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## EU00- RCA - October 2, 2022

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### Introduction

This document serves as a Root Cause Analysis for the service interruption experienced by Ex Libris customers. The goal of this document is to share our findings regarding the event, specify the root cause analysis, outline actions to be taken to solve the downtime event, as well as preventive measures Ex Libris is taking to avoid similar cases in future.

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### Event Timeline

Service interruption was experienced by Ex Libris customers served by the Higher-Ed Platform EU00 instance at the Amsterdam Data Center between October 02, 2022 during the following time frames:

- Between Oct 2, 2022, from 15:14 until 15:34 Amsterdam time – The service was down only for Primo VE
- Between Oct 2, 2022, from 15:37 until 15:49 Amsterdam time – The service was down for Alma, Primo VE, Leganto, Esploro, Rialto, Rapido

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### Root Cause Analysis

Ex Libris Engineers investigated this event to determine the root cause with the following results:

Multiple nodes were terminated during the event by Linux Out of Memory killer, a process that the Linux employs when the system is critically low on memory.

An in-depth investigation done by Exlibris engineers revealed a software issue causing a memory leak which eventually caused the OS to execute the Out of Memory killer mechanism.

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### Technical Action Items and Preventive Measures

Ex Libris has taken the following action and preventive measures to avoid such an occurrence in future:

- During the event the killed front-end nodes were restarted to restore normal service
- A software fix was applied on EU00 instance on the night of Oct 4, 2022, to prevent this from reoccurring
- The software fix was also deployed on Oct 4, 2022 worldwide in accordance the Data Center night times

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### Customer Communication

ExLibris is committed to providing customers with prompt and ongoing updates during Cloud events. Ongoing and prompt

updates on service interruptions appear in the system status portal at this address: <http://status.exlibrisgroup.com/>

These updates are automatically sent as emails to registered customers.