A few important websites of Directorate General of Hydrocarbons(DGH), viz. a) https://dghindia.gov.in, b) https://urja.dghindia.gov.in and c) https://petropragati.gov.in are hosted and managed by IT Department on NIC’s Meghraj cloud. These websites are critical and are used by external and internal users.

2.0 NIC Cloud Services Division has informed vide mail dated 23.01.2024 that the existing infrastructures for cloud VM of NIC are becoming old, obsolete and unsupported. Websites or web applications running on these platforms are also thus becoming vulnerable due to unsupported versions and versions which are no longer patched. The security guidelines of various Government agencies can’t also be adhered to with the existing hardware and software.

3.0 NIC also informed that new server hardware is augmented under (Meghraj 2.0) the Enhancement of National Cloud/Infrastructure (NGC- New Government cloud) and applications need to be migrated to a new cloud infrastructure. The Cloud users will be offered NIC Cloud services on chargeable basis in “pay as you use” model under the new cloud environment.

4.0 DGH had multiple meetings with NICSI regarding the existing cloud infrastructure and proposed solution.

The existing server infrastructure utilising 5 Servers for the three websites is as under:

A diagram of a server

Description automatically generated

Proposed Server Infrastructure using 4 Servers is as under:

A diagram of a computer server

Description automatically generated

5.0        NIC has also studied the existing setup and finalised the following requirement:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **#** | **Type** | **Configuration (For Deployment)** | **Total Qty** | **NGC SKU (For Commercial Use)** | **Number of NGC SKU required for per unit  (For Commercial Use)** | **Total number of NGC SKUs  (For Commercial Use)** |
| 1 | Virtual Machine-Bastion- (Ubuntu) | 2vCPU, 8 GB Memory | 1 | 2vcpu, 8 GB Memory | 1 | 1 |
| 2 | Virtual Machine-Web/App- (RHEL) | 8vCPU, 32 GB Memory | 1 | 2vcpu, 8 GB Memory | 4 | 4 |
| 3 | Virtual Machine-Web/App- (Windows) | 8vCPU, 32 GB Memory | 2 | 2vcpu, 8 GB Memory | 4 | 8 |
| 4 | Virtual Machine-DB- (RHEL) (Postgresql) | 8vCPU, 32 GB Memory | 1 | 2vcpu, 8 GB Memory | 4 | 4 |
| 5 | RHEL License (Latest) | 8 vCPU Linux | 2 | RHEL 2 Core Premium Subscription | 2 | 4 |
| 6 | Windows 2022 License | 8 vCPU Windows | 2 | Windows 2 core license | 4 | 8 |
| 7 | STORAGE - VM  - Boot Volume | 700GB (For 5 VM's) | 700 | Block Storage - SSD - 100GB minimum 150 IOPS | 7 | 7 |
| 8 | STORAGE - Block | 1700GB ( 1200GB for Web/App and 500GB for DB) | 1700 | Block Storage - SSD - 100 GB minimum 250 IOPS | 17 | 17 |
| 9 | Backup as a service | 2400 GB | 2400 | Per GB/Month | 2400 | 2400 |
| 10 | Public IP | Public IP | 3 | Public IP | 3 | 3 |
| 11 | DDoS Layer 7 | DDoS Layer 7 - 50 Mbps | 1 | DDoS Layer 7 | 12.5 | 12.5 |
| 12 | WAF | WAF - 50 Mbps | 1 | Throughput in mbps | 1.25 | 1.25 |
| 13 | Application load Balancer | ALB - 50 Mbps | 1 | Throughput in mbps | 1.25 | 1.25 |
| 14 | Next Gen Firewall | Next Gen Firewall - 50 Mbps | 1 | Throughput in mbps | 0.5 | 0.5 |
| 15 | Anti Malware | All VMs | 5 | Anti Malware per VM | 5 | 5 |
| 16 | Vulnerability Scanning | All VMs | 5 | Vulnerability scanning - per VM | 5 | 5 |

6.0        As per NICSI, the payment is to be done annually in advance. The SLA for delivery of services is also attached.

Based on budgetary estimates provided by NICSI , the estimated cost for using Meghraj 2.0 infrastructure for hosting www.dghindia.gov.in, www.urja.dghindia.gov.in  and www.petropragati.gov.in is Rs.1,46,30,341.30/- for a period of 5 years.

7.0        View foregoing, approval may please be accorded for hosting www.dghindia.gov.in, www.urja.dghindia.gov.in  and www.petropragati.gov.in on NIC cloud through NICSI on nomination basis at an estimated cost of Rs. 1,46,30,374.19/- (including taxes) for 5 years. This amount is to be paid in 5 installments of Rs. 29,26,068.26/- annually in advanced to NICSI.

Put up for approval under DoP 49 and 50(2).