



**MINISTRY OF LABOUR, SOCIAL SECURITY AND
SERVICES**

**INFORMATION COMMUNICATION TECHNOLOGY
(ICT) POLICY**

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Foreword

The Information and Communication Technology (ICT) policy aims at guiding the deployment of ICT systems to improve internal and external service delivery and improve efficiency and effectiveness of operations in the Ministry. It is aligned with the Ministry's Strategic Plan, the Kenya Vision 2030, E- Government Strategy and the Constitution among other policy documents.

The ICT policy is intended to provide a framework for more coordinated and user driven focus on the use of ICT systems and streamlining the implementation of e-Government. The ultimate goal shall be systematic ICT deployment within the ministry in terms of Monitoring and Evaluation as well as the overall capturing of data on the projects and activities carried out by the ministry countrywide. It sets ambitious and specific goals and targets whose achievement will not only deliver better services to more citizens, but will also result in cost saving in the delivery of services while enabling many new types of services to be created.

This policy will enable the ministry to use ICT systematically and apply ICT in reforming and improving the internal working processes and ultimately make service delivery to the public easier and quicker. Similarly it will ensure proper utilization of public resources and avoid duplication of efforts in technology and service delivery.

Effective ICT management requires people to deploy the right technology in the right way for the right reasons, commonly referred to as “people, process and technology”. This policy explores these themes with a view to arriving at the best possible fit to ensure it is achieved. It is a result of considerable effort made by a number of stakeholders in which the challenges and opportunities facing the deployment of ICT in their respective entities and ministry at large were explored. I would like to thank all involved in providing the valuable inputs.

I now look forward to the delivery of commitments contained in the document. Through this work, we can achieve a more integrated approach to the development and management of ICT and Information Systems as we strive to achieve our mission, goals and strategies within the ministry.

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CHAPTER ONE

Introduction

Institutional efficiency and effectiveness is grounded in the establishment of and adherence to sound policies and procedures. Operations are directly tied to policies and procedures, which are in turn a reflection of an institution's vision and goals. The Ministry of Labour, Social Security and Services ICT policy will dictate how the ministry staff will use the available Information and Communication Technology (ICT) tools for improvement in the dispensation of duties. The policy sets clear participatory requirements and boundaries for all ministry parties involved from a business process and/or technology perspective.

The policy takes a holistic view of the entire ministry environment and will guide how technology is implemented and practiced. The management should ensure that this policy is formalized and made operational within the ministry.

It acts as a central repository for all current policies that govern the ministry's ICT processes. The set of policies and procedures defined in this policy document will need to be continuously updated and will become more robust to accommodate the ministry's contribution to the attainment of the Vision 2030.

Therefore, this policy provides a starting point for the policies and procedures that will be required in future. It draws from the experiences of the ministry ICT Staff and from lessons learnt from other Government departments. In addition, this policy draws its fundamentals from global best practices, specifically Control Objectives for Information and related Technology (COBIT) and IT Infrastructure Library (ITIL) that are expected to be consistently applied, widely communicated and regularly reviewed.

Policy objective

The objective of the ICT policy is to define operational framework that will govern the ministry in the use of ICT for improvement in the dispensation of services. By determining and communicating the policy, ICT users within the ministry will know the boundaries of ICT usage. This knowledge will prevent accidental breaches arising from poor awareness and enforcement. This policy provides guidance on how to efficiently and effectively communicate and implement both new and updated ICT procedures.

The policy will also serve to; guide the proper ICT management within the ministry; support and maintain the mission critical functions of the ministry; safeguard the privacy of individual official information; protect the integrity and reputation of the ministry; prevent the misuse of the ministry 's ICT systems for malicious acts; act as a

compliance to national and international laws; improve transparency and efficiency of the ministry; fulfill the ICT Vision and Mission; successfully implement the ICT Strategies and ease ICT Operation.

Statement of purpose

The purpose of this policy is to provide a set of comprehensive policy guidelines to regulate the Information and Communication Technology use at the ministry. The broad objective is to ensure compliance with acceptable practices, applicable laws and regulations. It is designed to effect proper information technology use control.

All employees of the ministry are required to take careful note of the contents of this document and ensure that they understand and comply with both the written word and spirit of the content. Compliance with the policy by all representatives is mandatory. Ministry employees should assist one another in compliance with this policy, as well as with the identification of any contraventions so that they might be remedied. The guidelines in the document enable the employees to comprehend the ministry's expectations as well as everyone's own obligation.

If any employee is in doubt about the application of certain guidelines they should discuss the matter with the person to whom they report to or a person at management level responsible for implementing them. As the policy will be updated over time, it is the responsibility of the ministry's ICT Unit to ensure that they have the latest copy of the document available for distribution at any one time. Significant changes to this policy must be recorded in the document revision history and signed off.

Guiding principles

The implementation of this policy shall be guided among other things by the right of access to information, transparency, fairness and accountability. The following shall also be taken into account as key guiding principles:

This policy is designed to guide and mainstream the use of ICT in all areas of the ministry rather than a stand-alone technology framework;

Top management shall take leadership mainly in facilitating the mobilization of investment required for development of infrastructure backbone as well as the implementation of this policy;

The upgrading of existing and development of new infrastructure shall also be taken into account as complimentary services to the successful rollout of the ICT infrastructure and services in order to increase penetration across the ministry;

Priority shall be given to the establishment of coordination mechanisms at different levels to allow for integration of ICT's in key functions of the ministry in order to ensure sustainability of ICT programmes and projects;

A deliberate and accelerated ICT manpower development and implementation plan shall form the basis for ICT human resource development at the ministry.

The implementation of this policy shall be supported by intensive and extensive public awareness activities at all levels of the ministry. This is expected to create demand for ICT in areas such as training.

CHAPTER TWO

Procedures

Password

Password procedures establish standards for creation of strong passwords, the protection of those passwords and the frequency of their change. They are designed to protect the organizational resources on the network by requiring strong passwords along with protection of these passwords and establishing a minimum time between changes to passwords.

Firewall

Firewall procedures define standards for provisioning security devices owned and/or operated by the ministry. They outline the minimum security procedures for the ministry firewall environment with standards designed to minimize the potential exposure of the ministry's sensitive and/or confidential data, intellectual property and damage to public image that may arise from unauthorized use of ministry's resources.

Printing

Printing procedures facilitate the appropriate and responsible use of ministry's printing assets as well as control ministry's printing cost of ownership by preventing the waste of paper, toner and ink among others.

Software development and maintenance

These procedures establish guidelines for software development at the ministry and allow standardization of software development to maximize resource utilization, consistent outcome and a higher quality software product delivered to end users. They will also ensure that adequate testing and training is carried out for newly developed or acquired software systems in accordance with documented requirements, standards and procedures as well as prevent compromise of operational Information and Communications Technology from unauthorized software maintenance and/or upgrades while reduce the risk of Information and Communications Technology functionality loss.

ICT support

These procedures describe the basic level of service that will be guaranteed by the ICT Unit. It also identifies and delineates the limits of ICT's capabilities.

Server security and space usage

These procedures establish standards for the base configuration of ministry internal server equipment. Effective implementation of this policy will minimize unauthorized access to information and preserve the finite amount of storage space available on network servers.

E-mail communication

These procedures ensure that all ministry personnel (excluding the casual workers) should have official electronic mail accounts for correspondence. It describes the standards that users are expected to observe when using these email facilities and ensures that users are aware of the legal consequences attached to abuse of the facilities. They establish a framework within which users of these email facilities can apply self-regulation to their use. It is designed to advise users of this facility that the use will be monitored and in some cases recorded. It also states that the ministry management will investigate both internal and external complaints on abuse of this facility.

Anti-virus

These procedures ensure that the ministry's data and the infrastructure supporting its applications are protected from malicious code. They establish requirements which must be met by all computers in the ministry to ensure effective virus detection and prevention.

Backup

These procedures provide for the continuity, restoration and recovery of critical data and systems. This is meant to protect data in the ministry to be sure it is not lost and can be recovered in the event of an equipment failure, intentional destruction of data or disasters.

Internet usage

These procedures provide employees with rules and guidelines about appropriate use of ministry equipment, network and Internet access. They educate internet users about web-borne threats and how irresponsible browsing can result in malicious packages being unknowingly downloaded onto a computer which in turn could infect the whole network. They dictate what is deemed to be appropriate Internet browsing behavior in the workplace and outlines appropriate and inappropriate use of ministry's Internet resources, including the World Wide Web, electronic mail, the intranet, FTP (File Transfer Protocol), and USENET. They typically enforce time restrictions for employees when browsing the Internet for non work-related tasks as

well as stipulating what genres of sites they are allowed to browse.

Hardware and software acquisition

These procedures provide guidelines for the acquisition, installation of ICT equipment, software, and peripherals that are acquired for the ministry which connect to the ministry's network and/or require support of ministry's technology resources. They defines the methods of software acquisition within the ministry which will ultimately control costs by acquiring the correct type of license and optimize software and hardware value by potentially reusing or redistributing. They also ensure that installation of hardware and software is done in a quality and cost effective approach for the ministry to achieve optimal benefits.

CHAPTER THREE

ICT Strategies

ICT strategies outline implementation plans of the policy with each of the strategic objectives being translated into strategies and plans. The strategies are categorized into ICT architecture thus:

- ✓ Data and information strategy
- ✓ Public access strategy
- ✓ Business application strategy
- ✓ Hardware and communication strategy
- ✓ ICT governance and capacity building strategy
- ✓ Policies, procedures and processes

Data and information strategy

Improved information availability provides a breakthrough in the levels of productivity, quality and improved customer service level. The strategic objectives shall be achieved within specified time but through milestones within that period.

The main issue lies with the quality of data obtained which reflects in the quality of information provided for decision making. They include each division collecting its own data, often from the same source, at different times, incompatibility and non-linkages between various databases in the ministry, data being captured in physical form, consolidated upwards up to the headquarter level where it is entered into electronic database hence affecting the currency and correctness of the data and information being generated by the databases that are implemented at the headquarters is not available for decision making at the lower levels.

Public access strategy

The prime target of information is to improve service delivery to the citizen. Technology should hence be employed to improve the interaction between the ministry and its stakeholders whenever and wherever possible.

The ministry works through papers and request for services or information by internal and external customers is done through letter communication or through completion of forms and other requisitions. The result of this process is the delays in providing services to the public. Although the ministry has substantial information for public consumption, this is not made available because of the cost of publishing the same.

Business applications strategy

The role of applications or information systems in the ministry is shifting to support business processes rather than individual functions. The focus is outwards to customers

rather than inwards to procedures. The role of ministry in coordinating labour and social services is increasing more and more rapidly. This poses a challenge to existing information systems, which are often inappropriately structured to meet these needs. It also poses a challenge to the people who design, work with, and use these systems, since they may hold outdated assumptions.

Issues that therefore needs to be addressed include;

Absence of Information Management/Technology Standards: The absence of ministry standards on IT systems is partly responsible for the existence of the many standalone systems in the MLSSS enterprise. These systems are hence developed using different standards some of which are proprietary and are often not interoperable. As a result systems that captures and stores functionally related data cannot interact with each other, causing inherent duplication of data in the enterprise. In the absence of a standard, systems in the enterprise possess different data structure, different data definition, models, architecture; inconsistent business rules and produces inconsistent reports

Absence of information technology architecture within the ministry to support its mandate. The current information management environment needs to be improved to accommodate the dynamic nature of the services offered by the ministry. The ICT Unit needs to have a better management over sight of all systems in the ministry.

Inadequate ICT skills: The ministry's lacks adequately trained MIS personnel to take on the required IT mission. MLSSS has the staff but their skills levels require constant sharpening in order to stay abreast with technology in relation to current needs.

Presence of poorly designed systems: The ministry, even though has some functional systems, still possesses some unreliable applications. Many of the current systems lack structure, functionality and are poorly designed hence cannot meet the demand of the ministry. Since reliable data collection cannot be assured due to the challenges stated above, the integrity of the resulting reports can certainly not be assured.

Business process re-engineering is needed to eliminate the information gaps from the ministry: The current systems do not have appropriate checks and controls built in to ensure a complete execution of functions.

Inadequate information gathering mechanism: The current method for gathering information needs a serious consideration. Given the vast geographic location that is covered by data collection, a more realizable means of data collection should be considered. Currently data collection is not timely enough to be incorporated in reports.

Hardware and communication services strategy

ICT hardware standards

The technology horizon is fast evolving, with a turnover in technology evolution of around 18 months. The ministry's choice of technology shall have long-view focus based on future trends rather than current ones.

Local Area Networks

The ministry has a Local Area Network (LAN) that connects all the floors that it occupies. There are also LANs in the department headquarter offices.

Wide Area Networks

Currently, the discrete networks at the ministry and its agencies are not linked. Similarly, upcountry offices at district offices, locational offices are not linked to the networks at the head offices resulting in physical transfer of data between them and between the offices and headquarters. As a consequence data may be corrupted and the general integrity of data is compromised.

Internet and Intranet

There is a coordinated provision of internet at the ministry with each department/unit accessing the internet through the Government Common Core Network (GCCN). As a result the ministry takes advantage of economies of scale and centralized internal support for the service. Also, there is a ministry-wide intranet that enables staff in the ministry to share documents, bulletin boards and other communication facilities.

ICT governance and capacity building strategy

ICT governance

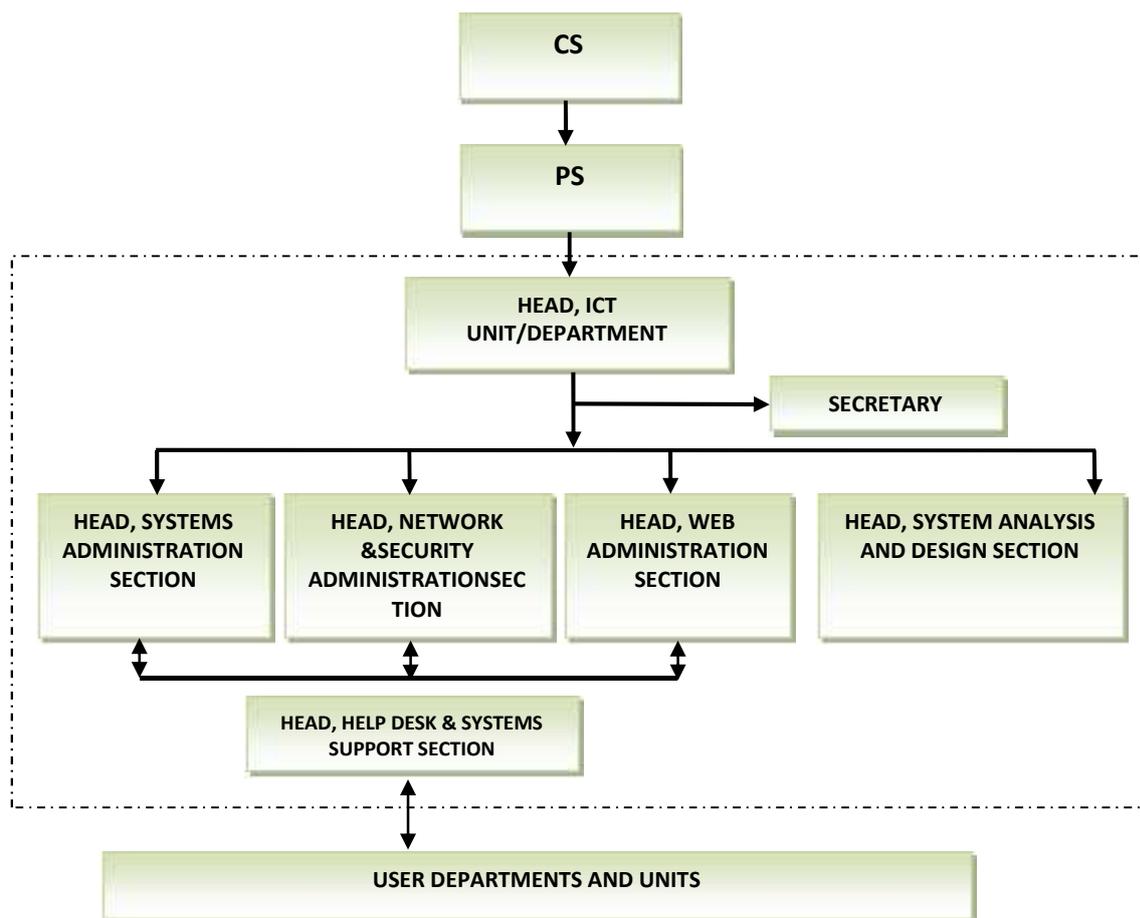
The primary goals of ICT governance are to assure that the investments in ICT generate business value, and to mitigate the risks that are associated with ICT. This can be done by implementing an organizational structure with well-defined roles for the responsibility of information, business processes, applications and infrastructure. ICT governance should be viewed as how ICT creates value that fits into the overall corporate governance strategy of the organization and never be seen as a discipline on its own. In taking this approach, all stakeholders would be required to participate in the decision making process. This creates a shared acceptance of responsibility for critical systems and ensures that ICT related decisions are made and driven by the business and not vice versa.

There is no coordination of technology matters among departments: The various entities resort to using available tools to develop and create small database to do their work. This has resulted in many data bases with related data in the ministry.

There is unclear definition of relationships among departments, the ICT Unit and external entities. In order to establish a sound information management system the functions and relationship among all entities within the ministry must be clearly defined. Currently different departments perform M&E activities and they do so without any set guidelines.

The ICT Unit at the ministry level was established and mandated to oversee and provide expertise and services to the ministry on all ICT and e-Government deployments as well as undertaking research and studies so as to advise on areas for computerization and automation. The ministry’s ICT Unit as a central coordinating unit for all ICT activities is currently staffed with 10 members of staff.

Proposed functional structure for the ministry’s ICT Unit/Department



Capacity building

In many application systems staff have the basic skills with the area of concern being applications that are key to the ministry’s activities. These are:

Document Management Systems: They cut across all departments and all officers should be able to use them.

Monitoring and Evaluation system: A computerized M&E system has not been put in place. This also applies to unavailability of a systematic M&E system in manual basis. The ICT unit has qualified staff with substantial experience in various ICT fields and an impressive initiative is that these members of staff are now undergoing extra specialized professional qualifications that lead to certifications such as MCSE, CISCO, LINUX, IS and business management.

Change management is one of the key issues determined since a big number of employees still use manual processes instead of available technologies in place at the ministry. There is a need of change management programme that will gear staff towards the effective use of technologies in place.

Some application systems are only relevant to particular technical areas therefore literacy in such cases are based on relevant user departments.

CHAPTER FOUR

Procedures and processes strategy

ICT procedures and processes are key component of the overall management of ICT. Procedures illustrate how systems are used and managed, the roles and responsibilities of users and technical staff and the routines that need to be carried out to ensure integrity and security of data and information.

The strategic actions for procedures and processes are:

The ministry to ensure that business processes are reviewed periodically to ensure that they are in-line with the ministry's strategic goals and initiatives, taking into consideration the model business process (the current state) and an anticipated process (the future state) when embarking on improvement activities in the ministry business.

Each system introduced at the ministry shall have comprehensive technical documentation to ensure that maintenance and support can be passed over to internal staff.

Each system shall have comprehensive user procedures, which will be used as training materials for users as well as first point of reference in operations.

Each system developed shall have Service Level Agreement (SLA) with developers or service provider for continuous improvement and support.

To develop Service Level Agreement (SLA) between ICT unit and user departments/units on ICT service provided to the latter i.e. timely support and continuous improvement.

To develop overall information security operational procedures and business continuity plan which will include; An overall ICT Policy, Computer Security procedure, Internet and Email usage procedure, Business Continuity procedure; and Change Management procedure for ICT/MIS; and

From time to time monitor the adherence to these policies as well as their effectiveness. The policies will be reviewed from time to time as the need may arise.

CHAPTER FIVE

Strategic issues and intents

The implementation of this policy will entail addressing seven broad strategic concerns which have further been disaggregated into generic intentions that will require immediate attention for the realization of the anticipated aspirations. The table below has summarized these issues which have further been elaborated into the specific activities.

No.	Strategic issue	Strategic intent
1.	Inadequate documentation of database management principles	<ul style="list-style-type: none"> ✓ Information sharing, efficiency and effectiveness of IT processes ✓ Database ownerships ✓ Standardization of definition of data-sets for interoperability and coordinated M & E purposes
2.	Inadequate interaction with stakeholders	<ul style="list-style-type: none"> ✓ Improve Customer service management systems
3.	Lack of Conceptual Framework for the implementation of specific solutions and ministry MIS to support business processes.	<ul style="list-style-type: none"> ✓ Implement Integrated Records Management Information System ✓ Human Resources Management Information System ✓ Develop Assets Management System ✓ Implement domain focus ministry MIS solutions
4.	Lack of hardware and communication services strategy	<ul style="list-style-type: none"> ✓ Implement for standards for ICT hardware and software ✓ Improvement of ICT infrastructure and backbone
5.	Lack of implementation of ICT governance and capacity building strategy	<ul style="list-style-type: none"> ✓ Strengthen ICT coordination and management for all database sections ✓ Management sensitization and training on ICT ✓ Enhance capacity of ICT on end user. ✓ Enhance ICT usage for all stakeholders in the Ministry through awareness creation
6.	Lack of adherence to ICT Usage and security standards.	<ul style="list-style-type: none"> ✓ Instituting operational policies for information security and IT risks ✓ Institute technical and end user documentation to ensure support and training of users ✓ Institute SLAs for third parties and internal users
7.	Monitoring and Evaluation of the policy	<ul style="list-style-type: none"> ✓ Track the implementation status of the various interventions in the strategy

CHAPTER SIX

Implementation plan and monitoring framework

This section describes the plan for implementing the ICT policy and the means of monitoring the implementation progress.

Implementation organization

A Project Implementation Team (PIT) comprising ICT and key users will be formed for each project to be implemented to coordinate the implementation. There will be a Steering Committee to provide directives, monitor implementation progress and effect the required initiatives at policy and administrative levels where as the PIT will be responsible for the day to day implementation of the new system and shall work closely with the developer/supplier of the new system, provide guidance as regards to site preparation and survey, prepare for the implementation of the applications on the centralized servers and client sites.

Implementation tasks

The plan covers activities to be implemented, responsibilities and time frames. However, the plan does not cover the specific dates when the activity implementation will occur; it contains indicative half yearly timing. The implementing unit or entity will develop an annual work plan based on annual financial allocation of the ICT unit to guide the implementation of the policy.

Monitoring and Evaluation

The implementation plan contains detailed activities to guide the implementation of the policy. The unit will develop indicators for Monitoring and Evaluation of the implemented interventions. The plan covers four types of projects, these are: infrastructure projects, systems/applications projects, operational policies documentation projects and capacity building projects. The table below shows concern at each level which can be used to identify the relevant indicators of performance in the implementation plan.

Matrix for Concerns for ICT Unit and Systems users

ICT Unit	Systems users
Objective 1: Document and implement database management principles	
Are all the principles documented? Are they based on the current based practice in database management? Are they practical? Is all staff concerned been trained in the principles? Have they been implemented successfully?	Are there improvements in the way databases are designed and managed? Has this made our work easier?

Have they resolved issues that existed?	
Objective 2: Improve interaction with stakeholders	
Are the systems providing relevant information to users? Is the information regularly updated?	Has the implementation of the systems improved our work? Has it improved service delivery to citizens?
Objective 3: Implement the Conceptual Framework for specific solutions and ministry MIS to support business processes	
Have user and business requirements been thoroughly documented? Have the systems been developed and tested to the user satisfaction? Is the system/application technical documentation provided? Are the user procedures documented? Has data migration been completed successfully? Have the systems users been trained? Have the systems support personnel been trained? Is the system in use?	Does the system meet our requirements? Has the system improved efficiency and effectiveness? Are we getting value for money?
Objective 4: Improve the technical infrastructure to facilitate communication and automation of key business functions	
Are systems installed? Is the mapping and documentation completed? Are the maintenance plans in place? Is the inventory of infrastructure maintained? Are users trained? Is the entire target users reached?	Have the infrastructure solved the problems that existed? Has the project improved our efficiency and effectiveness? Are we getting value for money?
Objective 5: Build implementation capacities and change management	
Are the support staff provided with sufficient skills and training? Has it improved their performance? Are users trained in ICT in general and in their specific applications in particular?	Has capacity building enhanced performance of staff?
Objective 6: Manage- ICT use and security issues in a comprehensive and coordinated way	
Are all policies documented? Are they exhaustive? Are they practical? Have they been approved? Is all staff concerned been trained in the policies? Do users abide by the policies	Are policies helping in improving the situation? Are we abiding by the policies? Do we get enough support in implementing the policies?

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