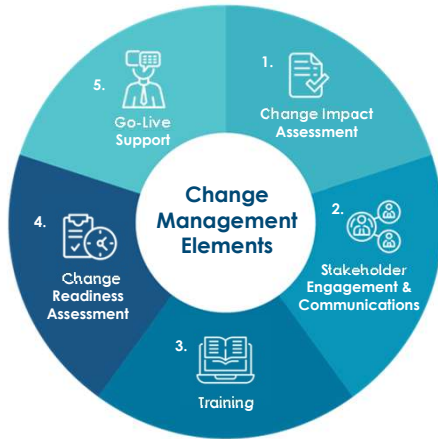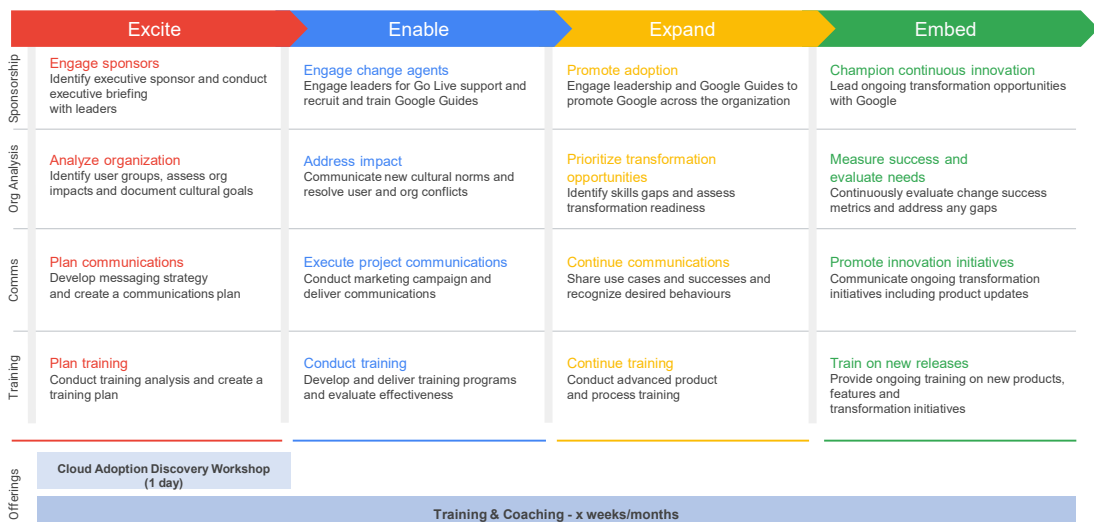
Change Management Framework

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Change Impact Assessment	**Identification of the changes impacted**
	Identification of what and who are impacted
	Produce the key messages in respective modules
Stakeholder Engagement & Communication	**Analyse stakeholders based on influence, importance and impact**
	Develop communication and engagement plan to respective stakeholders
Training	**Training Need Analysis**
	Training execution and evaluation
Change Readiness Assessment	**Develop the evaluation on the people, process and technology readiness**
Go- Live Support	**Develop the strategy on Go-Live preparation and support**
	Establish the Governance structure and chain of command during Go-Live Period

Change Management Journey

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	Excite	Enable	Expand	Embed
Sponsorship	**Engage sponsors** Identify executive sponsor and conduct executive briefing with leaders	**Engage change agents** Engage leaders for Go Live support and recruit and train Google Guides	**Promote adoption** Engage leadership and Google Guides to promote Google across the organization	**Champion continuous innovation** Lead ongoing transformation opportunities with Google
Org Analysis	**Analyze organization** Identify user groups, assess org impacts and document cultural goals	**Address impact** Communicate new cultural norms and resolve user and org conflicts	**Prioritize transformation opportunities** Identify skills gaps and assess transformation readiness	**Measure success and evaluate needs** Continuously evaluate change success metrics and address any gaps
Comms	**Plan communications** Develop messaging strategy and create a communications plan	**Execute project communications** Conduct marketing campaign and deliver communications	**Continue communications** Share use cases and successes and recognize desired behaviours	**Promote innovation initiatives** Communicate ongoing transformation initiatives including product updates
Training	**Plan training** Conduct training analysis and create a training plan	**Conduct training** Develop and deliver training programs and evaluate effectiveness	**Continue training** Conduct advanced product and process training	**Train on new releases** Provide ongoing training on new products, features and transformation initiatives
Offerings	**Cloud Adoption Discovery Workshop (1 day)**			
	Training & Coaching - x weeks/months			

Cloud Adoption Discovery Workshop

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Objective

- Review and confirm organization analysis
- Review recommendations for engagement, communications, training and measurement
- Decide on next steps

Audience

- Project sponsor
- Project manager
- Technical lead
- Deployment team
- Representative from HR, Learning and Development, Marketing, Communications and other highly impacted user groups

Deliverables

- Documented decisions for change management plan
- Identified change management resources and support

Note: Cloud Adoption Discover Workshop available upon request and qualification

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Custom Offerings - Training & Coaching

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BASIC

Basic Engagement
- Understanding of organization
- Study on the "as-is" and "to-be" scenario
- Identifying the changes and impacted stakeholders
- Communication proposition
- Conduct basic Change Management courses

INTERMEDIATE

Change Management Training
- Change Management principles
- Change Management impact analysis
- Change Management tools

ADVANCE

On the Job Coaching
- On the job training and mentoring
- Change Management success measurement
- Job realignment
- Benefit Realisation
- Transfer of knowledge
- Project based engagement

Training

Project Based Engagement	Beginner	Change Ambassador	Top Management	Staff

*Our Deliverables:
- Change impact report
- Stakeholder analysis and communication
- Training need analysis report
- Training strategy plan
- Change readiness assessment report

- Change acceptance study
- Go Live support report
- Job realignment strategy
- Benefit realisation report

Note: *subject to the package selected

MSP Change Management Pricing Structure

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Roles	Years of Experience (Year)	Man-days Rate (Per Man Day - RM)
Director	> 20	6000
Senior Manager	13 - 20	4800
Manager	7 to 12	3600
Consultant	4 to 7	2300
Senior Executive	4 to 7	1800
Executive	1 to 3	1000

Note:
1. *The man day rates indicated here is our list price for reference purposes. There may be instances where more than one expertise is utilized within a certain time frame.*
2. *The final man days rates are based on the project and scope of work of the project.*
3. *Price indicated is not inclusive of 6% SST and any other applicable taxes imposed by the authorities*

Complimentary Program: RAPID START PROGRAM

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Objective: To drive customer interest and subscribe to GCP/GWS services

Target customer: Federal Gov, State Gov, Institute of Higher Learning who are interested to move to cloud

Cloud Planning Session
- Google Cloud Fundamentals - Core Infra Workshop (1 day)
- Discovery & Planning session

Google Rapid Start
- Cloud Maturity Assessment (1 day)
- Rapid Assessment & Migration Program - (estimated 2 weeks)

Free Google credits
- Company
  - GCP Credits for 90 days
  - GCP Guided Trials
  - GWS Free Trials
- Individual (CC required)
  - GCP trial credits worth $300
  - 1-Month GWS Free Trial

Note: Rapid Start Program is available upon request and qualification

Bersama menjayakan aspirasi Pengkomputeran Awan Kerajaan

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