### **Compliance Procedure**

Title: Review of Backup Logs Procedure

Reference Number: 3.4.2.3

#### **Purpose**

The purpose of this compliance procedure is to define the procedure in place with regard to completion verification of computer backups. The intent is to have nightly backup execution monitored regularly and abnormalities channeled to appropriate support staff for review.

OCCS utilizes automated enterprise software (tape management) to execute backups of the various servers within the data center. Time of day for execution is not limited to the non prime hours.

#### **Procedures & Related Information**

Server backups execute automatically at predetermined times.

Successful completion and/or failure of a specific server is posted as entries in the activity log viewed by Operations staff people.

Duty Operations staff people view the entire activity log on an hourly basis.

Summary reports are executed each morning and distributed electronically to key individuals and support team members.

Specifically, the Information Technology Manager is tasked to review these summary logs for abnormalities and initiate action to resolve any issues.

Such logs shall be kept in the Operations storage room for a period of 60 days.

The following excerpt from a summary report shows an example of an abnormality which should be noted and forwarded to the support team. Backups can complete in a variety of completion status indicators, however, OCCS is most concerned with "Missed" or "Failed" indicators:



Super-User <root@guana.server1.odu.edu</pre>

Schedule Name: LIONS\_SERVERS

01/26/2007 08:03 AM

To mmusacch@odu.edu, thendric@odu.edu, unixlogs@list.odu.edu

cc bcc

Subject ADSM Backup Results Midnight to 8:00am

IBM Tivoli Storage Manager Command Line Administrative Interface - Version 5, Release 3, Level 0.0 (c) Copyright by IBM Corporation and other(s) 1990, 2004. All Rights Reserved. Session established with server GUANA: Solaris 8/9 Server Version 5, Release 3, Level 2.0 Server date/time: 01/26/07 08:00:00 Last access: 01/25/07 23:58:01 ANS8000I Server command: 'q event unix\_domain \* begint=00:00 endt=07:30 f=d' Policy Domain Name: UNIX\_DOMAIN Schedule Name: CCPO\_BACKUP Node Name: FALCON Scheduled Start: 01/26/07 03:00:00 Actual Start: 01/26/07 03:00:11 Completed: 01/26/07 03:15:49 Status: Completed Result: 0 Reason: All operations completed successfully. Policy Domain Name: UNIX\_DOMAIN Schedule Name: LIONS\_SERVERS Node Name: CAPTIVA.LIONS.ODU.EDU Scheduled Start: 01/26/07 03:00:00 Actual Start: 01/26/07 03:00:11 Completed: 01/26/07 03:09:44 Status: Completed Result: 0 Reason: All operations completed successfully. Policy Domain Name: UNIX\_DOMAIN Schedule Name: LIONS\_SERVERS Node Name: ISLAMORADA.LIONS.ODU.EDU Scheduled Start: 01/26/07 03:00:00 Actual Start: 01/26/07 03:00:09 Completed: 01/26/07 03:11:09 Status: Completed Result: 0 Reason: All operations completed successfully. Policy Domain Name: UNIX\_DOMAIN Schedule Name: LIONS\_SERVERS Node Name: KEY-WEST Scheduled Start: 01/26/07 03:00:00 Actual Start: 01/26/07 03:00:09 Completed: 01/26/07 03:04:50 Status: Completed Result: 0 Reason: All operations completed successfully. Policy Domain Name: UNIX\_DOMAIN

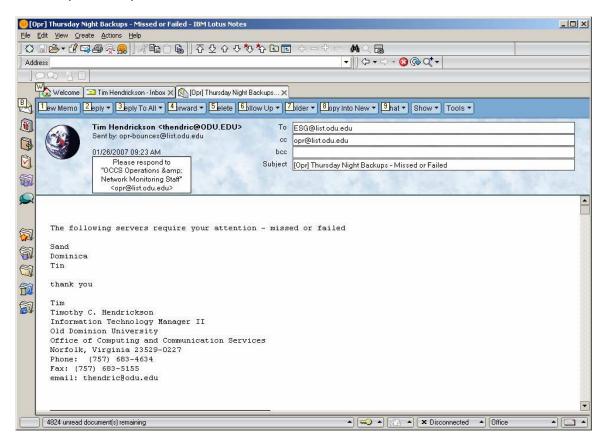
Node Name: FIJI Scheduled Start: 01/25/07 14:46:18 Actual Start: 01/25/07 14:46:46 Completed: 01/25/07 15:15:28 Status: Completed Result: 4 Policy Domain Name: ADMIN\_DOMAIN Schedule Name: IMAGE\_BACKUP Node Name: MANGANESE Scheduled Start: 01/25/07 16:37:16 Actual Start: 01/25/07 16:37:19 Completed: 01/25/07 16:50:25 Status: Completed Result: 0 Policy Domain Name: ADMIN\_DOMAIN Schedule Name: IMAGE\_BACKUP Node Name: BRASS Scheduled Start: 01/25/07 16:37:16 Actual Start: 01/25/07 16:37:18 Completed: 01/25/07 16:49:28 Status: Completed Result: 0 Policy Domain Name: ACAD\_DOMAIN Schedule Name: LEAD BACKUP Node Name: LEAD Scheduled Start: 01/25/07 17:00:00 Actual Start: 01/25/07 17:00:04 Completed: 01/25/07 17:17:02 Status: Completed Result: 4 Policy Domain Name: ADMIN DOMAIN Schedule Name: SAND BACKUP Node Name: SAND Scheduled Start: 01/25/07 17:00:00 Actual Start: 01/25/07 17:00:03 Completed: 01/25/07 17:38:15 Status: Failed Result: 12 Policy Domain Name: DMZ\_DOMAIN Schedule Name: DMZ\_BACKUP Node Name: SLATE Scheduled Start: 01/25/07 17:05:45 Actual Start: 01/25/07 17:06:06 Completed: 01/25/07 17:20:15 Status: Completed Result: 4 Policy Domain Name: DMZ\_DOMAIN Schedule Name: DMZ BACKUP Node Name: GYPSUM Scheduled Start: 01/25/07 17:05:45 Actual Start: 01/25/07 17:06:05 Completed: 01/25/07 17:52:32 Status: Completed

Result: 4

Note in the above document, many server backups completed, while the backup for server "SAND" failed to complete.

Upon review of all daily summary reports, it is the task of the Information Technology Manager to alert the support group regarding which servers failed to backup correctly. This is done electronically via email to an established mailing list of key support people.

An example of that process follows:



At this point, appropriate support staff have been notified regarding nightly abnormalities in backups. In this particular example the servers SAND, DOMINICA and TIN were pointed out as having completed in a non-standard mode and to be reviewed.

#### **Definitions**

**OCCS** is the acronym for the official name of the Office of Computing and Communications Services.

### Policy References

ODU faculty, staff and students are bound by all applicable laws, policies, standards and procedures and guidelines. For reference, some frequently referenced documents are noted. This is a non-inclusive list and not intended to limit applicability of any other law or policy.

Policy Foundation:	Federal and State Law Policy 3507 Operations Management
급 Related Standards:	IT System and Data Backup and Restoration Standard Server Management Standard Network Management Standard Change Management Standard Print Management Standard Physical Security Standard
☐ Related Procedures, Forms:	System Monitoring procedure Console Logging Procedure Customer Notification Procedures Alert Posting Procedure
Related Guidelines:	System Monitoring Tips Call Out List Customer Contact List
★ Maintenance:	Office of Computing and Communications Services
✓ Effective Date:	Reviewed on an annual basis
✓ Approved by:	Rusty Waterfield Acting Assistant Vice President, Office of Computing and Communications Services