

TECHNICAL PROPOSAL

PT. Modern Data Solusi



PT Central Data Technology

2024

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1. EXECUTIVE SUMMARY

Organizations of all types, sizes, and industries use the cloud for a variety of uses, such as data backup, disaster recovery, email, virtual desktops, software development and testing, big data analytics, and customer-facing web applications. Cloud computing provides many benefits to its user such as agility, elasticity, cost efficiency, and easily deploy infrastructure globally in minutes. No wonder if Cloud computing is very popular and a necessity that is quite important for almost all industries which help drives customer innovation.

Amazon Web Services (AWS) is one of the most comprehensive and broad-reaching cloud platforms, which offers more than 200 services that used by more than 1 million active users spread across more than 240 countries and regions. As the leader of Magic Quadrant for Cloud Infrastructure and Platform Services worldwide for 12 consecutive years, AWS is the right choice of cloud platform for your needs. PT Central Data Technology as Authorized Advanced Consulting Partner AWS have gathered deep experiences with clients from variety of industries, with the workload vary from small-medium workload until whole environment workload. At the 2022 ASEAN Partner Awards ceremony in Singapore, PT Central data Technology win the award for Partner of the Year – Indonesia for significantly growing its customer base, delivering exceptional cloud transformation projects for Indonesian customers. Aside from offering IaaS, PaaS, SaaS AWS Solution, CDT also offers local billing services, provisioning or implementation, and managed services in preventive and corrective maintenance.

2. ABOUT PT CENTRAL DATA TECHNOLOGY

PT Central Data Technology (CDT) is a value-added distributor that focuses on meeting business' IT needs in today's competitive market. As part of CTI Group, CDT has collaborated with more than 170 customers from all industries. From its wide portfolios and years of professional experiences, CDT is known as leading IT infrastructure solution, enterprise solution, network & security as well as cloud solution partner in Indonesia that is capable in delivering the best IT solutions that exceed customer's expectation.

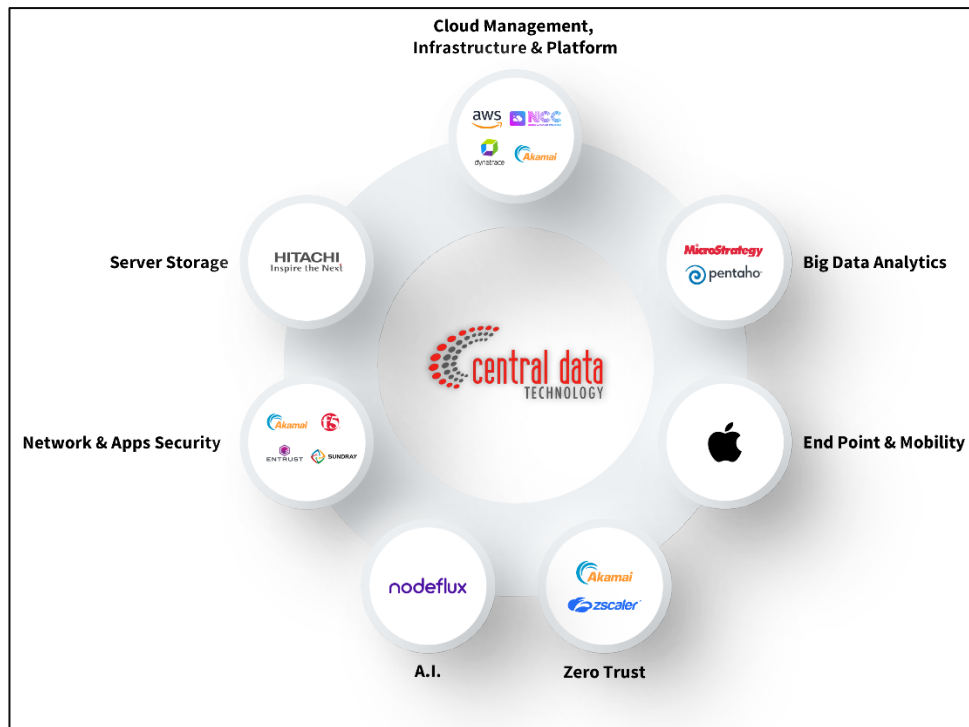


Figure 1 Product Solution

PT Central Data Technology is an AWS Partner in Indonesia since 2018 and currently we are AWS Advanced Consulting Partner, and an AWS Solution Provider since 2019 that have gathered deep experiences with clients from variety of industries such as manufacturing, construction, retail, E-commerce, hospitality, furniture, and many more with the workload vary from small-medium workload such as WebApp, App Server, DB App, Analytics, Data Recovery until whole environment workload such as test, development, and production as well as ERP Production such as SAP and Odoo. Aside from offering IaaS, PaaS, SaaS AWS Solution, CDT also offers manage services in preventive and corrective maintenance.



Figure 2 Partnership Badges

PT Central Data Technology (CDT) has partnered with AWS since 2018 and has been acknowledged as AWS APN Advanced Partner as well as APN Advanced Consulting Partner with all the sales and technical team are AWS Certified.

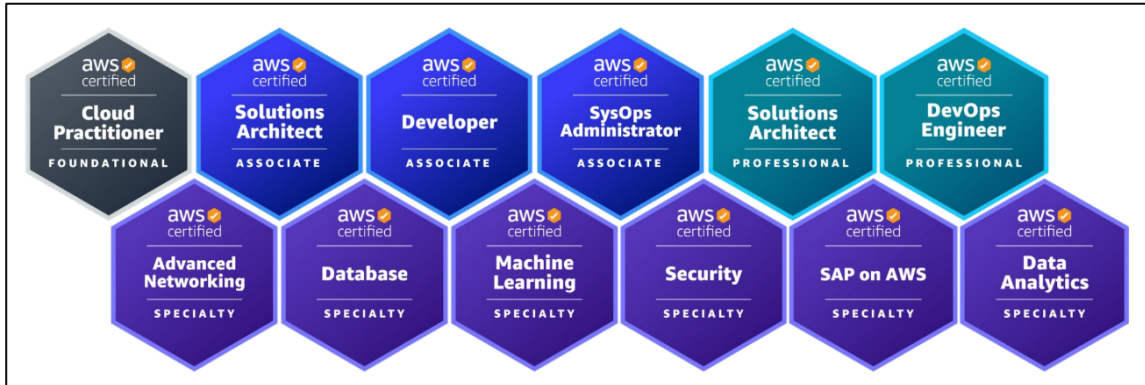


Figure 3 Certification Badges

At the 2022 ASEAN Partner Awards ceremony in Singapore, PT Central data Technology win the award for Partner of the Year – Indonesia for significantly growing its customer base, delivering exceptional cloud transformation projects for Indonesian customers.



Figure 4 Partner of the Year Trophy

3. CDT PORTOPOLIO & CUSTOMER REFERENCES

Table 1 CDT Portfolio & Customer References

| No | Customer | | Migration Workload | Complexity of Workload | Role |
|----|---|---|---|---|--|
| | Name/Description | Industry | | | |
| 1 | Rumah Sakit Lira Medika Reference link: https://aws.amazon.com/id/solutions/case-studies/lira-medika/ | Hospital | Healthcare Apps (In-house), DB Migration | BPJS Apps, Employee Apps, and Internal Apps with high availability requirement for their databases | <ul style="list-style-type: none"> • Infra migration • DB Migration • Local Support • Billing Partner |
| 2 | A multi-national hospital group based in Indonesia and Malaysia | Hospital | HealthCare Systems by vendor, PACS | The first Trak Care workload in Indonesia that run on AWS Cloud | <ul style="list-style-type: none"> • Infra migration • Local Support • Billing Partner |
| 3 | One of the largest pharmaceutical companies in Indonesia with more than 40 subsidiaries | Pharmaceutical, Healthcare, and Nutrition Company | Oracle EBS, Apps & DB Migration | High requirement for their Oracle EBS that are required to comply to specific OS Oracle Linux requirement and other required requirement needed | <ul style="list-style-type: none"> • Consultation • Provisioning • Set up • Billing Partner |
| 4 | One of largest South Korea Bank in Indonesia supported by IFC | Banking | IT Asset Management & Web Applications | Web Apps with high availability requirement and can be integrated with Active Directory | <ul style="list-style-type: none"> • Consultation • Provisioning • Set up • Web App Migration • Billing Partner |
| 5 | Vivere Group References link: https://aws.amazon.com/id/solutions/case-studies/vivere/ | Manufacturing | SAP, App Non-SAP, DB (Oracle, MySQL, PostGre) | <ul style="list-style-type: none"> • SAP Workload: Acceptance downtime is only 2x and for 1-hours only. AWS & CDT was | <ul style="list-style-type: none"> • Infra migration • Provisioning • Local Support • Billing partner |

| No | Customer | | Migration Workload | Complexity of Workload | Role |
|----|---|---------------|------------------------|--|---|
| | Name/Description | Industry | | | |
| | | | | <p>successfully fulfilling this requirement</p> <ul style="list-style-type: none"> App&DB: Oracle server that were end of support (10G), so that CDT was successfully migrated and upgraded the version to 11G Required to change the backup process from tape backup to automated backup solution that are available on AWS (EBS Snapshot, AWS Back Up) | <ul style="list-style-type: none"> Infra Migration & Creation |
| 6 | A company that produces products in plastics industry and other industries that use plastic and fiberglass as their main materials. | Manufacturing | Dynamix AX | Licensing requirement and migrate to dedicated host, and active directory migration | <ul style="list-style-type: none"> Infra provisioning OS level migration |
| 7 | One of the largest rubber latex production companies in Indonesia and owns rubber plantations | Manufacturing | SAP, Disaster Recovery | SAP Migration and Disaster Recovery Plan using AWS Cloud Endure Disaster Recovery | <ul style="list-style-type: none"> Infra migration Provisioning Set up Consultation |

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|  central data TECHNOLOGY <small>a member of CTI Group</small> | <h1>Technical Proposal</h1> |  |
|---|-----------------------------|---|

| No | Customer | | Migration Workload | Complexity of Workload | Role |
|----|--|-----------------------|--|---|--|
| | Name/Description | Industry | | | |
| | | | | that are requirement specific version to successfully migrated to AWS with minimal downtime | <ul style="list-style-type: none"> Billing Partner |
| 8 | One of Sharia-based Securities Crowdfunding organizer in Indonesia | FinTech | Crowdfunding app & Master-slave Database replication | Crowdfunding app & Database require flexibility, cost efficient and high SLA | <ul style="list-style-type: none"> Consultation Infra Migration Provisioning Set Up Billing Partner |
| 9 | Automotive company that imports new and used cars all over in Indonesia | Retail & Distribution | Odoo | Refactoring application with cloud native adaption (auto scale and managed services) | <ul style="list-style-type: none"> Consultation DB Migration Cost optimization review TCO Calculation |
| 10 | The fastest growing coal mining company in Indonesia and has many subsidiaries | Mining & Distribution | Web Apps | Core application that is used by mining field workers that has a large size (14TB) | <ul style="list-style-type: none"> Apps Migration DB Migration OS Migration Consultation |
| 11 | BNI Multifinance | Banking | Migrate Core Application on AWS | Implementation of new core systems | <ul style="list-style-type: none"> Infrastructure Migration Local Billing Maintenance Support Consultation |

4. AMAZON WEB SERVICES (AWS)

4.1. About AWS

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform that offering over 200+ fully features services from data centers globally that has the most extensive global cloud infrastructure. That offers as many Regions as possible with multiple Availability Zones connected by low latency, high throughput, and high redundant networking.



Figure 5 Gartner Magic Quadrant for Cloud Infrastructure and Platform Services

Gartner Research positions AWS in the Leaders Quadrant of the new Magic Quadrant for Cloud Infrastructure as a Services (IaaS) Worldwide that define as a standardized, highly automated offering, where compute resources, complemented by storage and networking capabilities, are owned by a service provider, and offered to the customer on demand.

4.2. AWS Global Infrastructure

AWS Cloud menjangkau 102 Availability Zones dalam 32 wilayah geografis di seluruh dunia, dengan rencana yang telah diumumkan untuk 12 Availability Zones lainnya dan 4 Wilayah AWS lainnya di Kanada, Malaysia, Selandia Baru, dan Thailand.



Figure 6 AWS Global Cloud Infrastructure

The AWS Global Cloud Infrastructure is the most secure, extensive, and reliable cloud platform, offering over 200 fully featured services from data centers globally. Whether you need to deploy your application workloads across the globe in a single click, or you want to build and deploy specific applications closer to your end-users with single-digit millisecond latency, AWS provides you the cloud infrastructure where and when you need it.

Regions

AWS Regions are physical locations around the world where data centers are clustered, with each group of data centers called an Availability Zone. Unlike other cloud providers, AWS Regions consist of a minimum of three, physically separate and isolated AZs in a geographic area, offering advantages for customers. Each AZ has independent power, cooling, and physical security and is connected via redundant, ultra-low-latency networks. AWS has a more extensive global footprint than any other cloud provider and maintains multiple geographic Regions worldwide. Customers focused on high availability can design their applications to run in multiple AZs to achieve even greater fault-tolerance. AWS infrastructure Regions meet the highest levels of security, compliance, and data protection.

Availability Zones

An Availability Zone (AZ) in an AWS Region is a discrete data center or group of data centers with redundant power, networking, and connectivity. AZs provide customers with the ability to operate highly available, fault-tolerant, and scalable production applications and databases. All AZs in an AWS Region are interconnected with high-bandwidth, low-latency networking, over fully redundant, dedicated metro fiber, and all traffic between them is encrypted. AZs are physically separated by a meaningful distance, many kilometers, from any other AZ, making partitioning applications for high availability easy and protecting companies from issues such as power outages, lightning strikes, tornadoes, and earthquakes.

4.3. AWS Service Level Agreement

4.3.1. EC2 SLA

Instance-Level SLA

For each individual Amazon EC2 instance (Single EC2 Instance), AWS will use commercially reasonable efforts to make the Single EC2 Instance available with an Instance-Level Uptime Percentage of at least 99.5%, in each case during any monthly billing cycle the Instance-Level SLA. In the event any Single EC2 Instance does not meet the Instance-Level SLA, you will be eligible to receive a Service Credit as described below.

| Instance-Level Uptime Percentage | Service Credit Percentage |
|--|---------------------------|
| Less than 99.5% but equal to or greater than 99.0% | 10% |
| Less than 99.0% but equal to or greater than 95.0% | 30% |
| Less than 95.0% | 100% |

Figure 7 EC2 Service Level Agreement

4.3.2. EBS SLA

Volume-Level SLA

For each Amazon EBS volume (Single EBS Volume), AWS will use commercially reasonable efforts to make the Single EBS Volume available with a Volume-Level Uptime Percentage as shown in the table below during any monthly billing cycle the Volume-Level SLA.

| Volume-Level Uptime Percentage | Service Credit Percentage |
|--|---------------------------|
| Less than 99.9% but equal to or greater than 99.0% | 10% |
| Less than 99.0% but equal to or greater than 95.0% | 30% |
| Less than 95.0% | 100% |

Figure 8 EBS Service Level Agreement

4.3.3. ELB SLA

AWS makes two SLA commitments for Elastic Load Balancing: (1) a Multi-AZ Load Balancer SLA that governs each Load Balancer deployed across multiple AZs; and (2) a Single Load Balancer SLA that governs each Load Balancer or GWLB deployment individually.

Multi-AZ Elastic Load Balancer SLA

When a Load Balancer is deployed concurrently across two or more AZs ("Multi-AZ Load Balancer"), AWS will use commercially reasonable efforts to make each Multi-AZ Load Balancer available with a Monthly Uptime Percentage as shown in the table below during any monthly billing cycle (the "Multi-AZ Load Balancer SLA").

| Monthly Uptime Percentage | Service Credit Percentage |
|---|---------------------------|
| Less than 99.99% but greater than or equal to 99.0% | 10% |
| Less than 99.0% but greater than or equal to 95.0% | 30% |
| Less than 95.0% | 100% |

Figure 9 ELB Multi-AZ Service Level Agreement

Single-Load Balancer SLA

When a Load Balancer or GWLB, as applicable, is deployed in only one AZ ("Single Load Balancer"), AWS will use commercially reasonable efforts to make the Single Load Balancer available with a Single Load Balancer Uptime Percentage as shown in the table below during any monthly billing cycle (the "Single Load Balancer SLA").

| Single Load Balancer Uptime Percentage | Service Credit Percentage |
|--|---------------------------|
| Less than 99.9% but greater than or equal to 99.0% | 10% |
| Less than 99.0% but greater than or equal to 95.0% | 30% |
| Less than 95.0% | 100% |

Figure 10 ELB Single-AZ Service Level Agreement

4.3.4. AWS Backup SLA

Service Commitment

AWS will use commercially reasonable efforts to make AWS Backup available with a Monthly Uptime Percentage, as described below, during any monthly billing cycle the Service Commitment. In the event

AWS Backup does not meet the Service Commitment, you will be eligible to receive a Service Credit as described below.

Service Credit

Service Credits are calculated as a percentage of the total charges paid by you for AWS Backup in the AWS region affected for the billing cycle in which the Monthly Uptime Percentage fell within the ranges set forth in the table below.

| Monthly Uptime Percentage | Service Credit Percentage |
|--|---------------------------|
| Less than 99.9% but greater than or equal to 99.0% | 10% |
| Less than 99.0% but greater than or equal to 95.0% | 25% |
| Less than 95.0% | 100% |

Figure 11 AWS Backup Service Level Agreement

4.4. AWS Regulation and Compliance

4.4.1. COMPLIANCE

Amazon Web Services (AWS) has obtained several certifications and compliance standards, including ISO 27001 and 9001, demonstrating its commitment to providing secure and reliable cloud computing services. These certifications confirm that AWS has implemented robust security and quality management systems to safeguard customer data and ensure the highest levels of service quality. More information about AWS compliance can be found on [this](#).

4.4.2. DATA DELETION

Amazon Web Services (AWS) has implemented strict controls and procedures for data deletion to ensure that customer data is securely deleted from its systems. AWS follows a multi-step process for data deletion that includes both automated and manual procedures. Before any data is deleted, AWS verifies that it is no longer needed for business or legal purposes and that the data has been properly backed up. AWS also performs secure data destruction procedures to ensure that the data cannot be recovered (NIST 800-88). More information about AWS data deletion can be found on [this](#).

4.5. SECURITY OF AWS

Security and Compliance is a shared responsibility between AWS and the customer. This shared model can help relieve the customer's operational burden as AWS operates, manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the service operates. The customer assumes responsibility and management of the guest operating system (including updates and security patches), other associated application software as well as the configuration of the AWS provided security group firewall. Customers should carefully consider the services they choose as their responsibilities vary depending on the services used, the integration of those services into their IT environment, and applicable laws and regulations. The nature of this shared responsibility also provides the flexibility and customer control that permits the deployment. As shown in the chart below, this differentiation of responsibility is commonly referred to as Security "of" the Cloud versus Security "in" the Cloud.

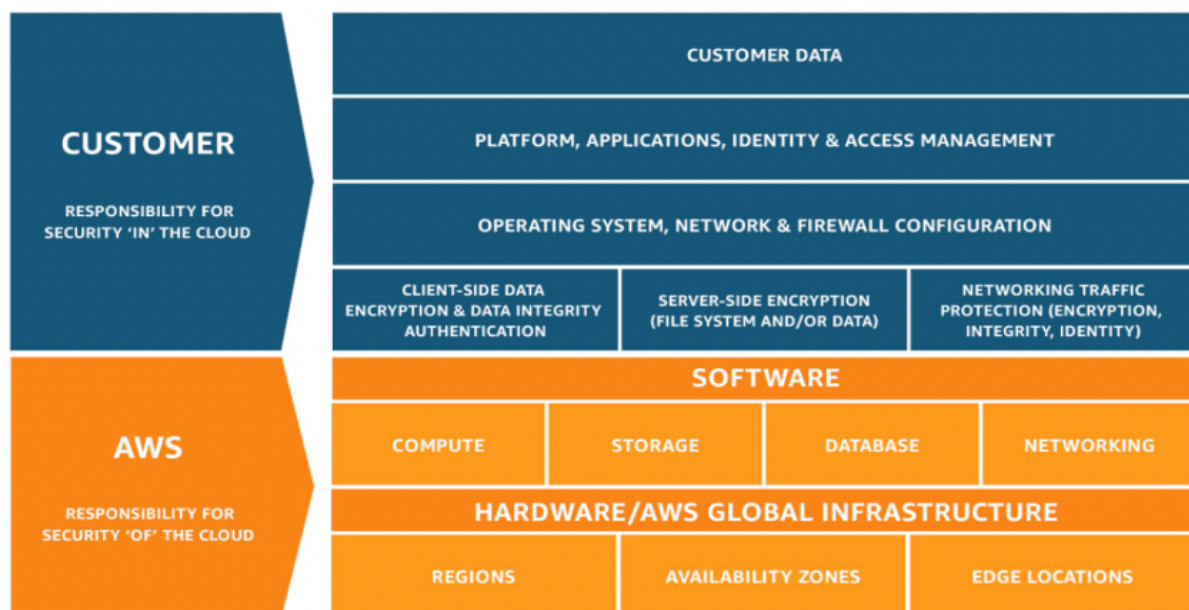


Figure 12 AWS Shared Responsibility Model

AWS responsibility (Security of the Cloud)

AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services.

Customer responsibility (Security in the Cloud)

Customer responsibility will be determined by the AWS Cloud services that a customer selects. This determines the amount of configuration work the customer must perform as part of their security responsibilities. For example, a service such as Amazon Elastic Compute Cloud (Amazon EC2) is categorized as Infrastructure as a Service (IaaS) and, as such, requires the customer to perform all of the necessary security configuration and management tasks. Customers that deploy an Amazon EC2 instance are responsible for management of the guest operating system (including updates and security patches), any application software or utilities installed by the customer on the instances, and the configuration of the AWS-provided firewall (called a security group) on each instance. For abstracted services, such as Amazon S3 and Amazon DynamoDB, AWS operates the infrastructure layer, the operating system, and platforms, and customers access the endpoints to store and retrieve data. Customers are responsible for managing their data (including encryption options), classifying their assets, and using IAM tools to apply the appropriate permissions.

5. PROJECT SUCCESS CRITERIA

Customer Project Success Criteria are listed below:

A. Successful AWS Environment Establishment:

- AWS environment is set up according to MDS's requirements and best practices.
- AWS resources are configured correctly.

B. Performance and Scalability:

- AWS infrastructure provides the expected performance levels for production workloads.
- Scalability features of AWS are utilized to handle varying workloads and transaction volumes effectively.

C. High Availability and Reliability:

- Backup strategies are in place to minimize downtime and data loss.

D. Security and Compliance:

- Compliance with industry standards and best practices for data security is maintained to protect customer's data and applications in the AWS environment.

E. Resource Optimization and Cost Management:

- AWS resources are optimized to avoid unnecessary costs while meeting performance requirements.

6. BUSINESS OBJECTIVES & REQUIREMENT

PT Modern Data Solusi (MDS) requires a Cloud Partner Solution for a cloud workload scalability project to deliver:

- A. Auto Scaling: Successfully auto-scale backend server workload to optimize availability, costs, or a balance of both and ensure minimal downtime and continuous monitoring of workload health and demand.
- B. Availability: Maintain MDS's Workload Availability to deliver continuous service.
- C. Billing currency: Leverage CDT as an Indonesian AWS Cloud Partner Solution to provide local (IDR) currency for MDS's AWS billing.

7. CUSTOMER INVENTORY

Here is the customer inventory based on the initial meeting information that we received:

Table 2 Production Inventory

| Resource Type | Quantity | Configuration Details | Billing Type | Description |
|-------------------|----------|---|--------------|---|
| IAM Policies | 2 | AmazonEC2RoleforSSM, AmazonSSMManagedInstanceCore | N/A | IAM policies for SSM and EC2 roles |
| RDS Instance | 1 | PostgreSQL, 200 GB storage, Encrypted, db.t4g.medium (Expandable) | Pay-Per-Use | RDS instance with specified configuration |
| EFS File System | 1 | Encrypted, General Purpose performance mode | Pay-Per-Use | EFS file system with specified configuration |
| EC2 Instances | 3 | Type: m6i.2xlarge, with associated EBS and Security Groups (200GB Storage + 100 GB Storage) | Pay-Per-Use | EC2 instances with specified configuration |
| Load Balancers | 2 | 1 Application Load Balancer (Internal), 1 Network Load Balancer (External) | Pay-Per-Use | Internal and external load balancers with specified configuration |
| IAM Roles | 2 | Web Servers Role, RDS Enhanced Monitoring Role | N/A | IAM roles with attached policies |
| Networking | | | | |
| VPC | 1 | CIDR: 10.0.0.0/16 | Pre-paid | Virtual private cloud |
| Subnets (Private) | 3 | Various within VPC CIDR | Pre-paid | Private subnets for resources without internet access |

| | | |
|---|---------------------------|---|
|  <small>a member of CTI Group</small> | Technical Proposal |  |
|---|---------------------------|---|

| | | | | |
|------------------------------------|----------|---|-------------|---|
| Subnets (Public) | 3 | Various within VPC CIDR | Pre-paid | Public subnets for resources needing internet access |
| Internet Gateway | 1 | Attached to VPC | Pre-paid | Gateway allowing communication between VPC and internet |
| NAT Gateway | 3 | Associated with EIPs and public subnets | Pay-Per-Use | Gateway allowing outbound traffic from private subnets to internet |
| Elastic IP Addresses | 3 | Assigned to NAT Gateways | Pay-Per-Use | Public IPv4 addresses for dynamic cloud computing |
| Compute & Containers | | | | |
| ECS Cluster | 1 | | Pay-Per-Use | Cluster to manage containers |
| ECS Task Definitions | Multiple | Fargate, CPU: 2048, Memory: 8192 | Pay-Per-Use | Definitions for containers and volumes for application |
| ECS Services | Multiple | 1 desired count, Fargate launch type | Pay-Per-Use | Manages running instances of a task definition in ECS cluster |
| Monitoring & Management | | | | |
| CloudWatch Alarms | Multiple | Based on log metrics for ECS tasks | Pay-Per-Use | Monitors AWS resources and applications, triggers alerts based on rules |
| CloudWatch Log Groups | Multiple | For ECS task logging | Pay-Per-Use | Collects, monitors, and stores log files from ECS tasks and other sources |
| Security & Identity | | | | |
| Security Groups | Multiple | Specific to ECS tasks and ALB | Pre-paid | Controls traffic to and from AWS resources |
| Egress / Ingress | | | Pay per use | |

Based on the information above and the discussions during the briefing, the selected solution is to leverage AWS Autoscaling, which involves an Elastic Load Balancer to distribute the workload traffic and

ensure availability and scalability. The goal is to achieve backend server scalability, reliability, and availability.

8. AWS SOLUTION

8.1. To be Architecture

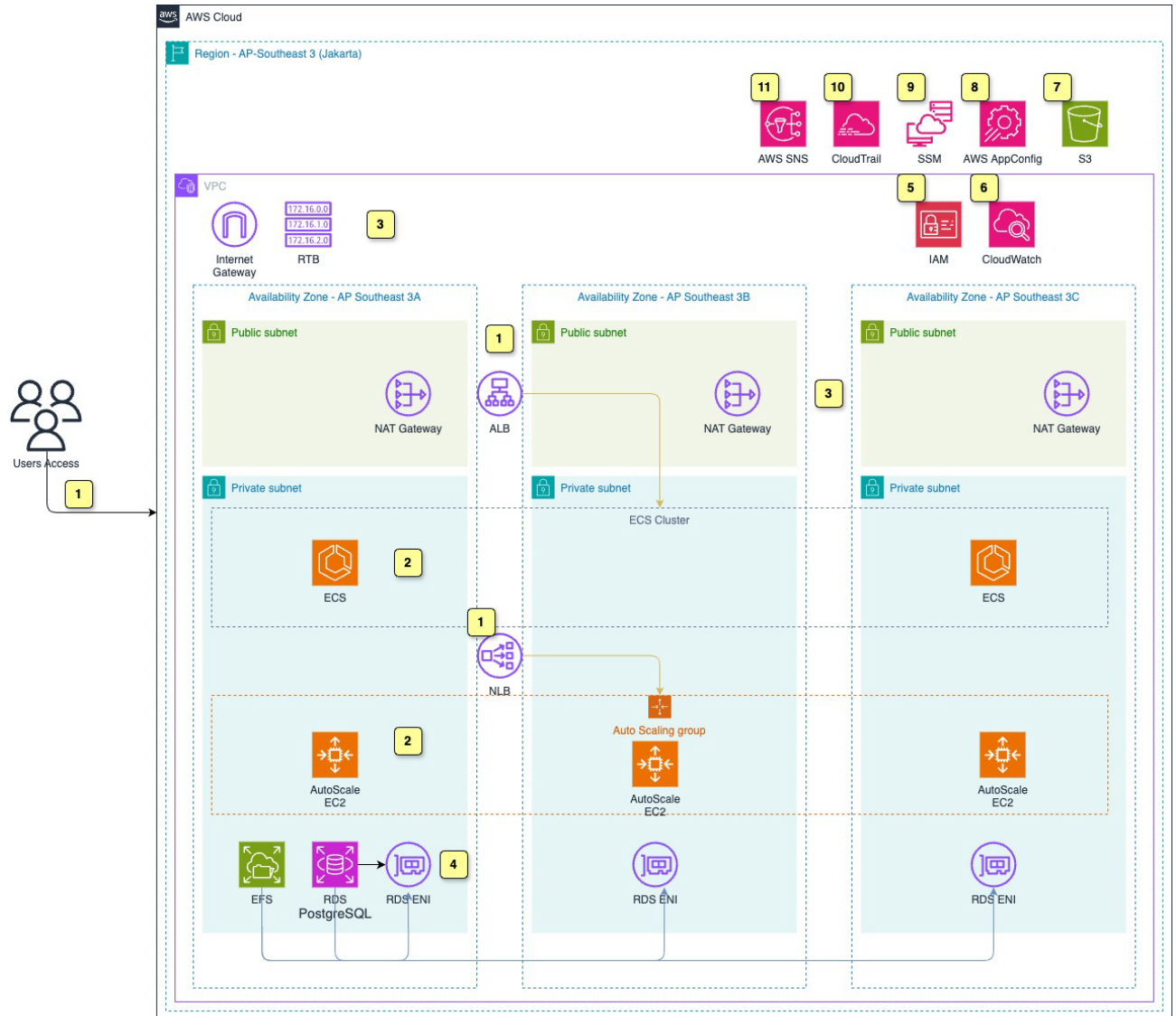


Figure 13 To be Architecture Topology

This Architecture shows how Modern Data Solusi can run its Service on EC2 while maintaining its availability and Scalability on AWS. [Number] points to the legend on the architecture diagram.

MDS Will use AWS Virtual Private Cloud (VPC) across 3 Availability Zone (AZ) for high availability design. Each AZ has separate and dedicated Public subnets and Private Subnets. Each private production workload has its own Private Subnet for security control and scalable design.

- [1]** User will have two routes of connection to access the Services, from HTTP/Layer 7 via Application Load Balancer, and from IP Address/Layer 3 via Network Load Balancer.

- [2]** Each Load Balancer redirects the traffic to the AWS ECS Cluster and the AWS Auto Scaling Group to ensure Service Availability and Scalability.

- [3]** The Public Subnet will leverage the Internet Gateway to access the Internet and allow the NAT gateway to provide an Internet connection to the Private Subnet.

- [3]** Each production subnet is on a Private subnet, which means we need to leverage the NAT Gateway to allow the private subnet to access the internet for Remote purposes, Updates, and Monitoring through CloudWatch.

- [3]** Route Table will help to separate and route the NAT gateway and Internet Gateway to each subnet.

- [4]** RDS and EFS will Leverage Subnet Group to spread its service to another availability zone within VPC, where allowing the other resources on different AZ will still be able to access the RDS and EFS.

- [5]** With IAM we can set the required policy and role for each service or resource like role for the SSM.

- [6]** While the Cloud Infrastructure is fully configured, we can leverage CloudWatch to enable organizations to gain deep insights into their AWS resources' performance and operational health with real-time monitoring and customizable dashboards. With CloudWatch, users can set alarms, automate actions, and troubleshoot issues efficiently, ensuring a proactive and responsive approach to maintaining optimal system performance in the AWS cloud.

- [7]** Amazon Simple Storage Service (Amazon S3) is an object storage service offering industry-leading scalability, data availability, security, and performance.

- [8]** AWS AppConfig, a feature of AWS Systems Manager, makes it easy for customers to quickly and safely configure, validate, and deploy feature flags and application configurations.

- [9]** With all networks fully configured, we can leverage SSM or AWS System Manager to manage our Instance where located in a private subnet via IAM role.

[10] AWS CloudTrail enables auditing, security monitoring, and operational troubleshooting. CloudTrail records user activity and API calls across AWS services as events.

[11] Amazon Simple Notification Service (Amazon SNS) sends notifications two ways, A2A and A2P. A2A provides high-throughput, push-based, many-to-many messaging between distributed systems, microservices, and event-driven serverless applications.

9. BACKUP PLAN

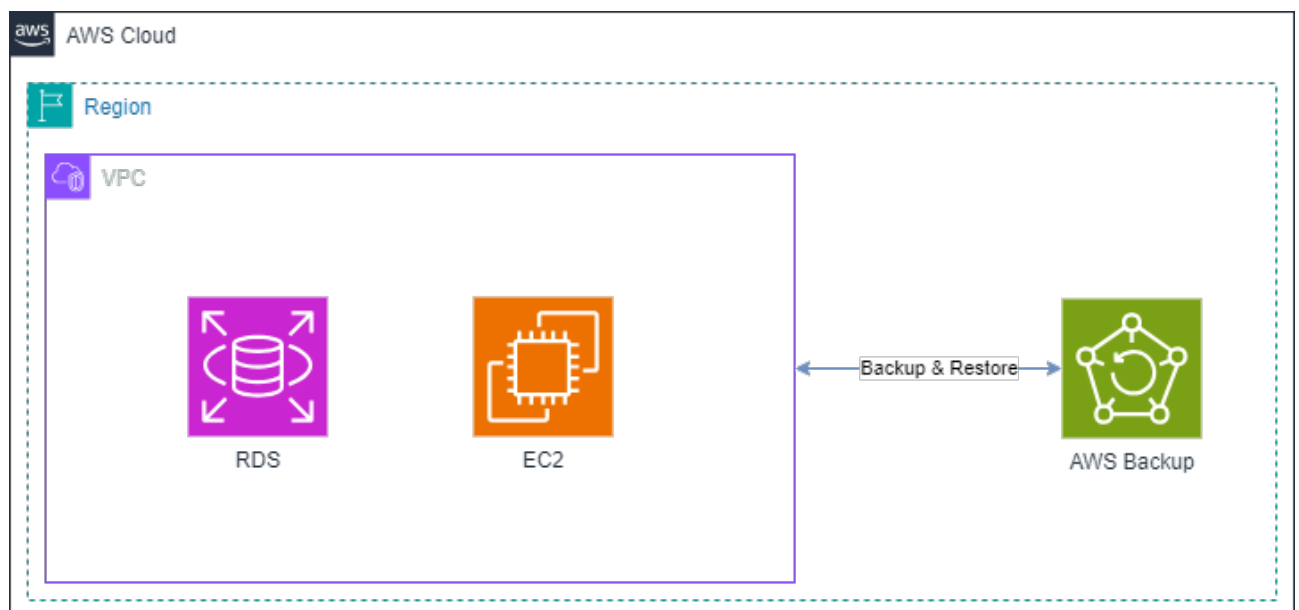


Figure 14 Backup Plan Using AWS Backup

To prevent data loss, we offer AWS Backup as a tool for performing disk server backups. AWS Backup supports scheduling backups and managing backup retention. AWS Backup features:

- Backup scheduling and retention management automation
- Centralized backup for various AWS Services
- Supports incremental backups, except for DynamoDB, Aurora, Document DB, and Neptune
- Integration with AWS KMS for encryption support
- Write-once, read-many (WORM) with AWS Backup Vault Lock

10. SECURITY CHECKLIST

Table 3 Security Checklist

| No | Category | What is it | AWS Services | Checklist |
|----|--|---|--|-----------|
| 1 | Identity & Access Management | Secure the AWS account. | Using AWS Organizations, MFA enabled, Account Contacts (AWS IAM and Identity Center) | v |
| 2 | Advanced Persistent Threat & Detection | Track user activity and API usage | AWS CloudTrail | v |
| | | Configure monitoring and alerts and investigate events. | AWS CloudWatch dashboard and alarm, Billing alert | v |
| 3 | Network and Infrastructure Protection | Implement L3-L4 distributed denial-of-service (DDoS) protection for your internet facing resources. | AWS Shield Standard | v |
| | | Control access using VPC Security Groups and subnet layers. | Security Group | v |
| 4 | Data Protection | Protect data at rest | AWS KMS for EBS | v |
| 5 | Incident Response | Make sure that someone is notified to take action on critical findings. | Using AWS GuardDuty & SNS to notified | v |

11. SCOPE OF WORK

Here is the scope of work of this project:

Table 4 Scope of Work

| No | Activity |
|----|---|
| 1 | Prerequisite |
| 2 | Assessment & Consulting |
| 3 | Detailed Design Document & Technical Validation |
| 4 | Kick Off Meeting Pre Implementation |
| 5 | AWS Management & Monitoring Configuration |
| 6 | Create AWS IAM User, Role, & Group |
| 7 | Configure Amazon CloudTrail Management Event |
| 8 | Create AWS KMS - Customer Managed Key |
| 9 | AWS Network & Security Configuration |
| 10 | Check/Enable Shield Free |
| 11 | Check/Enable Cloudtrail trail management events |
| 12 | Create & Configure NAT Gateway & Internet Gateway |
| 13 | Create & Configure Network Environment (VPC, Subnet, Route Table) |
| 14 | Create & Configure Security Group |
| 15 | Enable & Configure Amazon GuardDuty + Alarm Notification |
| 16 | Backup & Monitoring Preparation |
| 17 | Create & Configure Amazon CloudWatch Dashboard & Alarm Notification |
| 18 | Setup AWS Backup for Automatic Backup Snapshot Scheduling |
| 19 | Configure SSM Agent & Cloudwatch Agent in EC2 Instances for Memory, Disk Metric, & Management |
| 20 | Create and Configure CloudWatch Dashboard and Alarm |
| 21 | Enable VPC Flow Log (Set Retention 3 Months) |
| 22 | Auto Scaling Group Preparation |
| 23 | AWS RDS Preparation |
| 24 | AWS EFS Preparation |
| 25 | Configure EC2 Instance to Integrate with NLB |
| 26 | Setup golden AMI EC2 (integrated with RDS and EFS for Scale-out support) |
| 27 | Create Launch Template |
| 28 | Create Auto Scaling Group |
| 29 | Integrate Auto Scaling Group with NLB |
| 30 | Application Functionality Testing |

| | |
|----|---|
| 31 | Repointing DNS in DNS Management |
| 32 | ECS Cluster Preparation |
| 33 | AWS ECS Cluster Preparation |
| 34 | AWS ECS Task Definitions Setup |
| 35 | Integrate ECS Cluster with ALB |
| 36 | Application Functionality Testing |
| 37 | Repointing DNS in DNS Management |
| 38 | Post Implementation |
| 39 | Perform UAT for AWS Environment & Services Function level |
| 40 | Generate Amazon Trusted Advisor/Service Screener Report |
| 41 | Sharing Knowledge (Optional) |
| 42 | Documentation & Handover |
| 43 | BAST |

12. PROJECT MANAGEMENT

12.1. Methodology

PT. Central Data Technology adopts Project Management Body Of Knowledge (PMBOK) Methodology which is standard from the project Management Institute (PMI) in the project implementation process.

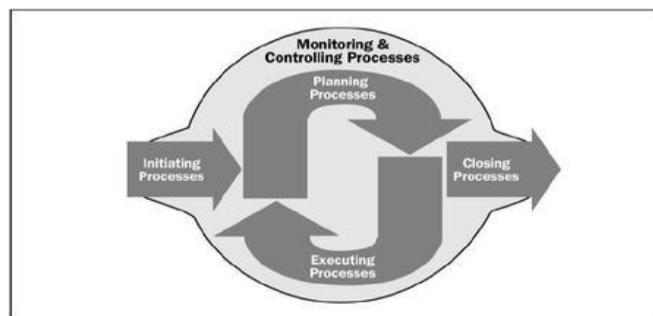


Figure 15 Process Implementation Methodology Project

PT. Central Data Technology has also implemented Jira Software to monitor its project. The explanation of the project methodology implementation process at PT Central Data Technology is as follows;

Table 5 Process Implementation Methodology Project

| External Process | Customer Ask for RFP/RFI | SPK/PO Awarded | Project Execution | | Project Closing and Invoicing |
|------------------|---|---------------------------|-----------------------------|----------------------------|-------------------------------|
| Internal Process | Initiation | Planning | Executing | Monitoring and Controlling | Closing |
| | Project Preparation | Kick Off meeting Document | Final Assessment and design | Progress Status Report | BAST |
| | Detail Doc | External Kick Off Meeting | Project Execution | Progress Status Meeting | Lesson Learn Doc |
| | Project Charter and Internal Kick Off Meeting Doc | | Migration Plan Doc | | Invoicing |
| | Internal Kick Off Meeting | | | | |

12.2. RACI Matrix

Table 6 RACI Matrix

| No | Activity | RACI | |
|----|---|------|------|
| | | CDT | MDS |
| 1 | Prerequisite | | |
| 2 | Assessment & Consulting | R,A | C,I |
| 3 | Detailed Design Document & Technical Validation | R,A | C,I |
| 4 | Kick Off Meeting Pre Implementation | R,A | C,I |
| 5 | AWS Management & Monitoring Configuration | | |
| 6 | Create AWS IAM User, Role, & Group | R,A | C,I |
| 7 | Configure Amazon CloudTrail Management Event | R,A | C,I |
| 8 | Create AWS KMS - Customer Managed Key | R, C | A, I |
| 9 | AWS Network & Security Configuration | | |
| 10 | Check/Enable Shield Free | R,A | C,I |
| 11 | Check/Enable Cloudtrail trail management events | R,A | C,I |
| 12 | Create & Configure NAT Gateway & Internet Gateway | R,A | C,I |
| 13 | Create & Configure Network Environment (VPC, Subnet, Route Table) | R,A | C,I |
| 14 | Create & Configure Security Group | R,A | C,I |
| 15 | Enable & Configure Amazon GuardDuty + Alarm Notification | R,A | C,I |
| 16 | Backup & Monitoring Preparation | | |
| 17 | Create & Configure Amazon CloudWatch Dashboard & Alarm Notification | R,A | C,I |
| 18 | Setup AWS Backup for Automatic Backup Snapshot Scheduling | R,A | C,I |
| 19 | Configure SSM Agent & Cloudwatch Agent in EC2 Instances for Memory, Disk Metric, & Management | R,A | C,I |
| 20 | Create and Configure CloudWatch Dashboard and Alarm | R,A | C,I |
| 21 | Enable VPC Flow Log (Set Retention 3 Months) | R,A | C,I |
| 22 | Auto Scaling Group Preparation | | |
| 23 | AWS RDS Preparation | R,A | C,I |
| 24 | AWS EFS Preparation | R,A | C,I |
| 25 | Configure EC2 Instance to Integrate with NLB | R,A | C,I |
| 26 | Setup golden AMI EC2 (integrated with RDS and EFS for Scale-out support) | R,A | C,I |
| 27 | Create Launch Template | R,A | C,I |
| 28 | Create Auto Scaling Group | R,A | C,I |
| 29 | Integrate Auto Scaling Group with NLB | R,A | C,I |
| 30 | Application Functionality Testing | C,I | R,A |

| | | |
|---|---------------------------|---|
|  central data TECHNOLOGY <small>a member of CTI Group</small> | Technical Proposal |  |
|---|---------------------------|---|

| | | | |
|----|---|-------|-------|
| 31 | Repointing DNS in DNS Management | C,I | R,A |
| 32 | ECS Cluster Preparation | | |
| 33 | AWS ECS Cluster Preparation | R,A | C,I |
| 34 | AWS ECS Task Definitions Setup | R,C,I | R,A,C |
| 35 | Integrate ECS Cluster with ALB | R,A | C,I |
| 36 | Application Functionality Testing | C,I | R,A |
| 37 | Repointing DNS in DNS Management | C,I | R,A |
| 38 | Post Implementation | | |
| 39 | Perform UAT for AWS Environment & Services Function level | R,A | R,C,I |
| 40 | Generate Amazon Trusted Advisor/Service Screener Report | R,A | I |
| 41 | Sharing Knowledge (Optional) | R,A | I |
| 42 | Documentation & Handover | R,A | I |
| 43 | BAST | R,A | I |

12.3. Timeline

Table 7 Timeline

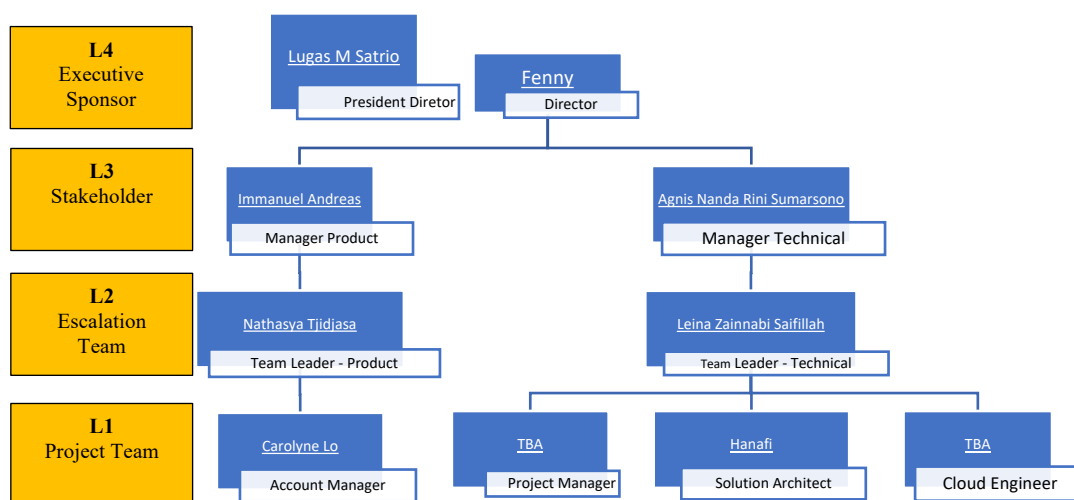
| No | Activity | Days | | |
|----|---|------|---|---|
| | | 1 | 2 | 3 |
| 1 | Assessment & Consulting | | | |
| 2 | Detailed Design Document & Technical Validation | | | |
| 3 | Kick Off Meeting Pre Implementation | | | |
| 4 | AWS Management & Monitoring Configuration | | | |
| 5 | AWS Network & Security Configuration | | | |
| 6 | AWS Compute, Storage & Backup Configuration | | | |
| 7 | ECS Cluster Deployment | | | |
| 7 | Auto Scaling Group Deployment | | | |
| 8 | Testing and Monitoring | | | |
| 9 | Post Implementation | | | |
| 10 | Sharing Knowledge (optional) | | | |
| 11 | Checkpoint, Report, & Documentation | | | |

12.4. Timeframe

Table 8 Timeframe

| Project Team | Mandays | Manpower |
|--------------------------|---------|---------------|
| Project Manager | 1 | 1 |
| Cloud Solution Architect | 1 | 1 |
| Cloud Engineer | 3 | 1 |
| Total Timeframe | | 3-Office days |

12.5. Project Chart



12.6. Contact Information

Partner Executive Sponsor

| Name | Title | Description | Email / Contact Info |
|-----------------------------------|--------------------|---|----------------------------------|
| PT Central Data Technology | | | |
| Lugas Mondo Satrio | President Director | President Director in Central Data Technology | lugas.satrio@centraldatatech.com |
| Fenny | Associate Director | Associate Director in Central Data Technology | fenny@centraldatatech.com |
| PT Modern Data Solusi | | | |
| | | | |
| | | | |

Project Stakeholders

| | | |
|---|---------------------------|---|
|  <small>a member of CTI Group</small> | Technical Proposal |  |
|---|---------------------------|---|

| Name | Title | Stakeholder for | Email / Contact Info |
|-----------------------------------|-----------------------|-------------------|--------------------------------------|
| PT Central Data Technology | | | |
| Agnis Nanda Rini Sumarsono | AWS Technical Manager | Technical Manager | agnis.sumarsono@centraldatatech.com |
| Immanuel Andreas Setiawan | AWS Product Manager | Sales Manager | immanuel.andreas@centraldatatech.com |
| PT Modern Data Solusi | | | |
| | | | |
| | | | |

Partner Project Team

| Name | Title | Role | Email / Contact Info |
|-----------------------------------|----------------------------|----------------------------|---------------------------------|
| PT Central Data Technology | | | |
| Nathasya Tjidjasa | Product Specialist | Sales Lead | nathasya.t@centraldatatech.com |
| Carolyne Lo | Product Specialist | Account Manager | carolyne.lo@centraldatatech.com |
| Hanafi | Solution Architect | Architect | hanafi@centraldatatech.com |
| TBA | Project Manager, Technical | Project Manager, Technical | |
| TBA | Post-sales | Engineer | |
| PT Modern Data Solusi | | | |
| Erik Reinaldo | IT Infrastructure | IT Infrastructure | erik@moderndatasolusi.com |
| | | | |

Project Escalation Contacts

| Name | Title | Role | Email / Contact Info |
|-----------------------------------|--------------------|----------------|-------------------------------------|
| PT Central Data Technology | | | |
| Nathasya Tjidjasa | AWS Product Lead | Sales Lead | nathasya.t@centraldatatech.com |
| Leina Zainabi Saifillah | AWS Technical Lead | Technical Lead | leina.saifillah@centraldatatech.com |
| PT. Modern Data Solusi | | | |
| | | | |
| | | | |

13. ASSUMPTION

Here is the CDT Assumption regarding this project:

1. Deployment will be done in MDS's new AWS Account and using Software Vendor Architecture Recommendation, based on the last meeting with MDS.
2. Scale-out is supported for applications or workloads operating in Backend EC2 Instance.
3. Application and Database Deployment & testing will be done by Wahana Meditek Indonesia.
4. Auto Scaling Group leverage image (AMI) as launch template, any update to EC2 Application or workloads, requires to creation of another version of AMI with the latest update of the Application or workloads version.
5. ECS Fargate Type can't Integrated with EFS.
6. CDT only provides AWS environments/infrastructure that are stated in the scope of work.
7. Scopes that are not stated in the Scope of Work, are considered as Out of scope.

14. CONSIDERATIONS


Here is the CDT Considerations regarding this project:

1. The Application may be vulnerable to Layer7 Attacks due to not being protected by WAF.
2. Data saved inside the EC2 instance Auto Scaling Group will be deleted when the scale-in event is triggered, we assume the EC2 data will placed on the EFS.
3. Deployment using only a single account may risk security posture.

15. CDT OUT OF SCOPE

Additionally, here is the CDT Out of Scope regarding this project:

1. Application Installation, Configuration & Tuning.
2. Application or Workloads Functional Testing.
3. Pointing DNS to Application Load Balancer (ALB) in DNS Manager.
4. SSL Verification in DNS Manager.
5. ECS Task & Definition Services Application Setup.
6. Configuration outside AWS Environment and Services.

| | | | | | |
|---|------------------------------------|--|--|--|--|
|  | PT Central Data Technology | | | | |
| | AWS Services | | | | |
| | Price Info No: 0786/CDT/PI/05/2024 | | | | |

| | | | |
|----------|--|------------------|--|
| Company: | PT Modern Data Solusi | Date: | 08-May-24 |
| Address: | Jl. Sultan Hasanuddin Dalam No.72, RW.1, Melawai, Kec. Kby. Baru, Daerah Khusus Ibukota Jakarta 12160 | Validity Period: | 14-days |
| Up: | Bapak Erik Reinaldo | Account Manager: | Carolyn Lo |
| Contact: | erik@moderndatasolusi.com | Contact: | carolyn.lo@centraldatatech.com |

| Description | Services | Configuration summary | Pricing Strategy | Currency | Monthly Cost |
|---|---|--|------------------|----------|--------------|
| Region: Asia Pacific (Jakarta) | | | | | |
| Compute | | | | | |
| Servers - 3 units | Amazon EC2 | Tenancy (Shared Instances), Operating system (Linux), Workload (Consistent, Number of instances: 1), Advance EC2 instance (m6i.2xlarge), 8 vCPU, 32 GiB RAM, Number of instance (3) | On-Demand | IDR | 17,344,800 |
| | Amazon EBS | Storage amount per volume (200 GB), Provisioning IOPS per volume (gp3) (3000), General Purpose SSD (gp3) - Throughput (125 MBps), Snapshot Frequency (daily), Amount changed per snapshot (1 GB), Number of volume (3) | On-Demand | IDR | 1,482,525 |
| Database | Amazon RDS for PostgreSQL | Storage volume (General Purpose SSD (gp3)), Storage amount (200 GB), Nodes (1), Instance Type (db.t4g.medium), 2vCPU, 4 GiB RAM, Deployment Option (Single-AZ) | On-Demand | IDR | 1,683,990 |
| | AWS Fargate | Operating system (Linux), CPU Architecture (x86), Average duration (620 minutes), Number of tasks or pods (2 per day), Amount of ephemeral storage allocated for Amazon ECS (20 GB), Amount of vCPU allocated (2 GB), Amount of memory allocated (8 GB) | On-Demand | IDR | 1,508,595 |
| Compute - Total Monthly Cost (Estimation) | | | | IDR | 22,019,910 |
| Storage | | | | | |
| Additional Disk - 3 units | Amazon EBS | Storage amount per volume (100 GB), Provisioning IOPS per volume (gp3) (3000), General Purpose SSD (gp3) - Throughput (125 MBps), Snapshot Frequency (daily), Amount changed per snapshot (1 GB), Number of volume (3) | On-Demand | IDR | 759,825 |
| | Amazon Elastic File System | Desired Storage Capacity (7 GB per month), Percentage of data that is frequently accessed (20%) | On-Demand | IDR | 10,725 |
| | Amazon Simple Storage Services (S3) | S3 Standard storage (400 GB per month), PUT, COPY, POST, LIST requests to S3 Standard (4000), GET, SELECT, and all other requests from S3 Standard (8300), Data returned by S3 Select (1 GB per month), Data scanned by S3 Select (1 GB per month), S3 Standard Average Object Size (2 MB) | On-Demand | IDR | 165,495 |
| Storage - Total Monthly Cost (Estimation) | | | | IDR | 936,045 |
| Others | | | | | |
| | Network Address Translation (NAT) Gateway | Number of NAT Gateways (3), Data Processed per NAT Gateway per month (100 GB) | On-Demand | IDR | 2,424,015 |
| | Network Load Balancer | Number of Network Load Balancers (1), Processed bytes per NLB for TCP (100 GB per month) | On-Demand | IDR | 313,500 |
| | Application Load Balancer | Number of Application Load Balancers (1), Processed bytes (EC2 Instances and IP addresses as targets) (100 GB per month), Average number of rule evaluations per request (1 million) | On-Demand | IDR | 316,800 |
| | Amazon CloudWatch | Number of Metrics (includes detailed and custom metrics) (15), Standard Logs: Data Ingested (1 GB), Logs Delivered to CloudWatch Logs: Data Ingested (1 GB), Number of Dashboards (1), Number of High Resolution Alarm Metrics (10) | On-Demand | IDR | 147,015 |
| | AWS CloudTrail | Management events units (millions), Write management trails (1), Read management trails (1), Data events units (millions), S3 trails (1), Lambda trails (1), Insight events units (millions), Trails with Insight events (1), Write management events (1 per month), Read management events (1 per month), S3 operations (1 per month) | On-Demand | IDR | 16,500 |
| | Amazon Simple Notification Service (SNS) | Email/Email-JSON notifications (1,000) - FREE TIER | On-Demand | IDR | - |
| | Data Transfer | DT Outbound: Internet (100 GB per month) | On-Demand | IDR | 217,800 |

| | | | | | |
|---|-------------------------------------|--|-----------|------------|--------------------|
| (Optional) | AWS Support (Business Support Plan) | Supports 24/7 phone, chat, and email access to Cloud Support Engineers for unlimited contacts, with and a response time of less than 1 hour. | On-Demand | IDR | 2,639,175 |
| Others - Total Monthly Cost (Estimation) | | | | IDR | 6,074,805 |
| Total Monthly Cost (Estimation) | | | | IDR | 29,030,760 |
| Total Yearly Cost (Estimation) | | | | IDR | 348,369,120 |

Additional Services for Suggestion Best Practices Architecture

| Description | Services | Configuration summary | Pricing Strategy | Currency | Monthly Cost |
|---|----------------------------|--|------------------|------------|----------------|
| Region: Asia Pacific (Jakarta) | | | | | |
| Others | | | | | |
| Additional Suggestions | Amazon GuardDuty | EC2 VPC Flow Log Analysis (2 GB per month), AWS CloudTrail Management Event Analysis (1 million per month) | On-Demand | IDR | 113,850 |
| Additional Suggestions | AWS Key Management Service | Number of customer managed Customer Master Keys (CMK) (5), Number of symmetric requests (100000) | On-Demand | IDR | 87,450 |
| Additional Suggestions | AWS Config | Number of Configuration items recorded (20), Number of Config rule evaluations (5000) | On-Demand | IDR | 83,490 |
| Others - Total Monthly Cost (Estimation) | | | | IDR | 284,790 |
| Total Monthly Cost (Estimation) | | | | IDR | 284,790 |

Optional Commitment Plan for Compute Service

| Description | Services | Configuration summary | Pricing Strategy | Currency | Monthly Cost |
|---------------------------------------|---------------------------|---|-----------------------------------|----------|--------------|
| Region: Asia Pacific (Jakarta) | | | | | |
| Compute | | | | | |
| Servers - 3 units | Amazon EC2 | Tenancy (Shared Instances), Operating system (Linux), Workload (Consistent, Number of instances: 1), Advance EC2 instance (m6i.2xlarge), 8 vCPU, 32 GiB RAM, Number of instance (3) | 1 Year EC2 Saving Plan No Upfront | IDR | 11,473,605 |
| Database | Amazon RDS for PostgreSQL | Storage volume (General Purpose SSD (gp3)), Storage amount (200 GB), Nodes (1), Instance Type (db.t4g.medium), 2vCPU, 4 GiB RAM, Deployment Option (Single-AZ) | 1 Year Reserved No Upfront | IDR | 1,421,475 |

Important Notes:

Exchange Rate Used IDR 16,500

AWS Support Type Business - 10% from monthly usage or minimum USD 100

- Quantity of services is only assumption, charges is based on real customer usage
- By default customer have **Basic** Support Plan (for billing support only) free of charge
- If there's technical issues happen, we suggest to upgrade support plan to **Business** for faster process and response once the issue solved, customer can revert support plan can back to Basic
- All services are assumed running **On Demand**, however We recommend to have pricing plan 1 or 3 year commitment for compute service if the VM require to run 24/7 for cost saving
- Table 2 is for Additional Services if MDS prefer using Best Practices Architecture proposed by CDT
- Table 3 is Optional Commitment Plan Option for Compute Services


Terms & Conditions

1. Price Info only eligible for above quantity
2. Price Info above in under IDR and exclude PPN
3. Monthly Subscription Base
4. Penalty on late payment 1 per mile (0.1%) per day
5. Price can be changed depends on usage
6. Exchange rate: Kurs Jual BI + 100 (every 3rd of the month)
7. Term of Payment: 14-calendar days after invoiced received, any Terms changes applied charges 1.2% per month
8. Purchase order from Buyer is non cancellable, any payment is non refundable and services delivered is non returnable
9. Provision will be started when PO and Agreement received by PT Central Data Technology

Regards,



Carolyne Lo

| | |
|--|--|
|  <small>a member of CTI group</small> | <p align="center">PT Central Data Technology</p> <p align="center">CDT Professional Services</p> <p align="center">Quotation No: 0787/CDT/Q/05/2024</p> |
|--|--|

Company: PT Modern Data Solusi
Address: Jl. Sultan Hasanuddin Dalam No.72, RW.1, Melawai,
Kec. Kby. Baru, Daerah Khusus Ibukota Jakarta 12160
Up: Bapak Erik Reinaldo
Contact: erik@moderndatasolusi.com

Date: 08-May-24
Validity Period: 14-days
Account Manager: Carolyn Lo
Contact: carolyn.lo@centraldatatech.com

| Services | Description | Lot | Unit Price | Total Price |
|----------------------------|---|-------|------------|-------------|
| Implementation (3 mandays) | Scope of Work | 1 Lot | 21,300,000 | 21,300,000 |
| | Prerequisite | | | |
| | Assessment & Consulting | | | |
| | Detailed Design Document & Technical Validation | | | |
| | Kick Off Meeting Pre Implementation | | | |
| | AWS Management & Monitoring Configuration | | | |
| | Create AWS Control Tower & Account Setup | | | |
| | Create AWS IAM User, Role, & Group | | | |
| | Configure Amazon CloudTrail Management Event | | | |
| | Create AWS KMS - Customer Managed Key | | | |
| | AWS Network & Security Configuration | | | |
| | Check/Enable Shield Free | | | |
| | Check/Enable Cloudtrail trail management events | | | |
| | Create & Configure NAT Gateway & Internet Gateway | | | |
| | Create & Configure Network Environment (VPC, Subnet, Route Table) | | | |
| | Create & Configure Security Group | | | |
| | Enable & Configure Amazon GuardDuty + Alarm Notification | | | |
| | Configure AWS Certificate Manager (ACM) | | | |
| | Backup & Monitoring Preparation | | | |
| | Create & Configure Amazon CloudWatch Dashboard & Alarm Notification | | | |
| | Setup AWS Backup for Automatic Backup Snapshot Scheduling | | | |
| | Configure SSM Agent & Cloudwatch Agent in EC2 Instances for Memory, Disk Metric, & Management | | | |
| | Create and Configure CloudWatch Dashboard and Alarm | | | |
| | Enable VPC Flow Log (Set Retention 3 Months) | | | |
| | Auto Scaling Group Preparation | | | |
| | AWS RDS Preparation | | | |
| | AWS EFS Preparation | | | |
| | Configure EC2 Instance to Integrate with NLB | | | |
| | Setup golden AMI EC2 (integrated with RDS and EFS for Scale-out support) | | | |
| | Create Launch Template | | | |
| | Create Auto Scaling Group | | | |
| | Integrate Auto Scaling Group with NLB | | | |
| | Application Functionality Testing | | | |
| | Repointing DNS in DNS Management | | | |
| | ECS Cluster Preparation | | | |
| | AWS ECS Cluster Preparation | | | |
| | AWS ECS Task Definitions Setup | | | |
| | Integrate ECS Cluster with ALB | | | |
| | Application Functionality Testing | | | |
| | Repointing DNS in DNS Management | | | |
| | Post Implementation | | | |
| | Perform UAT for AWS Environment & Services Function level | | | |
| | Generate Amazon Trusted Advisor/Service Screener Report | | | |
| | Sharing Knowledge (Optional) | | | |
| | Documentation & Handover | | | |
| | BAST | | | |
| | Out of Scope | | | |

| | | |
|--|-----|------------|
| Application Installation, Configuration & Tuning. | | |
| Application or Workloads Functional Testing. | | |
| Pointing DNS to Application Load Balancer (ALB) in DNS Manager. | | |
| SSL Verification in DNS Manager. | | |
| ECS Task & Definition Services Application Setup. | | |
| Configuration outside AWS Environment and Services. | | |
| Assumption | | |
| Deployment will be done in MDS's new AWS Account and using Software Vendor Architecture Recommendation, based on the last meeting with MDS. | | |
| Scale-out is supported for applications or workloads operating in Backend EC2 Instance. | | |
| Application and Database Deployment & testing will be done by Wahana Meditek Indonesia. | | |
| Auto Scaling Group leverage image (AMI) as launch template, any update to EC2 Application or workloads, requires to creation of another version of AMI with the latest update of the Application or workloads version. | | |
| ECS Fargate Type can't Integrated with EFS. | | |
| CDT only provides AWS environments/infrastructure that are stated in the scope of work. | | |
| Scopes that are not stated in the Scope of Work, are considered as Out of scope. | | |
| Total Cost | IDR | 21,300,000 |
| AWS Investment | IDR | 21,300,000 |
| Total Cost to Customer | IDR | - |

Remarks : Additional Scope for Best Practices Architecture Option

Terms & Conditions

1. Quotation only eligible for above services
2. Quotation above in under IDR and **exclude PPN**
3. One Time Subscription Base
4. Penalty on late payment 1 per mile (0.1%) per day
5. Validity period of this Quotation is 14 days
6. Term of Payment : 100% payment before Implementation
7. Purchase order from Buyer is non cancellable, any payment is non refundable
8. Provision will be started when PO and Agreement received by PT Central Data Technology

Regards,



Carolayne Lo