**Request for Secure Computing Space for DS&AS**

**(Interim Setup)**

Dear ICT Team / ICT Head,

I hope you are doing well. As the current lead of the Data Science & Analytics activities in our institution, I am writing to request your support and collaboration in establishing a dedicated, secure computing environment (on an interim basis) using our existing server infrastructure.

To be clear, this is *not* an attempt to override ICT’s authority. ICT will remain fully responsible for infrastructure, cybersecurity, backups, and system administration. What I am asking for is a governed space under ICT supervision where DS-type workloads (analytics, modelling, and data collecting and processing) can run without interfering with existing systems.

**Purpose**

The DS&AS (though in its inception) is crucial to our institution’s capacity in data-driven decision-making, reporting, modelling, research support, and innovation. Given the computational demands ahead, having a controlled space will let me deliver on the mandate efficiently.

**Benefits**

By provision of this interim environment, the Institute stands to gain:

1. Shorter turnaround for analytics tasks involving large data
2. Reduced interference or overload on the main ICT server
3. Environment separation to avoid software conflicts
4. Enhanced security with role-based access and auditing
5. Compliance with data governance rules, research ethics, and data protection
6. Better support for grants and external partners needing secure compute

**Interim nature & authority**

This arrangement is intended to be temporary, expected to last up to one year, while I mobilize resources and budget for a fully independent DS&AS infrastructure. In this period, I will lead this initiative but fully coordinate with ICT.

**Information requirement for planning**

To plan the setup jointly, I request a meeting (preferably before the 14th) to gather the following information:

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| Area / Domain | Needed information | Notes(Linux/Windows |
| Server Specifications & Capacity | CPU model, number of cores; total & free RAM; total & free storage; historical usage metrics (CPU, memory, disk I/O) | On Windows, include system overhead (e.g. services) and paging file use |
| Virtualisation Capability | Which hypervisor is installed (e.g. VMware, Hyper-V, Proxmox, KVM); ability to create new VMs; whether CPU virtualization (VT-x / AMD-V) is enabled | On Windows, check whether Hyper-V is enabled; on Linux, check for KVM, Xen, etc. |
| Storage Options | Is it possible to allocate a dedicated partition, logical volume, or separate disk; I/O performance (read/write throughput, latency) | On Windows, consider NTFS / ReFS, volume shadow copy; on Linux, LVM, ext4, xfs, etc. |
| Operating Environment / OS Support | Which OS versions are supported; whether additional OSs can be installed (Linux or Windows); any OS constraints or licensing | If current OS is Windows, are Linux VMs or containers are permitted |
| Network Access & Connectivity | Internal network segmentation (VLANs), firewall rules, ports allowed, internet access policy, routing | On Windows, include firewall / Windows firewall rules; on Linux, include iptables / ufw / firewallD |
| Security & Governance & Backup | Existing user authentication (Active Directory, LDAP, local accounts); audit / logging; backup schedule; recovery plan; encryption policies | On Windows, include Windows Backup, Volume Shadow Copy, audit logs, group policies; on Linux, include cron backups, rsync, journald, logrotate |
| Compatibility & Tools | Whether the environment supports or can be adapted to tools you need: RStudio Server, Python, Docker, PostgreSQL, Jupyter, Shiny, etc. | On Windows, note whether Docker for Windows / WSL are supported; on Linux, native support is usually easier |
| Policies, Procedures & Change Control | ICT’s server usage policy; process for change requests; maintenance windows; approval flows | Include requirement that DS setup must abide by these policies |
| Monitoring & Maintenance | Monitoring tools in use (e.g. SNMP, Nagios, Windows Monitoring); alerting, metrics, who is responsible | On Windows, might include Performance Monitor, Event Viewer; on Linux, tools like top, munin, Grafana |
| Licensing / Costs | OS licensing status; extra license costs for VMs or additional OSs | Important if adding Windows VMs might require additional licenses |

**Responsibilities**

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| **Party** | **Role** |
| ICT | Provide the computing environment, control access, enforce security, monitor systems |
| Myself (DS) | Run analytics workloads, manage data governance, document workflows |
| Joint | Approve any adjustments, ensure policy alignment, monitor uptime & performance |

**Next Steps**

I suggest we meet before the 14th to review these items, jointly plan the configuration, and agree on ICT policies to follow. I appreciate your partnership and look forward to working together to deliver results.

Thank you for your support.

Regards,  
Patrick Waweru Mwaura  
Lead – Data Science & Analytics Activities