Employee Central to hrX Exchange
Integration Guide Concurrent Employment
Version 2.0

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1.0	**Initial**	August 2019
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Summary of Changes

Version 1.0 Item No	Change Description	Chapter/Selection
1.0	New document.	All document
1.1	Update unsupported scenarios	Section 2.2
2.0	Update branding and changes related to 13.0 hrX Exchange release	All document

Introduction

This implementation guide enables the configuration needed in both Employee Central and SCPI (Sap Cloud Platform Integration) for the integration of Concurrent Employment to hrX Exchange.

Related documents

All related documents can be found in [NGA Help Center](#).

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1 Introduction

The **Concurrent Employment** feature of SuccessFactors Employee Central enables organizations to create one or more secondary employment on top of the employee's main employment. It also allows organizations to switch an employee's main employment to a secondary employment and vice versa.

NGA has developed a solution for the integration of concurrent employment from Employee Central to hrX Exchange. Using the Employee Central functionality for event driven integrations, new concurrent employment event is replicated near-real time to hrX Exchange with the data mapping and conversion happening on NGA side instead of the SAP middleware which simplifies the integration and troubleshooting.

The integration offers 2 variants: light and full to meet client requirement. Customer can configure the variant of their choice at the LCC level using a new value mapping in the package integration.

- **Light variant**: This variant is applicable when a person in SuccessFactors Employee Central has two hats for management/reporting but still has one contract. When the secondary employment created in EC has no payroll impact and LCC configuration for CE is set to light, the integration does not create a hire in Exchange for a new concurrent employment; it does not perform termination in Exchange when the secondary employment ends; and it discards any changes to the secondary employment.

- **Full variant**: When the secondary employment created in EC is payroll relevant and LCC configuration for CE is set to full, the integration creates a hire in Exchange for a new concurrent employment; it performs termination in Exchange when the secondary employment ends; and it interfaces any changes both for the primary and secondary employment to Exchange.

When opting for Full variant, please ensure that the NGA implementation teams support this due to its implications for running payroll, producing payslips and reports.

2 Integration Overview

2.1 Supported scenarios in Employee Central

1. Add/New concurrent employment
2. Termination of concurrent employment
3. Changes to portlets of main and secondary employment depending on the configured concurrent employment variant (full or light)
4. Up to 1 concurrent employment only
5. Concurrent employment is within the same country but different legal entity from main
6. Concurrent employment is within the same country and in the same legal entity. Supported in hrX Exchange 13.0 release.
7. Ensures correct approver ID for direct reports under a manager in concurrent employment when hire is triggered via EDI (14.0)

2.2 Unsupported scenarios

Following scenarios related to concurrent employment are not supported as of Exchange 12.0:

1. Primary and Secondary employment switch
   Workaround: Raise a ticket to NGA via hrX Assist for this process

2. More than 1 concurrent employment
   Workaround: N/A

3. Termination of main employment and setting one of the concurrent employments as new main employment
   Workaround: Raise a ticket to NGA via hrX Assist for this exceptional process

4. Updates to records of past concurrent employment
   Workaround: Raise a ticket to NGA via hrX Assist.
   Point to Consider: Any changes to past concurrent employment (shared and dedicated portlets) are ignored by the integration.

5. Top of the stack. This is a known limitation of the package integration in which the compound employee API returns only the last changed record. So in case of multiple job info changes on the same day, only the last record change is sent to Exchange. In concurrent employment, though the event is sent to Exchange immediately, this limitation is still possible when new concurrent employment is parked for approval and changes are perform prior to approval.
   Workaround: Ensure that succeeding changes after the new concurrent employment event are performed when the event has been interface to Exchange.

In the majority of the business processes, the above limitations should not have an impact.

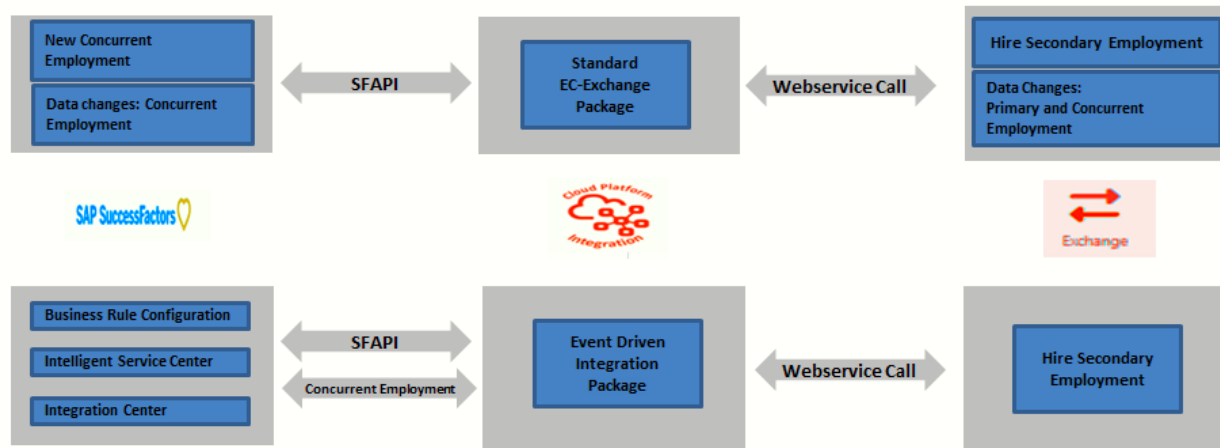## 2.3 Prerequisites and Considerations

Employee Central

- Intelligent Service Center, Integration Center and Concurrent Employment should be activated and enabled.

- The consultant must be familiar with configurations related to Concurrent Employment, has experience in Intelligent Service Center, and Integration Center and troubleshooting integrations. Please check with your SuccessFactors Employee Central functional team for support.

- Event reason for concurrent employment is maintained.

- A global assignment and concurrent employment cannot be applied to the same employee at the same time.

- Only one main employment at any given point of time.

SAP Cloud Platform Integration

- The client must have an existing operational production and test SCPI tenant**s** for integration with NGA.

- The consultant performing the configuration steps must be familiar with SCPI and execution and monitoring of packaged installations.

2.4 Technical Process Flow

The event driven flow is visualized below and shows that a business rule triggers an event for New Concurrent Employment. The event is picked up by the Intelligent Service Center with source flow define in Integration Center. The configured integration from the Integration Center then makes a web service call to the NGA SCPI Event Driven Integration iflow. This iflow then sends the employee's concurrent employment records over to hrX Exchange.

Results in hrX Exchange

Event in Employee Central	hrX Exchange
Add/New Concurrent Employment	• Employee hired in secondary employment with hire reason = event reason for Concurrent employment if variant is set to FULL. The creation of hire record for the concurrent employment is delivered via ISC in real time or via the regular run of the standard package.
Termination of Concurrent Employment	• Employee terminated in secondary employment with termination reason = event reason term if variant is set to FULL
Changes on main and concurrent employment linked to employment	• Employee records updated corresponding to main and secondary employment if variant is set to FULL • Employee records updated only for main employment if variant is set to LIGHT
Changes on main and concurrent employment linked to person	• Employee records updated for both the main and secondary employment if variant is set to FULL • Employee records updated only for main employment if variant is set to LIGHT

2.5 EC Portlets Main and Concurrent Employment

Subsequent changes to the main or secondary employments are picked up by the standard integration, **Package Integration - SF EC to NGA HR hrX Exchange**, every X minutes.

In Employee Central, changes can be made on portlets linked to employment: main or concurrent employment and portlets linked to the person. Changes to portlets linked to the employment are routed to the corresponding main or secondary employment in Exchange if the concurrent employment variant is set to full otherwise changes are only integrated to the main employment in Exchange. Changes to portlets linked to the person are routed to both main and secondary employments if the concurrent employment variant is set to full otherwise changes are only integrated to the main employment in Exchange.

Portlet	Separate record	Example of content	Remarks
Address	No	Address, state, city, country	Changes either from main or concurrent employment from EC are interface to both the main and secondary employment in hrX Exchange if concurrent employment is set to FULL. Otherwise changes are only integrated to the main employment in Exchange.
National ID and Work Permit	No	SSN for US	Changes either from main or concurrent employment from EC are interface to both the main and secondary employment in hrX Exchange if concurrent employment is set to FULL. Otherwise changes are only integrated to the main employment in Exchange.
Personal Information	No	Employee name, marital status	Changes either from main or concurrent employment from EC are interface to both the main and secondary employment in hrX Exchange if concurrent employment is set to FULL. Otherwise changes are only integrated to the main employment in Exchange.
Biographical information	No	Date of birth, Person ID	Changes either from main or concurrent employment from EC are interface to both the main and secondary employment in hrX

			Exchange if concurrent employment is set to FULL. Otherwise changes are only integrated to the main employment in Exchange.
Communication	No	E-mail address	Changes either from main or concurrent employment from EC are interface to both the main and secondary employment in hrX Exchange if concurrent employment is set to FULL. Otherwise changes are only integrated to the main employment in Exchange.
Dependents	No	Name of spouse	Not supported by the standard package integration.
Employment Information	Yes	User ID, SecondaryAssignmentPeriod	Determine if the employment is main or concurrent employment (SecondaryAssignmentPeriod child node exists).
Job Information	Yes	Cost center, company code, event, FTE, position	Child node of Employment Information. Changes either from main or secondary employment from EC are interface to its corresponding main or secondary employment in hrX Exchange.
Compensation	Yes	Pay group, salary, recurring pay elements	Child node of Employment Information. Changes either from main or secondary employment from EC are interface to its corresponding main or secondary employment in hrX Exchange.
Payment (bank) Information	Yes	Bank account	Child node of Employment Information. Changes either from main or secondary employment from EC are interface to its corresponding main or secondary employment in hrX Exchange.
Alternate Cost Distribution	Yes	Cost Center, Percentage	Child node of Employment Information. Changes either from main or secondary employment from EC are interface to its corresponding main or secondary employment in hrX Exchange.

2.6 Employee identifiers in Employee Central vs. hrX Exchange

In Employee Central, the process of adding concurrent employment means creating another employment record to an existing person. In hrX Exchange, however, the concurrent/secondary employment record needs to be created via a new hire action.

Employee Central	hrX Exchange
External Person ID	Person ID
User ID	Employee ID

The User ID field in Employee Central allows us to identify the various employment and this value is uniquely generated by Employee Central for each employment. The combination of Person ID & Employee ID is unique.

The integration is able to identify if the employee has concurrent employment when Compound Employee response contains <SecondaryAssignments> section. The field usersSysId under <SecondaryAssignments>-><SecondaryAssignmentsItem> equal to the user_id in the employment information corresponds to the concurrent employment record.

3 Configuration

It is possible to deviate from the configuration steps below e.g. aligning naming convention in line with existing policies.

3.1 Employee Central Configuration

This section describes the configuration steps in Employee Central, Intelligent Service Center, and Integration Center to set-up the add/new concurrent employment integration.

1) Configuration of the business rules

Required business rules for NGA's concurrent employment have been exported and made available in this guide so that it can be conveniently imported to a target SuccessFactors instance of a customer. This would reduce the numerous manual actions which can lead to errors and at the same time ensures ease, fast, and reliable implementation.

Procedure:

NGA_BusinessRules_
CE.csv

1. Download NGA Business Rule for CE (.csv)

2. Navigate to the Admin Center. In the Tools search field, type Import and Export Data.

3. **Select the action to perform** Import Data

4. Choose CSV and set **Select Generic Object** Rule

5. Upload the csv file from step 1 **File** Choose File NGA_Busines...les_CE.csv

6. Keep other field inputs as is and Import

7. After Import navigate to **Monitor Job**. Look for the job related to the recent import.

8. Click **Download Status** displaying in csv file the status of the import

9. Navigate to Configure Business Rules and search for the newly imported rules for CE:

10. Open NGA_ISC_CE. Ensure that event reason value corresponds to event reason for concurrent employment.
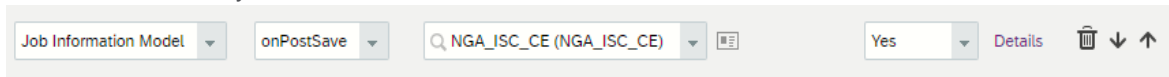
Job Information Model.Event Reason.Value is equal to   Concurrent Employment (CS_ConcurrentEmployment)

If not then edit the IF expression and select the correct event reason as the code varies among EC instances. Once done **Save** .
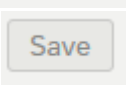
2) Manage Business Configuration

Procedure:

1. Navigate to the Admin Center.
2. In the Tools search field, type *Manage Business Configuration.*
3. Click the jobInfo left section of the screen.
4. Create the following trigger rules with base object = Job Information Model; Event Type = onSave and rule = newly created rule for CE.

Job Information Model ▼	onPostSave ▼	🔍 NGA_ISC_CE (NGA_ISC_CE) ▼ 📧	Yes ▼	Details 🗑 ↓ ↑

5. Click [Save] .
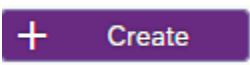
3) Integration Center
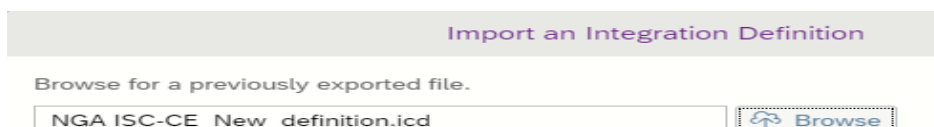
Required integrations for NGA's concurrent employment have been exported from Integration Center through export Integration Definition and made available in this guide so that it can be conveniently imported to a target SuccessFactors instance of a customer. This would reduce the numerous manual actions and effort especially the demanding steps on calculated URI which can lead to errors. This ensures ease, fast, and reliable implementation.

Procedure:

1. Download NGA Integration Center Definition for New Concurrent Employment (.icd).

NGA
ISC-CE_New_definitic

2. Navigate to the Admin Center.

3. In the Tools search field, type **Integration Center.** Click **My Integrations.**

4. [**+ Create**] and select ☁ Import an Integration Definition

5. Upload the .icd file for CE New from step 1.

Import an Integration Definition

Browse for a previously exported file.

NGA ISC-CE_New_definition.icd	☁ Browse

6. Screen is automatically redirected to .
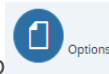
7. Go to . The **Destination Settings** contain the parameters for calling the SCPI components which in turn fetch the employee records in real-time from SuccessFactors Employee Central. The Rest API URL consists of the SCPI endpoint for the client and the published package. See supplementary details in Section 3.2.

- **REST API URL**: *https://host /http/EventDrivenEx/*?*
  Where
    - *host* is the URL of your SCPI landing page e.g. the hostname is p0461-iflmap.hcisbp.eu1.hana.ondemand.com
    - **/http** (constant)
    - **/EventDrivenEx/** will depend on the parameter input for address in sender connection for the EDI iflow in CPI
    - The /* at the end will allow you to define more parameters should there be a need to.

- **Authentication:**
    - Authentication Type: Basic Authentication
    - The user name and password should be the CPI tenant system user (S-user or P-user) with access to the SCPI tenant to execute applications. Recommendation is to create a new technical user (P-user) or use existing ones that are configure as generic user for integrations with CPI. Check this blog for guidance on creating technical user.
    - Authorization to ESBMessaging.send is required. If the user is not authorized then the executions will fail with error 403. The authentication can be tested by opening the "REST API URL" in a browser and provide the credentials.
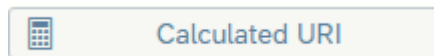
- **Calculated URI**
    - Click
    - Check . Navigate using Check parameter values are calculated correctly. Screenshot of correct result of calculated URI:

8.
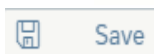
9. Go to ✓ (Review and Run). Click **Run Now** to test the integration.

   a. Check Last Run Time

   Last Run Time: Wed Jul 17 2019 12:37:15 GMT+0800 (Singapore Standard Time) 🏃 🔄 by

   clicking on refresh button. Once the execution completes successfully a green check is
   displayed. Click the link to render the Execution Manager which displays the event details
   :

   Wed Jul 17 2019 12:37:15 GMT+0800 (Singapore Standard Time) ⊘ 🔄


4) Intelligent Service Center

This section describes how to configure events for New Concurrent Employment in Intelligent Service Center (ISC).

Procedure:

1. Navigate to the Admin Center.
2. In the Tools search field, type *Intelligent Service Center.*
3. Search for 'concurrent'.

4. Click New Concurrent Employment.

5. In the left menu click [Flow 1] and [icon]. Rename the flow e.g. IC_NEW_CE.

6. In the right menu under Activities -> Custom Activities click Integration.

Activities

All Subscribers ⌄

Custom Activities

| Event Connector
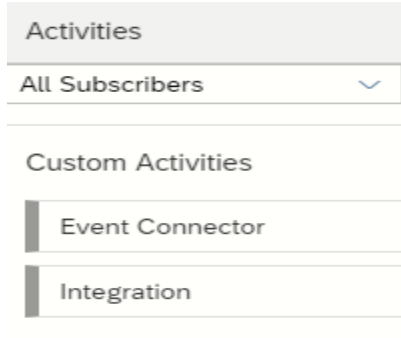
| Integration

7. Select the integration for New CE created in Integration Center under [My Integrations] and click

[Add Integration]

8. Set timing to [TIMING / When event is published ⌄]

9. Save the flow [Actions / Save Flow]

3.2 Configuration of the Event Driven Integration package in SCPI

There is a new Artifact for event driven integration which includes new concurrent employment introduced together with the standard package. The artifact (integration flow) is included once customer upgrades to the latest version of the package.

SAP SuccessFactors Employee Central Integration with Third-Party Payroll Vendor - NGA HR

Overview   Artifacts (21)   Documents (3)   Tags   Comments

| ☐ | Packaged Integration - SF EC Event Driven via ISC to NGA HR hrX Exchange | Integration Flow | 1.0.1 | |
| | Event driven integration to transfer in real time hire, termination, rehire, and concurrent employment from SuccessFactors Employee Central to NGA hrX Exchange through Intelligent Service Center Created | | | |

☐ Packaged ValueMapping - SF EC to NGA HR Concurrent Employment Mode Enables mapping values for Concurrent Employment mode (light or full) Created	Value Mapping	1.0.0	⬈

- Integration Flow **Packaged Integration - SF EC Event Driven via ISC to NGA HR hrX Exchange** is triggered via Intelligent Service Center to send hire, termination, rehire and concurrent employment records to hrX Exchange in real time. This is the iflow called by the configurations in Intelligent Service Center and Integration Center mentioned in previous section.

- Value Mapping **Packaged ValueMapping - SF EC to NGA HR Concurrent Employment Mode** is a configuration artifact to set the concurrent variant to either Full or Light.

- The standard package, **Package Integration - SF EC to NGA HR hrX Exchange**, was also adjusted to ensure that corresponding changes for either main or concurrent employment correctly flows to Exchange for their corresponding records in hrX Exchange. In addition a new parameter is introduced to determine if the integration will suppress creation of event driven scenarios.

Packaged Integration - SF EC Event Driven via ISC to NGA HR hrX Exchange

Procedure:

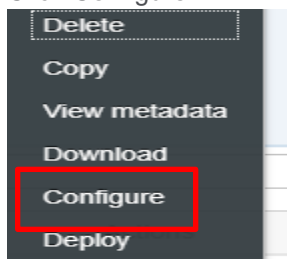1. Go to the iflow and click Action.

☐ Packaged Integration - SF EC Event Driven via ISC to NGA HR hrX Exchange Event driven integration to transfer in real time hire, termination, rehire, and concurrent employment from SuccessFactors Employee Central to NGA hrX Exchange through Intelligent Service Center Created	Integration Flow	1.0.1	⬈

2. Click Configure

3. Go to Sender Tab. **Sender Tab** is the configuration of external call endpoint. The endpoint will be generated after deploying the Artifact. From CPI tenant main page go to Monitor->Manage Integration Content. Find the integration content for CE through ISC. The Endpoint value will be used as input to the REST API URL in Integration Center.

By default, the address parameter is set to /EventDrivenEx/*.

4. Go to **Receiver**. Receiver Tab like the standard package contains the configuration of SF Instance, hrX Exchange web service and Mail Adapter. Use hrX Exchange web service endpoint provided by NGA customer project team.

5. Go to **More** tab. Supply the value for the following parameters. These parameters are similar to the existing parameters of the standard package.

6. Once the setup is done, click **Save** and **Deploy.**

•   For supplementary info on EDI SCPI iflow configuration refer to the main EDI implementation guide section 3.2
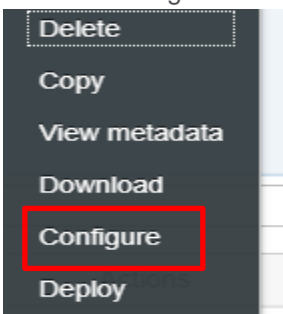
Packaged Value Mapping - SF EC to NGA HR Concurrent Employment Mode
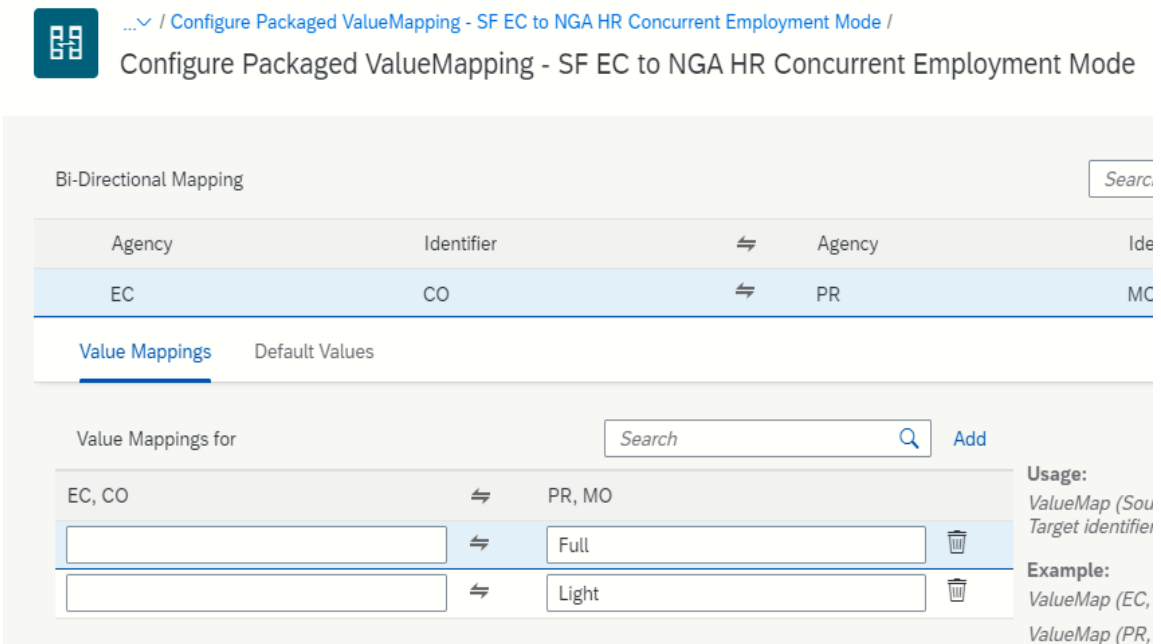
Procedure:

1. Go to the value mapping and click Action.

2. Click on Configure.

3. Specify the Concurrent Employment mode/variant (Light or Full) for the company in SuccessFactors Employee Central. See sample value mapping entry below:

4. Once the setup is done, click **Save** and **Deploy.**

Package Integration - SF EC to NGA HR hrX Exchange

Procedure:

1. Go to the value mapping and click Action.
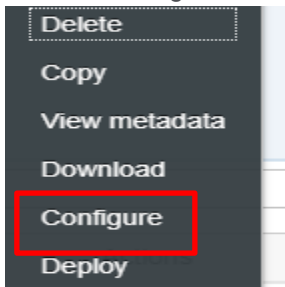
☐ Package Integration - SF EC to NGA HR hrX Exchange Transfers processed employee data from SAP SuccessFactors Employee Central to NGA HR hrX Exchange. Unmodified	Integration Flow	1.4.2

2. Click on Configure.

    Delete

    Copy

    View metadata

    Download

    Configure

    Deploy

3. Go to **More** tab. Supply the value for EDI parameter.

   Event Driven: `<Enter 1 if the Event Driven is On else 0>`

    *   1 means EDI is configured in ISC and new concurrent employment event is triggered via ISC and hire record is created in hrX Exchange in real time. When this parameter is enabled, standard package suppresses processing of EDI events which includes concurrent employment to avoid sending duplicate events in Exchange.
    *   0 or blank means EDI is not configured. EDI events like new concurrent employment are process by the regular run of standard package
    *   Note that the integration will only create hire record for concurrent employment in hrX Exchange either through ISC or standard package if the concurrent employment variant is set to FULL.

4 Troubleshooting

4.1 Problem 1: New concurrent employment did not trigger notification to NGA

Procedure:

1. Check in Intelligent Service Center that the event was triggered.
    a. Go to Admin Center Navigate to the Admin Center.
    b. In the Tools search field, type *Intelligent Service Center.*
    c. Select the event.
    d. Click Event Monitoring and navigate to the applicable date and time. If there are events triggered for the specified date and time, select the corresponding event to see if the flow was triggered. See sample screenshot below.
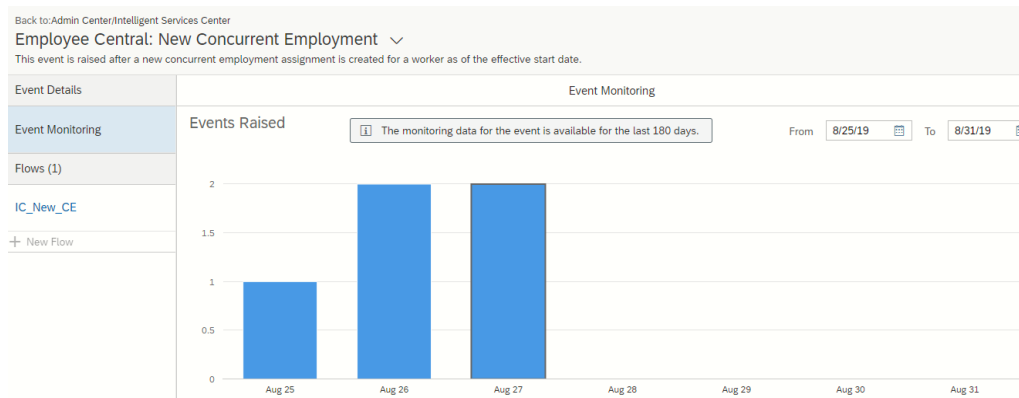
    e. Click [Show Details]. Another screen is generated showing the Execution Manager and the details of the event. See sample screen below:

2. If there are no events triggered in ISC, confirm that the business rules are correctly set:
   a. Ensure to remove published rule with standard event for concurrent employment.
   b. Recommendation is to use Business Rule Execution Log as that will give detailed information on the decision making process during the execution.
      i. Go to Business Rule Execution Log.
      ii. Click **Create New** Rule Trace and populate the required fields:

Rule Trace:

* Code	Click or focus to edit
* Name	Click or focus to edit
* Start Date	MM/DD/YYYY
* End Date	MM/DD/YYYY
Log	
* Login User	

Rules to be Logged (If Empty, All Rules Will be Logged)

No Selection

      iii. Click **Save**
      iv. Once done with the execution of Add or End GA, go to Business Rule Execution Log. Set Search to Rule Trace and select the trace you created. This will enable the log to be downloaded for tracing and analysis:

Rule Trace: 0814_Trace (0814_Trace)

* Code	0814_Trace
* Name	0814_Trace
* Start Date	08/14/2019
* End Date	08/15/2019
Log	Download Delete

4.2 Problem 2: Execution in Integration Center failed for New Concurrent Employment

Procedure:

1. Perform validation steps in 4.1 to view the event details in Execution Manager in Integration Center.
2. Based on the error, check if the error is related to credentials.
3. Perform manual execution (Run Test) via Integration Center.

5 References

Refer to the following published documents available in SAP Help Portal for SuccessFactors Employee Central:

[Managing Employment in Employee Central](#)

[Implementing and Configuring Concurrent Employment in Employee Central](#)

[Integration Center](#)

[Intelligent Service Center](#)

NGA Human Resources is a global leader in helping organizations transforms their business-critical HR operations to deliver more effective and efficient people-critical services. We help our clients become better employers through smarter, more streamlined business processes — to save money, manage employee life cycles, and support globally connected, agile organizations. This is how NGA makes HR work.

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