Major IT Service Issue Process

1 Purpose and Scope

The Virginia Tech Information Technology (IT) major IT service issue process is intended to identify and ultimately resolve major IT service issues as quickly as possible through proper incident management, predefined escalation paths, and prompt communication procedures for our customers.

Major IT service issues are the interruption or degradation of a core production service (any centralized IT provided service that serves multiple customers and users) that results in the disruption of its customers' ability to carry out University teaching, learning, research and/or administration at the University.

The scope of this document is to provide a basic process that applies to every major IT service issue for all IT services and to provide guidelines for IT Staff to follow. It provides guidelines for employees to identify a major IT service issue and to escalate it to the appropriate technical group for resolution.

2 Process Goals

- Users are alerted to or the occurrence of a Major IT service issue is confirmed as quickly as possible. (Early notification of the impacts of a potential issue is more important than an accurate description of the issue.)
- Major IT service issues are escalated as soon as possible to the service owner/designee responsible for the service.
- Regular and timely communication occurs with affected end-users throughout the lifecycle of a major IT service issue.
- Detailed documentation of major IT service issues occurs throughout the lifetime of each event.

3 Document Owner

The document owner is responsible for ensuring that this document is accurate and up-to-date, following established processes.

This document is owned by the Director of IT Support within IT Experience & Engagement.
4 Definitions

- **COD**: Consultant on Desk as assigned by the Service Desk Manager.
- **Incident**: an incident is a breach or potential breach of a service level agreement. For services which do not have service level agreements, an incident is when something is not functioning within our expectations with respect to an IT service. Many incidents are reported by users, although incidents can also be identified through monitoring tools or IT employees.
- **Major IT service issue**: the interruption or degradation of a core production service (any centralized IT provided service that serves multiple customers and users) that results in the disruption of its customers’ and users’ ability to carry out University teaching, learning, research and/or administration at the University.
- **MOU**: Memorandum of understanding, which documents the respective responsibilities of two or more organizations within Virginia Tech who form a partnership for a specific ongoing purpose or process.

5 Roles and responsibilities

5.1 Service Desk
The Service Desk is a function of 4Help and is responsible for the following activities:
- Helping to identify a major IT service issue
- Assuming initial role as Incident Coordinator
- Participating in the Customer Service Center (CSC) chat room
- Placing a generic major IT service issue message on the Information Center Automatic Call Distributor (ACD) system, if deemed necessary
- Posting initial message on IT Status and Techsupport

5.2 Incident Coordinator
The Incident Coordinator assumes responsibility during a major IT service issue for coordination, documentation, and communication.

For any major IT service issue during work hours, the IT Service Desk Supervisor will assume the role of incident coordinator. Outside of work hours, the 4Help on-call staff member will be the incident coordinator. For issues of longer duration (more than 4 hours), the responsibility of the Incident Coordinator should be transferred to someone appointed by the relevant service owner. When a new individual assumes the role of the Incident Coordinator this should be documented in the Major IT Service issue post-mortem timeline.

The Incident Coordinator is responsible for the following activities:
- Facilitating and participating in the CSC chat room and being available by phone for updates
  - Identifying an alternate location for incident collaboration in the event of a VT IM outage
- Facilitating communication with Technical Resources and Service Owners for status updates and additional information
- Posting updates, at least hourly, to IT Status and Techsupport group
- Ensuring that internal and external communications about a Major Incident are completed in a timely manner by engaging the IT Communications Team (and escalating to Director of IT Support if assistance in obtaining updates is an issue)

5.3 Service Owner
4Help has a list of service owners, which includes any authorized IT employee who has signed an MOU with 4Help for service. The service owner is responsible for the following activities:
- Identifying the appropriate Service Contact for each service
- Maintain a list of appropriate Service Contacts for each service
- Verifying that a major IT service issue is occurring
- Participating in the CSC chat room when available (if CSC chat room is not available a suitable alternative such as Google Hangouts/Slack should be created for the Incident by the Incident Coordinator and shared with applicable service owners and incident participants.)
- Providing regular updates about the service restoration to the Incident Coordinator and IT Communications team for distribution to a wider audience
- Notifying the Service Desk during business hours of an identified major IT service issue
- Identifying the business impact of a major IT service issue
- Assisting with developing messages and communications, for customers of the service, end-users and other non-IT parties
- Maintaining a record of events throughout a major IT service issue
- Confirming that resolution of a major IT service issue is in place
- Notifying the Incident Coordinator, IT staff, and any external parties of the resolution after verification that the issue is resolved
- Hosting a “post mortem” for interested IT staff (may include Departmental IT Staff when appropriate)
- Communicating with the CIO and Deputy CIO.

5.4 IT Communications Team
The IT Communications Team is responsible for the following activities:
- Identifying and maintaining a list of appropriate stakeholder groups to always receive notifications during a major incident
- Ensuring that internal and external communications about a Major Incident are completed in a timely manner by collaborating with the Incident Coordinator.
- Participating in the CSC chat room and being available by phone for updates.
- Communicating with the CIO and Deputy CIO and passing on relevant communication to the internal and external partners including the Incident Coordinator and the Virginia Tech community.

6 Process
6.1 Major IT service issue process

| Triggers | ● More than three incidents related to a core production service are received by 4Help, within one hour  
|          | ● A Service Owner designee notices that a major IT service issue is occurring and notifies 4Help |
| Inputs   | ● Incident documentation  
|          | ● During regular work hours: COD, who will become the incident coordinator  
|          | ● Outside regular work hours: On-call person, who will become the incident coordinator |
| Outputs  | ● Messages to IT status and Techsupport group  
|          | ● Major IT service issue has been resolved  
|          | ● Relevant incidents have been closed  
|          | ● Documentation of the IT service issue and “post mortem” |

1. The incident coordinator will post a message on IT Status, and to Techsupport, stating “As of [DATE/TIME], we have received several incidents related to a potential issue with xxx service. An update will be provided as soon as we have additional information. You can also check [LOCATION] for updates.”

2. The incident coordinator will immediately contact the person(s) listed in the Service Contact list. If primary the contact is unavailable, use the Service Contacts list on the CSC wiki until someone from the group is reached: [https://wiki.cns.vt.edu/x/vMg](https://wiki.cns.vt.edu/x/vMg)

3. Incidents related to the Major IT Service Issue should be reassigned to the appropriate group as necessary. If no incidents exist for the Major IT Service Issue the Incident Coordinator should create one with the known details and assign it to the correct group as necessary.

4. Once the issue is escalated, the service contact, service owner, or designee is responsible for providing at least hourly updates to the CSC chatroom.

5. Once the Service Owner or Service Contact has been notified the Incident Coordinator will contact the IT Communications team contact and apprise them of the situation.

6. If the issue is expected to impact services for more than 4 hours, the Service Owner may appoint an Incident Coordinator within their group. If so, the previous incident coordinator contacts all parties to let them know about the new incident coordinator. The previous incident coordinator also briefs the new incident coordinator on all activities that have taken place to date.

7. The incident coordinator, or the service owner if the service owner has expressly told the incident coordinator they would prefer to communicate, will work with the IT Communications team to communicate with affected end-users regularly throughout the lifecycle of a major IT service issue.

8. Once the issue is resolved, the incident coordinator communicates that the issue has been resolved.

9. The Service Desk closes all related incidents.
6.2 Major IT service issue post-mortem process

<table>
<thead>
<tr>
<th>Triggers</th>
<th>• A major IT service issue been resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>• Ticket documentation</td>
</tr>
<tr>
<td></td>
<td>• Documentation from Service Owner and others</td>
</tr>
<tr>
<td>Outputs</td>
<td>• Documented timeline of the major IT service issue</td>
</tr>
<tr>
<td></td>
<td>• Documented cause of the issue and improvement ideas</td>
</tr>
</tbody>
</table>

1. Service Owner schedules a meeting with all Incident Coordinators, Service Contacts, IT Communications Team members, and other Service Owners impacted by the Major IT service issue.
2. In the meeting, the Service Owner reviews a written timeline of the major IT service issue and documents the group’s ideas for improvements to mitigate or prevent future similar major IT service issues such as mitigating process and system improvements. The group assigns owners and timelines to each improvement.
3. Service Owner shares the documented timeline and improvement ideas with the Virginia Tech IT Community.

7 Related documentation

The below processes, policies, or other documentation are related to this process:

<table>
<thead>
<tr>
<th>Process</th>
<th>Process Owner</th>
<th>Relationship to this process</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process modification process</td>
<td>Process documentation manager</td>
<td>Defines how this process is approved</td>
<td>TBD</td>
</tr>
<tr>
<td>Service Contact list</td>
<td>Director of IT Support</td>
<td>Owns list</td>
<td>Wiki, SharePoint, ServiceNow</td>
</tr>
<tr>
<td>Stakeholder notification list</td>
<td>Communications team</td>
<td>Default group of stakeholders to keep notified during outages and on post-mortem findings</td>
<td>TBD</td>
</tr>
<tr>
<td>Service-specific stakeholder notification lists</td>
<td>Each service owner</td>
<td>If services have stakeholder groups that need to be notified during outages and on post-mortem findings that differ from the overall Stakeholder notification lists, service owners need to identify these groups</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Workflow of Process

1. Major IT Issue triggered
   - The Incident Coordinator will post a message on IT Status and to Tech Support
   - The Incident Coordinator will immediately contact the Service Owner & designated service contacts
   - Any incidents are assigned to the correct group
   - Incident Coordinator contacts IT Communications Team
   - Service Owner or designee provides updates to Incident Coordinator

2. Issue ongoing after 1 hour?
   - Yes: Service Owner or designee verifies resolution and communicates with IT Communications Team and Incident Coordinator
   - No: Issue ongoing after 4 hours?

3. Issue ongoing after 4 hours?
   - Yes: Service Owner assigns new Incident Coordinator
   - No: New Incident Coordinator notifies current Incident Coordinator

4. Service Owner or designee verifies resolution and communicates with IT Communications Team and Incident Coordinator
   - Is the issue resolved?
     - Yes: IT Status messages are marked as resolved and other end-user communication is broadcast.
     - No: All related incidents are resolved
### Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Author</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1-1</td>
<td>Joyce Landreth and others</td>
<td>July 24, 2015</td>
<td>IT Support folks (that have been attending ITIL meetings) have reviewed this, as well as Pat Rodgers and William Dougherty. I think it is fair to say we can implement this as a straw-man approach after discussing with CIT and DIT folks at the August 12 meeting.</td>
</tr>
<tr>
<td>Version 1-2</td>
<td>John Borwick</td>
<td>August 6, 2015</td>
<td>Document reformatted into a template that can be used for other processes.</td>
</tr>
<tr>
<td>Version 1-3</td>
<td>John Borwick</td>
<td>August 6, 2015</td>
<td>Changed to “incident coordinator” and “major IT service issue process.” Other changes related to role descriptions.</td>
</tr>
<tr>
<td>Version 1-4</td>
<td>ITIL Session</td>
<td>August 12, 2015</td>
<td>Reviewed in ITIL Session.</td>
</tr>
<tr>
<td>Version 1-5</td>
<td>John Borwick</td>
<td>August 13, 2015</td>
<td>Added post-mortem process. Made process more restrictive so incident coordinator only changes after 4 hours (removing “or if the service owner wants to do it”).</td>
</tr>
<tr>
<td>Version 1-6</td>
<td>Lucas Sullivan</td>
<td>June 6, 2016</td>
<td>Incorporated changes from Division of IT line managers. Added 5.4 to identify the responsibilities of the IT Comms team. Added language regarding communication with the CIO’s Office.</td>
</tr>
<tr>
<td>Version 1-7</td>
<td>Claire Gilbert</td>
<td>June 20, 2016</td>
<td>Feedback from IT Project Information meeting incorporated</td>
</tr>
</tbody>
</table>

### 10 Identified Process Improvements to Implement

The below are improvements identified for consideration during future revisions of this document:

- Develop an appropriate reference/link to the Security Incident Response Management (SIRT) process on ITSO website
- Implement problem management
- Add Problem Report output to this process which would trigger Problem Management Process
- Identify best protocol for Major IT Service Issue group chats/communications
- Generate list of stakeholders as related documentation
- Identify authoritative source of IT Status updates
- Improve access and editability of service contacts list
- Define time period for when CIO/Deputy CIO are notified if no contact can be made with a service owner or technical lead
- Cross reference this process with OEM best practices and fold in appropriate updates