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:

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

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