



Issue Brief

Downtime related to disk space

NM Kids – Issue Brief

1 Incident Overview

System issues have impacted the production environment and limited functionality during business hours on two separate occasions during the period of May and June 2010. System issues manifested themselves as an application slowdown, timeout, and a limited ability to run reports. Additionally, the event occurring on 5/13/2010 required an unscheduled restart of the application machine and took all functionality offline for approximately 30 minutes.

Investigation into these system incidents showed that the root cause of each related to disk space on the operating system drive of the APP server. System logs and other temporary files are continually created and deleted during server operation. In these cases, files grew large enough to limit the ability to effectively use the swap file (a temporary disk file used as system memory), dramatically increasing the impact on system performance. Delays in the notification of system issues between system staff and project management contributed to the impact on system readiness, allowing disk space issues to progress to a level requiring a machine restart.

2 Incident Status

There are no current space issues with either the DB or APP machine. To resolve both incidents, disk cleanup was used to free disk space of old files and logs.

3 Incident Resolution

For the long term resolution of this issue, new server hardware will dramatically increase the operating system drive space on the application server.

In the interim, a new notification process is proposed to directly notify MAXIMUS project staff of system issues, including disk space. Currently, NAGIOS infrastructure monitoring software is used to monitor and notify system staff of server issues. Typically, email notifications are sent when a server triggers an event that may impact uptime. It is proposed that these notifications of issues are reviewed and revised by MAXIMUS project staff. Additionally, MAXIMUS project staff would be directly notified so they can take direct action and reduce the time to respond to issues.

4 Incident Summary:

Incident Number	Date	Time	Production Impact	Impact Summary
2010-05-01	5/13/2010	30m	Yes	An unscheduled system restart was required during business hours.
2010-06-01	6/2/2010	1hr	Yes	Users experienced production timeouts during data entry and report generation.

