I. PURPOSE
The purpose of this document is to define the Problem Management process for use across the University Information Technology (UIT) and the Information Technology Services (ITS) organizations.

II. OBJECTIVE
The objective of Problem Management is to minimize the adverse impacts of incidents and problems on the business caused by errors in the IT infrastructure and to initiate actions to prevent recurrence of incidents related to those errors.

III. SCOPE
This process applies to all UIT/ITS employees, contractors, vendors, departments, business areas, functional areas, and affiliated organizations.

IV. PROCESS

V. PROCEDURES
1. Log Problem
Record information about the problem. When recording information about a problem, record sufficient information to properly support analysis and resolution activities. The following minimum information is recorded for each problem:

- Service or CI
- Short Description
- Problem Symptom
- Point(s) of Contact
- Impact
- Urgency

2. Categorize and Prioritize Problem

Assign the relevant category to the problem in the problem management system. Communicate with the reporter of the problem to determine the Urgency and Impact of the incident. Using this information, the Priority will be set based on the following guidelines:

<table>
<thead>
<tr>
<th>Urgency</th>
<th>Impact</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Urgent</td>
<td>High</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

3. Assign Problem

Identify and assign a case owner to be the responsible party in diagnosing and resolving the problem. The case owner is the primary point of contact for all work surrounding the investigation and resolution of the assigned problem.

4. Create Problem Team

Identify the appropriate resources to conduct root cause analysis on the problem. Request that the identified resources be assigned to the root cause analysis effort from the appropriate functional manager.

5. Conduct Root Cause Analysis (RCA)

Analyze the problem data using available root cause analysis techniques such as:

- Appreciation – Use the facts and ask "So what?" to determine all the possible consequences of a fact.
- 5 Whys – Ask "Why?" until you get to the root of the problem.
- Drill Down – Break down a problem into small, detailed parts to better understand the big picture.
- Cause and Effect Diagrams – Create a chart of all of the possible causal factors, to see where the trouble may have begun.

Document the results of the analysis in the problem record as part of the investigation activities.

6. Create Known Error

If a workaround can be determined by the problem team, record the workaround steps in the problem record and publish the information to the knowledge management system.

7. Submit Request for Change (RFC)

Once a resolution has been identified, determine if the resolution requires a change to a controlled configuration item. If so, create a Request for Change (RFC) to apply the resolution to the impacted system(s).

8. Resolve Problem

Once a resolution has been determined, apply the resolution to the impacted systems. Verify that the resolution corrected the problem. Record the resolution in the ticket and publish to the knowledge base.

9. Review and Close Problem

Once the problem is resolved, a review of the problem should be conducted. For minor problems, a written report is sufficient. If the problem was an Urgent or High level problem, a report session with in depth presentation of the problem root cause, resolution, and process performance should be completed.

Once reporting is completed, ensure that the problem record is updated with an Executive Summary and the solution is described in the Close Notes. Close the problem record. Ensure that all related incident tickets are resolved and closed at this time.

VI. ROLES AND RESPONSIBILITIES

<table>
<thead>
<tr>
<th>Activity</th>
<th>Reporter</th>
<th>Problem Manager</th>
<th>Case Owner</th>
<th>Problem Team</th>
<th>Change Manager</th>
<th>CIS Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log problem</td>
<td>C</td>
<td>A/R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categorize and Prioritize</td>
<td>C</td>
<td>A/R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revision #: 1.0  Supersedes: N/A  Date: 01.01.16

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Activity | Reporter | Problem Manager | Case Owner | Problem Team | Change Manager | CIS Director
---|---|---|---|---|---|---
Assign Problem | I | A/R | C | | | |
Create Problem Team | | A | R | C | | |
Conduct RCA | | A | R | C | | |
Create Known Error | I | A | R | C | | |
Submit RFC | | A | R | C | C | |
Resolve Problem | I | A | R | C | | |
Review and Close Problem | I | A/R | C | C | I | |

**Responsible**

Those who do the work to achieve the task. There is at least one role with a participation type of responsible, although others can be delegated to assist in the work required.

**Accountable** (also approver or final approving authority)

The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to those responsible. In other words, an accountable must sign off (approve) work that responsible provides. There must be only one accountable specified for each task or deliverable.

**Consulted**

Those whose opinions are sought, typically subject matter experts; and with whom there is two-way communication.

**Informed**

Those who are kept up-to-date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.

### VII. PROCESS METRICS

<table>
<thead>
<tr>
<th>Metric Name</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td># problems opened within time period</td>
<td>Count of problems opened</td>
</tr>
<tr>
<td># problems closed within time period</td>
<td>Count of problems closed</td>
</tr>
<tr>
<td>% problems resolved within SLA</td>
<td>Count of problems resolved within SLA / Count of total problems</td>
</tr>
<tr>
<td># major problems</td>
<td>Count of Major Problems</td>
</tr>
</tbody>
</table>

### VIII. REGULATORY INFORMATION

NA
IX. GOVERNANCE
The Process Owner is responsible for the enforcement of this process and the approved procedures and work instructions related to its implementation.

X. ENFORCEMENT AND EXCEPTIONS
This process document is approved by the UIT/ITS’s Executive Leadership Team. Failure to follow this process could result in disciplinary action.

Exceptions or modifications to this process can be approved by the Process Owner.

Changes to corresponding procedures or work instructions may be made by the Process Owner or a designated alternate.

XI. DOCUMENT REVIEW
The applicable process and procedure documents shall be audited, reviewed, and revised as necessary at a minimum interval of every one (1) year to ensure relevance, fit for purpose, and fit for use.

The applicable processes and procedures shall be audited, reviewed, and revised as necessary when the corresponding policy is modified.

XII. REFERENCES
Definitions Document
Problem Management Policy Document

XIII. APPROVALS

| Approval Body: |  |
| Approval Date: |  |
| Process Owner: |  |
| Origin Date: |  |

XIV. REVISION HISTORY

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision #</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.02.15</td>
<td>1.0</td>
<td>Initial creation.</td>
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</table>

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