



Replication Monitor Feature Guide

January 2024

Contents

1.0 Overview 3

2.0 Monitoring 3

3.0 Email Content..... 4

 3.1 Alert 4

 3.2 Daily Health Report..... 6

4.0 Configuration 10

5.0 Architecture 11

6.0 Services 12

 6.1 Replication Health Assessment..... 12

 6.2 Replication Support..... 12

1.0 Overview

The K5 Replication Monitor was developed to help monitor and report replication issues between SuccessFactors and an on-premise SAP ECC or S/4 HANA system.

There are several moving parts involved with this replication process and many points of failure which require a business to manually monitor to ensure there are no problems.

Our tool simplifies this process and monitors all these points for any issues and data errors. Any issues are reported to a select set of users via an alert email.

2.0 Monitoring

The K5 Replication Monitor tool uses a custom-built iFlow housed in the Integration Suite on SAP Business Technology Platform (BTP) to periodically read the client's replication logs from SuccessFactors, SAP BTP and the on-premise SAP system. The logs are then returned via SAP BTP to our K5 Business Cloud Centre for processing and statistical logging. We have ensured that no personal or private information is extracted during this process by filtering it out before it leaves the client's SAP system.

Any errors picked up are compiled in an email and sent to the required recipients alerting them to the potential problem.

All errors are tracked to ensure they are resolved and not forgotten about. Errors are automatically cleared when a subsequent successful replication has occurred for the problematic object.

We have broken any potential errors into 4 main categories:

- **Technical errors** - these are errors relating to the replication process which has failed and not directly related to a specific data object.
- **Temporary errors** - an error that occurs for a specific data object that usually fixes itself. For example, when the payroll area is locked, and an employee cannot be processed.
- **Failures** - an error that occurs for a specific data object that must be checked and corrected. For example, if an invalid position is used, or a change has been made too far into the past.
- **Custom Alerts** - these are configurable messages which are not reported as errors by SAP, but a client may deem important to the integrity of their data. These warnings can be picked up and alerted to the client for their required action.

The tool is also capable of monitoring additional iFlows outside of the SuccessFactors to SAP ECC / S/4HANA replication process, including custom iFlows in SAP BTP.

3.0 Email Content

3.1 Alert

When an error is picked up by the periodic monitoring job, an alert email is sent to the required recipients.

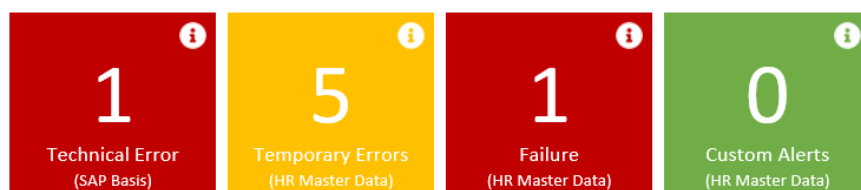


We constantly monitor the replication of data between your SuccessFactors Employee Central system (example) and your SAP HR system (ZZZ-100).

It turns out that replication is not too happy right now. We picked up some trouble that needs to be looked at...

An overview of the errors found provides a quick view of the number and type of errors that have occurred.

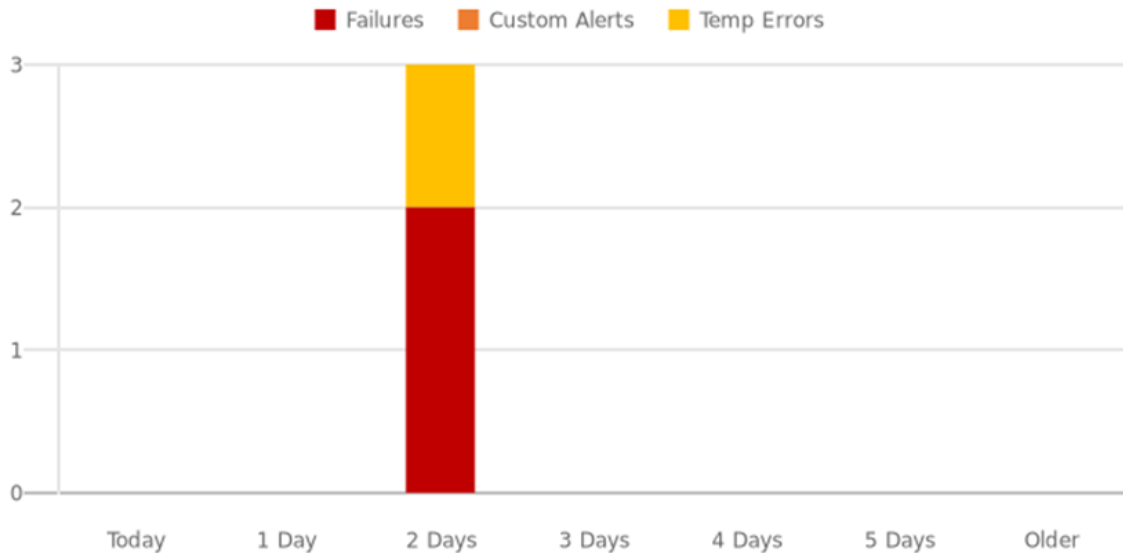
NEW PROBLEMS FOUND



The details of the above alerts are listed at the bottom of this email, so scroll on to see more.

Unresolved item age analysis provides a view of how long existing issues have been open.

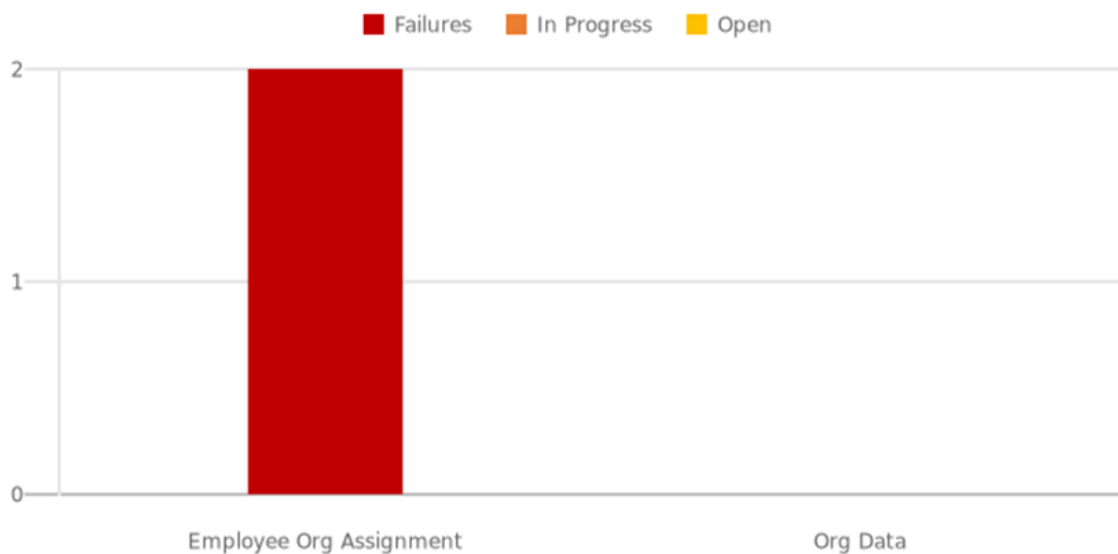
UNRESOLVED ITEM AGE ANALYSIS



All the open items are listed at the bottom of this email, so scroll on if you want the details.

Staging records that have not yet been processed are shown to highlight possible bottlenecks in replication.

STAGING RECORDS NOT PROCESSED



We found some staging record errors. These won't fix themselves, so you should check them out.

The new problems found as well as any older unresolved items are listed with the details.

NEW PROBLEMS					
First Occurrence	Type	Category	Object ID	Message	Source
26 Jul '20	Employee Org Assignment	Technical Error	00000000000065394163	Query for instance EXAMPLE, entity WS_OM_DIV already running; wait until finished	SLG1
26 Jul '20	Employee Master Data	Failure	196609	Change before earliest retro. date 17.02.2020 acc. to control rec. to py area PF	SLG1

OLDER UNRESOLVED ITEMS					
These are items that were picked up previously, and that have not yet been resolved.					
First Occurrence	Type	Category	Object ID	Message	Source
24 Jul '20	Employee Master Data	Failure	194255	Change before earliest retro. date 17.02.2020 acc. to control rec. to py area PF	SLG1

3.2 Daily Health Report

Every day an email is sent to the required recipients with statistics of the previous day also highlighting any unresolved errors that still require attention.



This report shows key health indicators for the replication of data between your SuccessFactors Employee Central system (**example**) and your SAP HR system (**ZZZ-100**).

It turns out your systems are squeaky clean - nothing waiting to be fixed, and nothing to worry about. Time for a good pat on the back! Keep scrolling to see what's happened in the past...

We show any serious warnings or problems at the top of the health report, this includes SSL certificates that are about to expire, or when replication has not run for a long time.

SSL CERTIFICATE EXPIRING SOON

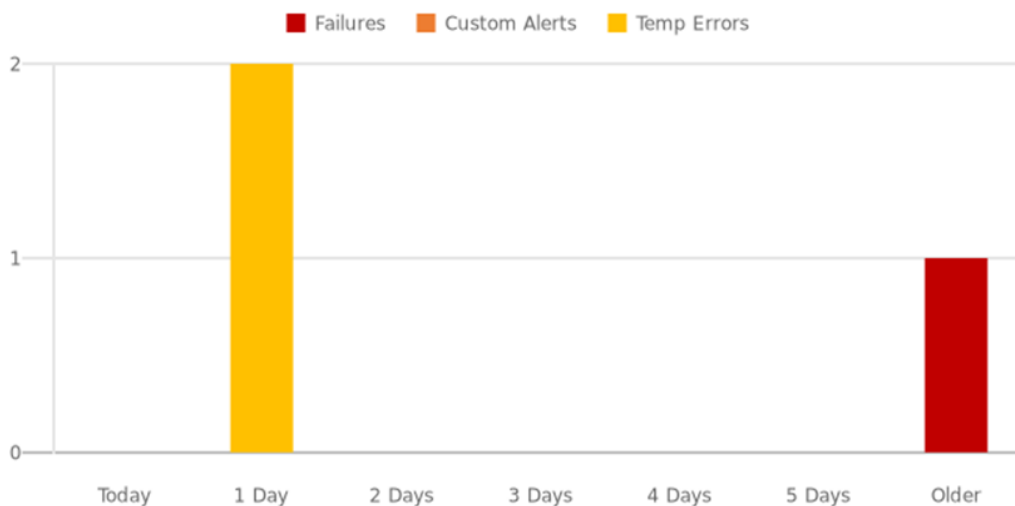
You have an SSL certificate that is going to expire on 7 December  Please make sure to renew the certificate to prevent total replication failure. Certificate details are shown below.

WARNING

There is no evidence of successful replication connections over the past 18 hours - your replication may not be functioning and further investigation is required.

We again show the unresolved item age analysis graph to keep reminding users of items that need attention.

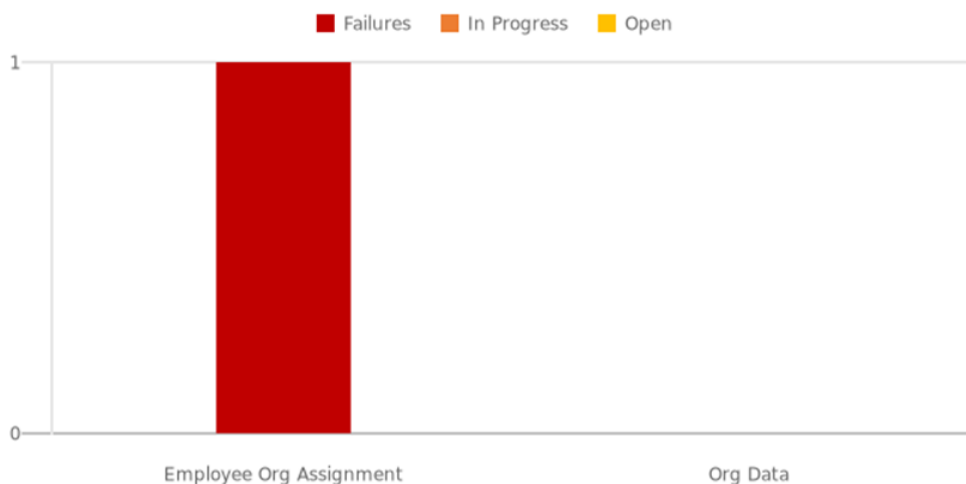
UNRESOLVED ITEM AGE ANALYSIS



All the open items are listed at the bottom of this email, so scroll on if you want the details.

And the graph for stuck staging records is shown again if there are any.

STAGING RECORDS NOT PROCESSED

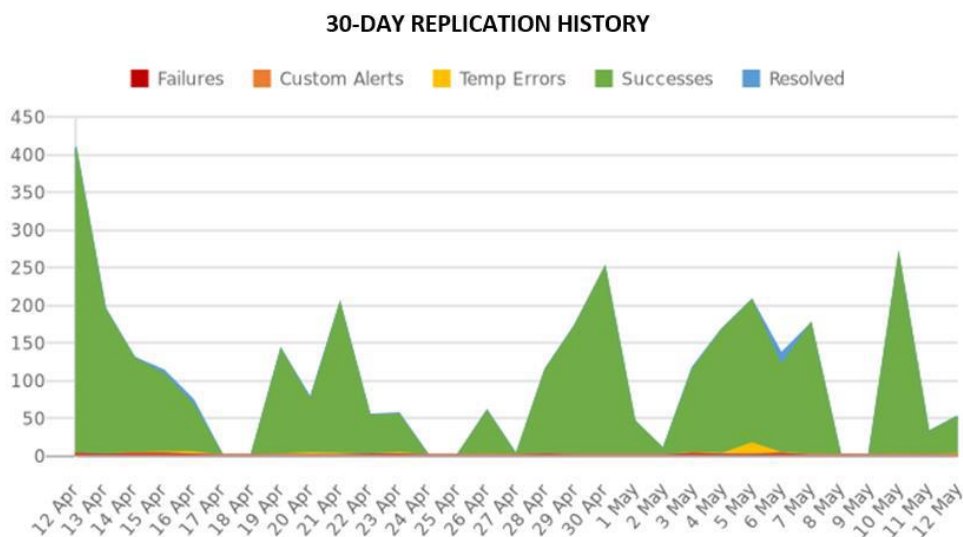


We found some staging record errors. These won't fix themselves, so you should check them out.

Yesterday at a Glance shows the number and type of errors that occurred the day before.



30-Day Replication History provides insight into the number of replications and errors that have occurred for the last 30 days. Allowing the client to see when there busiest periods are.



If there are any expiring SSL certificates, we list the details here.

EXPIRING SSL CERTIFICATES		
Expiry Date	Identification	Source
7 Dec	CN=	STRUST

Items Resolved Yesterday lists the errors that were fixed the day before.

UNRESOLVED ITEMS					
First Occurrence	Type	Category	Object ID	Message	Source
6 May	Employee Master Data	Failure		Employee id external could not be locked	SLG1
12 May	Employee Master Data	Temp Error		Online maintenance is locked in payroll area PF	SLG1
12 May	Employee Master Data	Temp Error		Online maintenance is locked in payroll area PF	SLG1

And finally we show a lit of items that were resolved the previous day, just for reference purposes.

ITEMS RESOLVED YESTERDAY					
(12 May)					
First Occurrence	Type	Category	Object ID	Message	Source
6 May	Employee Org Assignment	Temp Error		: Locking of object S was not possible Position Team Leader Production is locked by	SLG1

4.0 Configuration

The tool is configurable per client on the K5 Business Cloud Centre. We can customize some cosmetic elements in the email and configure the email recipients and run times.

Product Settings

SF Instance ID:

example

ERP Instance ID:

ZZZ-100

Contact Person Email Address:

example@customer.com

Responsible for Technical Errors:

SAP Basis

Responsible for Temporary Errors:

HR Master Data

Responsible for Failures:

HR Master Data

Responsible for Custom Alerts:

HR Master Data

Email Address	In Copy (cc)	Functional	Technical	Daily Report	
che.henson@k5business.com	☐	☒	☒	☒	
david.bann@k5business.com	☐	☒	☒	☒	
+					

Integration Flows to Monitor:

com.sap.ec2erp.ECToERPMasterDataAndOrgReplication

com.sap.erp2ec.ERPToECEmployeeReplicationConfirmation.v2

com.sap.PA_SE_IN.ec2erp.SFSftoSAPGenericObjectReplication.V2

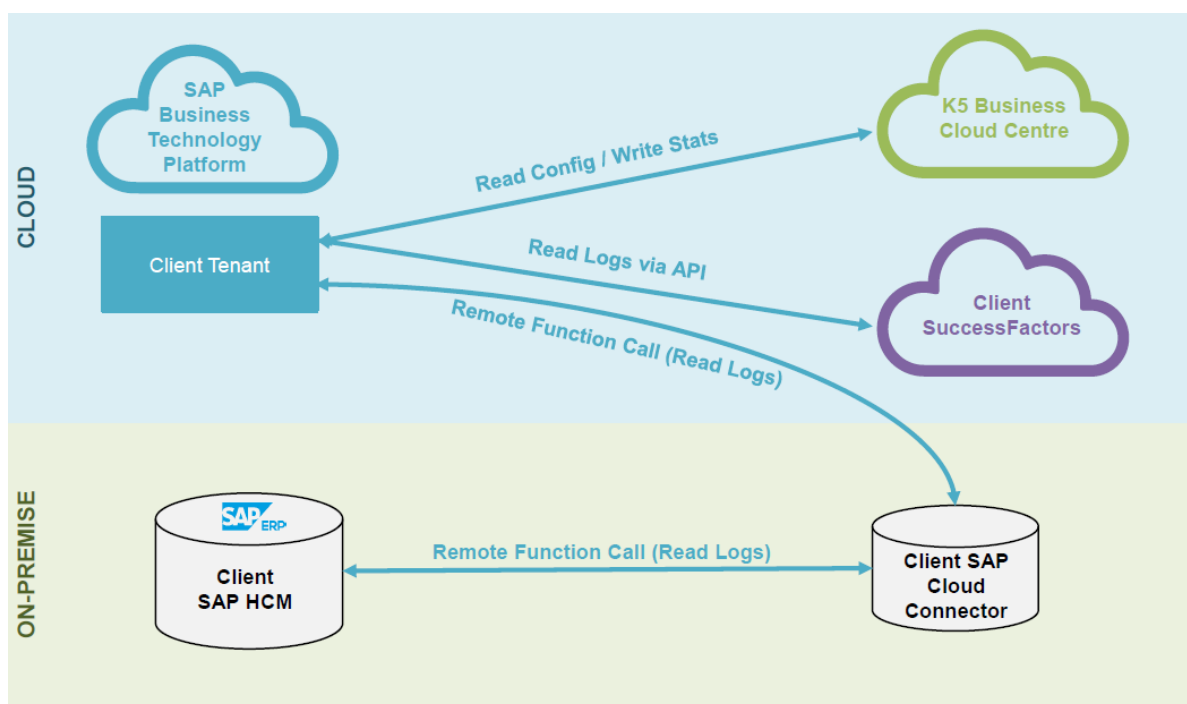
+

Job	Scheduled Time (GMT+2)	
Process Logs (Ad-Hoc)	08:30	
Process Logs (Ad-Hoc)	10:00	
Process Logs (Ad-Hoc)	13:00	
Process Logs (Ad-Hoc)	23:45	
Send Daily Report	07:00	
+		

These configuration settings are currently maintained by K5 Business on behalf of each client. The client does not have access to the K5 Business Cloud Centre at this stage.

5.0 Architecture

The K5 Business Cloud Centre houses the “engine” of the tool and configuration data. The clients SAP BTP tenant coordinates collection of data from SuccessFactors and SAP ECC/S4HANA system using an iFlow. An iFlow on the clients SAP BTP tenant coordinates the collection of data from the client’s SuccessFactors, BTP, and ECC or S/4HANA systems, and provides this data to be processed in the K5 Business Cloud Centre.



6.0 Services

The following optional services are offered in addition to the Replication Monitoring automation:

6.1 Replication Health Assessment

We can perform a once-off replication health assessments to give an overall health perspective, highlighting any problems found and proposing next actions where relevant.

- Output what errors have never been corrected through replication – i.e. currently unresolved problems. This is dependent on replication logs existing in the SAP system.
- List the top replication errors and possible causes. This is dependent on replication logs existing in the SAP system.
- Review configuration setup and conformity with best practices:
 - Full BiB configuration review
 - Usage of additional actions
 - Usage of payroll calendar
 - Security setup
 - Method of replication (P2P, BIB, etc.)
 - Component used in SAP for BIB
 - Patch level analysis
 - UAT system reliability review
 - Patch strategy review
 - Data volume management strategy review (clearing of staging tables, and other clean-up jobs)
 - Batch job setup review – frequency, sequence, runtimes, etc.

6.2 Replication Support

We offer expert SuccessFactors replication support. While our K5 Replication Monitor tool significantly reduces the need for a 3rd party support provider, there are occasions that require more in-depth and technical analysis to get to a quick and lasting resolution.

We offer retainer-based support models with service level agreements to ensure prompt investigation and resolution.