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1. NIP Checker installation description

PRODUCT ID (uppercase letters, max 9 characters):	NIPCHECK
Product's name	NIP Checker – checking contractor's activity by tax ID

NIP Checker is a solution that extends standard functionality of an SAP system. It enables checking contractor's activity by tax ID in Ministry of Finance / European Union data bases. NIP Checker consists of a software product in an SAP system and a service provided by BCC.

Capabilities of NIP Checker:
- **Checking tax activity of business entity by tax ID in Ministry of Finance / European Union data bases with dedicated transaction /n/BCC/JPN:**
  - **validation of JPK_VAT file**
  - **validation of suppliers' and receivers' master data in SAP system**
  - **validation of manually given tax IDs**
  - **validation of TAX ID numbers' selection managed by customer extension**
- **integration with JPK Transfer – possibility of checking JPK_VAT file before sending**
- **API (function module) for checking tax ID in other products/ customer extensions**

Transaction ID	Description
/BCC/JPN	**NIP Checker**
/BCC/JPN1	**NIP Checker – one TAX ID checks history**
/BCC/JPNC	NIP Checker – configuration
/BCC/JPN_SHUTDOWN	NIP Checker – Transfer Engine shutdown (only used in case of connection via Transfer Engine)

1.1. Technical prerequiements

Component	Recommended version
Kernel	6.0 or higher

Product created by BCC uses additional namespace which was prepeared especially for BCC - /BCC/JPN, /BCC/JPW/ and /BCC/JPT/.
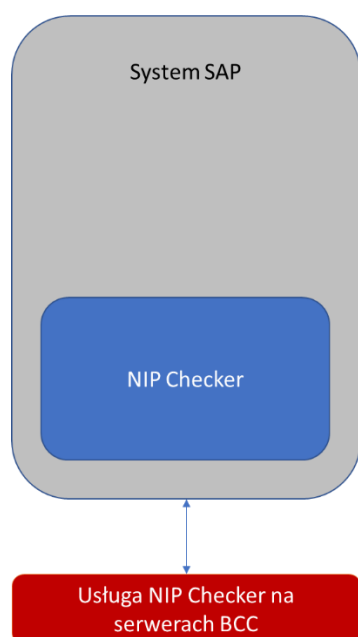
1.2. Component alternative installation for NIP Checker solution

NIP Checker solution could be installed in two basic configurations. Choice depends on system administrative requirements and currently used products.
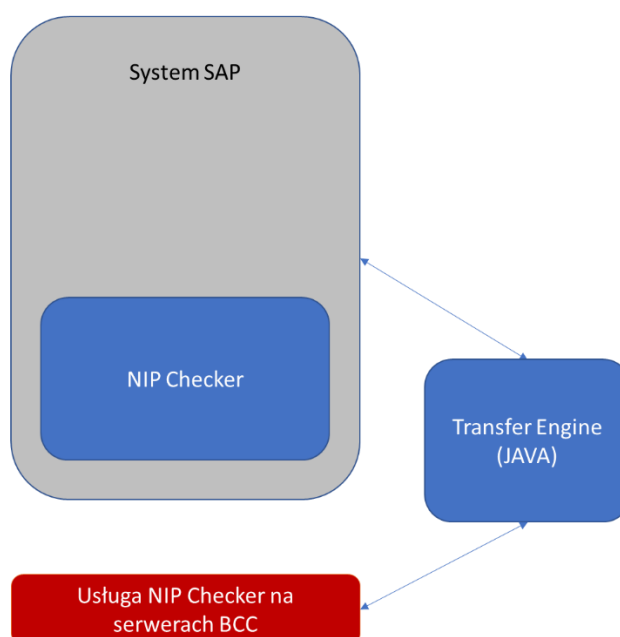
NIP Checker possible configuration:
   a) NIP Checker communicates directly with BCC service and solution is installed in SAP environment
   b) NIP Checker that is installed in SAP environment communicates with Transfer Engine server (server used i.e. in JPK Transfer solution) and then connects with BCC service.

Wariant A. Połączenie bezpośrednie (D)   Wariant B. Połączenie za pomocą Transfer Engine (A)

System SAP   System SAP

NIP Checker   NIP Checker

Transfer Engine (JAVA)

Usługa NIP Checker na serwerach BCC   Usługa NIP Checker na serwerach BCC

Variant a) is a recommended solution on account of simpler installation, maintenance (only importing transport requests) and NIP Checker connection configuration.

Variant b) is preferred if JPK Transfer solution is used in system or in case of problematic connection configuration between SAP and BCC service.

Important! Provided instruction describes installation in variant a). Variant b) installation at a pinch (with Transfer Engine) should be based on independent Transfer Engine installation instruction for JPK Transfer solution (see at point 6 of provided instruction).

2. Installation steps

Step 1a. Importing transport requests including NIP Checker / JPK Transfer base solution

Important!
1. If you use JPK Transfer solution in version 2.0 007 or below (transaction /n/BCC/JPT) you should update your JPK Transfer version instead of importing transport request with NIP Checker base solution (integrated NIP Checker solution is included in the newest version of JPK Transfer – base transport for JPK Transport; to be able to make full use of NIP Checker you need a separate NIP Checker license). For JPK Transfer version 2.0 008 and above do not implement this transport.
2. Do not import this transport in NIP Checker update procedure.

Action	Details
Please import following transport requests in specified order: **1.** **NIP Checker Base** Important! In transport configuration it could be necessary to set these options: **Overwrite originals** **Ignore invalid component version.**	Objects included in transport: Package R3TR DEVC /BCC/JPW Package R3TR DEVC /BCC/JPN Package R3TR DEVC /BCC/JPT

Step 1b. Importing transport requests dedicated for NIP Checker solution

Action	Details

Please import following transport requests in specified order:
 	
   2.   **NIP Checker Update**
   3.   **NIP Checker Authorization Roles (Z_JPN_ADMIN and Z_JPN_USER)**
 	
Important! In transport configuration it could be necessary to set these options:
Overwrite originals
Ignore invalid component version.
	Objects included in transport:
	
	Package R3TR DEVC /BCC/JPW
	Package R3TR DEVC /BCC/JPN
	Package R3TR DEVC /BCC/JPT
	
	Roles: Z_JPN_USER, Z_JPN_ADMIN

Step 2. Enable connection between SAP and NIP Checker service
NIP Checker is connecting with NIP Checker service server in direct mode (by HTTPS connection):
    1. `https://services-jpk.bcc.com.pl:334/`
To work in direct mode you need to provide a connection between SAP application server and BCC service (possibly by proxy). Connection can be tested with transaction SE37, by testing function module HTTP_POST with:
- Check the checkbox Uppercase/Lowercase,
- URL (parameter ABSOLUTE_URI) https://services-jpk.bcc.com.pl:334/ and optionally inserting proxy data. Value 405 of return parameter STATUS_CODE means correct connection.

Indirect connection by additional Transfer Engine server is an alternative solution. That setting was described in separated JPK Transfer installation guide.

Step 3. NIP Checker configuration

Fill-in NIP Checker configuration table according to configuration key's description based in following table. Configuration changes should be done in SAP development system and then transported with transport request to the SAP productive system. Make configuration changes in transaction **/n/BCC/JPNC**.

Important! Pre-defined configuration is provided with that solution. Minimal changes that need to be implemented into pre-defined configuration:
- set user identifying parameters (parameters ID and ID2)
- specify XML files path in case of using NIP Checker to validate this file format. Parameters FILE_DEF_PATH (path in format JJJJ|PATH or PATH, where JJJJ is a Company Code and PATH is a path of XML JPK_VAT files)
- change checking mode from N (=external check is off) to:
  - D (= Direct – direct connection with SAP) – recommended/ variant 1
  - A (= Auto – connection by Transfer Engine) – variant 2

In case of first variant configuration (direct connection with SAP) it could be necessary to provide address of proxy server (parameters CONN_HTTP_PROXY, CONN_HTTP_PROXY_PASS, CONN_HTTP_PROXY_USER).

In case of second variant configuration it would be necessary to provide connection between RFC and Transfer Engine server by parameter CHECK_JTE_RFCDEST. Important: this parameter has to be configurated separately for each SAP system / client. Example:

CHECK_JTE_RFCDEST   0   BE6|100|JCO_BE6100
CHECK_JTE_RFCDEST   1   BE6|920|JCO_BE6920

Sprawdzanie numeru VAT - tabela konfiguracyjna		
Klucz konfiguracyjny	Kolejność	Wartość klucza konfiguracyjnego
CACHE_VALIDITY	0	0
CHECK_MODE	0	D
FILE_DEF_PATH	2	\\JPK\XML
FILE_DEF_SAP	2	
ICON_FOR_EXEMPTED	0	Y
ID	0	adjust this
ID2	0	adjust this
VATNO_IGNORE	0	BRAK
VATNO_IGNORE	1	brak
VATNO_IGNORE	2	Brak

Example of product configuration (transaction /n/BCC/JPNC) for variant 1 (direct)

CACHE_VALIDITY		25
CHECK_JTE_RFCDEST	0	BE6|100|JCO
CHECK_JTE_RFCDEST	1	BE6|920|JCO
CHECK_MODE	0	A
FILE_DEF_PATH	0	0001|\\office\bcc\ProjektyWewnetrzne\JPK\XML
FILE_DEF_PATH	1	Y001|\\sato\JPK\XML
FILE_DEF_PATH	2	D:\JPK\XML
FILE_DEF_SAP	0	0001|X
FILE_DEF_SAP	1	Y001|
FILE_DEF_SAP	2	X
ICON_FOR_EXEMPTED	0	Y
ID	0	adjust this
ID2	0	adjust this as well
VATNO_IGNORE	0	BRAK
VATNO_IGNORE	1	brak
VATNO_IGNORE	2	Brak

Example of product configuration (transaction /n/BCC/JPNC) for variant 2 (transfer engine)

Important! For each *Configuration Key* sometimes it is possible to insert more than one value. In that case it is necessary to insert next natural values in Order column.

Table containing description of configuration entries in NIP Checker solution.

Configuration key ID	Description
ID	**Parameter required:** Define the user of NIP Checker service Can be given directly (for all Company Codes) e.g.: ID 99999 or for given company code e.g.: ID Y001|99999 Important! For testing one can add prefix "test" to ID value (e.g. test99999). Then, when testing, no check limit will be consumed, but real checks will be very limited. This prefix should not be used for normal NIP Checker operation.
ID2	**Parameter required:** Define the user's code for the NIP Checker service. Can be given directly or for a given company code as the ID parameter. Important. This parameter is hidden by the program with first use. If new ID2 parameters are to be added to configuration, then all previous parameters should be given once more as well, while otherwise, the program will "forget" the previous values when hiding the new one.
CHECK_MODE	**Parameter required.** Decides in which manner the tax ID will be checked. 3 values are possible: N – without external checking of tax ID – only syntax validation D – Tax ID checking by direct connection E- Tax ID checking by Transfer Engine. A- tax ID checking: first by Transfer Engine, in case of no connection then by direct connection (not recommended) Example: D
VATNO_IGNORE	**Parameter usually required:** Define validation sequence included in VAT number that will be omitted (omitted during validation). Example: EMPTY Empty empty
BP_CHECK_TYPE	**Important optional parameter.** Defines in which manner vendor's, receiver's or partners VAT ID will be read. Valid possibilities: 1) Tax ID from master data tables LFA1/KNA1-STCEG 2) Tax ID from master data tables LFA1/KNA1-STCD1 3) Tax ID from master data tables LFA1/KNA1-STCD2 4) Tax ID assigned to Poland from tables LFAS/KNAS-STCEG 5) Tax IDs assigned to different countries from tables LFAS/KNAS-STCEG 6) Tax ID from business partner master data from z code defined with parameter BP_CHECK_ID1 (default PL1). 7) Tax ID from business partner master data from z code defined with parameter BP_CHECK_ID2 (default PL2). 8) Tax ID from business partner master data from z codes other than defined with parameter BP_CHECK_ID1 and BP_CHECK_ID2.

	9) Tax ID for BP from vendor assigned to business partner (according to rules 1-5) 10) Tax ID for BP from customer assigned to business partner (according to rules 1-5) Parameter should be 10 characters sequence of „0" and „1" where „0" means that nothing will be taken and „1" means adding value to checking list. Default value 1101011011 . See also user exits ZX_BCC_JPN_TN4C, ZX_BCC_JPN_TN4V, ZX_BCC_JPN_TN4B (and respective function modules /BCC/JPN_OTH_UEXIT_TN4C, /BCC/JPN_OTH_UEXIT_TN4V, /BCC/JPN_OTH_UEXIT_TN4B). With these extensions one can modify or completely change the logic of reading TAX IDs for Customers (C), Vendors (V) and Business Partners (B). These extensions are described in user's manual.
CONN_HTTP_PROXY	**Optional parameter. Parameter usually used by direct connection.** It determines proxy server which is used by connection (it could be defined in NIP Checker or globally for all http connection in SAP system).
CONN_HTTP_PROXY_PASS	**Optional parameter. Parameter usually used by direct connection.** Password required to proxy server (see parameter CONN_HTTP_PROXY).
CONN_HTTP_PROXY_USER	**Optional parameter. Parameter usually used by direct connection.** User of proxy server (see parameter CONN_HTTP_PROXY).
CONN_HTTP_RFCDEST	**Optional parameter. Parameter usually used by direct connection.** Usually not used. It defines connection RFCDEST which is used by direct connection HTTP_POST, HTTP_GET. If not declared, SAP system uses default value (usually SAPHTTPA).
CHECK_JTE_RFCDEST	**Optional parameter (required to Transfer Engine connection).** Connection by Transfer Engine (variant 2) uses this parameter. It determines *RFC destination* (*RFC* destination is configured in SM59 transaction) which is used to connect with Transfer Engine server. Possible to declare by SID of SAP system and client or without. Examples: PRD|200|JCOPRD200 TST|100|JCOTST100 DEV|100|JCODEV100
ICON_FOR_EXEMPTED	**Optional parameter.** Define how *exempted* result would be presented (icon). Possible values: R – red icon Y – yellow icon G – green icon N – grey icon Default value is Y.
ICON_FOR_IGNORED	**Optional parameter (recommended to be set to N).** Define how *ignored records* will presented (icon). Possible values: R – red icon Y – yellow icon

	G – green icon **N – grey icon (recommended value)** Default value is G.
FILE_DEF_PATH	**Optional parameter.** Default XML JPK_VAT file path that is used in transaction /n/BCC/JPN for XML file default settings. Parameter could be declared single-handedly or separately for each business entity. Example: 0001|\\office\bcc\ProjektyWewnetrzne\JPK\XML Y001|\\sato\JPK\XML D:\JPK\XML Third entry would be used if business entity is not declared or business entity is different than 001 and Y001.
FILE_DEF_SAP	**Optional parameter.** Define if the path with FILE_DEF_PATH parameter is based on workstation or application server. Possibilities: X – application server path – (empty value) – workstation path Example: X
FILE_DEF_XML_ATTR	**Optional parameter.** Define attribute of XML file that includes JPK_VAT file with tax IDs. Default value: „ContractorNo". Example: ContractorNo
CACHE_VALIDITY	**Optional parameter.** Numeric value that indicates how long tax ID won't be rechecked. Value "0" means that tax ID will be rechecked once a day at most. Value „20" means that tax ID will not be rechecked more often than once in 22 days. Value „-1" means that CACHE is not allowed. "1000" means CACHE within one calendar month In case of not declaring this parameter, default value is „0". Example and recommendation: "0".
URL_CHECK_PRD	**Optional parameter.** Determines URL address of NIP Checker productive service. Default value: `https://services-jpk.bcc.com.pl:334/`
URL_CHECK_TST	**Optional parameter.** Determines URL address of NIP Checker quality service. Default value: `https://services-jpk.bcc.com.pl:334/`
AUTO_START_ENGINE_AS	**Optional parameter.** Parameter enables executing Transfer Engine (JPK/Java sending engine) on SAP application server during calling NIP Checker transaction (/BCC/JPN). Possible only if Transfer Engine hasn't run. Setting this parameter means that external task with ID: ZJPT_ENGINE_ST_XXX (XXX

	a client number in system) in transaction SM69 would be called.
	Example of a caller that executes Transfer Engine from director D:\JPK\start.bat:
	    cmd /c "D: & CD \JPK\ & start.bat"
	    or
	    powershell "D: ; CD \JPK\jpk-transfer-engine$$\ ;
	    Start-Process start.bat"
	Parameter AUTO_START_ENGINE_AS could have value X or could be an application server ID (name of target server) on which sender engine would be established.

LOCK_VALIDITY	**Optional parameter.** Determines time when blockade's entries which are used by NIP checker will be deleted automatically. Unit is one second. Default value 900 equals 15 minutes.
BP_CHECK_ID1	**Optional parameter.** Important when using Business Partners. Sets Tax ID (1), which will be read from partner master data for Poland. Default PL1.
BP_CHECK_ID2	**Optional parameter.** Important when using Business Partners. Sets Tax ID (2), which will be read from partner master data for Poland. Default PL2.
IGNORE_PESEL	**Optional parameter.** If set (X), makes NIP Checker to ignore valid PESEL numbers. Default value: empty.
LOGSUM_HIDE	**Optional parameter**. Sets the default value of the *Hide log header popup window* selection parameter in transaction /BCC/JPN. If set (X), then in transaction /BCC/JPN, by default the first popup with summarization of check results will not be presented and the details of log will show immediately when double click on a log row. Default value: X
USE_JPN_AUTH_OBJECT	**Optional parameter.** Sets (X), the checking of a special /BCC/JPN authorization object for a chosen Company Code. If not set (empty value), then instead, the standard authorization objects F_LFA1_BUK, F_KNA1_BUK with ACTIVITY 03 (Display) are checked for a chosen company code. Default value: empty
SHOW_BP	**Optional parameter.** Sets (X), whether in transaction /n/BCC/JPN section allowing Business Partner checking is shown (**important for S/4 HANA**). By default empty (not shown).
SHOW_EXIT	**Optional parameter.** Sets (X), whether in transaction /n/BCC/JPN section allowing NIP checking for selection programmed in user exit is shown. By default empty (not shown).
SHOW_ACTION	**Optional parameter.** Sets (X), whether in transaction /n/BCC/JPN section allowing additional processing after VAT ID checks is shown (partners locking). By default empty (not shown).

SHOW_VEND_CUST	**Optional parameter. Sets (X),** whether in transaction /n/BCC/JPN section allowing Vendors/ Customers checking is shown (**important for classic ERP**). By default X (shown).
TRANS_JPN1	**Optional parameter.** Sets the transaction ID for the transaction called when „One TAX ID history" in transaction /n/BCC/JPN. By default /BCC/JPN1.
TRANS_LO_B	**Optional parameter.** Sets the transaction ID for the transaction called when icon "lock" for business partner is shown. By default BP.
TRANS_LO_C	**Optional parameter.** Sets the transaction ID for the transaction called when icon "lock" for customer is shown. By default FD05.
TRANS_LO_V	**Optional parameter.** Sets the transaction ID for the transaction called when icon "lock" for vendor is shown. By default FK05.
TRANS_MD_B	**Optional parameter.** Sets the transaction ID for the transaction called when icon "lock" for business partner is shown. By default BP.
TRANS_MD_C	**Optional parameter.** Sets the transaction ID for the transaction called when icon "master data" for customer is shown. By default FD02.
TRANS_MD_V	**Optional parameter.** Sets the transaction ID for the transaction called when icon "master data" for vendor is shown. By default FK02.
RESULT_DELETE_DAYS	**Optional parameter.** Sets the delay in days after which checks data is removed from detail results table. Setting value -1 means the data will not be deleted automatically. Default value 365.
CHECK_PACK_SIZE	**Optional parameter.** Sets the package size for VAT number checking in BCC service. By default the package size is 300. If you encounter timeouts, or 102/103 errors, try setting this parameter to smaller value (e.g. 100 or 50 or 25).

3. SAP user's authorizations for NIP Checker solution

3.1. NIP Checker user's authorization

User who is checking tax IDs by NIP Checker BCC solution should have authorizations:

- Authorization Object S_DATASET is necessary only if access to files is executed by application server (checkbox *Folder SAP*).
- Authorization Object S_LOG_COM is necessary only if automatic execution of Transfer Engine on application server is used (AUTO_START_ENGINE_AS).
- If configuration parameter USE_JPN_AUTH_OBJECT is used, then the user will need additionally the authorization object /BCC/JPN with correct Company Codes (BUKRS) assigned.

The role is provided with the transport request (can be created automatically).

3.2. Authorization of NIP Checker administrator who can change configuration tables in SAP system

User who can change configuration entries in table /BCC/JPN_DB_TCU by transaction /BCC/JPNC should have following authorizations:

The role is provided with the transport request (can be created automatically).

4. Procedure of updating NIP Checker (only for updating previously installed version of NIP Checker).

Steps:
1. Updating NIP Checker solution
   a. Log out from NIP Checker transaction
   b. Load new transport files (usually the base solution 1a does not need to be updated)
   c. Consider using new configuration parameters which were described in section 1.3 (if exists)
   d. Verify if authorizations which are required by the new version are not greater than authorizations required by previous version. Make an update of user's authorizations if necessary (section 3).

If Transfer Engine connection is used (variant 2) it could be necessary to update Transfer Engine:
2. Transfer Engine update
   a. Stop Transfer Engine (close engine by transaction /BCC/JPN_SHUTDOWN or close application screen if engine is working on workstation).
   b. Copy jpk-transfer-engine\jpk.properties file to external directory for future use (this file needs to be added to the new version)
   c. Delete directory jpk-transfer-engine
   d. Unzip jpk-transfer-engine-*.zip file
   e. Copy content from already saved jpk.properties file to new jpk-transfer-engine\jpk.properties file
   f. Execute Engine (jpk-transfer-engine\start.bat – in Windows environment or start.sh – in Linux environment)

Don't run any of these programs until both are updated!

5. Transfer Engine server installation (optional)

Important! Standard NIP Checker product in SAP system is connecting directly with *BCC NIP Checker* (e.g. by proxy server). In that case Transfer Engine server is not necessary for NIP Checker to work. It is possible to use Transfer Engine server connection (server based in JAVA that is used in JPK Transfer solution) as a intermediate server. This chapter is about that variant
:

Two cases are possible:

Case	Description
Company has already implemented JPK Transfer solution	It is necessary to provide JPK Transfer upgrade to 2.0 version at least. From 2.0 version JPK Transfer Engine is compatible with NIP Checker solution.
Company has not implemented JPK Transfer solution but want to use Transfer Engine as a proxy	It is necessary to follow these installation steps from separate JPK Transfer installation guide: 1.1 1.2 Step 4 1.2 Step 5 (5.2, 5.3, 5.5, Important! without 5.1 and without 5.4). 2 (optional)

6. Transfer Engine server shutdown (optional)

In case of using Transfer Engine server, transaction **/BCC/JPN_SHUTDOWN** could be used for manual closing java sending server. In quality mode it is possible to validate connection but in productive mode it is sending shutdown request to server.

7. Additional information

More information about NIP Checker could be found in user guide and in JPK by BCC forum:
https://jpk.bcc.com.pl