

Availability data replication

Employee Central – SAP S/4HANA – Integration
May, 2018



SAP SuccessFactors Employee Central Integration with SAP S/4HANA Cloud - Employee availability data replication

This package enables the integration of SAP SuccessFactors Employee Central to other solutions within SAP S/4HANA Cloud, transferring employee's availability information.

Please be aware: Precondition of this integration package is preconfigured systems following SAP Best Practices, done by SAP.

As a precondition for this package employees from SAP Success Factors Employee Central System must already be transferred to SAP S/4HANA Cloud. (You can achieve this by setting up the Employee integration iFlow which is available within the HCI integration package SuccessFactors Employee Central Integration with SAP S/4HANA Cloud).

Availability replication: Process flow

Initial load

- Ø All filtered employees and split in batch size of x
- Ø API calls to SFSF from ERD to current date + future days(variable fromDate till toDate).

Daily run

- Ø All employees for certain events since last run date (hired new, rehired, terminated job changes, time profile changes)
+ All employees that have at least 1 absence changed since last run date → Split in batch size x → API calls to SFSF from ERD to LRU(please refer to variable calculation logic below)
- Ø All filtered employees → split in batch size x → API calls to SFSF Calendar entity → fromDate to toDate

iFlow scheduling

It is recommended to schedule iFlow to run every hour though actual data replication happens only once a day. This enables automatic restart of iFlow in case previous run has failed because of any reason (system issues, etc) and there is no delay of a day in data replication.

Calculation logic for variables to be used in different queries to fetch data from Employee central

ERD(Early Retrospective Date) = Current date - Retro_period;

LRU(Last Run Until) = Current date + FixedNoOfDays;

fromDate = LRU + 1;

toDate = Current date + FixedNoOfDays;

Availability replication: parameter TESTMODE

By default, current date is taken as reference date to calculate Early Retrospective Date and future replication period. This reference date can be changed to a date provided by an end user(MAXDATEFROMLASTRUN_TESTMODE) using testmode(set to true).

Parameter TESTMODE should be used in combination with parameter MAXDATEFROMLASTRUN_TESTMODE

Please note, testmode can only be used for replicating availability data in the past and not for replicating data in future

It is mandatory to set MAXDATEFROMLASTRUN_TESTMODE when TESTMODE is set to true

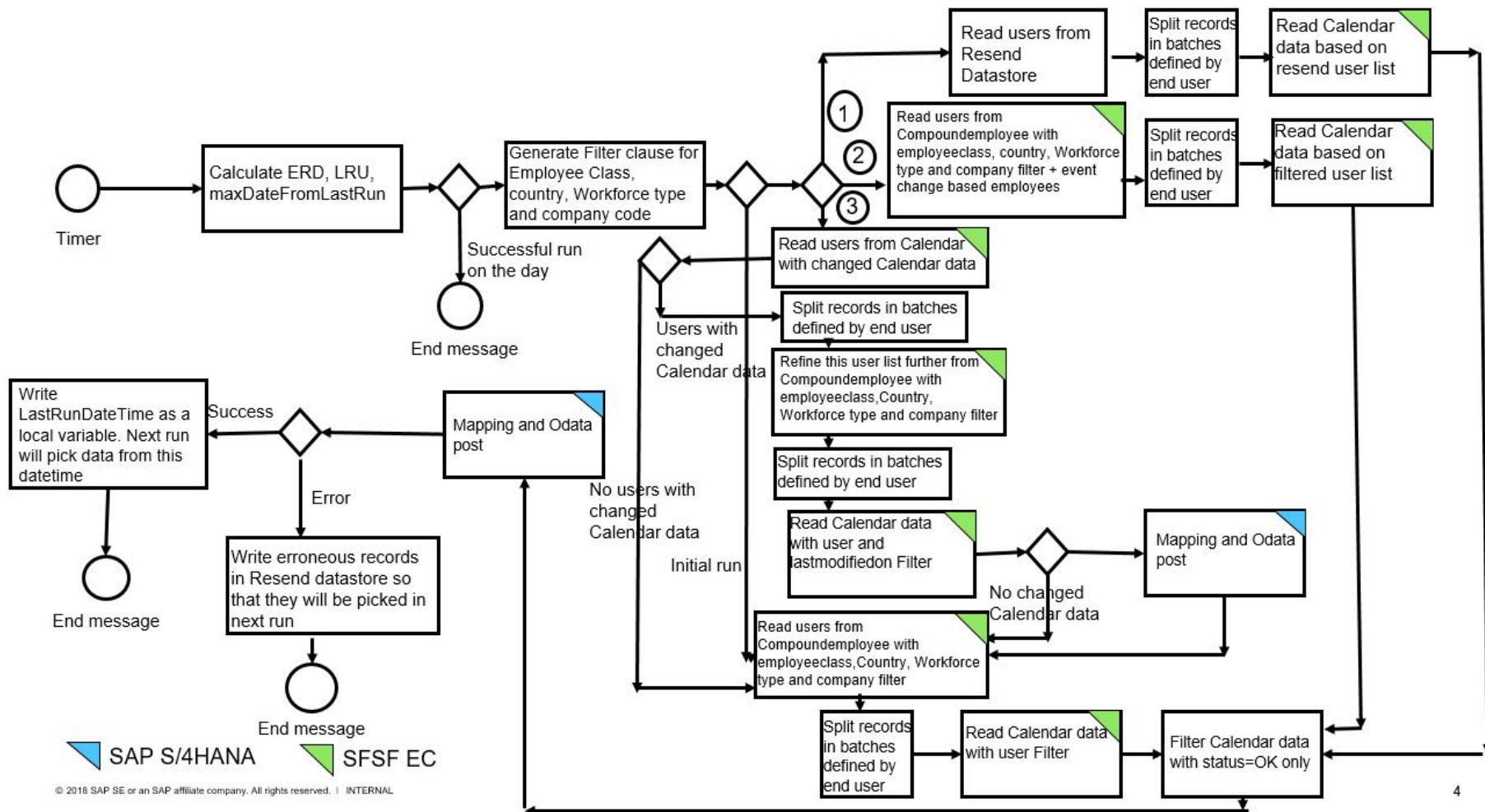
For example, in normal case(TESTMODE = false)

Considering today's date as 05 June and Retro_period = 30 and Fixed_No_of_days=30, duration for replication will be 05 May till 04 July(05 June +30 and 05 June -30 days)

With TESTMODE = TRUE and MAXDATEFROMLASTRUN_TESTMODE set to 05 April

Retro_period = 30 and Fixed_No_of_days=30, duration for replication will be 05 March till 04 May(05 April +30 and 05 April - 30 days)

Availability replication : Latest version(2.0.0)



Availability replication : Latest version(2.0.0)

Improvements:

- Ø Additional filters for Country, Workforce type and Full transmission start date (FTSD) to make it consistent with Employee iFlow.

This would avoid 'Person Id not found error' which occurs as a result of an attempt to replicate Availability data for employees which have been filtered out by Employee replication process

- Ø Optimized Delta handling as the compoundemployee call which fetches constant data irrespective of the fact that Availability data is changed or not, is skipped in case, there is no change of Availability data for relevant users
- Ø SFSF Employee Central Availability API now supports pagination.
- Ø Splitter size as a configurable parameter to control amount of data fetched from SFSF Employee Central and sent to SAP S/4HANA system
- Ø A separate iFlow to replicate Availability data on the basis on Employee ID and time slot for replication

Limitations

- Ø Ideal duration to replicate data is still 120 days, so as to avoid timeout issues. However, parameters splitter size and Transaction timeout parameters can be adjusted based on the expected data load.
- Ø Changes such as temporary Workschedule changes are still not captured by Delta API and needs full load as it has been done till now. As an alternative, test iFlow (mentioned in previous slide) to replicate employee availability data based on employeeelds can be used.
- Ø Testmode can only be used for replicating availability data in the past and not for replicating data in future

Troubleshooting tips:

Ø For debugging/checking payloads, set parameter **ENABLE_LOGGING** to true

Ø **Frequently occurring issue:** Read timed out/SocketTimeoutException/ Target server failed to respond from S4 end:

Following are the possible causes and solution for this error:

a. SAP S/4HANA Cloud system is not available (system down, upgrade, etc)

Solution: Unfortunately, in this case, we cannot do much from application end. Such tickets need to be forwarded to SAP S/4HANA Cloud operations

b. Too much data to be handled by SAP S/4HANA Cloud system

Solution:

§ Try to decrease duration for picking data by adjusting parameters ERD and Fixed_No_of_days. This will reduce amount of data to be replicated.

§ Set timeout parameter in S4 adapter in iFlow to a higher value(5-10 mins)

§ In the new version of iFlow, parameter Splitter_size can be adjusted to control amount of data transferred in a batch.

Ø **Error:** personexternalagreementId / employee Id doesn't exist

Solution: Please make sure that the filters defined for Availability are exactly same as that for Employee replication. This will ensure that availability data will only be picked up for employees which are already replicated using Employee replication process.

© 2015 SAP SE. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Excel, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, System i, System i5, System p, System p5, System x, System z, System z10, System z9, z10, z9, iSeries, pSeries, xSeries, zSeries, eServer, z/VM, z/OS, i5/OS, S/390, OS/390, OS/400, AS/400, S/390 Parallel Enterprise Server, PowerVM, Power Architecture, POWER6+, POWER6, POWER5+, POWER5, POWER, OpenPower, PowerPC, BatchPipes, BladeCenter, System Storage, GPFS, HACMP, RETAIN, DB2 Connect, RACF, Redbooks, OS/2, Parallel Sysplex, MVS/ESA, AIX, Intelligent Miner, WebSphere, Netfinity, Tivoli and Informix are trademarks or registered trademarks of IBM Corporation.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP BusinessObjects Explorer, StreamWork, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects Software Ltd. Business Objects is an SAP company.

Sybase and Adaptive Server, iAnywhere, Sybase 365, SQL Anywhere, and other Sybase products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Sybase, Inc. Sybase is an SAP company.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

The information in this document is proprietary to SAP. No part of this document may be reproduced, copied, or transmitted in any form or for any purpose without the express prior written permission of SAP AG.