



DR NDZ LOCAL MUNICIPALITY

In conjunction with Symphony PC

ICT Policy – Change Management Policy

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1. Introduction

The Information Resources infrastructure at Kwa Sani local municipality is expanding and continuously becoming more complex. There are more people dependent upon the network, more client machines, upgraded and expanded administrative systems, and more application programs. As the interdependency between Information Resources infrastructure grows, the need for a strong change management policy is essential.

From time to time each Information Resource element requires an outage for planned upgrades, maintenance or fine-tuning. Additionally, unplanned outages may occur that may result in upgrades, maintenance or fine-tuning.

Managing these changes is a critical part of providing a robust and valuable Information Resources infrastructure.

2. Objective of the change management policy

The purpose of the Change Management Policy is to manage changes in a rational and predictable manner so that staff and stakeholders can plan accordingly. Changes require serious forethought, careful monitoring, and follow-up evaluation to reduce negative impact to the User community and to increase the value of Information Resources.

The Kwa Sani local municipality Change Management Policy applies to all individuals that install, operate or maintain Information Resources.

3. Definitions

a. Change Management

The process of controlling modifications to hardware, software, firmware, and documentation to ensure that Information Resources are protected against improper modification before, during, and after system implementation

b. Change

- i. Any implementation of new functionality
- ii. Any interruption of service
- iii. Any repair of existing functionality
- iv. Any removal of existing functionality

c. Scheduled change

Formal notification received, reviewed, and approved by the review process in advance of the change being made.

d. Unscheduled change

Failure to present notification to the formal process in advance of the change being

made. Unscheduled changes will only be acceptable in the event of a system failure or the discovery of a security vulnerability.

e. Emergency change

When an unauthorised immediate response to imminent critical system failure is needed to prevent widespread service disruption.

4. Policy statements

- a. Every change to Kwa Sani Information Resources resource such as: operating systems, computing hardware, networks, and applications is subject to the Change Management Policy and must follow the Change Management Procedures.
- b. All changes affecting computing environmental facilities (e.g., air-conditioning, water, heat, plumbing, electricity, and alarms) need to be reported to or coordinated with the leader of the change management process.
- c. A Change Management Committee, appointed by ICT Leadership, will meet regularly to review change requests and to ensure that change reviews and communications are being satisfactorily performed.
- d. A formal written change request must be submitted for all changes, both scheduled and unscheduled.
- e. All scheduled change requests must be submitted in accordance with change management procedures so that the Change Management Committee has time to review the request, determine and review potential failures, and make the decision to allow or delay the request.
- f. Each scheduled change request must receive formal Change Management Committee approval before proceeding with the change
- g. The appointed leader of the Change Management Committee may deny a scheduled or unscheduled change for reasons including, but not limited to, inadequate planning, inadequate back-out plans, the timing of the change will negatively impact a key business process such as yearend accounting, or if adequate resources cannot be readily available. Adequate resources may be a problem on weekends, holidays, or during special events.
- h. Customer notification must be completed for each scheduled or unscheduled change following the steps contained in the Change Management Procedures.
- i. A Change Review must be completed for each change, whether scheduled or unscheduled, and whether successful or not.
- j. A Change Management Log must be maintained for all changes.
- k. All Kwa Sani information systems must comply with an Information Resources change management process that meets the standards outlined above.

5. Additional areas covered by the policies

a. Request management

Enhancement requests and bug defect reports are captured and submitted to business and ICT management for review. Personnel responsible for Infrastructure Support roles are

charged with the responsibility to capture, prioritize, and submit change requests to the appropriate change management process.

A business sponsor is assigned for change requests, and is notified as requests are captured. Infrastructure Support personnel categorize change requests based upon priority as enhancements, bugs, patches, updates, and any other “emergency” need. Dependent on this priority, the subsequent routing of the request is expedited. Infrastructure Support Issues and requests are managed throughout the change management life cycle.

Infrastructure Support personnel have the ability to manage the request management process, including: measuring process performance criteria, escalating inactive requests, prioritising “emergency” fixes, and reporting progress of requests to Users.

Business analysis is performed to determine likelihood of success, significance to business, resources required, and business justification.

A Business Analyst role analyses requests to assess risk of solution implementation and to determine minor / major impact to the business. If minor impact, the business analyst routes requests to technical analysis for further action (includes bug reports). If major impact, business analyst function performs business justification in conjunction with technical analysis, including likelihood of success, significance to the business, resources required, and system interdependencies. When complete, the business analyst prioritizes based on analysis and routes to business management for decision-making individuals.

b. Request analysis

Technical analysis is performed to determine system dependencies, technology resources / techniques required, and project estimates.

For bug defect reports, a technical analyst function assesses and routes the report to appropriate development teams for immediate action. A technical analyst function identifies technical feasibility of change requests, including impacts to existing infrastructure and development, testing, and release schedules.

c. Request reporting

The organization is capable of retaining visibility on the status of requests and projects as they are analyzed, prioritised, designed, developed, tested, and deployed.

Infrastructure Support tools are able to retain visibility and status for submitted requests through every phase of the change management process, including details about the deployment of the change. Infrastructure Support people and tools are integrated into Help Desk and Enterprise management tools, to quickly analyze and prioritize requests.

d. Deployment management

The change management process follows a logical order and is controlled to ensure the logical evolution of effective enhancements to Production environments. "Major impact"

projects are first built / configured as prototypes to demonstrate to management business justification and feasibility. Preliminary testing (including functionality and performance), business acceptance, and adjustments to design are used as specifications for solution development. Infrastructure changes are first built / configured / integrated in the development environment(s), followed by testing in the Test / QA environment, and are deployed to the Production environment in intermediate steps as business needs require. These may include staging, training, approvals by affected parties and management, or other activities and environments after testing, but prior to Production. Infrastructure component purchases (software, hardware, & network components) are coordinated using Requests for Proposal (RFPs) and vendor proposals to determine the best fit for the business needs based on solution requirements and specifications.

Procedures are in place to ensure that system changes may be immediately demoted or restored to a prior state, in the event of an unsuccessful or undesired deployment of infrastructure changes to Production environments. Business units that will be directly affected by an enhancement are given right of approval / disapproval / delay prior to a particular changes deployment into Production. This may include end -User training, documentation, and staging, as the business unit's needs require.

Production Deliverables are released concurrently or prior to Conversion / Roll-Out of the solution. Deliverables should include all applicable editions or updates to User and administration manuals, configuration references, topology diagrams, support procedures, and business continuity plans. Process Testing / Quality Assurance are conducted to ensure reliability and performance of all components of the organization's technology infrastructure.

Emergency requests are handled in a similar manner to normal requests, with minor differences to allow for expedited development, testing, and release. Emergency / Bug changes are verified by business and technical analysis, and are then expedited through a simplified promotion and deployment process. Emergency releases must be authorized by a pre-determined manager, and logged into the appropriate system for audit purposes.

All emergency build / configuration / integration changes must be tested in all sufficient phases to ensure quality performance without adding additional disturbances to the current systems.

Emergency releases should be communicated to the User and administration population to alert them to the need and impacts of the emergency changes.

e. Configuration / Release management

The configuration function provides administration and control over the Deployment Management. A release management function has the responsibility to control the deployment of changes from one environment to the next. No other role should be allowed to “push” or “pull” changes from one environment to another, and the release management function has the authority to approve or deny change promotions and/or deployments. This function may be different personnel for each promotion stage, depending on business requirements. Release management administers and oversees Version Control and program libraries, and other systems software that automate the change deployment process.

All changes made for deployments to each environment are logged for solution module versions, date/time stamp, identification of User deploying the change, and execution steps for the deployment. Changes that fail in their deployment to the Production environment are analyzed for root causes, and these findings are documented for organisational reference.

Availability of Infrastructure components is maintained within service-level agreements and business requirements. If availability of these components must be interrupted, downtime for deployment is scheduled appropriately and Users of the affected systems are notified sufficiently in advance of the change deployment to ensure business continuity.

The version control system controls the check-in / check-out of software and subsequent deployment throughout the deployment process. It does so by ensuring that the following concepts are possible: Either no two Users may check -out and check-in software for changes at the same time, or if simultaneous check-outs are allowed, a tool or process for reviewing and merging changes is used prior to check- in. Check-in of previously checked-out software always changes the version label in the system, such that no two versions are labeled alike. Only new software modules are allowed to be checked-in without checking them out first. The version control system is used as the source for all deployments of software to TEST/QA and PROD environments.

6. Commencement of policy

The policy will come into effect on the date of adoption by Council

7. Interpretation of the policy

- a. All words contained in this policy shall have the ordinary meaning attached thereto, unless the definition or context indicates otherwise. Any dispute on interpretation of this policy shall be declared in writing by any party concerned.

- b. The Municipal Manager shall give a final interpretation of this policy in case of written dispute.
- c. If the party concerned is not satisfied with the interpretation, a dispute may then be pursued with the South African Local Government Bargaining Council.

8. Permanent/Temporary waiver or suspension of policy

- a. This policy may be partly or wholly waived or suspended by the Municipal Council on temporary or permanent basis.
- b. Notwithstanding clause No. 22 the Municipal Manager/Council may under circumstances of emergency temporarily waive this policy subject to reporting of such waiver or suspension to Council.

9. Compliance and enforcement

- a. Violation of or non-compliance with this policy will give a just cause for disciplinary steps to be taken.
- b. It will be the responsibility of Council to enforce compliance with this policy.

10. Amendment and abolition of policy

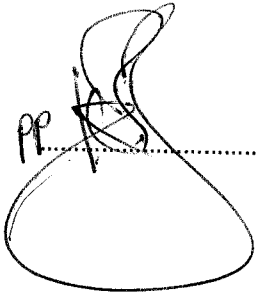
- a. This policy may be amended or repealed by the council as it may deem necessary.

11. COUNCIL APPROVAL AND EFFECTIVE DATE

Approval of Policy by Council and Effective date: 06/06/2017

MUNICIPAL MANAGER

DATE

PP. 

19/06/2017