

---

## 360 Services - RCA - March 22, 2022

---

### Introduction

This document serves as a Root Cause Analysis for the 360 service interruption experienced by Ex Libris customers on March 22, 2022.

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.

---

### Event Timeline

Service interruption was experienced by Ex Libris customers served by the Alma instances in the Seattle Data Center during the following hours:

March 22, 2022 from 00:20 until 00:47 Seattle time

and later from 04:48 until 05:04 Seattle time

During the event, the services were unavailable.

---

### Root Cause Analysis

Ex Libris engineers investigated this event to determine the root cause of this issue and concluded the following:

As a result of a planned seamless maintenance activity of the Seattle DC ISP, customer faced downtime and intermediate connection issues to their environments, this was due to an ISP backbone issues that also affected our secondary ISP line.

Once the incident was identified, the ExLibris cloud engineers worked with the ISPs support teams to bring up the connection and to fix the routing issue on their end which impacted the IP services.

---

### Technical Action Items and Preventive Measures

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

1. We have expended our internet lines monitoring
2. We are working to improve the Internet lines automatic failover mechanism

### 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.

---