IGeLU (International Group of Ex Libris Users Annual Conference) 27 - 29 August, 2019, Singapore

"Alma records have all been published successfully to Primo" – Believe It or Not?

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Systems Section Hong Kong Baptist University Library

Abstract

Daily processes of *Harvesting*, *Publishing*, and *Indexing* Records

ExLibris

Alma

 Daily scheduled procedures are *not reliable*, there is <u>NO</u> guarantee that:

→all new/updated Alma records have successfully been published to Primo

all these records have been indexed successfully and been searchable in Primo.

ExLibris

Prime



		き 浸 會 大 學 KONG BAPTIST UI		Alma and Pri	imo Record Pu	blishing Mo	nitor
Report Schedule							
Alma and Prim Start Date [End Date [Search Reset	o Record Publishing Status						
• Alma update date	Title	HKBU	HKALL	HKBU Primo check date	HKALL Primo check date	HKBU Alma- Primo Lag (Days)	Export HKALL Alma- Primo Lag (Days)
2019-08-17 13:00:04	Primo testing record HKBU Saturday 20190817 1300	MMSID Title	MMSID Title			0	0
2019-08-16 13:00:03	Primo testing record HKBU Friday 20190816 1300	MMSID Title	MMSID Title	2019-08-16 23:00:03 More	2019-08-16 23:00:04 More	0.4	0.4
	n to the strength of the	a component	a company				

In HKBU, we have recently developed a new full automatic computer program to *monitor* and keep track the status of Alma-Primo publishing procedures.

Agenda

- A. Background: HKBU Library
- B. Analysis of Alma Publishing to Primo Problems
- C. Alma and Primo Record Publishing Monitor Program
- D. Publishing Problems A Case Study
- E. Conclusion

A. Background: HKBU Library

1. Hong Kong Baptist University (HKBU)



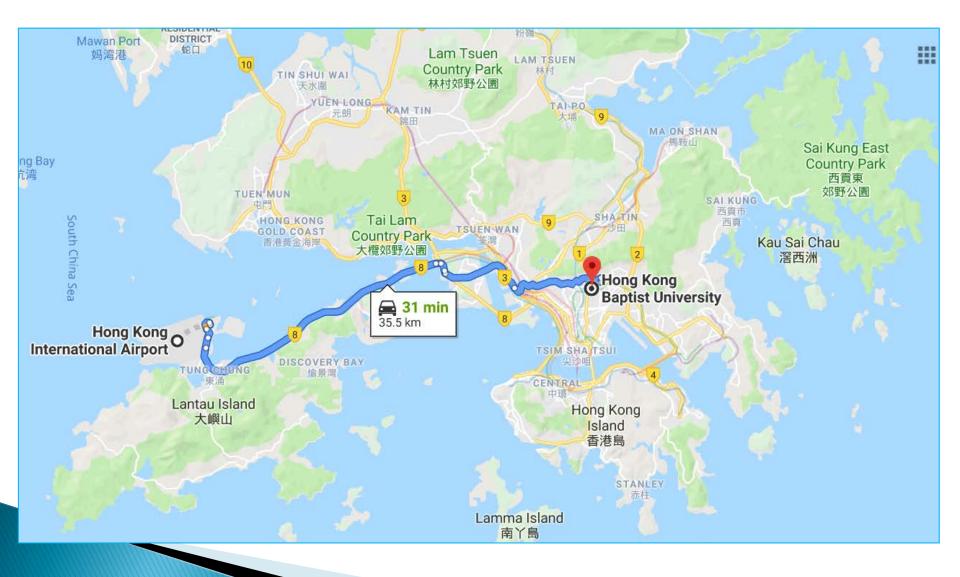
香港浸會大學 HONG KONG BAPTIST UNIVERSITY

- > was founded in 1956.
- is a publicly funded tertiary liberal arts institution with a Christian education heritage.

2. HKBU Faculties and Schools

- > now offers bachelor, master and doctoral degrees from:
 - Faculty of Arts
 - Faculty of Science
 - Faculty of Social Science
 - School of Business
 - School of Chinese Medicine
 - School of Communications
 - School of Continuing Education

3. Google Map



4. Campus Photos



5. HKBU Library

is made by a Main Library, and two branch libraries

Chinese Medicine Library

Shek Mun Campus Library

6. HKBU Library Website

https://library.hkbu.edu.hk/



LIBRARY DIGITAL PROJECTS





HKBU Heritage

Chinese/English Political Interpreting Corpus



Chinese Medicinal Material Chinese Medicine Formulae

WHAT'S NEW

11 Aug 2019

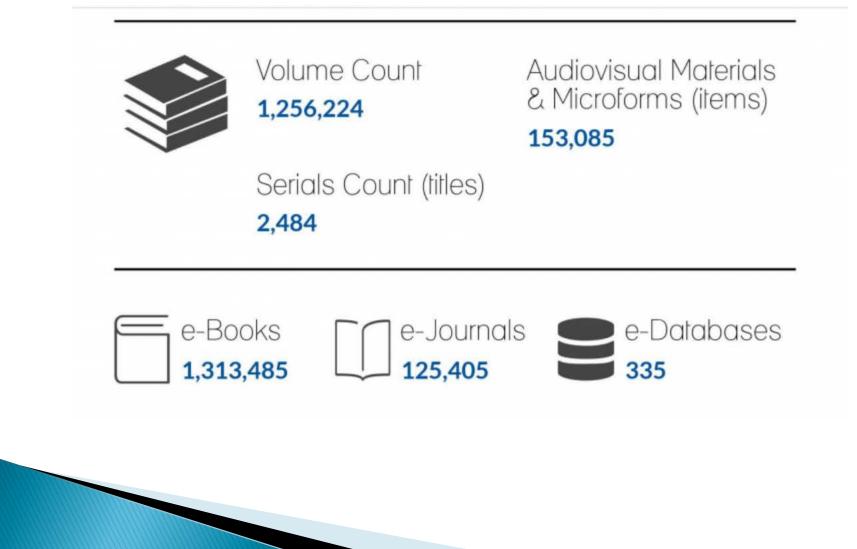
Scheduled Maintenance of Library System on 11 August 2019

04 Aug 2019

Scheduled Maintenance of Library System on 4 August 2019

01 Aug 2019 Relocation of Books with Classification [LC] to Level 4

7. HKBU Library – Collection Statistics



8. HKBU Library – Photos



8a. HKBU Library – Photos





B. Analysis of Alma Publishing to Primo Processes

1. Our Question?

"Have all Alma records been published successfully to Primo?"

To answer this Question, we need to have an in-depth analysis of the workflow:

Alma Records Publish to Primo

2. Alma Records Publishing to Primo

- According to the Alma product documentation, this job indeed contains two major <u>separate</u> and <u>independent</u> processes running on Alma and Primo:
- Alma Exports sftp connection to Primo
 Primo Indexing harvesting and normalizing

 <u>https://knowledge.exlibrisgroup.com/Alma/Product_Documentation/010Alma_Online_Help_(English)/090Int</u>
 <u>egrations_with_External_Systems/030Resource_Management/100Publishing_to_Primo_and_Primo_Centra</u>

3a. Alma Exports – sftp connection to Primo

- "The Alma publishing process is run after the bibliographic, holdings, circulation data, and optional course reserves data has been populated in Alma".
- "Alma <u>exports</u> the full set of records the first time and then <u>exports</u> the changed records daily".

3b. Primo Indexing

After Alma exports the records, Primo <u>harvests</u> and <u>normalizes</u> the <u>exported records</u> to be searched and viewed by end users via Primo's Front End".

4. Reports Checking

- In order to reply the Question of "Have all Alma records been published successfully to Primo?", the most simple way is to check job status reports in Alma and Primo.
- the most simple way may *not* be
 the most cost-effective and cost-efficient way
 reliable way

5. Reports Checking -- IZ

- First of all, we would say the work of Alma job status report checking is neither cost-effective nor cost-efficiency, because this kind of checking must be *done in manually*.
- After the completion of above two jobs every day, we have to go to check the status of job reports in <u>BU Alma and Primo</u> (IZ) respectively.

5a. IZ Checking -- Alma

Alma > Monitor Jobs > Publishing to Primo

E Alma	★ ≫ Acquisitions Resources Fulfilln	nent Admin .	Analytics					
<	Monitor Jobs							
1	- 20 of 20 Name - Publishing to Primo	٩						Refrest
	▼ Job Category : All ▼ Status : All ▼	Submit Date Range	12/08/2019 -	16/08/2019	X			
	\$ Name	\$ Job ID	Job Category	¢ Operator	▼ Submit Date	\$ Start Date	\$ End Date	\$ Status
	1 Publishing to Primo	9160499930	Publishing	System	16/08/2019 14:00:02 HKT	16/08/2019 14:01:21 HKT	16/08/2019 14:19:17 HKT	Completed Successfully
	2 Publishing to Primo	9100306000	Publishing	Gystem	16/08/2019 08:00:03 HKT	16/08/2019 08:02:28 HKT	16/08/2019 08:10:28 HKT	Completed Successfully
	3 Publishing to Primo	9159761450	Publishing	System	16/08/2019 02:00:04 HKT	16/08/2019 02:02:57 HKT	16/08/2019 02:26:25 HKT	Completed Successfully

5b. IZ Checking -- Primo Back Office

Primo > Monitor Primo Status > Pipe Monitoring

no Ho	ome > Monitor Primo St	tatus > Pipe	Monitoring						
e	Deploy & Utilities	General	Local Data	Publishing	FE & Delivery	Search Engine			
Jo	b monitor								
History for HKBU_IZ_Regular									
tor	y for HKBU_IZ_Re	egular							
_		egular v							
r: Al		egular v Name			S	tage	Status	Start Time	End Time
r: Al		v	6-15.00.00-1317	<u>7985674</u>		tage ompleted successfully	Status completed	Start Time 16/08/19 15:00:07	
er: Al	ll Owner	v Name 2019.08.10	<u>6-15.00.00-1317</u> 6-09.00.00-1317		C				End Time 16/08/19 15:00:56 16/08/19 69:01:26

6. Reports Checking -- NZ

> HKBU Library is a member of the consortium, JULAC



- > JULAC comprises eight government-funded Universities in HK
- So Happy Together: Change for One, Change for Eight. The Hong Kong Shared Experience", Peter E Sidorko (University Librarian of HKU)
- > HKBU Library needs to contribute our Alma records to <u>NZ</u> Primo (JULAC HKALL). Thus, it is also required to check the job reports on <u>NZ</u> <u>Alma and Primo</u>

6a. NZ Checking -- Alma

na ★ »	Acquisitions Resources	Fulfillment Admin Analytics				
	Users 🕶 All 👻				Q	
< Job Repo	rt					
	Network Publishing	Job				
Completed Successfully	Finished on 16/0	96376940003406 08/2019 16:15:25 HKT upleted Successfully 42		Started on Total run time Status date Records with exceptions	16/08/2019 16:02:31 HKT 12 Minutes 54 Seconds 16/08/2019 16:15:25 HKT 0	
Network Zone	Report					
Resour	се Туре	New	Updated	Delet	ed	Not publi
	aphic Records Inventory	405	9231	3		31635
Member inven	tory records expanding Netwo	rk Zone records				
Membe		Resource Type	New	Upda	tod	Deleted
	versity of Hong Kong	Bibliographic Records Inventory	709	8409	icu	0
	University of Hong Kong	Bibliographic Records Inventory	841	8605		0
	on University of Hong Kong	Ribliographic Records Inventory	121	5030		0
4 Hong Ke	ong Baptist University	Bibliographic Records Inventory	962	7843		0
5 Hong K	nny Polytechnik Hoivereity	Riblingraphic Percede Inventory	760	6787		0
6 The Uni	versity of Hong Kong	Bibliographic Records Inventory	1027	9548		0
7 Hong Ko Technol	ong University of Science and logy	Bibliographic Records Inventory	8971	25903	e	0
8 Lingnan	University	Bibliographic Records Inventory	437	5871		0

6b. NZ Checking -- Primo

Environment 2 (Standalone HKALL) - JULAC Production

Primo Home > Monitor Primo Status > Pipe Monitoring

Home Deploy & Utilities General Local Data Publishing FE & Delivery Search Engine

Job monitor

History for JULAC_ALMA_REGULAR

 \vee

Owner: All

Owner	Name	Stage	Status	Start Time	End Time
HLAC NETWORK	<u>2019.08.16-11.00.00-914417750</u>	completed successfully	completed	08/16/19 11:00:29	08/16/19 11:45:45
JULAC_NETWORK	<u>2019.08.15-17.00.00-914195986</u>	completed successfully	completed	08/15/19 17:00:14	08/15/19 18:05:04
JULAC_NETWORK	<u>2019.08.15-11.00.00-914130944</u>	completed successfully	completed	08/15/19 11:00:09	08/15/19 11:31:05
JULAC_NETWORK	<u>2019.08.14-17.00.00-914083585</u>	harvesting-copy-files	completed	08/14/19 17:00:23	
JULAC_NETWORK	<u>2019.08.14-11.00.00-913816457</u>	completed successfully	completed	08/14/19 11:00:18	08/14/19 12:02:49

7. Daily Manual Checking is Vital

- Manual Checking must be done <u>every day</u> to ensure the record synchronization between Alma and Primo, because:
- EXL is not reliable -- sometimes they do not aware that Alma Publishing process have not been completed.
- 2. Thus, you have to do a manual checking yourself. In case, the Publishing on certain days have not been completed successfully, you have to report to SalesForces and ask them to re-run the Alma Publishing.

8. Manual Checking is not Recommended

- However, we do not recommend you to do report checking <u>every day</u>. Reasons are:
- Daily manual checking on two different systems are tedious, cumbersome and very time-consuming.

in HKBU situation, 4 reports checking -- IZ and NZ

2. Report status are not very clear, sometimes even misleading (see discussions below).

8a. Manual Checking is not Recommended

- Most importantly, systems people, like us, do not like to do manual jobs.
- Even worse, this is not a one-time off labour work, rather a <u>daily routine work requiring</u> <u>manual labour</u>

9. Is Auto Checking Possible?

- Obviously, it can help save time, money and efforts if
 - 1. Checking work can be performed by a computer program automatically
 - Generate an alert email notification to responsible staff when it is detected that the Alma Records Publishing to Primo work cannot be completed successfully

C. Alma and Primo Record Publishing Monitor Program

1. Main Program Workflow Design

- Program Algothrim: When can we say that a daily job of Alma records have successfully been published to Primo?
- Subject to the results of a publishing job, that is, whether "<u>the exported records to be</u> <u>searched and viewed by end users via Primo's</u> <u>Front End</u>".

1a. Main Program Workflow Design

The Program contains *two main Workflows:*

- 1. Alma: Update a catalog record every day
- 2. Primo: Check whether the above updated catalog can be searched and found on Primo

1b. Main Program Workflow Design

- If this record can be *found* on Primo, the Alma Records Publishing to Primo Work on that day is proven to be <u>completed successfully</u>
- \succ If records **Not Found** \rightarrow
 - Indexing Work incomplete more indexing time is required, do additional checking later
 - Work failure harvesting or indexing pipe stuck
 Generate <u>alert email</u> notifications to System staff

2. Alma: Auto Update an record everyday

 In order to prove all Alma records (including new created/updated) have been published to Primo successfully every day, we have created 31 dummy records in Alma for daily checking.

2a. Alma: Auto Update an record everyday

LIBRARY	Alma	★ ≫ Acquisition	is Resources	Fulfillment Admin			
	All titles 🔻	MMS ID 👻					
	< Record View						
	Primo tes	testing record HKBU Sunday 20190728 1300					
	MMS ID Brief level	99102 01	25951742303409	Suppress from pub Record format Originating system			
	Originating sy	/stem 852JU	ILAC_HKBU				
	MARC B	IBFRAME					
	LDR 0	0225nam a2200085 u					
	001 9	91025951742303409					
	005 20	0190728130003.0	0003.0				
	008 1	171025.2015 xx 1 000 0 eng d					
	245 10	0 a Primo testing reco	ord HKBU Sunday	20190728 1300			
	590	a Day-28					

2b. Alma: Auto Update an record everyday

- Each Alma record has an <u>unique title</u> which will be changed and updated by the program.
- These 31 records are updated on a basis of monthly rotation.
- Each Title contains a unique <u>Day-Time stamp</u> indicating when it is updated:
 - Primo testing record HKBU [day of the week]
 [yyymmdd] [hhmm]

2c. Alma: Auto Update an record everyday

- An <u>Alma API script</u> is scheduled to edit the Title of a pre-defined Alma record every day
- For example, the table below illustrates the Titles of the Alma Records updated by this API on
 - Days: 1, 15, 28, 30, 31
 Month: Feb, Jun, July (2019)

2d. Alma: Auto Update an record everyday

Alma MMSID	Day of Month	Feb 2019	Jun 2019	July 2019	
See and a second s		Primo testing record HKBU Friday 20190201 1300	Primo testing record HKBU Saturday 20190601 1300	Primo testing record HKBU Monday 20190701 1300	
991025951743603409	15	Primo testing record HKBU Friday 20190215 1300	Primo testing record HKBU Saturday 20190615 1300	Primo testing record HKBU Monday 20190715 1300	
	7	7	7	4. E.	
991025951742303409	28	Primo testing record HKBU Thursday 20190228 1300	Primo testing record HKBU Friday 20190628 1300	Primo testing record HKBU Sunday 20190728 1300	
991025951742103409	30		Primo testing record HKBU Sunday 20190630 1300	Primo testing record HKBU Tuesday 20190730 1300	
991025951742003409	31			Primo testing record HKBU Wednesday 20190731 1300	

3. Primo: Automatic Searching by Title

- Two Primo PNX API scripts are scheduled to perform an automatic checking against HKBU Primo and HKALL Primo respectively
- Title Contains (exact phrase) searching the Alma record updated most recently

3a. Primo: Automatic Searching by Title

- For example:
- 1. Today's day = Friday 2019-08-23
- Alma API script update a catalog record at 13:00, of which the Title =

Primo testing record HKBU Friday 20190823 1300

 An Primo PNX API script is scheduled to check against HKBU Primo by Title exact phrase searching

3b. Primo: Automatic Searching by Title

- If this Title is **found** on HKBU Primo:
- the script will log down the Alma-Primo Lag (Days) on Web Report, i.e. <u>n days</u>

= Day-Time of a Alma record to be searched on
Primo – Day-Time of this Alma record is updated on
Alma

3c. Primo: Automatic Searching by Title

http://lib-nt.hkbu.edu.hk/primo_record_check/home.asp#





Alma and Primo Record Publishing Monitor

Report | Schedule

Alma and Primo Record Publishing Status

Start Date		
End Date		
Search	Reset	

Export

✓ Alma update date	Title	Title HKALL		HKBU Primo check date	HKALL Primo	HKBU Alma- Primo Lag (Dove)	HKALL Alma- Primo Lag (Days)
2019-08-24 13:00:03	Primo testing record HKBU Saturday 20190824 1300	MMSID <u>Title</u>	MMSID Title	2019-08-24 15:00:02	2019-08-24 15:00:03	0.1	0.1
2019-08-23 13-00:04	Primo testing record HKBU Friday 20190823 1300	MMSID Title	MMSID Title	2019-08-23 23:00:02 2019-08-23 15:00:03 Less	2019-08-23 23:00:03 2019-08-23 15:00:03 Less	0.4	0.4
2019-08-22 13:00:03	Primo testing record HKBU Thursday 20190822 1300	MMSID 1itte	IMINISID THE	2019-08-22 23:00:03 More	2019-08-22 23:00:03 More	0.4	0.4
		3 43 40 773 771 4	3.0.0000 00.4				

3d. Primo: Automatic Searching by Title

- If this Title is Not Found on HKBU Primo: the script
- 1. is scheduled to continue the automatic Title checking until this record is found.
- will generate an alert email to responsible staff every day automatically if: Lag Days is over 0.5,
 - i.e. the Alma record is still unable to be found in HKBU Primo 0.5 days after it is updated

3e. Primo: Automatic Searching by Title

Auto email notification: the Alma record is still unable to be found in HKALL Primo 2 days after it is edited.

libsys_primo_check@hkbu.edu.hk From: Sent: 16/1/2018 (调二) tungary@hkbu.edu.hk; talentlaw@hkbu.edu.hk; voli@hkbu.edu.hk; leungwc@hkbu.edu.hk; chloelei@hkbu.edu.hk; ckwong@hkbu.edu.hk To: Cc: Subject: [Fail] HKBU/HKALL Primo - record(s) not found HKALL Primo check | HKALL Alma-Primo Lag HKBU Primo check HKBU Alma-Primo Lag Alma update date Title (Days) date (Days) date 2018-01-15 23:00:06 0.8 (Not found yet) 0.8 (Not found yet) 2018-01-15 Primo testing record HKBU Monday 2018-01-15 23:00:06 13:00:05 20180115 1300 2018-01-13 Primo testing record HKBU Saturday 2018-01-14 15:00:03 1.1 2018-01-15 23:00:05 2.8 (Not found yet) 13:00:02 20180113 1300 2018-01-12 Primo testing record HKBU Friday 2018-01-13 15:00:03 1.1 2018-01-15 23:00:05 3.8 (Not found yet) 13:00:03 20180112 1300 2018-01-11 Primo testing record HKBU Thursday 2018-01-12 15:00:02 1.1 4.8 (Not found yet) 2018-01-15 23:00:05 13:00:03 20180111 1300

Detail: https://lib-nt.hkbu.edu.hk/primo_record_check/home.asp

D. Publishing Problems -- A Case Study

1. Email Alert Notification

On 5 Aug 2019, we received an Alert Email report that there were problems to search Alma records updated on 2-Aug and 3-Aug

1	o: tungary@hl	libsys_primo_check@hkbu.edu.hk Sent: 5/8/2019 (週一) 8:0 Sent: 5/8/2019 (週一) 8:0 tungary@hkbu.edu.hk; talentlaw@hkbu.edu.hk; yoli@hkbu.edu.hk; leungwc@hkbu.edu.hk; kenutong@hkbu.edu.hk; ckwong@hkbu.edu.hk							
1	ic: ubject: [Fail] HKBU,	/HKALL Primo - record(s) not found							
	Alma update date	Title	HKBU Primo check date			HKALL Alma-Primo Lag (Days)			
	2019-08-03 13:00:04	Primo testing record HKBU Saturday 20190803 1300	2019-08-04 23:00:05	1.8 (Not found yet)	2019-08-03 23:00:03	0.4			
	2019-08-02 13:00:03	Primo testing record HKBU Friday 20190802 1300	2019-08-04 23:00:04	2.8 (Not found yet)	2019-08-03 23:00:02	1,4			

Detail: https://lib-nt.hkbu.edu.hk/primo_record_check/home.asp

2. Problems caused by a Primo Monthly New Release

When we went to check our Alma-Primo Monitor Program, it was surprised to find that the Primo Indexing Problem should only be occurred on 2-Aug (Friday) and 3 Aug (Saturday), the indexing process was resumed back to normal on 4 Aug.

2a. Problems caused by a Primo Monthly New Release

LIBRARY 圖書館	Alma and Primo Record Publishing Monitor
Report Schedule	
Alma and Primo Record Publishing Status	
Start Date	
End Date	
Search Reset	
	Export

Alma update date	Title	HKBU	HKALL	HKBU Primo check date	HKALL Primo check date	HKBU Alma- Primo Lag (Days)	HKALL Alma- Primo Lag (Days)
2019-08-04 13:00:05	Primo testing record HKBU Sunday 20190804 1300	MMSID Title	MMSID Title	2019-08-04 23:00:05 More	2019-08-04 23:00:06 More	0.4	0.8 (Not found yet)
2019-08-03 13:00:04	Primo testing record HKBU Saturday 20190803 1300	MMSID Title	MMSID Title	2019-08-04 23:00:05 More	2019-08-03 23:00:03 More	1.8 (Not found yet)	0.4
2019-08-02 13:00:03	Primo testing record HKBU Friday 20190802 1300	MMSID Title	MMSID Title	2019-08-04 23:00:04 More	2019-08-03 23:00:02 More	2.8 (Not found yet)	1.4
2019-08-01 13:00:04	Primo testing record HKBU Thursday 20190801 1300	MMSID Title	MMSID Title	2019-08-01 23:00:03 More	2019-08-02 23:00:03 More	0.4	1.4

2b. Problems caused by a Primo Monthly New Release

On 4 August (Sunday), EXL have sent us an email that our BU Primo has Hot swap and Indexing problem due to a New Release Update on Primo.

```
\label{eq:stemstatus} From: SystemStatus@exlibrisgroup.com[mailto:SystemStatus@exlibrisgroup.com] \\ \leftarrow
```

```
Sent: Sunday, August 04, 2019 8:37 AM
```

```
To: SystemStatus@exlibrisgroup.com-
```

```
Subject: New update for Primo APAC02-
```

```
+1
```

```
Dear customer.
```

Current status: Service Alert Information +

04-Aug-2019 UTC 0:37:18+

Due to technical issues, the Hotswap could not be completed today in your environment, and thus the new indexed data will not be available.

The issue is being handled by our engineers with high priority, in order to resume the normal daily index process.

Ex·Libris·Cloud· + Regards+ Ex·Libris·Cloud·Team+

2b. Problems caused by a Primo Monthly New Release

This Indexing problem have influenced the Alma records to be published to our BU institution Primo on 2 Aug and 3 Aug respectively, rather than on 4 Aug.

3. Primo Indexing Report – Not Reliable

- One more special finding is that Primo Indexing Report is NOT reliable
- Even the Primo Indexing Report indicated that the job status had completed, but the Alma records updated on 2-Aug and 3-Aug still could not be searched on Primo

3a. Primo Indexing Report – Not Reliable

rimo Home > Monitor Primo	Status > Proces	ss Monitoring					
ome Deploy & Utilitie	General	Local Data P	ublishing	FE & Delivery	Search Engine		
Job monitor listory for OngoingIn vner: [HKBU_ALMA	dexing						
Owner		Stage		Status	Records Succeeded	Start Time	End Time
JULAC - Productio	1	Indexing		Running	183400	04/08/19 20:50:07	
JULAC - Productio	1	Completed		Completed	1635	04/08/19 17:46:50	04/08/19 20:50:1
			1	Completed	58	04/08/19 02:21:19	04/08/19 17:46:5
JULAC - Productio	1	Completed	1	Completed	50		
		Completed Completed	(Completed	4068	02/08/19 11:54:37	04/08/19 02:21:1
JULAC - Productio	n					SCHUDS10767.505500.4303	

4. EXL did not aware of the Problem

- As usual, EXL did not aware of the Problem.
- We have to report the Problem to SaleForce and ask them to re-run the Primo Indexing and Hot swap processes for Aug-2 and Aug-3 records

E. Conclusion

1. Problem Statistics

- From 1 Jan 2018 to 15 Aug 2019, a total of 6 Record Publishing incidents are detected by our Monitor program.
 - 2018-01-05
 - 2018-02-01
 - 2018-03-09
 - 2018-12-24
 - 2019-05-15
 - 2019-08-04

In average, 1 problem occurs per 3.3 months.

2. EXL reposnes

- In all incidents, EXL did not aware of the problem occurred.
- SalesForces would take actions only after we have detected the problem and reported to them

3. Our Answer to the Question

"Alma records have all been published successfully to Primo" - Believe It or Not?

What an answer would you expect?

"Of course, <u>NOT</u>, unless you have a mechanism to ensure the Alma daily exported records can be searched and found on Primo"

The End

Q & A