POLICY 046/2016 RAADSBELEID

MUNICIPALITY DAWID KRUIPER MUNISIPALITEIT

SUBJECT/ONDERWERP: IT-DISASTER RECOVERY PLAN

REFERENCE/VERWYSING: 6.1.3.B


PURPOSE: This plan defines roles, responsibilities, processes and actions required to minimize the impact that a disaster would have on the operations of council being supported by IT resources.

PHILOSOPHY AND PRINCIPLE
Dawid Kruiper Municipality uses IT resources to assist in achieving objectives related to:

- Processes and activities of service delivery to the community.
- Processes required for the administration of the organization.

This plan serves as a basis for operations of the IT disaster recovery teams in the event that a disaster has been declared in terms of the IT Disaster Recovery Policy and thereby minimize the effect of such disaster on Council not achieving its objectives.

DEFINITIONS
Disaster - Unforeseen situation that arises and if not managed will result that Council cannot achieve its objectives because employees are unable to perform their regular roles and responsibilities through the non-availability or -functioning of IT-resources.

Disastrous events - Disasters happen during one or more of the following events that impact on IT-resources

1. Natural disaster
   (a) Fire
   (b) Floods
   (c) Storms
   (d) Epidemic

2. Man made disaster
   (a) War
   (b) Accidents
   (c) Technology failure

IT Resources - Includes IT-system, -equipment, -technology and -personnel.

IT Disaster Recovery Plan (IT-DRP) - Documented processes and procedures that must be followed to minimize the risk associated with a disaster
IT Disaster Recovery Centre (IT-DRC) - A facility other than the normal place from which IT-resources, operations and processes are driven and managed to which these are diverted should a disaster cause the normal place to be inadequate, unavailable or inaccessible.

Business Continuity Plan - A plan being developed within each business unit that provides information on the impact a disaster will have on the unit and the maximum timeframes of recovery to minimize disruptions.

DETAIL PLAN

1. **Declaration of a disaster**

   The Municipal Manager will declare an event a disaster when

   1.1. One or more IT resources are non-functional,
   1.2. The building or facility utilized for council processes is not available for an extended period of time.

   The event will impact seriously against council achieving its objectives

   **Process**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions / Considerations</th>
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</thead>
</table>
   | 1. Confirm the nature of the disruption | ➢ What has happened?  
   ➢ When did it occur?  
   ➢ Who and how many business units are affected?  
   ➢ What IT resources are affected?  
   ➢ Which systems and/or services are affected?  
   ➢ How potentially serious is it?  
   ➢ What is the estimated duration of the problem?  
   ➢ Who else has been informed (Media Officer, Comms, stakeholders) |
   | 2. Decide whether the IT-DRP should be invoked. (The decision will be based upon the information provided) | ➢ How long resources (Human and other) will be unavailable  
   ➢ Whether the staff are required to support the Critical / Important Business Activities  
   ➢ Whether the Area is currently responding to external incident  
   ➢ Inform staff that the IT-DRP is being invoked or put staff on standby or invoke agreed manual systems to ensure that the service can continue to operate.  
   ➢ If the decision is made not to invoke the plan, continue to monitor the situation until such time as normal service is resumed |
   | 3. Specific actions or considerations if the disruption is due to non-availability of Key Staff | ➢ Change of job functions for some staff (to support the critical business activities)  
   ➢ Suspend less time critical parts of the business  
   ➢ Offer overtime  
   ➢ What resources can be re-allocated  
   ➢ Consider out sourcing some services if possible until ready to restore them.  
   ➢ Arrangements/contracts to hire / borrow / purchase replacement resources from suppliers  
   ➢ Protective measures for resources e.g. not having all resources at one site/shop/office |
2. Disaster recovery teams with roles and responsibilities

2.1. Senior Management team

Objective:
To make high level decisions on the continuation of business processes and authorize the sourcing of resources during a disaster.

Roles and responsibilities
- Authorize the establishment of IT-DRC
- Identify locations other than the normal location of business to be equipped with resources that link to the IT-DRC from which mission critical operations can be continued in the event that business processes cannot be performed from the normal place of business.
- Declare an event a disaster in accordance with Council policy.
- Communicate with Council, community and other stakeholders during a disaster
- Ensure that the IT-DRP is carried out successfully
- Make decisions on the placement of personnel either at the IT-DRC, other business offices or working from home.
- Make decisions on the re-establishing of affected business units
- Authorize the sourcing of necessary resources

Team and contact information

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Tel number</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Ngxanga</td>
<td>Municipal Manager</td>
<td>0543387001</td>
<td><a href="mailto:manager@kharahsi.gov.za">manager@kharahsi.gov.za</a></td>
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</tr>
<tr>
<td>G Bovu</td>
<td>Director Community Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P Viviers</td>
<td>Director Planning and Development Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H Auret</td>
<td>Director Electro Mechanical Services</td>
<td></td>
<td><a href="mailto:elec@kharahais.gov.za">elec@kharahais.gov.za</a></td>
</tr>
<tr>
<td>J Kock</td>
<td>Director Civil Engineering Services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. IT Management Team

Objective:
Provide assistance and give direction where necessary to IT-DRP teams and communicate to senior management.

Roles and responsibilities
- Establishment of a IT-DRC
- Engagement and servicing of SLA with key suppliers and vendors where applicable
- Ensure the IT-DRC is operational
- Request senior management team to declare an event a disaster
- Communicate IT related teams on decisions from Senior management team
- Implement the IT-DRP and support IT-DRP teams
- Provide Senior management with information for the placement of personnel either at the IT-DRC, other business offices or working from home.
- Recommend the sourcing of affected resources
- Activate SLA with key suppliers and vendors
- Report on activities to Senior management team

Team and contact information

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<th>Name</th>
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<tbody>
<tr>
<td>J Marais</td>
<td>IT Manager</td>
<td>0543387059</td>
<td><a href="mailto:it.manager@kharahais.gov.za">it.manager@kharahais.gov.za</a></td>
</tr>
<tr>
<td>K Arends</td>
<td>Systems Administrator</td>
<td>0543387060</td>
<td><a href="mailto:sysadmin@kharahais.gov.za">sysadmin@kharahais.gov.za</a></td>
</tr>
</tbody>
</table>

2.3. **Systems/ Software Support team**

**Objective:**
Provide baseline applications and systems at the IT-DRC and support business units during a disaster to minimize the impact of such on those units.

**Roles and responsibilities**
- Ensure systems and applications on secondary servers at the IT-DRC are updated and operational.
- Ensure processes are in place for switch over to the IT-DRC with minimal effort
- Ensure backups are made in accordance with backup policy.
- Assess the impact of the disaster on access to servers and applications
- For each affected business unit establish in accordance with the BCP:
  - The minimum application and software required for operations
  - The time frame for re-configuration and access to servers
- Upload backups where applicable
- Revert access to applications to the IT-DRC when applicable
- Re-establish systems and application at main server room.
- Revert access back to main server room and or business unit offices after facility is repaired and declared safe.

Team and contact information

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<td><a href="mailto:it.asstadmin@kharahais.gov.za">it.asstadmin@kharahais.gov.za</a></td>
</tr>
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</table>
2.4. **Hardware Support Team**  
**Objective**  
Providing baseline servers and IT related equipment at the IT-DRC and support business units effected by a disaster to minimize the impact of such on the units.

**Roles & responsibilities**
- Configure and maintain server hardware at the IT-DRC
- Configure and Maintain backup PC’s and printers at IT-DRC for use during disaster
- Assess damage to IT related equipment at affected business units when disaster strikes.
- For each affected business unit establish in accordance with the BCP:
  - The minimum IT related equipment required for operations
  - The time frame for re-configuration and placement hardware
- Where and when applicable the re-allocation of undamaged IT related equipment to temporary offices
- Where and when applicable placement of backup IT related equipment
- Request and sourcing the replacement of damaged IT related equipment
- Configuration, installation and placement of new or repaired IT related equipment
- Configuration, installation and placement of IT related equipment back to normal working environment once facilities are repaired and declared safe.

**Team and contact information**

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<tr>
<td>C Mouton</td>
<td>Asst technician</td>
<td>0543387111</td>
<td><a href="mailto:snrtech@kharahais.gov.za">snrtech@kharahais.gov.za</a></td>
</tr>
</tbody>
</table>

2.5. **Network Support Team**  
**Objective:**  
Providing baseline communication at the IT-DRC and support business units with communication during a disaster to minimize the effect of such on those units.

**Roles & responsibilities**
- Configure and maintain network to IT-DRC.
- Maintain redundancy on council’s LAN and WAN for failover.
- Configure and Maintain backup network and communication equipment at IT-DRC for use during disaster
- Assess damage to LAN and WAN infrastructure and equipment.
- For each affected business unit establish in accordance with the BCP:
  - The minimum communication resources required
  - The time frame for re-establishing communication
- Switch to failover or activate temporary communication to either main servers or IT-DRC, where and when applicable
• Request and sourcing of damaged equipment.
• Configuration and installation of equipment new equipment
• Configuration and installation of equipment and re-establishing communication to normal working environment once facilities are repaired and declared safe.

Team and contact information

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<td>0543387059</td>
<td><a href="mailto:it.manager@kharahais.gov.za">it.manager@kharahais.gov.za</a></td>
</tr>
<tr>
<td>L Schreiner</td>
<td>Asst Network technician</td>
<td>0543387111</td>
<td><a href="mailto:netteltech@kharahais.gov.za">netteltech@kharahais.gov.za</a></td>
</tr>
</tbody>
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3. **IT Disaster Recovery Centre (IT-DRC)**

Location
The centre is located on erf 6073, corner of Upington 26 Street and Clarkia Way Progress Upington.

![Map of IT Disaster Recovery Centre](image)

**Equipment**
- Servers
- BIQ, IMIS, Itron, Email, Firewall, NAS
- Switches
- Routers
- Communication Systems
4. **Backup locations**
   - KHM municipal offices
     - Server room NAS server (192.168.0.112)
       - BIQ
       - IMIS
       - Itron
       - CashFlow
       - Other
     - Safe Finance (Tapes)
       - BIQ
   - IT-DRC
     - Nas Server
       - TBA
       - TBA
     - Tapes
       - BIQ

5. **Key Suppliers, their roles and responsibilities**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Supplier</th>
<th>Contact information</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Server</td>
<td>IBM SA</td>
<td></td>
<td>✓ Supply AS400 Server</td>
</tr>
<tr>
<td>BIQ system</td>
<td>Quill Associates</td>
<td>012 345 3796 082 880 0015 <a href="mailto:danie@biq.co.za">danie@biq.co.za</a></td>
<td>✓ Restore system ✓ Assistance to IT Staff</td>
</tr>
<tr>
<td>Prepaid electricity</td>
<td>Itron Metering</td>
<td>021 928 1700 083 446 0516</td>
<td>✓</td>
</tr>
<tr>
<td>IMIS</td>
<td>TGIS</td>
<td>054 331 3898 082 774 4894</td>
<td>✓</td>
</tr>
<tr>
<td>Firewall</td>
<td>URB</td>
<td>054 337 6555 083 707 7997</td>
<td>✓</td>
</tr>
<tr>
<td>Email</td>
<td>URB</td>
<td>054 337 6555 083 707 7997</td>
<td>✓</td>
</tr>
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6. **Classification of affected resources**

In order to give preference to IT resources most critical for business continuity, non-operational IT resources affected by the disaster are classified in accordance with the Business Continuity Plan as follows:
7. **Documentation and reporting**

The process of the disaster will be documented in 3 phases.

1. **Inception phase**
   When an event is triggered that could be classified as a disaster a report of the event is completed to the Senior management team that will assist in
   - Declaring the event a disaster
   - Initiating their roles and responsibilities.

2. **Recovery Phase**
   Once the IT-DRP is activated and all resources are placed to minimize the effects thereof a report/s are tabled to Senior Management Team for
   - Information on processes completed,
   - Further decision making on resources and
   - Authorizing processes or acquisitions of resources as applicable

3. **Completion Phase**
   A final report is tabled to Senior Management Team when it is declared that effected facilities are safe to continue with normal business operations that
   - IT resources are replaced and
   - Normal operations are restored,

All reports are filed and a SWOT analysis is done that will assist in improving on processes and procedures of this plan.

**REPEALS**
Any previous policy or procedure prior to this policy is hereby recalled.