Incident Report #20170924 Reported by: Sam McCullough Incident Manager: Sam McCullough	Incident Date: Sept. 24, 12:42 PDT Report Date: Sept. 25, 14:00 PDT

Outage Incident Report

Summary

On Sunday, September 24, 2017 the Lambda hosting environment with an IP of 34.224.20.96, suffered an outage. The outage began at 12:42 PM and was fully resolved at 14:38PM Pacific Daylight Time.

As a result of the outage affected clients attempting to access their LMS were met with a 502 Bad Gateway error.

The cause of this outage was related to the server library unoconv.dll. It stopped functioning, which was enough to stop the server. The unoconv library is used for the Moodle 3.1 PDF annotation feature.

Timeline

All times below are in Pacific Daylight Time

- 12:42 PM - Lambda's alert system is triggered by unresponsive server at IP of 34.224.20.96
- 12:49 PM - Weekend monitoring staff alert System Operators of issue
- 13:07 PM - An affected client submits ticket inquiry of connectivity
- 13:15 PM - Support Team sends out client messaging for outage
- 14:40 PM - System Operations resolves the problem with unoconv and server
- 14:42 PM - LMS operation is confirmed restore
- 14:52 PM - Clients are informed of restored service.

Statistical evaluations

Number of Incidents	**Recovery/Resolution time**	**Impact on Uptime SLA**
1	0.5h/2h	No/2h downtime

Resolution and recovery

The root cause of this outage was failure of operation in the unoconv server library. This library is used by Moodle to facilitate conversion of uploaded documents to PDF. This is for use by the Assignment activity for marking.

The Lambda System Operations team restarted the unoconv library to restore function. They further were required to restart the web server ngnix and PHP.

Corrective and Preventative Measures

- System Operations and Director of IT meeting to discuss how to prevent unoconv from impacting LMS operations.
- Weekend monitoring staff need to inform Support Manager of incident, as they do Operations.
- Weekend monitoring staff need to send out client communication, an almost 30 minute window between the alarm and client communication is too long.